PORSF 11.3.119.1 v.5
7/1/09

Summary of Operating Permits

Purpose	Action	Permit/ Application Type, Number	Agency Issuing Permit	Effective Date	Permit Expiration
HazMat shipping and transportation	Registration	Hazardous Materials Registration Statement, USDOT 421995	U.S. Department of Transportation	Unknown date of initial registration	Annual renewal.
UST Operation	Registration	Operating registration 26-496.	Department of Environmental Quality (DEQ)	12/29/1998, 6/30/2006	Open.
Stormwater discharge.	Permit	National Pollutant Discharge Elimination System General Permit (NPDES), 1200-J	Department of Environmental Quality (DEQ)	4/9/1998	6/30/2002
Stormwater discharge.	Renewal	National Pollutant Discharge Elimination System General Permit (NPDES), 1200-Z	Department of Environmental Quality (DEQ)	6/26/2002	6/30/2007
Stormwater discharge.	Renewal, permit holder change to Vigor Industrial LLC	National Pollutant Discharge Elimination System General Permit (NPDES), 1200-Z	Department of Environmental Quality (DEQ)	7/1/2007	6/30/2012
Discharge of industrial wastewater to the City of Portland's sewer system.	Permit application.	Wastewater Discharge Permit, 400.124	City of Portland Bureau of Environmental Services	12/23/1997	12/31/2002
Industrial discharge to include pretreatment standards for Centralized Waste Treatment discharge limits.	Renewal, modification.	Wastewater Discharge Permit, 437.003	City of Portland Bureau of Environmental Services	1/30/2003	12/31/2007
Industrial discharge permit.	Renewal, modification, permit holder change to Vigor Industrial LLC.	Wastewater Discharge Permit, 437.003	City of Portland Bureau of Environmental Services	5/13/2008	12/28/2012
Direct discharge from water treatment plant and ballast water treatment plant.	Permit transfer from Port of Portland to Cascade General, Inc.	National Pollutant Discharge Elimination System Discharge Permit (NPDES), 101393	Department of Environmental Quality (DEQ)	7/16/1996	6/30/2001
Direct discharge of noncontact cooling water from ships in dry docks 1, 3, 4.	Permit modification.	National Pollutant Discharge Elimination System Discharge Permit (NPDES), 101393	Department of Environmental Quality (DEQ)	5/8/1998	6/30/2001
Direct discharge from water treatment plant and ballast water treatment plant, noncontact cooling water.	Permit renewal.	National Pollutant Discharge Elimination System Discharge Permit (NPDES), 101393	Department of Environmental Quality (DEQ)	6/23/2004	3/31/2009
Permit VOC emissions from building 73 painting operations.	Permit	Air Contaminant Discharge Permit	Department of Environmental Quality (DEQ)	3/24/1993	5/1/1997
Permit VOC, PM, PM10, CO, Nox, Sox emissions from facility.	Permit	Oregon Title V Operating Permit 26-3224	Department of Environmental Quality (DEQ)	7/2/1998	1/1/2003
Permit VOC, PM, PM10, CO, Nox, Sox emissions from facility.	Permit renewal.	Oregon Title V Operating Permit 26-3224	Department of Environmental Quality (DEQ)	12/27/2002	1/1/2008
Permit modification	Permit modification	Oregon Title V Operating Permit 26-3224	Department of Environmental Quality (DEQ)	6/29/2006	1/1/2008
Permit Mod for air sparging system installation	Permit modification	Oregon Title V Operating Permit 26-3224	Department of Environmental Quality (DEQ)	9/19/2003	1/1/2008
Permit VOC, PM, PM10, CO, Nox, Sox emissions from facility.	Permit renewal, permit holder changed to Vigor Industrial LLC.	Oregon Title V Operating Permit 26-3224	Department of Environmental Quality (DEQ)	11/19/2008	10/1/2013
ODA 1998 Commercial Pesticide Operator Licenses	Annual license renewal.	Commercial Pesticide Applicator Permit	Department of Agriculture (ODA)		12/31/1998
ODA 1999 Commerical Pesticide Operator	Annual license renewal.	Commercial Pesticide Applicator Permit	Department of Agriculture (ODA)		12/31/1999
ODA 2000 Commercial Pesticide Operator Licenses	Annual license renewal.	Commercial Pesticide Applicator Permit	Department of Agriculture (ODA)		12/31/2000
ODA 2001 Commercial Pesticide Operator Licenses	Annual license renewal.	Commercial Pesticide Applicator Permit	Department of Agriculture (ODA)		12/31/2001
ODA 2002 Commercial Pesticide Operator Licenses	Annual license renewal.	Commercial Pesticide Applicator Permit	Department of Agriculture (ODA)		12/31/2002
ODA 2003 Commercial Pesticide Operator	Annual license renewal.	Commercial Pesticide Applicator Permit	Department of Agriculture (ODA)		12/31/2003
ODA 2004 Commercial Pesticide Operator	Annual license renewal.	Commercial Pesticide Applicator Permit	Department of Agriculture (ODA)		12/31/2004
ODA 2005 Commercial Pesticide Operator	Annual license renewal.	Commercial Pesticide Applicator Permit	Department of Agriculture (ODA)		12/31/2005
ODA 2006 Commercial Pesticide Operator	Annual license renewal.	Commercial Pesticide Applicator Permit	Department of Agriculture (ODA)		12/31/2006
ODA 2007 Commercial Pesticide Operator	Annual license renewal.	Commercial Pesticide Applicator Permit	Department of Agriculture (ODA)		12/31/2007
ODA 2008 Commercial Pesticide Operator	Annual license renewal.	Commercial Pesticide Applicator Permit	Department of Agriculture (ODA)		12/31/2008
ODA 2009 Commercial Pesticide Operator	Annual license renewal.	Commercial Pesticide Applicator Permit	Department of Agriculture (ODA)		12/31/2009

USEPA SF
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MEMORANDUM

TO: George Yun, DEQ

FROM: John Schultz, Ater Wynne

DATE: May 29, 1996

RE: Cascade General, Inc.
Dry Dock 4 - Renewed Request for Full Credit for Potential to Emit.

In both the May 15, 1995 and the December 15, 1995 Title V applications, the Port and Cascade have argued that the 228 tons VOC per year allocation from the growth margin in the 1986 ACDP that was allowed for the purpose of accommodating the increased emissions from Dry Dock 4 does not reflect that fact that Dry Dock 4 was entitled to a baseline equal to its potential to emit of 289 tons VOC per year. See Exhibit B to the December 15, 1995 Title V permit application (copy attached) and discussion on pages I-1-2 and I-1-3 of that same application (copy attached) for further explication of this argument.

For your convenience, we have also attached pertinent portions of the Oregon Administrative Rules dealing with this issue.

Attachments

1. December 15, 1995 Title V Permit Application (Portland Ship Yard)(excerpts)
2. OAR 340, Division 28 (excerpts)

Overview of Significant Issues

Excluded Emissions

While a ship is docked at Ship Yard facilities awaiting or undergoing repairs, the ship's boilers and auxiliary power systems may be operated in order to provide heat and power for crew living quarters and other ship facilities that are not related to repair activities. Emissions from these operations are under the control of the ship's owner or operator and are not under the control of the Ship Yard. See also OAR 340-30-470 (making "each ship" responsible for complying with emission standards while on the Willamette and Columbia Rivers). Accordingly, these emissions are from other sources and have not been included in the application for this source. Emissions from ship boilers and other devices that are undergoing repairs or testing, however, have been included.

New Information on Current and Historical Emissions

In preparing this application, the Port of Portland and Cascade General have developed better information about its emissions than has historically been used to support the calculations of baseline emissions and plant site emission limits ("PSELs") in the existing current Port of Portland Air Contaminant Discharge Permit ("ACDP") 26-3224. The Port of Portland and Cascade General have identified significant emission units that were in operation in 1978 that have since been controlled and which have not previously been included in the baseline calculations. It also has developed information that supports the use of emission factors that are different than those currently used to calculate emissions.

This application represents a substantial effort to calculate (in many cases, estimate) and assign emissions to processes and devices. For many processes, no emission data is available from source tests or published information. Nevertheless, the Port, Cascade General and their consultants have attempted to estimate emissions based on their knowledge of facility processes, information about analogous processes, and engineering calculations.

A. Baseline Emissions

Exhibits A and B of this Title V application support a VOC baseline considerably greater than the baseline used for the ACDP 26-3224. In particular, the Port of Portland has discovered that the baseline computations did not include historical VOC emissions from the former ballast water ponds that were in operation at the Ship Yard in 1978. These ponds received oil and water removed from ships in connection with repairs in the dry docks and wet berths. Using conservative assumptions, these ponds emitted approximately 295 tons of VOC in the baseline year.

In addition, the baseline computations historically have not addressed VOC surface coating emissions from Dry Dock 4. This dry dock was under construction in 1978 and did not begin normal operations until 1979. In such circumstances, the Oregon rules require that the baseline emissions from Dry Dock 4 be based on its potential to emit. More specifically, OAR 340-28-110(11) defines "baseline emissions rate" as the "average actual

emission rate during the baseline period." The definition of "actual emissions" at OAR 340-28-110(2)(b) states:

> "For any source which had not yet begun normal operation in the specified time period, actual emissions shall equal the potential to emit of the source."

The clear intent of this definition in the context of baseline emission calculations is to prevent a source that was under construction in the baseline year from not having any baseline. Therefore, this application uses baseline emission calculations that include the potential to emit VOC for Dry Dock 4. Dry Dock 4 potential to emit is based on the estimated maximum production capacity of Dry Dock 4 expressed in ship gross weight tonnage. Potential emissions are computed as this production capacity multiplied by estimated emissions per gross weight ton (based on gross weight tonnage and VOC emissions from 1994). For all other emissions units, the 1978 baseline emissions are estimates of actual emissions. For further information refer to Exhibits A and B.

In 1986, DEQ issued an ACDP to the Ship Yard that included a VOC PSEL 228 tons greater than the baseline rate as computed for that permit. The review report for the 1986 ACDP states that this 228 tons per year was an allocation of the VOC growth margin for the Portland area. This allocation of growth margin was for the purpose of accommodating the increased VOC emissions from the operation of Dry Dock 4. At the time, DEQ and the Port of Portland did not take into consideration the fact that Dry Dock 4 was entitled to a baseline equal to its potential to emit. Normally, such an allocation of the growth margin should be included in the adjusted baseline calculations. However, because the growth margin allocation served the same purpose as the potential to emit baseline discussed above, this application does not include the growth margin allocation in the baseline calculations. To do so would double-count the dry dock emissions for baseline purposes.

B. Plant Site Emission Limits

For most pollutants for which a PSEL is set in the permit, the Port and Cascade General have discovered or developed better information on the rate of emissions than was used to set the emission factors used in the Port's ACDP 26-3224. This information shows that the baseline emissions rate used in the ACDP 26-3224 is not accurate and that the PSELs are based on emission factors that are not representative of actual emissions. Therefore, this application presents corrected baseline calculations and proposes new PSELs based on the new information.

For purposes of determining compliance with the existing PSELs, the emission factors used in the ACDP 26-3224 have been applied. Although these emissions factors are not always completely accurate, they are the basis for determining compliance because baseline emissions and PSELs are calculated from them.

1. Short-term VOC PSEL. ACDP 26-3224 contains a short-term VOC PSEL from ship painting of 7088 pounds per day (approximately 3.54 tons per day). As stated in condition 9 of the ACDP, the PSEL was based on what DEQ and the Port of Portland

Portland Ship Yard Title V Permit Application
Surface Coating Operations
Baseline Emission Calculations

December 6, 1995

In the Portland Ship Yard Title V Permit Application (Application) submitted to the Department of Environmental Quality on May 15, 1995, non-exempt volatile organic compound (VOC) emissions from surface coating operations were reported at 385.45 tons of VOC per year as presented on forms ED603 (page IV-2-3) and ED606-A (page IV-2-13) of the Application. This estimate is based on the sum of actual VOC emissions from Dry Docks No. 1, 2 and 3 and potential-to-emit (PTE) VOC emissions from Dry Dock No. 4 which was under construction during the baseline year, 1978. The following assumptions regarding ship coating operations in 1978 were utilized to calculate VOC emissions:

- Applied coating throughputs vary linearly with ship gross weight tonage. As presented in Attachment B-1, the ship gross weight tons (GWT) was 622,000 GWT for baseline year. The baseline throughput (Q_{1978}) is calculated as follows using 1994 reported data on applied coating throughput (83,000 gallons) and gross weight tonage (1,460,000 GWT):

$$Q_{1978} = (83{,}000 \text{ gal/yr}) * (622{,}000 \text{ GWT/yr}) / (1{,}460{,}000 \text{ GWT/yr})$$

$$= 35{,}400 \text{ gal/yr}$$

- The ratio of VOC emitted to gross weight tonage is constant. Based on this assumption, a VOC emission factor (F_{VOC}) can be developed using 1994 data:

$$F_{VOC} = (128.5 \text{ tons VOC/yr}) / (1{,}460{,}000 \text{ GWT/yr})$$

$$= 8.80 \times 10^{-5} \text{ ton VOC/GWT}$$

- A maximum of 240 ships can be serviced in Dry Dock No.4 in one year based on process knowledge.

- Applied coatings used during baseline year had an average VOC content of 3.5 pounds VOC per gallon as shown in the Review Report for the Portland Ship Yard Air Contaminant Discharge Permit dated July 27, 1993 (this is a conservative assumption, since coatings from 1978 are suspected to have had an average VOC content of approximately 5 pounds VOC per gallon).

Based on these assumptions and using 1991 (a normal production year) data for Dry Dock No. 4 gross weight tonage and number of ships serviced (presented in Attachment B-1), actual baseline VOC emissions and PTE VOC emissions from Dry Dock No.4 are

calculated as follows:

VOC_{Actual} = (35,400 gal/yr) * (3.5 lb VOC/gal) * (1 ton/2000 lb)

= 62 ton VOC/yr

$VOC_{D.D.\ No.\ 4}$ = (8.8×10^{-5} ton VOC/GWT) * (1,394,000 GWT/yr) * (240 ships max/91 ships)

= 324 ton VOC/yr .

Then, the total baseline VOC emissions can be summed,

VOC_{Total} = 62 ton VOC/yr + 323.5 ton VOC/yr

= 386 ton VOC/yr

The ratio of maximum ships serviced to actual ships serviced in 1991 used in the above calculation (240/91) is incorrect. This ratio is based on the number of ships serviced by the entire facility rather than the number of ships serviced at Dry Dock No.4 only. The correct ratio is 80 ships maximum in Dry Dock No. 4 divided by 34 ships serviced in Dry Dock No. 4 in 1991. This correction (80/34) will result in total VOC emissions equal to 351 ton VOC per year using the above calculation. This value should be corrected on forms ED603 and ED606-A of the Application. In addition, the VOC unassigned PSEL should be reduced by 35 ton VOC per year (386 ton VOC/yr - 351 ton VOC/yr = 35 ton VOC/yr) in form ED608-A of the Application.

ATTACHMENT B-1

By contractor

FIG NAME

1978 - 84
Part of 1985
APPENDIX H

1 VESSELS B:NVOCCALCS
2 1/4/85
3 TIRU 2/85

VESSELS DRYDOCKED SINCE JANUARY 1978
WITH TON DAYS

4	5 DOY	MON.	YEAR	DAYS ON DOCK	VESSEL	VESSEL TYPE	CL	CONTR.	GROSS TONS (GUT)	TONDAYS	RATIO OF GUT:HSA=	HULL SURFACE AREA (HSA)	RATIO OF HSA:VOC	# VOC SUBTOTAL	CONTRACTOR VOC TOTAL	TOTAL ANNUAL LBS. VOC
6																
8	2	11	78	1	TUG LASSEN	TUG	9	DSR	128		24	3072	12.53	245.17		
9	1	6	78	3.5	LION OF CALIFORNIA	TANKER	4	DSR	10473		4.87	51004	12.53	4070.51		
10	2	12	78	2.5	TUG LASSEN	TUG	9	DSR	216		24	5184	12.53	413.73		
11	2	11	78	1	TUG BOHEMIA	TUG	9	DSR	188		24	4512	12.53	360.10		
12	1	4	78	4.5	PACIFIC CARRIER	ORYBULK	6	DSR	12487		4.99	62310	12.53	4972.88		
13	1	2	78	3.5	TUG WARRIOR	TUG	9	DSR	199		24	4776	12.53	381.17		
14	2	10	78	4.5	PACIFIC BARGE 538	BARGE	9	DSR	1000		10.65	10650	12.53	849.96		
15	3	2	78	4.5	CHEVRON MISSISSIPPI	TANKER	2	DSR	35589		3.36	119579	10.56	11334.51		
16	2	10	78	2	PACIFIC BARGE 513	BARGE	9	DSR	1200		10.65	12780	12.53	1019.95		
17	2	2	78	2.5	TUG UMPQUA	TUG	9	DSR	198		24	4752	12.53	379.25		
18	3	6	78	3	SANTA CLARA	TANKER	4	DSR	20020		4.87	97497	12.53	7781.12		
19	2	3	78	4	TUG MAMA	TUG	9	DSR	109		24	2616	12.53	208.78		
20	1	3	78	2.5	BARGE BANDON	BARGE	9	DSR	3478		10.65	37041	12.53	2956.16		
21	3	11	78	4	USNS S.O. BLAND	MSC	8	DSR	8918		6.05	53954	12.53	4305.98		
22	2	12	78	2.5	TUG UMPQUA	TUG	9	DSR	198		24	4752	12.53	379.25		
23	2	3	78	5	USNS MIZAR	MSC	8	DSR	2486		6.05	15040	12.53	1200.34		
24	2	10	78	2	TUG TYEE	TUG	9	DSR	383		24	9192	12.53	733.60		
25	1	2	78	4.5	BARGE 602	BARGE	9	DSR	1677		10.65	17860	12.53	1425.38		
26	2	1	78	3	TUG BOHEMIA	TUG	9	DSR	188		24	4512	12.53	360.10		
27	1	12	78	8	UMPQUA BARGE 87	BARGE	9	DSR	1825		10.65	19436	12.53	1551.18		
28	1	4	78	4	AUSTIN	TANKER	4	DSR	15354		4.87	74774	12.53	5967.60		
29	1	11	78	8	UMPQUA BARGE 86	BARGE	9	DSR	1825		10.65	19436	12.53	1551.18		
30	2	7	78	11.5	TUG BOHEMIA	TUG	9	DSR	188		24	4512	12.53	360.10		
31	2	1	78	2.5	UMPQUA BARGE 85	BARGE	9	DSR	1825		10.65	19436	12.53	1551.18		
32	3	2	78	2	MOBILOIL	TANKER	4	DSR	18615		4.87	90655	12.53	7235.04		
33	1	7	78	11.5	UMPQUA BARGE 95	BARGE	9	DSR	1825		10.65	19436	12.53	1551.18		
34	2	9	78	5.5	DREDGE PACIFIC	DREDGE	9	DSR	815		6.02	5087	12.53	405.98		
35	1	5	78	3	ZBD-260	BARGE	9	DSR	2045		10.65	21779	12.53	1738.17		
36	2	3	78	4.5	TUG HENRY SAUSE	TUG	9	DSR	362		24	8688	12.53	693.38		
37	1	5	78	10.5	SALVAGE CHIEF	TUG	9	DSR	725		24	17400	12.53	1388.67		
38	1	9	78	1.5	TUG HUNTER	TUG	9	DSR	199		24	4776	12.53	381.17		
39	3	7	78	5.5	ARCO ENDEAVOR	TANKER	4	DSR	18317		4.87	89350	12.53	7130.88		
40	1	3	78	10	BALDBUTTE	TANKER	4	DSR	19366		4.87	94410	12.53	7534.70		
41	2	6	78	5	UMPQUA BARGE 87	BARGE	9	DSR	1825		10.65	19436	12.53	1551.18		
42	3	11	78	1.5	TUG INLAND CHIEF	TUG	9	DSR	265		24	6360	12.53	507.58		
43	3	9	78	5.5	MSTS FURMAN	MSC	8	DSR	7491		6.05	45321	12.53	3616.96		
44	1	4	78	3.5	TUG RESOLUTE	TUG	9	DSR	298		24	7152	12.53	570.79		
45	2	2	78	2.5	OLIVER OLSON 83	BARGE	9	DSR	3223		10.65	34325	12.53	2739.42		
46	3	2	78	1.5	DERRICK GOLIATH	BARGE	9	DSR	352		10.65	3749	12.53	299.19		
47	2	2	78	2	BARGE WHITNEY	BARGE	9	DSR	2725		10.65	29021	12.53	2316.14		
48	3	8	78	11.5	MOBIL MERIDIAN	TANKER	3	DSR	28218		4.92	138833	12.53	11080.01		
49	2	9	78	3.5	BARGE FOSS 255	BARGE	9	DSR	3167		10.65	33729	12.53	2691.82		
50	2	3	78	5.5	BARGE 243	BARGE	9	DSR	2592		10.65	27605	12.53	2203.10		
51	2	3	78	3.5	BARGE YB-38	BARGE	9	DSR	2694		10.65	28691	12.53	2289.79		
52	3	2	78	4	ARCTIC CHALLENGER	BARGE	9	DSR	4717		10.65	50236	12.53	4009.26		
53	1	3	78	7.5	USNS DUTTON	MSC	8	DSR	7606		6.05	46016	12.53	3672.49		
54	3	8	78	3	PECOS	TANKER	4	DSR	17291		4.87	84207	12.53	6720.44	126606.48	
55	2	7	78	2.5	BC 2817	BARGE	9	MISC	429		10.65	4569	12.53	364.63		
56	2	9	78	2.5	TUG CLEARWATER	TUG	9	MISC	213		24	5112	12.53	407.98		
57	2	7	78	1.5	BC 2127	BARGE	9	MISC	429		10.65	4569	12.53	364.63	1137.25	

1 VESSELS B:HVOCCALCS
2 4/4/85 VESSELS DRYDOCKED SINCE JANUARY 1978
3 THRU 2/85 WITH TON DAYS

4																	
5	DOY	MON.	YEAR	DAYS ON DOCK	VESSEL	VESSEL TYPE	CL	CONTR.	GROSS TONS (GUT)	TONDAYS	RATIO OF GUT:HSA=	HULL SURFACE AREA (HSA)	RATIO OF HSA:VOC	# VOC SUBTOTAL	CONTRACTOR VOC TOTAL	TOTAL ANNUAL LBS. VOC
6																
58	2	11	78	4	TUG MARINER	TUG	9	MV	216		24	5184	12.53	413.73		
59	2	1	78	1	CASCADE 22	BARGE	9	MV	1147		10.65	12216	12.53	974.90		
60	1	3	78	3	BARGE SOS-1	BARGE	9	MV	1060		10.65	11289	12.53	900.96		
61	2	8	78	3.5	ZB105-A	BARGE	9	MV	960		10.65	10224	12.53	815.96		
62	2	1	78	2	TUG COLUMBIA	TUG	9	MV	142		24	3408	12.53	271.99		
63	3	2	78	4.5	BARGE ST-13	BARGE	9	MV	815		10.65	8680	12.53	692.72		
64	1	9	78	2.5	BARGE SAUSE 12	BARGE	9	MV	660		10.65	7029	12.53	560.97		
65	1	7	78	2.5	BARGE PBM-21	BARGE	9	MV	1147		10.65	12216	12.53	974.90		
66	2	12	78	4	BARGE KT-3	BARGE	9	MV	682		10.65	7263	12.53	579.67		
67	2	12	78	1	TUG LEVISTON	TUG	9	MV	245		24	5880	12.53	469.27		
68	2	11	78	14.4	BARGE PONTOON	BARGE	9	MV	720		10.65	7668	12.53	611.97		
69	2	1	78	1	CASCADE 21	BARGE	9	MV	1147		10.65	12216	12.53	974.90		
70	2	11	78	2.5	TUG CLARKSTON	TUG	9	MV	195		24	4680	12.53	373.50	8615.46	
71	1	6	78	1	INGER	DRYBULK	6	MV	14192		4.99	70818	12.53	5651.88		
72	3	5	78	5.5	LOMPOC	TANKER	4	MV	10448		4.87	50882	12.53	4060.79		
73	1	4	78	2.5	AVILA	TANKER	4	MV	11486		4.87	55937	12.53	4464.23		
74	2	11	78	6.5	TUG R. GUIORY	TUG	9	MV	528		24	12672	12.53	1011.33		
75	1	10	78	14	DREDGE HARDING	COE	8	MV	4045		6.02	24351	12.53	1943.41		
76	2	7	78	10.5	TUG MACNAUGHTON	TUG	9	MV	198		24	4752	12.53	379.25		
77	1	10	78	2.5	DREDGE BIDDLE	COE	8	MV	4988		6.02	30028	12.53	2396.47		
78	3	1	78	3.5	BUNGA MELAVIS	DRYBULK	6	MV	32321		4.99	161282	12.53	12871.65		
79	2	6	78	4.5	TUG TYEE	TUG	9	MV	383		24	9192	12.53	733.60		
80	3	2	78	1.5	BUNGA MELAVIS	DRYBULK	6	MV	32321		4.99	161282	12.53	12871.65		
81	2	8	78	3	BARGE HAVAII	BARGE	9	MV	6377		10.65	67915	12.53	5420.20		
82	2	4	78	46	USS MEYERKORD	NAVY	7	MV	3800		6.05	22990	12.53	1834.80		
83	3	6	78	3.5	TOYOTO MARU	CARGO	5	MV	14881		4.98	74107	12.53	5914.40		
84	3	8	78	6	VEENDAM	CARGO	5	MV	15377		4.98	76577	12.53	6111.53		
85	3	5	78	7	TEXACO NEW JERSEY	TANKER	4	MV	12261		4.87	59711	12.53	4765.45		
86	3	4	78	3	WYOMING	CARGO	5	MV	9493		4.98	47275	12.53	3772.96		
87	1	9	78	3.5	DREDGE OREGON	DREDGE	9	MV	749		6.02	4509	12.53	359.85		
88	2	6	78	4.5	TUG LASSEN	TUG	9	MV	128		24	3072	12.53	245.17		
89	3	3	78	3.5	HOUSTON	TANKER	4	MV	14671		4.87	71448	12.53	5702.14		
90	2	1	78	2	APB-36	BARGE	9	MV	4420		10.65	47073	12.53	3756.82		
91	1	11	78	3.5	BARGE SKIAHON	BARGE	9	MV	1804		10.65	19213	12.53	1533.33		
92	3	7	78	3.5	MICHIGAN	CARGO	5	MV	9493		4.98	47275	12.53	3772.96		
93	1	8	78	1	STAR K	DRYBULK	6	MV	15474		4.99	77215	12.53	6162.43		
94	3	2	78	1.5	MAINE	CARGO	5	MV	13156		4.98	65517	12.53	5228.80		
95	3	3	78	4.5	MONTANA	CARGO	5	MV	9493		4.98	47275	12.53	3772.96		
96	3	7	78	2	BARGE KONA	BARGE	9	MV	5830		10.65	62090	12.53	4955.27		
97	3	10	78	1	CORNUCOPIA	TANKER	4	MV	21688		4.87	105621	12.53	8429.41		
98	3	4	78	6	MAINE	CARGO	5	MV	13156		4.98	65517	12.53	5228.80	123351.53	
99	1	5	78	3.5	MATANUSKA	CARGO	5	WISCO	2458		4.98	12241	12.53	976.92		
100	3	3	78	26.5	LPD JUNEAU	NAVY	7	WISCO	15440		6.05	93412	12.53	7455.07		
101	1	1	78	13.5	LPD DUBUQUE	NAVY	7	WISCO	15440		6.05	93412	12.53	7455.07		
102	3	6	78	10	LPD JUNEAU	NAVY	7	WISCO	15440		6.05	93412	12.53	7455.07	23342.13	
103	1	12	78	2.5	OLLIE RIEDEL	BARGE	9	WW	1006		10.65	10714	12.53	855.06		
104	3	11	78	1	PIGGY BACK UNIT	BARGE	9	WW	224		10.65	2384	12.53	190.39		
105	3	11	78	4	BARGE 303	BARGE	9	WW	370		10.65	3941	12.53	314.49		
106	1	12	78	2.5	SPUD BARGE	BARGE	9	WW	300		10.65	3195	12.53	254.99		
107	3	12	78	1	PIGGY BACK UNIT	BARGE	9	WW	403		10.65	4292	12.53	342.53		

1 VESSELS B:HVOCCALCS
2 1/1/85 VESSELS DRYDOCKED SINCE JANUARY 1978
3 THRU 2/85 WITH TON DAYS

	DD#	MON.	YEAR	DAYS ON DOCK	VESSEL	VESSEL TYPE	CL	CONTR.	GROSS TONS (GUT)	TONDAYS	RATIO OF GUT:HSA=	HULL SURFACE AREA (HSA)	RATIO OF HSA:VOC	# VOC SUBTOTAL	CONTRACTOR VOC TOTAL	TOTAL ANNUAL LBS. VOC
108	3	12	78	1	BARGE 303	BARGE	9	UU	370		10.65	3941	12.53	314.49		
109	1	9	78	1	BARGE FOSS	BARGE	9	UU	3776		10.65	40214	12.53	3209.45		
110	1	9	78	1	PIGGY BACKUNIT	BARGE	9	UU	3224		10.65	34336	12.53	2740.27	8221.66	
111	2	9	78	1	BARGE ZB-42	BARGE	9	ZIE	540		10.65	5751	12.53	458.98		
112	3	9	78	1	PIGGY BACK UNIT	BARGE	9	ZIE	672		10.65	7157	12.53	571.17		
113	3	9	78	1	BARGE PACIFIC 270	BARGE	9	ZIE	3106		10.65	33079	12.53	2639.98		
114	3	9	78	1	BARGE ZB-32-34	BARGE	9	ZIE	766		10.65	8158	12.53	651.07	4321.20	295675.70
115	4	6	79	4.5	SOHIO RESOLUTE	TANKER	2	OSR	37784		3.36	126954	10.55	12033.58		
116	2	12	79	2	TUG JUPITER	TUG	9	OSR	76		24	1824	12.53	145.57		
117	3	8	79	5	PRESIDENT JACKSON	CARGO	5	OSR	15949		4.98	79426	12.53	6338.87		
118	2	4	79	4.5	TUG MOANO KOLO	TUG	9	OSR	198		24	4752	12.53	379.25		
119	3	3	79	4	PRESIDENT WILSON	CARGO	5	OSR	15949		4.98	79426	12.53	6338.87		
120	2	4	79	1	DERRICK BEAVER	BARGE	9	OSR	738		10.65	7860	12.53	627.27		
121	1	7	79	1.5	SALVAGE CHIEF	TUG	9	OSR	725		24	17400	12.53	1388.67		
122	1	8	79	1	TUG SENECA	TUG	9	OSR	193		24	4632	12.53	369.67		
123	3	1	79	2.5	SINCLAIR TEXAS	TANKER	3	OSR	27469		4.92	135147	12.53	10785.91		
124	2	3	79	2.5	DERRICK BARGE SAMPSON	BARGE	9	OSR	475		10.65	5059	12.53	403.73		
125	4	10	79	4	LOMPOC	TANKER	4	OSR	10448		4.87	50882	12.53	4060.79		
126	1	9	79	5.5	TUG SIOUX	TUG	9	OSR	193		24	4632	12.53	369.67		
127	2	2	79	3.5	TUG BOHEMIA	TUG	9	OSR	188		24	4512	12.53	360.10		
128	2	3	79	4.5	TUG TYEE	TUG	9	OSR	383		24	9192	12.53	733.60		
129	2	1	79	1.5	BARGE 542	BARGE	9	OSR	1107		10.65	11790	12.53	940.91		
130	2	8	79	1	TUG TYEE	TUG	9	OSR	383		24	9192	12.53	733.60		
131	2	4	79	4	DUMP SCOW	BARGE	9	OSR	784		10.65	8350	12.53	666.37		
132	2	2	79	1	TUG TYEE	TUG	9	OSR	383		24	9192	12.53	733.60		
133	3	2	79	4.5	BARGE KONA	BARGE	9	OSR	5630		10.65	62090	12.53	4955.27		
134	2	7	79	2	COE BARGE 31-500	BARGE	9	OSR	264		10.65	2812	12.53	224.39		
135	2	9	79	2.5	DTB-40	BARGE	9	OSR	3912		10.65	41663	12.53	3325.04		
136	2	10	79	2	TUG W. L. WILLIAMS	TUG	9	OSR	65		24	1560	12.53	124.50		
137	2	5	79	5.5	TUG CLEARWATER	TUG	9	OSR	213		24	5112	12.53	407.98		
138	1	4	79	8	AEOLUS	MSC	8	OSR	6064		6.05	36687	12.53	2927.95		
139	4	4	79	4.5	CHEVRON HAWAII	TANKER	2	OSR	35588		3.36	119576	10.55	11334.19		
140	1	3	79	4.5	TUG COLUMBIA	TUG	9	OSR	142		24	3408	12.53	271.99		
141	1	6	79	2.5	UMPQUA BARGE 814	BARGE	9	OSR	2443		10.65	26018	12.53	2076.45		
142	2	4	79	1.5	DERRICK MINK	BARGE	9	OSR	699		10.65	7444	12.53	594.12		
143	1	7	79	4.5	UMPQUA BARGE 814	BARGE	9	OSR	2443		10.65	26018	12.53	2076.45		
144	4	9	79	7	PRINCE WILLIAM SOUND	TANKER	2	OSR	60084		3.36	201882	10.55	19135.76		
145	2	11	79	8.5	UMPQUA BARGE 84	BARGE	9	OSR	1825		10.65	19436	12.53	1551.18		
146	2	3	79	3	SS19	BARGE	9	OSR	1080		10.65	11502	12.53	917.96		
147	4	12	79	7	CALIFORNIAN	CARGO	5	OSR	13636		4.98	67907	12.53	5419.58		
148	2	3	79	4	BARGE 550	BARGE	9	OSR	2086		10.65	22003	12.53	1756.02		
149	2	10	79	3	UMPQUA BARGE 85	BARGE	9	OSR	1825		10.65	19436	12.53	1551.18		
150	2	5	79	1.5	BARGE 535	BARGE	9	OSR	990		10.65	10544	12.53	841.46		
151	2	10	79	3.5	UMPQUA BARGE 86	BARGE	9	OSR	1825		10.65	19436	12.53	1551.18		
152	2	1	79	3	BARGE 505	BARGE	9	OSR	1039		10.65	11065	12.53	883.11		
153	1	7	79	1	UMPQUA BARGE 88	BARGE	9	OSR	1881		10.65	20033	12.53	1598.77		
154	1	3	79	15.5	DREDGE BIDDLE	COE	8	OSR	4988		6.02	30028	12.53	2396.47		
155	4	12	79	5	USNS SHOSHONE	MSC	8	OSR	31993		6.05	193558	12.53	15447.56		
156	4	6	79	4	SANTA PAULA	TANKER	4	OSR	20066		4.87	97721	12.53	7799.00		
157	4	8	79	4.5	BEAVER STATE	TANKER	2	OSR	44875		3.36	150780	10.55	14291.94		

NOTE: ROW [illegible] AI-19 CONTAIN BASIS FOR LOOKUP FORMULAS
DO NOT DELETE OR ERASE THESE ROWS !!!
FILE CONTAINS DATA FOR: 1991
FILE NAME: VOC1991 11/10/92

VESSELS DRYDOCKED DURING CALENDAR YEAR 1991 11/10/92

ROW	DD#	MON.	YEAR	VESSEL	VESSEL TYPE	CL	CONTR	TONS (DWT)	RATIO OF DWT:HSA	HULL SURFACE AREA (HSA)	RATIO OF HSA:VOC	# VOC SUBTOTAL	CATEGORY SUBTOTAL	VOC TOTAL/ CATEG.	COUNT
Arrayed by date															
6	4	1	91	Keystone Canyon	TANKER	2	NW	80,260	2.90	258,880	10.55	24,538.40			
7	4	1	91	Independence (P)	TANKER	4	NW	20,185	4.65	97,897	12.53	7,813.03			
12	4	2	91	Barge Chehalis	BARGE	9	NW	1,825	10.65	19,436	12.53	1,551.16			
13	4	2	91	Barge Sustaw	BARGE	9	NW	1,825	10.65	19,436	12.53	1,551.16			
14	4	2	91	Chevron Louisiana	TANKER	4	WSI	20,185	4.65	97,897	12.53	7,813.03			
15	4	2	91	Brooks Range	TANKER	2	WSI	80,260	2.90	258,880	10.55	24,538.40			
21	4	3	91	Sea-Land Trader	CARGO	6	CO	16,581	4.98	82,573	12.53	6,590.05			
22	4	3	91	Moku Pahu	TUG	8	WSI	17,173	4.78	82,067	12.53	6,551.25			
23	4	3	91	Barge HSTC-1	BARGE	9	WSI	1,825	10.65	19,436	12.53	1,551.16			
27	4	4	91	Exxon Benicia	TANKER	2	NW	80,260	2.90	258,880	10.55	24,538.40			
26	4	4	91	Exxon Long Beach	TANKER	2	CO	80,260	2.90	258,880	10.55	24,538.40			
34	4	5	91	Regent Sea	TANKER	4	CO	20,185	4.65	97,897	12.53	7,813.03			
35	4	5	91	Angelic Spirit	TANKER	3	CO	52,899	3.30	174,567	10.55	16,548.61			
38	4	6	91	Angelic Spirit	TANKER	3	CO	52,899	3.30	174,567	10.55	16,548.61			
39	4	6	91	Sansinena II	TANKER	3	NW	52,899	3.30	174,567	10.55	16,548.61			
40	4	6	91	Chesapeake Trader	TANKER	4	WSI	20,185	4.65	97,897	12.53	7,813.03			
47	4	7	91	Chesapeake Trader	TANKER	4	WSI	20,185	4.65	97,897	12.53	7,813.03			
48	4	7	91	Prince William Sound	TANKER	3	CO	52,899	3.30	174,567	10.55	16,548.61			
49	4	7	91	Coast Range	TANKER	4	NW	20,185	4.65	97,897	12.53	7,813.03			
50	4	7	91	Delware Trader	TANKER	4	WSI	20,185	4.65	97,897	12.53	7,813.03			
54	4	8	91	Kenai	TANKER	3	CO	52,899	3.30	174,567	10.55	16,548.61			
55	4	8	91	Thompson Pass	TANKER	2	WSI	80,260	2.90	258,880	10.55	24,538.40			
56	4	8	91	Arco Fairbanks	TANKER	3	NW	52,899	3.30	174,567	10.55	16,548.61			
57	4	8	91	Constitution (P)	TANKER	3	CO	52,899	3.30	174,567	10.55	16,548.61			
81	4	9	91	Constitution (P)	TANKER	3	CO	52,899	3.30	174,567	10.55	16,548.61			
82	4	9	91	Regent Star (P)	TANKER	3	CO	52,899	3.30	174,567	10.55	16,548.61			
70	4	10	91	Regent Star (P)	TANKER	3	CO	52,899	3.30	174,567	10.55	16,548.61			
71	4	10	91	Fair Princess (P)	TANKER	4	NW	20,185	4.65	97,897	12.53	7,813.03			
72	4	10	91	Overseas Juneau	TANKER	2	WSI	80,260	2.90	258,880	10.55	24,538.40			
73	4	10	91	Aligun Pass	TANKER	1	WSI	6,835	5.53	35,345	12.53	2,822.39			
78	4	11	91	Tohoma	TANKER	3	WSI	52,899	3.30	174,567	10.55	16,548.61			
80	4	11	91	Isla Bonita	BARGE	9	CO	1,825	10.65	19,436	12.53	1,551.16			
81	4	11	91	Grand Canyon State	MSC	8	WSI	14,692	4.89	70,818	12.53	5,651.88			
90	4	12	91	Chesapeake	TANKER	3	WSI	52,899	3.30	174,567	10.55	16,548.61			
										7315529		#VALUE!			

N = 91 (P) = Passenger vessel of similar tanker size

1,393,763

TONS = #VALUE!

VOC 1991
ESD, 1991 PSRY VOC REPORT

TYPE	CLASS	AVG. DWT	RATIO DTW:HSA	RATIO HSA:VOC
BARGES	8	1,825	10.65	12.53
CARGOS				
CARGO6	5	16,581	4.98	12.53
COE8	8	14,843	4.19	12.53
DREDGE9	3	6,118	5.50	12.53
DRYBULK6	8	8,168	5.50	12.53
MSC8	6	14,192	4.99	12.53
TUG8	4	17,173	4.78	12.53
	8	180	24.00	12.53

AE
ROW: AF AG AH AI
1 THOUGH 19
PSRY VOC REPORT.

B1087: lotus voc1991

DIVISION 28

Stationary Source Air Pollution Control and Permitting Procedures

Purpose and Application
340-28-001 [Renumbered to OAR 340-30-400]

Exclusions
340-28-003 [Renumbered to OAR 340-30-410]

Definitions
340-28-005 [DEQ 61, f. 2-5-73, ef. 12-25-73; DEQ 88, f. 4-3-75, ef. 4-3-75(Temp), 4-25-75(Perm); DEQ 123, f. & ef. 10-20-76, Repealed by DEQ]

Open Outdoor Fires - General
340-28-010 [DEQ 61, f. 12-5-73, ef. 12-25-73; Repealed by DEQ 123, f. & ef. 10-20-76]

Open Outdoor Fires - Domestic
340-28-015 [DEQ 61, f. 12-5-73, ef. 12-25-73; DEQ 88, f. 4-3-75, ef. 4-3-75(Temp), ef. 4-25-75(Perm); Repealed by DEQ 123, f. & ef. 10-20-76]

Open Outdoor Fires - Land Clearing
340-28-020 [DEQ 61, f. 12-5-73, ef. 12-25-73; Repealed by DEQ 123, f. & ef. 10-20-76]

Incinerators and Refuse Burning Equipment
340-28-025 [Renumbered to OAR 340-30-420]

Concealment and Masking of Emissions
340-28-030 [Renumbered to OAR 340-30-430]

Effective Capture of Air Contaminant Emissions
340-28-040 [Renumbered to OAR 340-30-440]

Odor Control Measures
340-28-045 [Renumbered to OAR 340-30-450]

Storage and Handling of Petroleum Products
340-28-050 [Renumbered to OAR 340-30-460]

Ships
340-28-055 [Renumbered to OAR 340-30-470]

Upset Condition
340-28-060 [Renumbered to OAR 340-30-480]

Emission Standards - General
340-28-065 [Renumbered to OAR 340-30-490]

Visible Air Contaminant Standards
340-28-070 [Renumbered to OAR 340-30-500]

Particulate Matter Weight Standards
340-28-075 [Renumbered to OAR 340-30-510]

Particulate Matter Size Standard
340-28-080 [Renumbered to OAR 340-30-520]

Sulfur Dioxide Emission Limitations
340-28-085 [Renumbered to OAR 340-30-530]

Odors
340-28-090 [Renumbered to OAR 340-30-540]

General

Purpose, Application and Organization
340-28-100

(1) The purpose of this Division is to prescribe air pollution control and permitting procedures which apply to all stationary sources regulated by the Department.

(2) This Division applies in addition to all other rules of the Environmental Quality Commission. In cases of apparent conflict, the most stringent rule shall apply. The requirements in this Division shall be administered by the Department, except in Lane County, where they shall be administered by the Lane Regional Air Pollution Authority.

(3) This Division is organized as follows:
- (a) General Rules, including purpose, application, organization and definitions;
- (b) Rules applicable to all stationary sources, including information submittal and disclosure, compliance schedules, general control requirements, registration, and Notice of Construction;
- (c) Rules applicable to sources required to have Air Contaminant Discharge Permits or federal operating permits, including plant site emission limits, sampling, testing, monitoring, excess emissions, and emission statements;
- (d) Rules applicable to sources required to have Air Contaminant Discharge Permits, including permitting procedures, New Source Review, and fees; and
- (e) Rules applicable to sources required to have federal operating permits, including permitting procedures and fees.

(4) Subject to the provision of the rules in this Division, the Regional Authority is designated by the Commission as the permitting agency to implement the federal permit program within its area of jurisdiction. The Regional Authority's program is subject to Department oversight. The requirements and procedures contained in this Division pertaining to the federal operating permit program shall be used by the Regional Authority to implement its permitting program until the Regional Authority adopts superseding rules which are at least as restrictive as state rules.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the EQC under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A
Hist.: DEQ 13-1993, f. & ef. 9-24-93; DEQ 19-1993, f. & ef. 11-4-93

Definitions

340-28-110 As used in this Division:

(1) "Act" or "FCAA" means the Federal Clean Air Act, Public Law 88-206 as last amended by Public Law 101-549.

(2) "Actual emissions" means the mass emissions of a pollutant from an emissions source during a specified time period. Actual emissions shall be directly measured with a continuous monitoring system or calculated using a material balance or verified emission factor in combination with the source's actual operating hours, production rates, or types of materials processed, stored, or combusted during the specified time period.
  (a) For purposes of determining actual emissions as of the baseline period:
    (A) Except as provided in paragraph (B) of this subsection, actual emissions shall equal the average rate at which the source actually emitted the pollutant during a baseline period and which is representative of normal source operation;
    (B) The Department may presume the source-specific mass emissions limit included in the permit for a source that was effective on September 8, 1981 is equivalent to the actual emissions of the source during the baseline period if it is within 10% of the actual emissions calculated under paragraph (A) of this subsection.
  (b) For any source which had not yet begun normal operation in the specified time period, actual emissions shall equal the potential to emit of the source.
  (c) For purposes of determining actual emissions for Emission Statements under OAR 340-28-1500 through 340-28-1520, Major Source Interim Emission Fees under OAR 340-28-2400 through 340-28-2550, and Federal Operating Permit Fees under OAR 340-28-2560 through 340-28-2740, actual emissions include, but are not limited to, routine process emissions, fugitive emissions, excess emissions from maintenance, startups and shutdowns, equipment malfunction, and other activities.

(3) "Affected source" means a source that includes one or more affected units that are subject to emission reduction requirements or limitations under Title IV of the FCAA.

(4) "Affected States" mean all States:
  (a) Whose air quality may be affected by a proposed permit, permit modification or permit renewal and that are contiguous to Oregon; or
  (b) That are within 50 miles of the permitted source.

(5) "Aggregate insignificant emissions" means the annual actual emissions of any regulated air pollutant from one or more designated activities at a source that are less than or equal to the lowest applicable level specified in this section. The total emissions from each designated activity and the aggregate emissions from all designated activities shall be less than or equal to the lowest applicable level specified in this section. The aggregate insignificant emissions levels are:
  (a) One ton for total reduced sulfur, hydrogen sulfide, sulfuric acid mist, any Class I or II substance subject to a standard promulgated under or established by Title VI of the Act, and each criteria pollutant, except lead;
  (b) 120 pounds for lead;
  (c) 600 pounds for fluoride;
  (d) 500 pounds for PM_{10} in a PM_{10} nonattainment area;
  (e) The lesser of the amount established in OAR 340-32-130, Table 1 or OAR 340-32-5400, Table 3, or 1,000 pounds;
  (e) An aggregate of 5,000 pounds for all Hazardous Air Pollutants.

(6) "Air Contaminant" means a dust, fume, gas, mist, odor, smoke, vapor, pollen, soot, carbon, acid or particulate matter, or any combination thereof.

(7) "Air Contaminant Discharge Permit" or "ACDP" means a written permit issued, renewed, amended, or revised by the Department, pursuant to OAR 340-28-1700 through 340-28-1790 and includes the application review report.

(8) "Alternative method" means any method of sampling and analyzing for an air pollutant which is not a reference or equivalent method but which has been demonstrated to the Department's satisfaction to, in specific cases, produce results adequate for determination of compliance. An alternative method used to meet an applicable federal requirement for which a reference method is specified shall be approved by EPA unless EPA has delegated authority for the approval to the Department.

(9) "Applicable requirement" means all of the following as they apply to emissions units in a

federal operating permit program source, including requirements that have been promulgated or approved by the EPA through rule making at the time of issuance but have future-effective compliance dates:

(a) Any standard or other requirement provided for in the applicable implementation plan approved or promulgated by the EPA through rulemaking under Title I of the Act that implements the relevant requirements of the Act, including any revisions to that plan promulgated in 40 CFR Part 52 (July 1, 1993);

(b) Any standard or other requirement adopted under OAR 340-20-047 of the State of Oregon Clean Air Act Implementation Plan, that is more stringent than the federal standard or requirement which has not yet been approved by the EPA, and other state-only enforceable air pollution control requirements;

(c) Any term or condition in an ACDP, OAR 340-28-1700 through 340-28-1790, including any term or condition of any preconstruction permits issued pursuant to OAR 340-28-1900 through 340-28-2000, New Source Review), until or unless the Department revokes or modifies the term or condition by a permit modification;

(d) Any term or condition in a Notice of Construction and Approval of Plans, OAR 340-28-800 through 340-28-820, until or unless the Department revokes or modifies the term or condition by a Notice of Construction and Approval of Plans or a permit modification;

(e) Any term or condition in a Notice of Approval, OAR 340-28-2270, until or unless the Department revokes or modifies the term or condition by a Notice of Approval or a permit modification;

(f) Any standard or other requirement under section 111 of the Act, including section 111(d);

(g) Any standard or other requirement under section 112 of the Act, including any requirement concerning accident prevention under section 112(r)(7) of the Act;

(h) Any standard or other requirement of the acid rain program under Title IV of the Act or the regulations promulgated thereunder;

(i) Any requirements established pursuant to section 504(b) or section 114(a)(3) of the Act;

(j) Any standard or other requirement governing solid waste incineration, under section 129 of the Act;

(k) Any standard or other requirement for consumer and commercial products, under section 183(e) of the Act;

(l) Any standard or other requirement for tank vessels, under section 183(f) of the Act;

(m) Any standard or other requirement of the program to control air pollution from outer continental shelf sources, under section 328 of the Act;

(n) Any standard or other requirement of the regulations promulgated to protect stratospheric ozone under Title VI of the Act, unless the Administrator has determined that such requirements need not be contained in a federal operating permit; and

(o) Any national ambient air quality standard or increment or visibility requirement under part C of Title I of the Act, but only as it would apply to temporary sources permitted pursuant to section 504(e) of the Act.

(10) "Assessable Emission" means a unit of emissions for which the major source owner or operator will be assessed a fee. It includes an emission of a pollutant as specified in OAR 340-28-2420 or OAR 340-28-2610 from one emission point and from an area within a major source. For routine process emissions, emissions of each pollutant in OAR 340-28-2420 or OAR 340-28-2610 from each emission point included in an ACDP or federal operating program permit shall be an assessable emission.

(11) "Baseline Emission Rate" means the average actual emission rate during the baseline period. Baseline emission rate shall not include increases due to voluntary fuel switches or increased hours of operation that have occurred after the baseline period.

(12) "Baseline Period" means either calendar years 1977 or 1978. The Department shall allow the use of a prior time period upon a determination that it is more representative of normal source operation.

(13) "Best Available Control Technology" or "BACT" means an emission limitation, including, but not limited to, a visible emission standard, based on the maximum degree of reduction of each air contaminant subject to regulation under the Act which would be emitted from any proposed major source or major modification which, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such air

State of Oregon

Department of Environmental Quality Memorandum

Date: June 3, 1998

To: Neil Mullane

From: George Yun through Audrey O'Brien AOB

Subject: Cascade General, Inc., Title V Permit 26-3224

The proposed Title V permit 26-3224 will replace the Air Contaminant Discharge Permit (ACDP) 26-3224 issued to Port of Portland, and the ACDP 26-3101 issued to Cascade General, Inc. While the Port of Portland (Port) owns the Portland Ship Yard (PSY) which occupies 95 acres of property located at 5555 North Channel Avenue in Portland, Oregon, Cascade General is the primary lessee and operator that actually performs the ship repair works. The Port has transferred to Cascade General all activities regulated under this Title V permit, and therefore, Cascade General is the entity/permittee responsible for complying with the terms and limitations of this Title V permit

As with all Title V permits, all applicable requirements that are not present in the current ACDP are swept into the Title-V permit. One of the major new requirements in the proposed Title V permit is the NESHAP standards of 40 CFR, Part 63.783, "VOHAP Limits for Marine Coatings". The proposed Title V permit also incorporates comprehensive monitoring requirements that will improve the Department's regulatory control over the source's emissions and their compliance status.

The draft permit was placed on public notice from April 20, 1997 to May 21, 1997, and then a public hearing was held on September 3, 1997. The Department's responses to public comments and testimonies are summarized and attached to the permit review report.

Give Dave this original

cc: Dave Donaldson

Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY

May 15, 1995 REC'D MAY 16 1995

Frank Foti
Cascade General, Inc.
5555 N. Channel Avenue
P.O. Box 4367
Portland, OR 97208

Re: Title V Permit Application (ACDP# 26-3101)

Dear Mr. Foti:

The Oregon Department of Environmental Quality, Air Quality Division has received and reviewed your response to the May 1994 Title V notification letter. Based upon the information you supplied, Cascade General, Inc. (Air Contaminant Discharge Permit number 26-3101) has been removed from the list of potential Oregon Title V sources. You will not be required to submit a Title V operating permit application by May 15, 1995. This decision was based on the information submitted by you to the Department in letters dated May 11 and 12, 1995.

The information you submitted has demonstrated that the ACDP limits for VOC emissions are not correct. Therefore, it is expected that Cascade General will take prompt action to remedy any inconsistency by submitting a request to modify the ACDP. Forms and information for correcting the ACDP may be obtained by the Northwest Region of the Department at 2020 S.W. 4th Ave, Suite #400, Portland, OR, 97201-5884; telephone number (503) 229-5263; facsimile number (503) 229-6945.

Please direct any additional questions or comments to either Terri Sylvester at (503) 229-5181, or John Kinney at (503) 229-6819.

Sincerely,

John J. Ruscigno

John J. Ruscigno, P.E., Manager
Program Operations Section
Air Quality Division

JJR:MSF:j
LTR\AH74380
cc: Kristin Nadermann; EMCON
John Kinney:AQ
Terri Sylvester:AQ
Mark Fisher:AQ
Dave Sellars:NWR:DEQ

811 SW Sixth Avenue
Portland, OR 97204-1390
(503) 229-5696
TDD (503) 229-6993
DEQ-1

Oregon
John A. Kitzhaber, M.D., Governor

Department of Environmental Quality
Northwest Region
2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987
(503) 229-5263 Voice
TTY (503) 229-5471

April 1, 1998

Mary Ellen Page Farr
Kell, Alterman & Runstein, L.L.P.
1001 S.W. Fifth Ave., Suite 1800
Portland, OR 97204-1194

Re: Columbia Wire & Iron/
Cascade General, Inc. (26-3224)

Dear Ms. Farr:

This is in response to your letter dated March 26, 1998, regarding the permitting status of your client Columbia Wire & Iron (CW&I). In general, leased activities may be considered separate source when they are not under the direct or indirect control of a lessor. A typical landlord/tenant or lessor/lessee arrangement exemplifies this situation (e.g., a dry cleaner in a shopping center). Your letter indicates that CW&I simply leases a space from Cascade General, Inc. (CG), and there is no business tie between CG and CW&I other than the existing lessor/lessee relationship. Therefore, it appears CW&I can opt out of CG's Title V permit. In order to stay out of the CG's Title V permit, CW&I and CG must continue to avoid doing any type of supportive or contractual work for the other.

As to whether CW&I needs obtain its own Title V permit, the fact that CW&I uses less than ten tons of paint per year does not exempt it from the Title V regulations. CW&I must determine its "Potential To Emit" of any regulated pollutant under its physical and operational design. Based on the information contained in your letter, the only regulated pollutants of concern are Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAPs). No Title V permit would be required if CW&I determines that its PTE of VOC is less than 100 tons/yr, its PTE of individual HAP is less than 10 tons/yr, and its PTE of aggregate HAPs is less than 25 tons/yr. This requires a simple arithmetic exercise on CW&I's part.

Another issue to consider is whether CW&I requires an Air Contaminant Discharge Permit (ACDP), which is another permit program targeted at non-major (Title V) sources. In general, no ACDP would be required if a source emits less than 10 tons/yr of any criteria pollutant. However, regardless of the quantity of pollutants emitted by a source, the permit may be required if an air quality problem (e.g., malodorous emission, nuisance complaints, spray painting in open air, etc.) is identified by the Department.

I hope that this response will be helpful to you in addressing CW&I's concern. If you have any questions, please give me a call at 229-6093.

Sincerely,

George Yun
Northwest Region, DEQ

cc: Mr. T. Alan Sprott, Cascade General, Inc., P.O. Box 4367, Portland, OR 97208

Port of Portland

Box 3529, Portland, Oregon 97208
503/231-5000

November 20, 1992

John Laird, VOC RACT Coordinator
Oregon Department of Environmental Quality
811 SW Sixth Avenue
Portland, Oregon 97204-1390

In your letter dated October 27, 1992, you ask the Port of Portland to establish short-term maximum emission limits for VOC's and to review your draft of the RACT Determination for the Portland Ship Repair Yard.

Our current Air Contaminant Discharge Permit specifies a short term limit of 3.54 tons per day. This number was established in 1985 by use of formula approved by DEQ. Included is information from our 1985 permit establishing that limit.

On your draft RACT determination; I suggest an introductory paragraph explaining how the shipyard works. I feel its necessary to show that the Port owns the facility, but doesn't actually perform ship repairs. Also, we have modified the information on our Ballast Water Treatment Plant to make it more accurate. My comments to the draft are also included with this letter.

If you need more information or if I can be of further help, please don't hesitate to call me at 240-3060. If you need specific technical information on painting operations, call Dave Donaldson at Cascade General, 285-1111. I would be interested in a copy of any final reports.

Thankyou.

Fletcher Hunt, Services Manager
Portland Ship Repair Yard

cc: Russ Korvola
Dave Donaldson, Cascade General

Printed on recycled paper

Oregon

April 15, 1997

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

NORTHWEST REGION

CASCADE GENERAL, INC.
PO BOX 4367
PORTLAND, OR 97208

RE: Public Notice of Draft Oregon
Title V Permit No. 26-3224

Your application for an Oregon Title V Operating Permit has been reviewed by the Department of Environmental Quality and a permit has been drafted. The Department has issued a public notice from April 17, 1997 to May 21, 1997. You are invited to review the attached copy of the draft permit and submit any comments you may have prior to the end of the notice period.

The public notice is distributed to interested individuals and the media.

All comments received will be evaluated by the Department before taking further action. Should a hearing be requested during the comment period, you will be notified of the scheduled date. Following the comment period, the permit may be modified. The proposed permit will then be forwarded to EPA for review prior to issuance.

If you have any questions relating to these issues, please contact Sandi Hall at (503) 229-5582.

Sincerely,

Ed Druback
Manager, Air Quality
Northwest Region

ED:sh

Enclosure
cc: Source File

John A. Kitzhaber
Governor

2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987
(503) 229-5263 Voice
TTY (503) 229-5471
DEQ-1

Oregon

RECEIVED
MAR 3 1997
SUPPORT SERVICES

DEPARTMENT OF ENVIRONMENTAL QUALITY

February 28, 1997

Mr. David Donaldson
Cascade General, Inc.
5555 N. Channel Avenue
Portland, OR 97217

Re: Title V Permit 26-3224
Application No. 14943

Dear Mr. David Donaldson:

This letter is a follow-up to your letter of December 9, 1996 regarding the latest (11/20/96) draft Title V permit. While your letter suggested the Port would be forwarding additional comments regarding the 11/20/96 draft permit document, no comments were submitted by the Port to this date. Therefore, I am hopeful that we can take a step forward with the public notice once the issues raised in your 12/9/96 letter are resolved. In response to issues raised in your letter, please consider the explanations provided below. The Department responses to Cascade General's Table of Comments are also attached to this letter, following the same sequence the Table uses.

Item a. VOC Baseline: The review report does not imply that the DEQ has formally reduced the baseline BWT PSEL from 147.5 tons/yr to 72.1 tons/yr through a source-specific RACT. The Department is keenly aware that no source-specific RACT has been performed at Cascade General for the BWT processes. While the source-specific RACT determination is an appropriate tool to adjust the baseline PSEL for the BWT processes, Cascade General also have an option to avoid the lengthy RACT procedural requirements by demonstrating that the potential to emit has fallen below the 100 tons/yr level. The review report item 17 merely attempts to establish a basis for not requiring Cascade General to perform source-specific RACT determination. However, this source-specific RACT issue may need to be revisited. Please contact Mr. Gregg Dahmen of our Department at 229-5571 for more information regarding the source-specific RACT.

Because the applications submitted by Cascade General claimed to have the baseline PSEL of 147.5 tons/yr for the BWT processes, which is more than twice the figure (72.1 tons/yr) determined by the Department, the last paragraph of item 17 explains the possible outcome in the event the source-specific RACT is to be conducted. The purpose of review report item 17 is to convey the message that no additional PSEL (baseline credit) is available for the BWT processes, and state for the record the reason for not granting the baseline credit (PSEL) claimed in the permit application for the (former) surface pond emissions. As you have indicated in your letter, it is the Department's understanding that Cascade General has accepted the baseline PSEL of 72.1 tons/yr for the BWT processes.

Item b. MAO: Our records show the latest MAO signed is dated August 20, 1996. I intend to verify, and I encourage that you do the same, what the differences are.

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Portland, OR 97204-1390
(503) 229-5696
TDD (503) 229-6993

In my view, third and fourth sentences in item 18 are necessary to explain the basis for establishing the baseline PSEL for DD#4. As is the case with the surface pond, the DD#4 PSEL established in the draft permit is less than the amount requested in the application, and the review report needs to explain the reason for lowering the requested PSEL.

As Ms. Erin Miller at Emcon may have informed you, I would like to set up a meeting to discuss the content of this letter and any remaining issues that you may have regarding the latest draft permit document. If you have any questions, please call me at 229-6093.

Sincerely,

George D. Yun
Title V Permit Writer
Air Quality Division

GDY:j
LTR\AH76168.DOC

cc: Ms. Audrey O'Brien, Northwest Region, DEQ
Mr. David Sellers, Northwest Region, DEQ
Mr. Gregg Dahmen, Northwest Region, DEQ
Mr. Ed Druback, Northwest Region, DEQ
Mr. Bob Coates, Cascade General, Inc.
Mr. John Schultz, AWHD&S, suite 1800, 222 SW Columbia, Portland, OR 97201-6618
Ms. Erin Miller, Emcon, 18912 North Creek Pkwy., suite 100, Bothell, WA 98011-8016
Mr. Jeff Ring, Port of Portland, Box 3529, Portland, OR 97208
Mr. Mic Dorrance, Port of Portland, Box 3529, Portland, OR 97208

DEQ Responses to Cascade General's Table of Comments:

Draft Permit Issues

1. Condition No. 2 has been revised to add an item which reads as follow:

   "Conditions 21 and 44 are currently enforceable by the state only but will become federally enforceable upon the EPA approval of proposed revisions to the Oregon State Implementation Plan (SIP)."

2. As requested, the term "workers" in Condition No. 35 has been substituted with "employees and contractors hired by the permittee." However, this does not change the fact that the contractors hired by the permittee includes contractors hired by the Port, or anybody who works on the refrigeration system that are considered permitted activities. Cascade General agreed to take over the permitted activities from the Port, and it is Cascade General's responsibility to ensure that all contractors and workers that perform work inside the Portland shipyard abide by this condition, or any other permit term.

3. The word "permittee's" has been added to Condition No. 15 to alleviate the possible confusion from ever surfacing. We certainly do not wish for Cascade General to become confused and use the documents prepared by other sources.

4. It is the permittee's responsibility to establish a method necessary to calculate the vapor pressure of oil and water mixture stored in the vertical storage tanks. I would, however, suggest that use the vapor pressure of oil compounds (VOC) only, since oil in ballast water processed by Cascade General is immiscible in and less dense than water, and mostly VOC would occupy the tank vapor space. The Department will accept any appropriate empirical equation from any reputable published literature. We will also accept the vapor pressure of individual component in the oily mixture provided the chosen component has the highest vapor pressure.

5. Typo is now corrected.

6. The term "vessel" has been removed from condition 19.

7. It is my understanding that the correct NESHAP compliance date is December 15, 1997, not December 16, 1997. The original compliance date of December 15, 1996 was changed to December 16, 1996 because the 15th was Sunday. However, when the compliance date was pushed back by one year to December 15, 1997, the 15th is Monday and the need to push the compliance date by a day no longer exist.

8. As indicated by footnote "c" of condition 20.a, "For compliance purposes, metric units define the standards." The factor need to convert the metric unit to English unit is also listed. As we are confident in Cascade General's ability to perform a simple unit conversion, the table remains as they appear in the rules.

9. "Higher transfer efficiency" is now defined as being greater than or equal to 80%.

10. The emissions factor for SBO used in the permit was provided by Cascade General, and it was based on (MRI) source test report prepared by EPA. We will consider updating the PM and PM_{10} emission factors to account for the estimated 5% control provided by curtains/screens once Cascade General provides the background supporting (test) data.

11. The Department did not use Cascade General's assumptions because they were incorrect. The CUB and OVEN fuel burning equipment's short-term PSELs were based on their physical capacity to emit. The short-term PSELs reflect the maximum amount of either natural gas or oil that the equipment can burn during the month, and which ever the fuel type that yields the higher emissions of a given criteria pollutant was picked for the PSEL for that criteria pollutant.

12. As noted in footnote (4) on page A1 of emissions detail sheets, the monthly PSEL for SBI, WLD, and PIR is based on the combined maximum daily SBI and WLD's capacity extrapolated to the maximum number (31) of days SBI and WLD can operate during the month, plus 36,960 VMT/month for PIR. The PM_{10} PSEL is slightly higher than the PM PSEL because, while PM_{10} are segregated from PM for emissions units SBI and PIR, all PM/PM_{10} emitted from WLD are considered to be PM_{10}. While PM consists of PM_{10} and particulate matters greater than 10 microns in size, the PM PSEL excludes PM_{10} because I thought the possibility of Cascade General paying twice (emissions fee) on the same pollutant would likely be reduced.

13. Apparent inconsistency was intentional. The correct use of significant figure has caused minor (artificial) problems in the past. While rounding up the calculated figure, 0.26 to 0.3 for an example, would not cause any compliance problem in the future, rounding down the calculated figure, 0.24 to 0.2 for an example, could result in unworthy compliance issue that would need to be discussed further. I will skip the detail explanation, but if Cascade General insists, the calculated PSEL figures will be rounded off consistently.

14. The reason for denying Cascade General's request to conduct visible emissions monitoring during the dry season only was simply because the seasonal weather pattern would be very difficult to predict.

15. We accept your request to remove the term "contractors" from condition 38. However, the objection raised by Cascade General prompts a (hypothetical) question - Whom do you consider contractors and subcontractors to be? If not hired by Cascade General, do you believe they are exempted from having to comply with the permit term?

16. Condition 42 actually reflects the monitoring method proposed by the permittee in the referenced application.

17. We are pleased that you agree with our proposal.

18. The control factor (i.e., emission control factor for baghouses) is not a necessary component of the empirical equation, because the emissions factor provided (by the permittee in the application and reflected in the permit) already takes into account the control efficiency estimated by the permittee, 99.9% to be exact. Please refer to the review report item 13.b and the footnote (5) on page A9 of emissions detail sheets.

19. An article "a" has been added to the last sentence of condition 49.c.

Draft Review Report Issues

20. The operational description of the Portland Ship Yard has been updated.

21. The term "contractor" has been replaced with the term "lessee", and the berth No. 304 has been re-numbered to "305."

22. As you requested, the review report item 4 has been reworded. However, it does not change the fact that all person, regardless of who hired them, performing work inside the permitted facility must abide by the permit terms. Please refer to item 2 of this attachment.

23. The annual throughput of SBI has been corrected to 43,840,000 lbs/yr.

CASCADE GENERAL
PORTLAND SHIPYARD

November 12, 1996

VIA HAND DELIVERY

George D. Yun, Permit Engineer
Oregon Department of Environmental Quality
Air Quality Division
811 SW Sixth Avenue
Portland, OR 97204-1390

Re: Title V Permit 26-3224 -- Application No. 14943
Cascade General, Inc. ("Cascade")
Additional Information Supporting Cascade's October 22, 1996 Response to the August 20, 1996 Draft Title V Operating Permit

Dear Mr. Yun:

This letter addresses additional information concerning the curing oven associated with the proposed Building 73A coating operations, restrictions on the use of abrasive blast grit on Dry Dock No. 1, corrections to the requested short-term PSELs and clarification of issues relating to baseline VOCs and the Mutual Agreement and Order ("MAO"). This information should be added to the response package submitted by Cascade on October 22, 1996.

1. **Notice of Construction for Proposed Building 73A Coating Operations.** On April 25, 1996, Cascade submitted a Notice of Construction for the proposed Building 73A coating operations to the Northwest Regional Office of DEQ. A copy of this application was also sent to your attention. Since April 1996, Cascade and the Port of Portland ("the Port") have discussed the permitting options for the proposed coating line. Primarily, we have considered whether or not to obtain a separate ACDP, or include the proposed coating line in the Title V Operating Permit. As mentioned in my October 22, 1996 letter, the Port and Cascade have now concluded that including the operations of the proposed coating line in the Title V Operating Permit would be the best alternative. Please find attached to this letter a copy of the April 25, 1996 Notice of Construction package, and additional Title V forms which address the gaseous emissions from the proposed curing oven.

2. **Voluntary Operating Restriction for Dry Dock No. 1.** A second addition to our October 22, 1996 comments addresses an additional voluntary operating restriction for Dry Dock No. 1 (DD#1). Cascade requests that the amount of abrasive blast grit allowed to be used on a daily basis on DD#1 be restricted to 33 tons per day. Please note that this limit is slightly more than the 32.5 tons per day limit that our consultant, Erin Miller of EMCON, discussed with you previously. Such a condition could read as follows: "Permittee shall restrict use of abrasive blast grit on dry dock no. 1 to 33 tons per day." Cascade proposes to

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demonstrate compliance with this voluntary requirement by recording the total amount (tons) of grit used for each job and dividing the total by the number of days the abrasive blasting occurred on DD#1. This method is identical to condition number 47.a. for emission unit SBO in the Draft Title V Permit as requested to be amended in Item 29 in the Table of Comments included with Cascade's October 22, 1996 submittal.

3. **Corrected Version of Attachment 5 (Requested Short Term PSELs).** I understand that Erin Miller sent you by facsimile on October 29, 1996, a corrected Attachment 5 (Requested Short Term PSELs) from our October 22, 1996 submission. The only difference in this corrected version is the recalculation of CUB emissions resulting from No. 6 fuel oil. So that the corrected version can be distributed to all individuals who will receive copies of this letter, I am enclosing another copy of the new version.

4. **Baseline VOC Emissions and DEQ MAO.**

a. **VOC Baseline.** In paragraph 17 of the August 20, 1996 draft Review Report (pp. 13-14), the Department responds to Cascade's estimate that the baseline VOC fugitive emissions from the ballast water treatment process were 147.5 tons per year. The review report incorrectly implies that the Department has formally reduced the 147.5 tons per year by 75.4 tons per year and that this reduction has reverted to the Department. While Cascade is willing to accept at this time an adjusted baseline VOC PSEL for Emissions Units BWT, ROT and ROL of 72.1 tons per year, it does not accept that the Department has gone through the process required before it can adjust down a source's VOC PSEL by means of a source-specific RACT limit. This process has not been carried out for the Port or Cascade.

In paragraph 19 of the August 20, 1996 draft Review Report (p. 15), the second sentence is incorrect for the reasons discussed above. In addition, the third sentence in this paragraph should be eliminated since the source-specific RACT process has never been completed for the ballast water process at the ship yard.

b. **MAO.** In paragraph 18 of the August 20, 1996 draft Review Report (pp. 14-15), several references are made to the MAO as having been signed on August 25, 1996. Our understanding is that the final signatory (DEQ) executed the MAO on April 4, 1995, which would make April 4, 1995 the date of the MAO. More importantly, the discussion of the court case, the MAO and new source review issues in paragraph 18 is not entirely correct. Paragraph 5 of the MAO makes its clear that DEQ and the other parties agreed that

---

". . . Dock No. 4 was not, and has not been, subject to Oregon state new source review regulations currently codified at OAR 340-28-1900 to -1970 when DEQ issued the Yard ACDP in 1986."

MAO, Paragraph 5, pp. 6-7. Thus, the third sentence in paragraph 18 should probably be eliminated.

We look forward to discussing the comments made in my October 22, 1996 letter and in this letter concerning the August 20, 1996 draft permit and review report with you at your earliest convenience. Please call me at 978-0322 or Erin Miller at EMCON (206/485-5000) if you have any questions about these comments.

Very truly yours,

David Donaldson
Vice President, Support Services
Cascade General, Inc.

Enclosures (Original and 2 copies):

1. Notice of Construction for Proposed Building 73A Coating Line and additional Title V forms.
2. Corrected Version of Attachment 5 (Requested Short Term PSELs).

c (w/encl.):

Audrey M. O'Brien, Air Quality Manager, DEQ Northwest Region
David Sellers, DEQ Northwest Region
John Schultz, Ater Wynne, Attorneys to Cascade
Bob Coates, Environmental Manager, Cascade
Erin Miller, EMCON, Consultant to Cascade
J.W. Ring, Envir. Manager/Assist. General Counsel, Port of Portland
Mic Dorrance, Manager, Maritime Properties, Port of Portland

Oregon

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

March 20, 1997

Mr. David Donaldson
Cascade General, Inc.
5555 N. Channel Avenue
Portland, OR 97217

Re: Title V Permit 26-3224
Application No. 14943

Dear Mr. Donaldson:

This letter is a follow-up to your letter of March 18, 1997 and the March 19, 1997 meeting regarding the draft Title V permit referenced above. I believe we have reached the conclusive resolutions on the most of the issues raised in your March 18, 1997 letter during this meeting, and I have amended draft Title V permit documents (dated March 19, 1997) in accordance with our agreement. The following summarizes the remaining issues:

1. Conditions 9 and 35:

The Department accepts the Cascade General's proposal to retain a file recording the certification information of its employees and contractors that perform work on the refrigeration system on-board the ship that use class I or class II ozone-depleting substances. Cascade General is not required to keep records of workers hired by other tenants of the Portland ship yard.

2. The PM and PM_{10} EF for SBO:

The Department accepts the proposed PM and PM_{10} EF used to calculate the emissions from the outdoor abrasive blasting operations which incorporate the control efficiency of 5% provided by curtains and screens.

$$PM\ EF_{Proposed} = (1 - 5\%/100\%)\ EF_{Baseline} = 5.99 \times 10^{-2}$$

$$PM_{10}\ EF_{Proposed} = (1 - 5\%/100\%)\ EF_{Baseline} = 2.09 \times 10^{-2}$$

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Portland, OR 97204-1390
(503) 229-5696
TDD (503) 229-6993
DEQ-1

3. The NESHAP compliance date:

December 15, 1997 has been cited throughout the permit as the compliance date for the ship building/repair NESHAP. If December 16, 1997 later proves to be the correct compliance date, the permit will be promptly amended to incorporate the correct compliance date. This type of changes can easily be incorporated into the draft permit during or after the public notice period.

I believe this addresses all of the remaining permitting issues (for now) for Cascade General, Inc. This letter and the amended draft Title V permit documents are scheduled to be personally handed off to Mr. Bob Coates today. I would appreciate your response as soon as possible so that we can begin the public notice process. If you have any questions, please call me at 229-6093.

Sincerely,

George D. Yun
Title V Permit Writer
Air Quality Division

GDY:j
LTR\AH76212.DOC

cc: Ms. Audrey O'Brien, Northwest Region, DEQ
Mr. David Sellers, Northwest Region, DEQ
Mr. Ed Druback, Northwest Region, DEQ
Mr. Bob Coates, Cascade General, Inc.
Mr. John Schultz, AWHD&S, suite 1800, 222 SW Columbia, Portland, OR 97201-6618
Ms. Erin Miller, Emcon, 18912 North Creek Pkwy., suite 100, Bothell, WA 98011-8016
Mr. Jeff Ring, Port of Portland, Box 3529, Portland, OR 97208
Mr. Mic Dorrance, Port of Portland, Box 3529, Portland, OR 97208

Base Bid

DOCUMENT 00300
FORMAL PROPOSAL

THE PORT OF PORTLAND

PORTLAND SHIP YARD
DRY DOCKS 1, 3, AND 4
PACKAGE A - STORM WATER AND INDUSTRIAL WASTEWATER
TREATMENT SYSTEM

To The Port of Portland
Portland, Oregon

Gentlemen:

The Proposer warrants that he has carefully examined the contract documents for the contract described as follows:

PORTLAND SHIP YARD
DRY DOCKS 1, 3, AND 4
PACKAGE A - STORM WATER AND INDUSTRIAL WASTEWATER
TREATMENT SYSTEM

The Proposer further warrants that he has examined the proposed work area independently of the indications in the contract documents and has made such investigations as are necessary to determine: (1) the character of the materials to be handled, (2) the probable interferences due to Port operations, and (3) other conditions to be encountered.

The Proposer further warrants that if this Proposal is accepted, he will contract with The Port of Portland in the form of Agreement hereto annexed and provide all things necessary for the performance of the contract, including, but not limited to, bonds, labor, materials, transportation, equipment, and anything else required to complete the work in accordance with the requirements of the contract documents.

The Proposer promises that all work under this contract shall be substantially complete within 120 days from the date specified in the written Notice to Proceed.

The Proposer further promises that all work under this contract shall be complete, having gained a successful final inspection and received final acceptance from the Port, within 30 days after substantial completion. Final payment will not be made until the work is judged complete by the Engineer.

The Proposer also agrees to pay Other Damages described in the General Conditions.

The Port of Portland is a Port district organized under ORS Chapter 778 and is exempt from Federal Excise Tax.

The Proposer submits and proposes the following lump sum price, to wit:

Four Hundred Sixty Thousand,

Eight Hundred Seventy Nine Dollars ($ 460,879.00)

Written in Words — Numerals

eby acknowledges receipt of Addendum Nos. 1, 2, to these contract documents.

Formal Proposal is proposal security in the amount of ...tal amount proposed as required in the Instructions ... proposal may not be revoked by the Proposer for a ...er the proposal submittal due date. It is agreed ...oposal is accepted in writing by the Port's Notice ...ays after the proposal submittal due date, and the ...es and delivers the Agreement, including a satisfactory ...e and payment bond for the total amount of the Agreement, ...n 10 days after Notice of Award, said proposal security will be returned to the undersigned; otherwise, said proposal security may be collected as liquidated damages at the option of the Port.

After the Contractor has delivered the executed Agreement, including a satisfactory performance and payment bond for the total amount of the Agreement, the Port will issue Notice to Proceed which will establish the date by which the Contractor is required to complete the work. If all of the documents are not provided within 10 days, the Port may nevertheless establish the date by which the Contractor is required to complete the work.

The surety company requested to issue the performance and payment bond will be Employers Insurance of Wausau.
The Proposer hereby authorizes said surety to disclose to the Port any information concerning the Proposer's ability to supply a performance and payment bond for the full amount of the contract.

The right to reject any or all Proposals is reserved.

The Proposer agrees to comply with the requirements of ORS 279.350 governing the prevailing wage rates. The bidder acknowledges that this bid takes into account the fee that the successful bidder will be required to pay to the Oregon Bureau of Labor and Industries and that the bidder will be entitled to no compensation in addition to the bid price on account of that fee.

Name of Proposer: Triad Mechanical, Inc.

Signature of Authorized Person: Nicholas D Scovill

Nicholas D. Scovill

Title: President

Business Address of Proposer: 2133 N. Argyle

Portland, OR 97217-6803

Business Phone No. (503) 289-9000 Business Fax No. (503) 289-0316

Date: January 30, 1996

State of Oregon Construction Contractors Board Registration No. 44255 (Required for submitting a Proposal).

RECEIVED
MAY 23 1996
SUPPORT SERVICES

Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY

May 21, 1996

Mr. David Donaldson
Cascade General, Inc.
P.O. Box 4367
Portland, OR 97217

Re: Title V Permit 26-3224
Application No. 14943

Dear Mr. David Donaldson:

The Title-V permit for the Portland shipyard (PSY) was drafted and mailed out on November 1, 1995, in order to initiate the permit review process. Since then, Cascade General Inc. (CG) became a sole contractor for the PSY (permitted) operations and submitted a substitute Title V application on December 22, 1995. Cascade General's Title V permit has been partially drafted based on the information contained in the CG's application submitted and certified by you to be true, accurate, and complete. Cascade General's Title V permit is not yet completely drafted because I have yet to receive the background information regarding the PM and PM_{10} emissions data that was due to be delivered more than a month ago. I requested that information during the 2/16/96 meeting that was held at the PSY and CG's request. Since the conclusion of the meeting, I was further informed (by Mr. John Shultz) twice more that I would receive the requested data, which I have yet to see. In addition, the information regarding the pond emissions contained in both the PSY and CG permit applications contradict the information contained in the Department files, and this must be resolved before the draft permit can be issued for the public and EPA review. In summary, the following issues need to be resolved:

1. The AP42 empirical formula was used to estimate the PM and PM_{10} emissions due to vehicle miles traveled (VMT) on paved road. However, the baseline PM_{10} emission factor (EF) of 1.89 lb/VMT used to establish the baseline PM_{10} PSEL is much greater than the EF of 0.136 lbs/VMT used to establish the current PM_{10} PSEL. Similarly, the baseline PM EF of 2.36 lb/VMT used to establish the baseline PM PSEL is far greater than the EF of 0.17 lbs/VMT used to establish the current PM PSEL:

- Paved Road Emissions Data -

Baseline PSEL data			Current PSEL Data		
Operating Parameter	EF lbs/VMT	PSEL tons/yr	Operating Parameter	EF lbs/VMT	PSEL tons/yr
60,000 VMT	1.89	56.6 PM_{10}	125,000 VMT	0.136	8.5 PM_{10}
60,000 VMT	2.36	70.8 PM	125,000 VMT	0.17	10.6 PM

811 SW Sixth Avenue
Portland, OR 97204-1390
(503) 229-5696
TDD (503) 229-6993
DEQ-1

In general, the Department will not accept the different emissions factors for the same emissions unit (road dust emissions due to vehicle travel). The PSEL (based on same throughput) cannot be increased by more than 10 fold based on the (unfound) assertion that the roads are now being regularly swept or that one half the facility was not paved during the baseline year. Please provide better estimation and/or justifications. Also note that the 20% opacity standard would have been applicable to the fugitive emissions, and any excessive road dust emissions would have been in violation of the opacity standard.

2. The PM and PM_{10} emissions from sand blasting operations were calculated based on average EF published in the 4/22/95 Midwest Research Institute Source Test Report. Please submit this test report and the associated background information so that I can review all the basis and assumptions used to arrive at the proposed figure. Also submit the evidence of purchase and installation date of the baghouse used to control the sandblasting emissions. In addition, please provide the engineering fact/assumption used to arrive at the baghouse control efficiency figure of 99.99%.

- Indoor Sand Blasting (SBI) Emissions Data -

Baseline PSEL data			Current PSEL Data		
LB sand used	EF lbs/LB	PSEL tons/yr	LB sand used	EF lbs/LB	PSEL tons/yr
3×10^6 LB	2.2×10^{-2}	33 PM_{10}	8.4×10^6 LB	2.2×10^{-6}	0.01 PM_{10}
3×10^6 LB	6.3×10^{-2}	94.5 PM	8.4×10^6 LB	6.3×10^{-6}	0.03 PM

3. Both the PSY and CG permit applications claim the surface pond (closed in 1980/81) was used to evaporate VOC in 5.92×10^6 gallons of untreated oil slop (ballast water) that was sent to the pond without any prior treatment. Based on the treatment of 5.92×10^6 gallons of untreated oil slop (ballast water) with the average oil content (10 vol.%) of 0.712 lbs/gal, the CG application claims the VOC emissions that occurred during the (1978) baseline year from the surface pond (closed in 1980/81) total 295 tons/yr, which is 9 tons/yr less than 304 tons/yr originally claimed in the PSY application.

$Emission_{VOC}$ = (5.92×10^6 gal oil slop/yr) * (0.1 gal oil/gal oil slop) * (7.12 lb oil/gal oil) * (0.14 lb VOC/lb oil) * (1 ton/2000 lb) = 295 tons VOC/yr.

The baseline PSEL detail sheets in the permit application indicate no VOC emissions occurred from the ballast water treatment (BWT) plant, while the proposed PSEL detail sheets included the VOC emissions from the BWT plant. The indicated zero emissions from the BWT plant during the baseline suggest that either the BWT plant was not built or none of the ballast water was sent to the BWT plant during the baseline year.

However, a review of the Department (Water Quality) files contradicts the baseline pond emissions claimed by the permittee. The Department files indicate the BWT plant indeed existed during the baseline year, and it was used to treat oil slop (ballast water) to remove oil in the oily water to less than 10 mg/L (83.45×10^{-6} lbs/gal) prior to discharge into the pond. The treated water (with < 10 mg/L oil) was then pumped into the pond for testing and cooling prior to

discharge into the river. The water discharge permit issued to the permittee also regulated the oil content in the treated water discharged to pond to less than 10 mg/L, and anything greater would have been in violation of the water discharge permit limit of 10 mg/L. Therefore, using the same empirical equation the permittee used in the Title V permit application, the baseline VOC emissions from the pond that temporary stored 5.92×10^6 gallons of treated water with the oil content of 10 mg/L (83.45×10^{-6} lbs/gal) or less would not have exceeded 0.1 tons/yr:

$$\text{Emission}_{VOC} = (5.92 \times 10^6 \text{ gal oil slop/yr}) * (83.45 \times 10^{-6} \text{ lbs oil/gal oil slop}) * (0.14 \text{ lb VOC/lb oil}) * (1 \text{ ton}/2000 \text{ lb}) \cong \underline{0.0 \text{ tons VOC/yr.}}$$

In order to continue with the drafting of the Title V permit, I need the following additional information and clarification/explanation regarding the pond emissions:

(a) Was the Ballast Water Treatment process equipment used to treat the ballast water and reclaimed the oil, as it was designed to do, during the baseline year?

(b) If answer to item (a) above is "yes", estimate the VOC emissions from treating 5.92×10^6 gal oil slop/yr and provide all the facts and figures supporting the calculated emissions including the amount (gallons) of reclaimed oil during the baseline year, etc.

(c) In answer to item (a) above is "no", provide reason(s) for not treating the ballast water and reclaim the oil in the BWT plant as it was built for that purpose. In addition, please provide all the closure history of the pond with respect to any of the applicable water quality or RCRA regulations, as requested in my original letter to PSY dated November 1, 1995.

Please submit the requested data to me by no later than May 31, 1996, along with the application form AP101R, which must be signed and certified by the responsible official. If the requested data are not received by May 31, 1996, the CG application shall be determined to be incomplete per OAR 340-28-2120(1)(b)(D).

If you have any questions, please contact me at 229-6093.

Sincerely,

George D. Yun
Title V Permit Writer
Air Quality Division

GDY:e
LTR\AH75523.DOC
cc: Mr. John Shultz, Cascade General, Inc.
Mr. Jeff Ring, Portland Shipyard
Mr. John Ruscigno, Air Quality Division
Ms. Audry O'Brien, Northwest Region
Mr. David Sellers, Northwest Region

May 7, 1996

RECEIVED
MAY 9 1996
SUPPORT SERVICES

Oregon

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

NORTHWEST REGION

CASCADE GENERAL INC
PO BOX 4367
PORTLAND OR 97208

RE: NOTICE OF INTENT TO CONSTRUCT
File/Permit No. 26-3224
NC No. 015647

On April 26, 1996 the Department of Environmental Quality accepted for processing a Notice of Intent to Construct for your facility located at 5555 N. Channel Ave., Bldg. 10 in Portland, Oregon. Your notice requests review of the installation of a a new coating line at the Portland Ship Yard.

Processing of this notice is assigned to David Sellers at (503) 229-6991.

Unless the Department requests additional information within thirty (30) days of the date of this letter, you will be notified of approval or disapproval within sixty (60) days.

In addition to meeting the air quality standards, your facility is also obligated to operate in compliance with the daytime and nighttime noise standards set forth in Oregon Administrative Rule (OAR) 340-35-035(1). For a copy of the noise regulations please call (503) 229-5582.

Sincerely,

Johnny D Baumgartner

Johnny D. Baumgartner
Permit Coordinator
Air Quality Section
Northwest Region

jdb

cc: Terri Sylvester/AQ
David Sellers/NWR

John A. Kitzhaber
Governor

2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987
(503) 229-5263 Voice
TTY (503) 229-5471
DEQ-1

emission increases. In fact the source does not even have the physical capacity to emit these pollutants at their generic level. The PSEL increases proposed in the permit is the Department initiated action solely to conform with new PSEL rules.

Pollutant	SER	Increase over previous netting basis	Increase due to utilizing capacity that existed in the baseline period	Increase due to physical changes or changes in the method of operation
PM	25	0	0	0
PM_{10}	15	0	0	0
SO_2	40	35	0	0
NO_x	40	31	0	0
CO	100	97	0	0
VOC	40	0	0	0

22. The aggregate insignificant activities (AIA) identified by the permittee include the following:

AIA	PM	PM_{10}	SO_2	CO	VOC	NO_x	HAPs
VDU (Flare for ROT)	<.021	<.021	<.121	<.543	<.093	<.1	--
BWTP (Steam) Cookers	--	--	--	--	<.677	--	<.677
Vessel-boiler repair, test	<.034	<.032	<.482	<.009	<.001	<.097	<.035
Vessel fueling from barge	--	--	--	--	<.051	--	<.051
Oven	--	0.05	0.05	0.39	0.07	--	
Total Aggregate:	< 1	< 1	< 1	< 1	< 1	< 1	< 1

All units expressed as "tons/yr".

This permit does not intend to limit "aggregate insignificant activities" to only those currently identified in the permit application. No groups of activities are identified in this permit just for the purpose of identifying insignificant activities, which tend to be a moving target. Instead, the permit aggregate limits reflect the rule limits, as defined in OAR 340-200-0020. The rules allow the permittee to add more categorical insignificant activities to their existing list, and similarly, the permittee may add more insignificant activities to their existing aggregate source list, provided the aggregate emissions of any individual (regulated) pollutant do not exceed the permit (rule) aggregate insignificant limit.

HAZARDOUS AIR POLLUTANTS

23. A major source is a facility that has the potential to emit more than 10 tons/year of any single HAP or 25 tons/year of combined HAPs. Cascade General is a major source of hazardous air pollutants (HAPs). However, Cascade General wishes to become a minor source of HAP by electing to have the Synthetic Minor (SM) HAP limits established in Air Contaminant Discharge Permit (ACDP), which are federally enforceable limits on PTE. However, NESHAP program requires Cascade General to comply with NESAHP under Title V permit. Therefore no SM HAP limits are established in Title V permit. Emissions detail sheets attached to this review report provides Cascade General's HAP emissions.

24. Toxic and Flammable Substance Usage for Accidental Release Prevention

Other than the compounds included in the table below, the individual amount of all toxic and flammable substances used at the PSY is insignificant. Emissions detail sheets attached to this review report provides Cascade General's Toxic substance usage.

25. Stratospheric Ozone-Depleting Substances

The permittee may perform work on the refrigeration system on board the ship that use the following stratospheric ozone-depleting substances:

Ozone-depleting substance	Class type	Replacement chemical
Chlorofluorocarbon-12 (R-12)	I	R-134a
Hydrochlorofluorocarbon-22 (R-22)	II	No replacement identified
$C_2F_3Cl_3$-(CFC113)	I	Non-chlorinated hydrocarbons
1,1,1 Trichloroethane	I	Non-chlorinated hydrocarbons
Carbon Tetrachloride	I	Non-chlorinated hydrocarbons

26. Accidental Release Prevention: The Cascade General facility is not currently subject to the accidental release prevention regulation in 40 CFR 68. No quantities of listed substances used in a process at this facility exceed the quantities that trigger applicability of the risk management plan (RMP) by the date specified in 40 CFR 68.10.

MONITORING REQUIREMENTS

27. Section 70.6(a)(3)(i) requires that all monitoring and analysis procedures or test methods required under applicable requirements be contained in Title V permits. In addition, where the applicable requirement does not require periodic testing or monitoring, periodic monitoring must be prescribed that is sufficient to yield reliable data from the relevant time period that is representative of the source's compliance with the permit.

The requirement to include in a permit testing, monitoring, recordkeeping, reporting, and compliance certification sufficient to assure compliance does not require the permit to impose the same level of rigor with respect to all emissions units and applicable requirement situations. It does not require extensive testing or monitoring to assure compliance with the applicable requirements for emissions units that do not have significant potential to violate emission limitations or other requirements under normal operating conditions. Where compliance with the underlying applicable requirement for an insignificant emission unit is not threatened by a lack of a regular program of monitoring and where periodic testing or monitoring is not otherwise required by the applicable requirement, then in this instance, the status quo (i.e., no monitoring) will meet section 70.6(a)(3)(i).

28. NESHAP monitoring applicable to emissions unit $COAT_{SHIP}$ are very specific, and the monitoring protocols as they appear in the Title V permit strictly follow the procedures outlined in 40 CFR 63.785. There are several (monitoring/testing) options available as the coating compliance procedure, with each option (compliance procedure) designed to accommodate the various method used by the permittee to mix and match the coatings for each job. The permit flow diagram (Appendix B) should be used as a road map (compliance guidance) to pick the appropriate path needed to determine the compliance status of the coatings being used, with respect to the applicable coating limits.

29. The PSEL monitoring include the monitoring for fuel combustion source (CUB), the process PM/PM_{10} emission sources (SBO, SBI, PIR, WLD), and the VOC emission sources BWT, ROT, ROL, and COAT:

a. Total emissions of criteria pollutants (combustion by-products) from the CUB boilers are simply the product of fuel usage and the assigned emission factor for the pollutant identified.

b. The PM and PM_{10} emissions from the particulate sources (SBO, SBI, PIR, WLD) are also the product of material throughput and the assigned emissions factor.

c. BWT: Total emissions from a fixed roof storage tank are the sum of breathing and working losses. Breathing loss is the expulsion of vapor from the tank due to vapor expansion resulting from diurnal temperature and barometric pressure changes. Working loss occurs primarily when vapor is displaced during tank loading operations. Either type of emissions depends heavily on the physical/chemical properties of products stored, as well as the physical parameters of tank itself. If more than one type of product or combination of similar products is stored during the specified monitoring period, the permittee can choose one type of product and its associated variables as a basis for VOC emissions calculations, provided that the chosen product type yields the highest calculated emissions.

d. The VOC emissions from emissions unit COAT ($COAT_{SHIP}$ & $COAT_{MISC}$) are based on the chemical mass balance of materials used. The VOC PSEL monitoring is also used to determine compliance status with respect to the RACT limits specified in the permit.

30. Test Methods and Procedures section is provided so that the permittee and Department will know what test methods should be used to measure pollutant emissions in the event that testing is conducted for any reason. This section does not by itself require the permittee to conduct any more testing than was previously included in the permit. Although the permit may not require testing because other routine monitoring is used to determine compliance, the Department and EPA always have the authority to require testing if deemed necessary to determine compliance with an emission limit or standard. In addition, the permittee may elect to voluntarily conduct testing to confirm the compliance status. In either case, the methods to be used for testing in the event that testing is conducted are included in the permit. This is true for SIP as well as NSPS emission limits and standards.

31. As identified earlier in this Review Report, this facility has insignificant emissions units (IEUs) that include categorically insignificant activities and aggregate insignificant emissions, as defined in OAR 340-200-0020. For the most part, the standards that apply to IEUs are for opacity (20% limit) and particulate matter (0.1 gr/dscf limit). The Department does not consider it likely that IEUs could exceed an applicable emissions limit or standard because IEUs are generally equipment or activities that do not have any emission controls (e.g., small natural gas fired space heaters) and do not typically have visible emissions. Since there are no controls, no visible emissions, and the emissions are less than one ton per year, the Department does not believe that monitoring, recordkeeping, or reporting is necessary for assuring compliance with the standards..

32. Recordkeeping requirements in this permit are drafted pursuant to OAR 340-218-0050(3)(b). The records of all monitoring specified in the Oregon Title-V Operating Permit 26-3224 must be kept at the plant site for at least 5 years. All records necessary to determine compliance with any permit condition shall be made available to the DEQ/EPA inspectors upon request.

33. Reporting requirements in this permit are drafted pursuant to OAR 340-218-0050(3)(c). The semi-annual reports are for certifying compliance with the permit requirements. The annual report consists of the second semi-annual compliance certification; in addition to the product throughputs, fuel usage, and other relevant data needed to determine compliance with the annual PSEL and other applicable requirements specified.

GENERAL BACKGROUND INFORMATION

34. Other permits issued or required by the Department of Environmental Quality for this source include an NPDES permit (NPDES 101393) for their wastewater discharge, and a general NPDES permit (1200-Z) for their storm water discharge. Cascade General is a large quantity hazardous waste generator (ORD 18076198413).

Once the Title V permit becomes effective, the permittee (responsible party) must be able to coordinate with all the registered contractors operating in the PSY, and be able to accurately account for all the VOC credits (if taken) included in the VOC emission calculations.

35. The source is located in a maintenance area for ozone and Carbon Monoxide (CO). The permitted facility is a SM (< 100 tons/yr) source of Volatile Organic Compounds (ozone precursor). While Cascade General is an insignificant (< 4 tons/yr) source of CO, the generic level PSEL (99 tons/yr) for CO may indicate otherwise. The area is in attainment for all other criteria pollutants.

COMPLIANCE HISTORY

36. The Cascade General facility will continue to be inspected by Department personnel to ensure compliance with the permit conditions. This facility was last inspected on August 30, 2001 and found to be in compliance with the Title V permit terms.

37. The Department has no records of any public complaints filed against this source for the past three years.

38. No (air-quality related) enforcement actions have been taken against this source since the first Title V permit issuance

PUBLIC NOTICE

39. Pursuant to OAR 340-218-0210, renewing Title V Permit requires category-III public notice in accordance with OAR 340-209-0030(3)(c). Therefore, the proposed permit was placed on public notice from November 18, 2002 to December 23, 2002. The Department did not receive any comments from the public during the public comment period.

The Department also held a hearing on December 18, 2002 to allow interested persons, if any, to submit oral or written comments on the proposed renewal of Title V permit 26-3224. Not one person (public) showed up for the hearing.

gdy:AO
CG-R2.doc

PLANT SITE EMISSION DETAIL SHEET
SUMMARY

ANNUAL PSEL (ALL SOURCES ADDED TOGETHER) & SER ANALYSIS

ANNUAL (tons/yr)	PM10	PM	SO2	NOx	CO	VOC
BASELINE	124	256	4	8	2	425
PSEL Actual Rate	34	73	14	5	1	62
PSEL (Generic or non-Major Level) Proposed	99 (1)	99 (1)	39 (2)	39 (2)	99 (2)	99 (1)
OVER (UNDER) BASELINE	(25)	(157)	35	31	97	(326)
SIGNIFICANT EMISSION RATE (SER)	15	25	40	40	100	40
PSEL unused (3)	65	26	25	34	98	37

CURRENT ANNUAL EMISSIONS RATE (tons/year) BY EMISSION SOURCES

EMISSION SOURCE		PM10	PM	SO2	NOx	CO	VOC
Ship Coating Operations (COATship)		--	--	--	--	--	32.00
Miscellaneous Coating (COATmisc)		--	--	--	--	--	16
Ballast Water Tanks (BWT)		--	--	--	--	--	14.097
Reclaimed Oil Tank (ROT)		--	--	--	--	--	0.013
Reclaimed Oil Loadout (ROL)		--	--	--	--	--	0.120
Central Utility Building (CUB)	NG	0.046	--	0.048	2.590	0.648	0.052
Central Utility Building (CUB)	R. Oil	0.965	--	13.738	2.750	0.250	0.014
Powder Coat Curing Oven (OVEN)	NG	--	--	--	0.000	--	--
Sandblasting-outside (SBO)		20.900	59.850	--	--	--	--
Sandblasting-inside (SBI)		0.066	0.189	--	--	--	--
Welding (WLD)		1.825	--	--	--	--	--
Paved Industrial Roads (PIR)		10.200	12.750	--	--	--	--
Unpaved Roads (UPR)		0.000	0.000	--	--	--	--

(1) The PM, PM_{10}, and VOC PSEL incorporated in the permit is 1 ton less than the major source threshold level.
(2) The SO_2, NO_X, and CO PSEL incorporated in the permit is the generic level PSEL required by rules.
(3) Unused PSEL is the difference between the permit PSEL and the actual amount requested (needed) by CG.

** NOTE: Input data only at page-A6 of this Spreadsheet Program **

PLANT SITE EMISSIONS DETAIL SHEET
PM10 EMISSIONS

******* PLANT SITE PM10 EMISSIONS *******

EMISSIONS UNIT	BASELINE ANNUAL OPERATING PARAMETER		lb/LB.	n.g. lb/MMft3	r. oil lb/gal	lb/gal	lb/VMT		PM10 (tons/yr)
Central Utility Building (CUB)	105.777	MMft3 natural gas		2.50E+00					0.132
	25200	gal. residual oil			1.93E-02				0.243
Sandblasting-outside (SBO)	2800000	lbs of sand blasted (outside)	2.20E-02						30.800
Sandblasting-inside (SBI)	3000000	lbs of sand blasted (inside)	2.20E-02						33.000
Welding (WLD)	31000	lbs of welding rod used	3.65E-02						0.566
Paved Industrial Roads (PIR)	60000	estimated VMT (paved road)					1.89E+00		56.700
Unpaved Roads (UPR)	584	estimated VMT (unpaved road)					7.88E+00		2.301
								TOTAL PM10:	123.742

EMISSIONS UNIT	CURRENT ANNUAL OPERATING PARAMETER		lb/LB.	n.g. lb/MMft3	r. oil lb/gal	lb/gal	lb/VMT		PM10 (tons/yr)
Central Utility Building (CUB)	37	MMft3 natural gas		2.50E+00					0.046
	100000	gal. residual oil			1.93E-02				0.965
Sandblasting-outside (SBO)	2000000	lbs of sand blasted (outside)	2.09E-02						20.900
Sandblasting-inside (SBI)	6000000	lbs of sand blasted (inside)	2.20E-05						0.066
Welding (WLD)	100000	lbs of welding rod used	3.65E-02						1.825
Paved Industrial Roads (PIR)	150000	estimated VMT (paved road)					1.36E-01		10.200
Unpaved Roads (UPR)	0	estimated VMT (unpaved road)					7.88E+00		0.000
								TOTAL PM10:	34.002

PLANT SITE EMISSIONS DETAIL SHEET
PM & SO2 EMISSIONS

******* PLANT SITE PM EMISSIONS *******

EMISSIONS UNIT	BASELINE ANNUAL OPERATING PARAMETER	lb/LB.	n.g. lb/MMft3	r. oil lb/gal	lb/gal	lb/VMT		PM (tons/yr)
Sandblasting-outside (SBO)	2800000 lbs of sand blasted (outside)	6.30E-02						88.200
Sandblasting-inside (SBI)	3000000 lbs of sand blasted (inside)	6.30E-02						94.500
Paved Industrial Roads (PIR)	60000 estimated VMT (paved road)					2.36E+00		70.800
Unpaved Roads (UPR)	584 estimated VMT (unpaved road)					9.85E+00		2.876
							TOTAL PM:	256.376

EMISSIONS UNIT	CURRENT ANNUAL OPERATING PARAMETER	lb/LB.	n.g. lb/MMft3	r. oil lb/gal	lb/gal	lb/VMT		PM (tons/yr)
Sandblasting-outside (SBO)	2000000 lbs of sand blasted (outside)	5.99E-02						59.850
Sandblasting-inside (SBI)	6000000 lbs of sand blasted (inside)	6.30E-05						0.189
Paved Industrial Roads (PIR)	150000 estimated VMT (paved road)					1.70E-01		12.750
Unpaved Roads (UPR)	0 estimated VMT (unpaved road)					9.85E+00		0.000
							TOTAL PM:	72.789

******* PLANT SITE SO2 EMISSIONS *******

EMISSIONS UNIT	BASELINE ANNUAL OPERATING PARAMETER	lb/LB.	n.g. lb/MMft3	r. oil lb/gal	lb/gal	lb/VMT		SO2 (tons/yr)
Central Utility Building (CUB)	105.777 MMft3 natural gas		2.60					0.14
	25200 gal. residual oil			0.275				3.46
							TOTAL:	3.60

EMISSIONS UNIT	CURRENT ANNUAL OPERATING PARAMETER	lb/LB.	lb/MMft3	lb/gal	lb/gal	lb/VMT		SO2 (tons/yr)
Central Utility Building (CUB)	37 MMft3 natural gas		2.60					0.05
	100000 gal. residual oil			0.275				13.74
							TOTAL:	13.79

PLANT SITE EMISSIONS DETAIL SHEET
NOx & CO EMISSIONS

******* PLANT SITE NOx EMISSIONS *******

EMISSIONS UNIT	BASELINE ANNUAL OPERATING PARAMETER	lb/LB.	n.g. lb/MMft3	r. oil lb/gal	lb/gal	lb/VMT		NOx (tons/yr)
Central Utility Building (CUB)	105.777 MMft3 natural gas		140.00					7.40
	25200 gal. residual oil			0.055				0.69
							TOTAL:	8.10

EMISSIONS UNIT	CURRENT ANNUAL OPERATING PARAMETER	lb/LB.	n.g. lb/MMft3	r. oil lb/gal	lb/gal	lb/VMT		NOx (tons/yr)
Central Utility Building (CUB)	37 MMft3 natural gas		140.00					2.59
	100000 gal. residual oil			0.055				2.75
Powder Coat Curing Oven (OVEN)	-- MMft3 natural gas		100.00					0.00
							TOTAL:	5.34

******* PLANT SITE CO EMISSIONS *******

EMISSIONS UNIT	BASELINE ANNUAL OPERATING PARAMETER	lb/LB.	n.g. lb/MMft3	r. oil lb/gal	lb/gal	lb/VMT		CO (tons/yr)
Central Utility Building (CUB)	105.777 MMft3 natural gas		35.00					1.85
	25200 gal. residual oil			0.005				0.06
							TOTAL:	1.91

EMISSIONS UNIT	CURRENT ANNUAL OPERATING PARAMETER	lb/LB.	n.g. lb/MMft3	r. oil lb/gal	lb/gal	lb/VMT		CO (tons/yr)
Central Utility Building (CUB)	37 MMft3 natural gas		35.00					0.65
	100000 gal. residual oil			0.005				0.25
							TOTAL:	0.90

PLANT SITE EMISSIONS DETAIL SHEET
VOC EMISSIONS

******* PLANT SITE VOC EMISSIONS *******

EMISSIONS UNIT	BASELINE ANNUAL OPERATING PARAMETER		lb/LB	n.g. lb/MMft3	r. oil lb/gal	lb/gal	lb/VMT	VOC (tons/yr)
Ship Coating Operations (COATship)	35400	gallons coating				5		88.50
Emissions allocated to Dry Dock No.4:								228.00
Miscellaneous Coating (COATmisc)	20800	gallons coating				3.5		36.40
Adjusted Baseline BWT/ROT/ROL: (1)								72.05
Ballast Water Tanks (BWT)	--	oil/water througput (gal.)				--		0.00
Reclaimed Oil Tank (ROT)	--	oil slops throughput				--		0.00
Central Utility Building (CUB)	105.777	MMft3 natural gas		2.80				0.15
	25200	gal. residual oil			2.80E-04			0.004
							TOTAL:	425.10

EMISSIONS UNIT	CURRENT ANNUAL OPERATING PARAMETER		lb/LB	n.g. lb/MMft3	r. oil lb/gal	lb/gal	lb/VMT	VOC (tons/yr)
Ship Coating Operations (COATship (2)	Chemical MB of actual coating usage							32.00
Miscellaneous Coating (COATmisc) (2)	Chemical MB of actual coating usage							16.00
Ballast Water Tanks (BWT)	36900000	oil/water througput (gal.)				AP42 (3)		14.10
Reclaimed Oil Tank (ROT)	17300000	oil slops throughput				AP42 (3)		0.01
Central Utility Building (CUB)	37	MMft3 natural gas		2.80				0.05
	100000	gal. residual oil			2.80E-04			0.01
Reclaimed Oil Loadout (ROL)	17300000	reclaimed oil transfer (gal)				AP42 (3)		0.12
							TOTAL:	62.30

(1) BASELINE VOC emissions from treating (5,920,000 gal/yr & 16,200 gal/day) ballast water, adjusted down and set equal to the current rate of emissions from BWT, ROT, and ROL.
(2) The VOC PSEL for COATship & COATmisc based chemical MB of actual coating/solvent usage (& waste generated).
(3) Breathing, working, and loading losses of VOC are based on materials throughput and the AP42 (tank prog.) emperical equations.

PLANT SITE EMISSIONS DETAIL - DATA ENTRY SHEET

EMISSIONS UNIT	ANNUAL OPERATING PARAMETER BASELINE		PSEL		UNIT
Ship Coating Operations (COATship)	35400	(2) gallons	32	(1) tons/yr	gallons coating
Emissions allocated to Dry Dock No.4:	228	tons/yr			
Miscellaneous Coating (COATmisc)	20800	gallons	16	(1) tons/yr	gallons coating
Adjusted Baseline BWT/ROT/ROL:	72.050	(3)	--		tons/yr & lbs/day
Ballast Water Tanks (BWT)	--		3.69E+07		oil/water througput (gal.)
Reclaimed Oil Tank (ROT)	--		1.73E+07		oil slops throughput
Central Utility Building (CUB)	105.777		37		MMft3 natural gas
	25200		100000		gal. residual oil
Powder Coat Curing Oven (OVEN)	--		--		MMft3 natural gas
Sandblasting-outside (SBO)	2800000		2000000		lbs of sand blasted (outside)
Sandblasting-inside (SBI)	3000000		6000000		lbs of sand blasted (inside)
Welding (WLD)	31000		100000		lbs of welding rod used
Paved Industrial Roads (PIR)	60000		150000		estimated VMT (paved road)
Unpaved Roads (UPR)	584		0		estimated VMT (unpaved road)
Reclaimed Oil Loadout (ROL)	511350		1.73E+07		reclaimed oil transfer (gal)

NON-COMBUSTION EMISSIONS UNIT	POLLUTANT	BASELINE EF SHORT	BASELINE EF LONG	CURRENT EF SHORT	CURRENT EF LONG		UNIT	REFERENCE
COATship	VOC	5.00E+00	5.00E+00	(1)	(1)		lbs/gal	Chemical MB
COATmisc	VOC	3.50E+00	3.50E+00	(1)	(1)		lbs/gal	Chemical MB
BWT	VOC	--	--	--	AP42	(4)	lbs/gal	AP42 12.3.1
ROT	VOC	--	--	--	AP42	(4)	lbs/gal	AP42 12.3.1
SBO	PM	6.30E-02	6.30E-02	5.99E-02	5.99E-02	(6)	lbs/lbs sand	4/22/95 ST
	PM10	2.20E-02	2.20E-02	2.09E-02	2.09E-02	(6)	lbs/lbs sand	4/22/95 ST
SBI	PM	6.30E-02	6.30E-02	6.30E-05	6.30E-05	(5)	lbs/lbs sand	4/22/95 ST
	PM10	2.20E-02	2.20E-02	2.20E-05	2.20E-05	(5)	lbs/lbs sand	4/22/95 ST
WLD	* PM10	3.65E-02	3.65E-02	3.65E-02	3.65E-02		lbs/lbs w. rod	AWS 1979
PIR	PM	2.36E+00	2.36E+00	1.70E-01	1.70E-01		lbs/VMT	AP42
	PM10	1.89E+00	1.89E+00	1.36E-01	1.36E-01		lbs/VMT	AP42
UPR	PM	9.85E+00	9.85E+00	9.85E+00	9.85E+00		lbs/VMT	AP42
	PM10	7.88E+00	7.88E+00	7.88E+00	7.88E+00		lbs/VMT	AP42
ROL	VOC	2.00E+00	2.00E+00	--	AP42	(4)	lbs/1000 gal.	AP42 12.3.1

EMISSIONS FACTORS FOR FUEL COMBUSTION SOURCE:	CUB: Natural Gas (lb/MMft3) SHORT	CUB: Natural Gas (lb/MMft3) LONG	CUB: No.6 Res. oil (lb/1000 gal) SHORT	CUB: No.6 Res. oil (lb/1000 gal) LONG		OVEN: NG (lb/MMft3)	REFERENCE except as noted
PM10	2.50	2.50	19.30	19.30	(7)	--	DEQ/AP42
SO2	3.80	2.60	274.75	274.75	(7)	--	DEQ/AP42
NOx	140.00	140.00	55.00	55.00		100	AP42
CO	35.00	35.00	5.00	5.00		--	AP42
VOC	2.80	2.80	0.28	0.28		--	AP42
NO.6 OIL SULFUR CONTENT (%S)	--	--	1.75	1.75	(7)		AP42

(1) The current VOC PSEL for "COATship" and "COATmisc" based on chemical MB of actual coating/solvent usage and representative VOC contents.
(2) The baseline VOC PSEL for "COATship" is based on coating usage (35,400 gal/yr & 4166 gal/day) and the VOC content of 5 lbs VOC/gal.
(3) BASELINE VOC emissions from treating (5,920,000 gal/yr & 16,200 gal/day) ballast water, adjusted down and set equal to the current rate of emissions from BWT, ROT, and ROL.
(4) Breathing and working VOC losses are based on materials throughput and the AP42 (Tank 2.0 program) emperical equations.
(5) The current SBI's PM and PM10 EFs are based on the 99.9% efficiency of BAG-1 and BAG-2.
(6) The current SBO's PM and PM10 EFs are based on the 5% control efficiency provided by curtains and screens.
(7) The PM10 & SO2 EFs are based on the residual oil %S limit, 340-22-010. The actual emission calculations need to use the actual fuel %S.

SUMMARY EMISSIONS DATA FOR HAPs

POLLUTANT	COATship 20000 gallons Paint applied	COATmise 10000 gallons Paint applied	Boilers 355656 gal oil & 432 MMft3 NG	Tanks Breathing & Working loss	
Arsenic compounds			5.20E-04	+	5.20E-04
Benzene			3.22E-02		3.22E-02
Berylium compounds			1.10E-04	ROL	1.10E-04
Bis (2-ethylhexyl) phthalate (DEHP)	6.72E-03	3.36E-03		Loading loss	1.01E-02
Cadmium compounds			4.20E-04		4.20E-04
Chromium compounds			5.70E-04	+	5.70E-04
Cobart compounds	6.72E-03	3.36E-03			1.01E-02
Cumene	4.03E-02	2.02E-02		WLD	6.05E-02
Epichlorohydrin	4.80E-03	2.40E-03		welding	7.20E-03
Ethyl benzene	1.61E+00	8.07E-01			2.42E+00
Formaldehyde	9.60E-03	4.80E-03	2.30E-02		3.74E-02
Glycol ethers	2.00E+00	1.00E+00			3.00E+00
Hexamethylene-1, 6-diisocyanate					0.00E+00
Hexane					0.00E+00
isopropyl alcohol	9.22E-02	4.61E-02			1.38E-01
Lead compounds			4.09E-03		4.09E-03
Manganese compounds	9.60E-02	4.80E-02	6.90E-04		1.45E-01
Mercury compounds			9.00E-05		9.00E-05
Methanol	3.26E-02	1.63E-02			4.90E-02
Methyl ethyl ketone (2-Butanone)	4.25E-02	2.13E-02			6.38E-02
Methyl isobutyl ketone (Hexone)	1.48E-01	7.38E-02			2.21E-01
Nickel compounds					0.00E+00
Polycylic organic matter			2.30E-04		2.30E-04
Propylene oxide					0.00E+00
Selenium compounds			6.20E-04		6.20E-04
Stylene	3.74E-02	1.87E-02			5.62E-02
Tolune	4.82E-01	2.41E-01			7.22E-01
Xylenes (isomers & mixture)	7.69E+00	3.84E+00			**11.53**
Potential To Emit (tons/year):	12.30	6.15	0.06	0.80	19.30

TOXIC SUBSTANCE USAGE

CHEMICAL NAME	CAS NUMBER	INSIGNIFICANT	1,001-10,000	10,001-20,000	20,001-50,000	> 50,000
Arsenic	7440-38-2	X				
Benzene	71-43-2	X				
Beryllium	7440-41-7	X				
n-butyl alcohol, 1-butanol	71-36-3		X			
chromates (as Cr)	7440-47-3	X				
bis(2-ethylhexyl)phthalate	117-81-7					X
Cadmium	7440-43-9	X				
carbon tetrachloride	56-23-5			X		
Copper	7440-50-8			X		
lead compounds (as Pb)	7439-92-1	X				
lead molybdate/chromate	12656858	X				
ethyl benzene	100-41-4					X
Formaldehyde	50-00-0		X			
manganese compounds	7439-96-5	X				
Mercury	7439-97-6	X				
Methane	74-82-8	X				
Methanol	67-56-1				X	
Methyl ethyl ketone (2-Butanone)	78-93-3					X
Methyl isobutyl ketone (Hexone)	108-10-1					X
Nickel	7440-02-0	X				
Propylene oxide	75-56-9			X		
Selenium	7782-49-2					
Tolune	108-88-3					X
1,2,4-trimethylbenzene	95-63-6	X				
Xylenes (isomers & mixture)	108-38-3					X

OLD PERMIT EXP 12/02

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
OREGON TITLE V OPERATING PERMIT

Northwest Region
2020 SW 4th, Suite 400
Portland, OR 97201
Telephone: (503) 229-5263

Issued in accordance with the provisions of
ORS 468A.040 and based on the land use compatibility findings included in the permit record.

ISSUED TO:

Cascade General, Inc.
P.O. Box 4367
Portland, OR 97208

INFORMATION RELIED UPON:

Application Number: 14943
Received: 12/22/95, 05/31/96

Addendums & Letters: 08/12/96, 10/22/96
11/12/96, 12/09/96
03/18/97, 04/01/97
06/13/97

PLANT SITE LOCATION:

5555 N. Channel Avenue
Portland, OR 97217

LAND USE COMPATIBILITY STATEMENT:

From: City of Portland
Dated: 04/19/95, 12/18/95

ISSUED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY

Audrey M O'Brien for
Neil Mullane, Northwest Region Administrator

7/2/98
Date

Nature of Business: Ship building and repair, industrial fabrication

Primary SIC: 3731

RESPONSIBLE OFFICIAL:

Name: Mr. T. Alan Sprott
Title: Director of Environmental Services

FACILITY CONTACT PERSON:

Name: Mr. T. Alan Sprott
Title: Director of Environmental Services
Phone: (503) 285-1111

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LIST OF ABBREVIATIONS USED IN THIS PERMIT

ACDP	Air Contaminant Discharge Permit
acfm	actual cubic foot per minute
AQMA	Air quality management area
ASTM	American Society of Testing and Materials
bbl	barrel
BMP	Best management practices
Btu	British thermal unit
CFR	Code of federal regulations
CO_2	Carbon dioxide
CO	Carbon monoxide
Cr^6	Hexavalent Chromium
Cr^3	Trivalent Chromium
DEQ/ODEQ	Oregon Department of Environmental Quality
dscf	dry standard cubic foot
EF	emission factor
EPA	US Environmental Protection Agency
EU	Emissions unit
FCAA	Federal Clean Air Act
ft^3	cubic feet
gr/dscf	grain per dry standard cubic foot
HAP	Hazardous Air Pollutant as defined by OAR 340-032-0130
HCFC	Hydro-chloro-fluoro-carbons
ID	Identification number
I&M	Inspection and maintenance
LPG	Liquefied petroleum gas
MB	Material balance
mg/l	milligrams per liter
MMBtu	Million British thermal units
mvac	Motor vehicle air conditioner
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NG	Natural gas
NO_x	Oxides of nitrogen
O_2	Oxygen
OAR	Oregon Administrative Rules
ORS	Oregon Revised Statutes
O&M	Operation and maintenance
Pb	Lead
PCD	Pollution control device
PM	Particulate matter
PM_{10}	Particulate mater less than 10 microns in size
ppm	Part per million
ppmv	Part per million by volume
PSEL	Plant Site Emission Limit
psig	pounds per square inch
RACT	Reasonably Available Control Technology
RVP	Reid Vapor Pressure
scf	Standard cubic foot
SERP	Source Emission Reduction Plan
SIP	State Implementation Plan
SNAP	Significant New Alternative Policy
SO_2	Sulfur dioxide
ST	Source test
VE	Visible emissions
VOHAP	Volatile Organic Hazardous Air Pollutant (includes VOC listed as HAP & exempt-VOC listed as HAP)
VMT	Vehicle miles traveled
VOC	Volatile organic compound

PERMITTED ACTIVITIES

1. Until such time as this permit expires or is modified or revoked, the permittee is allowed to discharge air contaminants from those processes and activities directly related to or associated with air contaminant source(s) in accordance with the requirements, limitations, and conditions of this permit. [OAR 340-028-2100, 340-028-2200(2), and 340-032-0240]]

2. All conditions in this permit are federally enforceable and state enforceable, except conditions 7, 8, 11, 22, 27 are enforceable by the state only. [OAR 340-028-2140 and 340-028-2150]

EMISSIONS UNIT (EU) AND POLLUTION CONTROL DEVICE (PCD) IDENTIFICATION

3. The emissions units and pollution control devices regulated by this permit are the following [OAR 340-028-2120(3)]:

3.a. Emissions Unit Identification

Emissions Unit	EU ID	Process Description
Ship Coating operations	$COAT_{SHIP}$	Painting of marine vessel and vessel parts throughout the ship yard including dry docks, berths, and all ship yard paint booths.
Misc. Coating operations	$COAT_{MISC}$	Painting of miscellaneous (non-marine) metal parts, primarily conducted in ship yard paint booths, including a future paint booth (Building 73A).
All Coating operations	COAT	$COAT_{SHIP}$ and $COAT_{MISC}$
Ballast water treatment plant	BWT	Six vertical (oil slops) storage tanks
Reclaimed Oil Tanks	ROT	Four horiz. (reclaimed oil) storage tanks; VOC exhaust routed to VDU
Central Utility Building	CUB	Two utility boilers BLR-1 & BLR-2 (25.4×10^6 btu/hr rated capacity)
Powder Coat Curing Oven	OVEN(-A-)	Capacity = 6×10^5 btu/hr.
Abrasive (Shot/slag) Blasting - Outside	SBO	Abrasive (metal shot/slag) blasting of marine vessel exteriors and parts not performed within a blast booth.
Abrasive (Shot/slag) Blasting - Inside	SBI	Abrasive (metal shot/slag) blasting of marine vessel interiors and vessel parts; controlled by BAG-1, BAG-2, & BAG-3.
Welding	WLD	Welding jobs
Paved Industrial Roads	PIR(-B-)	Vehicle travel on paved road

(-A-) A project to be completed during the permit term.
(-B-) While paved roads and paved parking lots within an urban growth boundary are considered categorically insignificant activities, the PM/PM_{10} emissions from PIR are included in the PSEL at the permittee's request.

Emissions Unit	EU ID	Process Description
Unpaved Roads	UPR	Vehicle travel on unpaved road
Reclaimed Oil Loadout	ROL	Loading recovered oil from ROT into tanker truck

3.b. Pollution Control Device Identification

Pollution Control Device	PCD ID	EU Controlled
Thermal Oxidizer - enclosed vapor combustor, rated eff. = 95%.	VDU	ROT: VOC exhaust
All mobile baghouses	BAG-1	Ship interiors & exteriors at the dry docks & berths
A baghouse at Building 50	BAG-2	SBI: indoor blasting operations
A baghouse at Building 73	BAG-3	
Curtains/Covers, etc.	n/a	SBO: Outdoor (dry docks) sandblast operations
Paint booth enclosures and filters	n/a	COAT: paint over-sprays (PM)

EMISSION LIMITS AND STANDARDS

The following Table-I through Table-III contain summaries of applicable requirements other than the Plant Site Emission Limits (PSEL), along with the monitoring methods for the emissions units to which those requirements apply.

Table-I. Facility-wide Emission Limits and Standards

Applicable Requirements		Pollutant/ Parameter	Limits/ Standards	Monitoring Requirements	
Oregon Administrative Rule / 40 CFR	Condition Number			Method	Condition Number
340-021-0060(2)	4	Fugitive dust	No nuisance	I&M Recordkeeping	31 & 39
340-022-0010	5	Residual fuel oil sulfur content	1.75% by weight	%S analysis & Recordkeeping	32
340-027-0015	6	Any pollutant	SERP	Recordkeeping	33
340-030-0520	7	PM	< 250 micron	I&M Recordkeeping	34
340-030-0540	8	Odor	no nuisance	I&M Recordkeeping	34
40 CFR Part 82.161(a)	9	Ozone depleting chemicals	Employee certification prog.	Recordkeeping	35

4. The permittee shall not cause or permit any materials to be handled, transported, or stored; or a building, its appurtenances, or a road to be used, constructed, altered, repaired or demolished; or any equipment to

be operated, without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions shall include the following: [OAR 340-021-0060(2)]

4.a. Application of asphalt, water, or other suitable chemicals on unpaved roads, materials stock piles, and other surface, as needed to prevent airborne dusts;

4.b. full or partial enclosure of materials stockpiles; and/or

4.c. adequate containment during abrasive blasting or other similar operations.

5. The permittee shall not sell, distribute, use, or make available for use, any residual fuel oil containing more than 1.75 percent sulfur by weight. [OAR 340-022-0010]

6. In the event an Air Pollution Alert, Warning, or Emergency Episode is declared in the Portland area by the Department, the permittee shall take the action appropriate to the episode condition as described below. The permittee shall take such action when the permittee first becomes aware of such a declaration whether through news media, direct contact with the Department, or from other sources: [OAR 340-027-0015]

6.a. Alert, any pollutant:

The permittee shall review SERP and evaluate current and future work scopes; and prepare to take possible further action in case the episode escalates into a warning or an emergency stage. The permittee may encourage employees to voluntarily reduce operations of personal motor vehicle through car pooling, use of public transit, etc.

6.b. Warning, any pollutant:

The permittee shall reduce air contaminant emissions by postponing or deferring production to the maximum extent possible. At minimum, the permittee shall adhere to the following:

6.b.i. Postpone or reduce oil recycling separation processes (cookers and skimmers) at the Ballast Water Treatment Plant (BWTP) to the lowest level possible without causing personnel injury or equipment damage.

6.b.ii. Central Utility Building (CUB) boilers shall be fueled by natural gas (or LPG) only.

6.b.iii. Limit exterior hull blasting to light/spot blasting of vessel exteriors below the deep load line. Interior tank blasting is permitted with the use of dust collection system.

6.b.iv. Limit exterior coating and interior tank coating operations to spot coating only.

6.c. Emergency, any pollutant:

Continue with the emission reduction procedures of the warning level. If the declared meteorological episode is expected to persist for 24 hours or more at an emergency level, the permittee shall cease all BWTP oil separation, open air blasting and open air coating operations, except the operations needed to protect personal safety and process equipment.

7. The permittee shall not allow particulate matter larger than 250 microns in size to be deposited on real property of another person. [OAR 340-030-0520] [State-only enforceable]

8. The permittee shall not allow the emission of odorous matter so as to create nuisance conditions off the permittee's property. [OAR 340-030-0540] [State-only enforceable]

9. The permittee shall not perform work on the refrigeration system on-board any ship that use class I or class II ozone-depleting substances, unless the employee performing the work is certified by an approved technician certification program under the requirements of 40 CFR Part 82.161(a).

Table-II. Emissions Unit Specific Emission Limits and Standards

EU/PCD ID	Applicable Requirements		Pollutant/ Parameter	Limit/ Standard	Monitoring Requirements	
	OAR / 40 CFR	Condition Number			Method	Condition Number
CUB	340-021-0015(2) 340-021-015(3)(a)	10	visible emissions	20% opacity	VE periodic monitoring	36
SBI / BAG-1, BAG-2, BAG-3	340-021-0015(2) 340-021-015(3)(a)	10	visible emissions	20% opacity	VE periodic monitoring	37
	340-030-0500	11	visible emissions	20% opacity	VE periodic monitoring	37
CUB	340-021-0020(1)(b)	12	PM/PM_{10}	0.1 gr/dscf	VE/ST periodic monitoring	36 & 53
SBI / BAG-1, BAG-2, BAG-3	340-021-0030(1)(b)	13	PM/PM_{10}	0.1 gr/dscf	VE/ST periodic monitoring	37 & 53
SBO & SBI	340-028-0620	14	PM/PM_{10}	O&M requirements	I&M Recordkeeping	39
PIR	340-028-0620	15	PM/PM_{10}	O&M requirements	I&M Recordkeeping	40
BWT	340-022-0160(1)	16	VOC	Equip specifications	Recordkeeping	41
ROT	340-022-0160(1)	16	VOC	Equip specifications	I&M Recordkeeping	42
$COAT_{SHIP}$	5/04/95 ACDP 26-3224	17.a	VOC	lbs/gal. limit	MB Recordkeeping	48.a & 48.d
		17.b		training program	Recordkeeping	38
		17.c		equip. specification	I&M Recordkeeping	38
$COAT_{SHIP}$	340-022-0104	18	VOC	Source-specific RACT limits	MB Recordkeeping I&M Recordkeeping	50

Table-II. Continued

EU/PCD ID	Applicable Requirements		Pollutant/ Parameter	Limit/ Standard	Monitoring Requirements	
	OAR / 40 CFR	Condition Number			Method	Condition Number
$COAT_{MISC}$	340-022-0170(5)(j)	19	VOC	Surface Coating RACT limits	MB Recordkeeping	48.a & 48.e
$COAT_{SHIP}$	40 CFR, Part 63, Subpart II.	20	VOHAP	NESHAP for Ship-building / repair.	Testing and Recordkeeping	43
COAT / SBO	340-028-0620	21	Cr, HAP	Usage limitations	Recordkeeping	44

10. The permittee shall not cause or allow the emissions of any air contaminant into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is equal to or greater than 20% opacity, excluding uncombined water, from emissions units CUB and SBI. Opacity shall be measured in accordance with condition 36 or 37. [OAR 340-021-0015(2) and 340-021-0015(3)(a)]

11. The permittee shall not cause or allow the emissions of any air contaminant into the atmosphere for a period or periods aggregating more than thirty seconds in any one hour which is equal to or greater than 20% opacity, excluding uncombined water, from the SBI baghouses. Opacity shall be measured in accordance with condition 53. [OAR 340-030-0500] [State-only enforceable]

12. The emissions of particulate matter from emissions unit CUB shall not exceed 0.1 grain per standard cubic foot, corrected to 12% CO_2 or 50% excess air. Particulate matter emissions shall be measured in accordance with condition 53. [OAR 340-021-0020(1)(b)]

13. The permittee shall not cause or allow the emissions of particulate matter in excess of 0.1 grain per standard cubic foot from any of the baghouses used to control the emissions from the emissions unit SBI. Particulate matter emissions shall be measured in accordance with condition 53. [OAR 340-021-0030(1)(b)]

14. The permittee shall provide curtains or screens, or other equivalent control, to minimize particulate fugitive emissions from outdoor abrasive blasting operations (SBO), and minimize dust emissions from material handling activities (SBI, SBO): [OAR 340-028-0620]

    14.a. Curtains and containment areas shall be used as necessary to provide reasonable control of particulate material in abrasive blasting operations where specific particulate removal systems (i.e., baghouses) are not used. Collected materials from such abrasive blasting operations shall be placed in appropriate containers in a timely manner.

    14.b. Particulate material captured from the baghouse shall be transferred to a container(s) in a closed system such that particulate can not easily become airborne and escape to the atmosphere. After the container(s) are removed from the baghouse system and during storage of the particulate material, the container shall be closed such that particulate can not easily become airborne and escape to the atmosphere.

15. At a minimum of once every two weeks, or sooner if needed (e.g., solid material spill), the permittee shall sweep the paved road ways and parking lots (PIR) using the mechanical sweeper and/or manually. This condition does not in any way relieve the permittee from having to comply with the requirements outlined in the permittee's Environmental Best Management Practices (BMP), document number 9, as amended. [OAR 340-028-0620]

16. All fixed roof storage tanks grouped under BWT having a storage capacity greater than 39,000 gallons shall not store volatile organic compounds with a true vapor pressure, as stored, greater than 1.52 psia at actual monthly average storage temperature, as measured per condition 41.

Exemption: The ROT horizontal tanks where VOC emissions are controlled by the control unit VDU are allowed to store products with higher vapor pressure. At least once per year, the permittee shall conduct the preventive maintenance inspection on VDU as specified in condition 42. [OAR 340-022-160]

17. Until this condition (17) becomes obsolete after the source specific RACT requirements outlined in condition 18 become effective (on or before May 6, 1998), the permittee shall comply with the following coating limits and the work practice requirements in accordance with the Settlement agreement with Sierra Club and Oregon Environmental Council (OEC). [5/04/95 ACDP 26-3224]

17.a. During the applicable period specified, the VOC content of the surface coatings used for ship painting operations ($COAT_{SHIP}$) shall not exceed the following limits, expressed in pounds of VOC per gallon of coating, as applied, less water and exempt compounds, as measured on a weekly basis:

Coating Type	General Use Alkyds & Epoxies	Antifoulant	Prewash Primer	Zinc-Inorganic	Other Specialty
VOC content (lbs/gal)	3.5	3.7	6.5	5.4	5.5
Applicable period	May 1 through September 30	May 1 through September 30	June 1 through August 31	June 1 through August 31	June 1 through August 31

17.b. The permittee shall provide training and instruction for all employees who are directly involved in the application of VOC-based coatings at the PSY. The training/instruction program shall consist of a combination of on-the-job and classroom instructions, of which at least 8 hours shall be provided on initial training, followed by 4 hours of refresher training on an annual basis thereafter. The training/instruction shall provide workers with theory and (good) management practices for solvent (VOC) use; such as how to increase paint transfer efficiency, reduce both the amount of overspray and the amount of VOC-solvent employed for cleanup, etc., and in general institute an awareness how such (good) practices help reduce the impact of ship painting operations on the environment.

17.c. The permittee shall only use the closed systems for cleaning and flushing paint guns and lines, or use the system that utilizes non-VOC solvents, or a combination of both.

18. By no later than May 6, 1998, the permittee shall comply with the following source-specific RACT requirements for emissions unit $COAT_{SHIP}$: [10/04/95 ACDP 26-3224]

18.a. The VOC content of the surface coatings used for ship painting operations ($COAT_{SHIP}$) shall not exceed the following limits, expressed in pounds of VOC per gallon of coating, as applied, less water and exempt compounds. The coating limits are based on a weekly weighted average of the applied coatings in each category. The VOC content of coatings may be averaged only within a single coating category cited below. Excess VOC emissions in one coating category shall not be offset with lowered emissions in another coating category. The permittee shall determine compliance with the coating limit set for each coating category by dividing the total VOC content (lbs) of the coatings in a category used in one week by the total gallons of coatings, less water and exempt compounds, used in that same category during the same weekly averaging period (Monday 12:01 am through Sunday 12:00 midnight):

Coating Category:	General Use Alkyds & Epoxies	Antifoulant	Prewash Primer	Zinc-Inorganic	Other Specialty
VOC content: (lbs/gal)	3.5	3.7	6.5	5.4	5.5

18.b. The permittee shall provide training and instruction for all employees who are directly involved in the application of VOC-based coatings at the PSY. The training/instruction program shall consist of a combination of on-the-job and classroom instructions, of which at least 4 hours shall be provided on initial training, followed by 2 hours of refresher training on an annual basis thereafter. The training/instruction shall provide workers with theory and (good) management practices for efficient use (minimization) of solvents and waste prevention. Training records shall be maintained on-site and be available for inspection by the Department personnel.

18.c. The permittee shall implement and adhere to the following Best management practices for solvent use:

18.c.i. Use of closed system for cleaning and flushing paint guns and lines. Flushing systems shall have only the minimum venting required to operate. As an alternative, a non-VOC solvent cleaning system may be used.

18.c.ii. Utilize distillation or other approved recovery methods to reclaim cleaning solvents to the extent feasible.

18.c.iii. Use the closed containers only for storage and transfer of solvents to and from the bulk storage area to the work area.

18.c.iv. Solvent-laden cloths or rags shall be stored in a container with cover (lid).

19. The VOC content of the surface coatings used for parts painting operations grouped under the emissions unit $COAT_{MISC}$ shall not exceed the following limits, expressed in pounds of VOC per gallon of coating, as applied, less water and exempt compounds, as measured on a daily basis: [OAR 340-022-0170(5)(j)]

Coating Type	Clear coating	Forced air or air dried	Extreme perf./ High perf. Architectural	All other (oven dried, powder)
VOC content (lbs/gal)	4.3	3.5	3.5	3.0

20. By no later than December 15, 1997, the permittee shall comply with the following requirements applicable to emissions unit $COAT_{SHIP}$: [40 CFR, Part 63.783]

20.a. Except as provided in condition 20.c, the VOHAP content of coatings applied to marine vessels and vessel parts shall be within the applicable limits specified in the Table below, as determined by the procedures described in condition 43:

"VOHAP Limits for Marine Coatings ($COAT_{SHIP}$)"

Coating Category	VOHAP Limits [a, b, c]		
	grams/liter coating minus water and exempt compounds	grams/liter solids [d]	
		t ≥ 4.5°C	t < 4.5°C °
General Use :	340	571	728
Specialty :			
Air flask	340	571	728
Antenna	530	1,439	--
Antifoulant	400	765	971
Heat resistant	420	841	1,069
High-gross	420	841	1,069
High-temperature	500	1,237	1,597
Inorganic zinc high-build	340	571	728
Military exterior	340	571	728
Mist	610	2,235	--
Navigational aids	550	1,597	--
Nonskid	340	571	728
Nuclear	420	841	1,069
Organic zinc	360	630	802
Pretreatment wash primer	780	11,095	--
Repair/maint. of thermoplastics	550	1,597	--
Rubber camouflage	340	571	728
Sealant for thermal spray Al	610	2,235	--
Special marking	490	1,178	--
Specialty interior	340	571	728
Tack coat	610	2,235	--
Undersea weapon systems	340	571	728
Weld-through precon. primer	650	2,885	--

a: The limits are expressed in two sets of equivalent units. Either set of limits may be used for the compliance procedure described in condition 43.f.i, but only the limits expressed in units of g/L solids (nonvolatiles) shall be used for the compliance procedures described in conditions 43.f.ii through 43.f.iv.

b: VOC (including exempt compounds listed as HAP) shall be used as a surrogate for VOHAP for those compliance procedures described in conditions 43.f.i through 43.f.iii.

c: To convert from g/L to lb/gal, multiply by (3.785 L/gal)(1/453.6 lb/g) or 1/120. For compliance purposes, metric units define the standards.

d: VOHAP limits expressed in units of mass of VOHAP per volume of solids were derived from the VOHAP limits expressed in units of mass of VOHAP per volume of coating assuming the coatings contain no water or exempt compounds and that the volumes of all components within a coating are additive.

e: These limits apply during cold-weather time periods, as defined in 40 CFR 63.782. Cold-weather allowances are not given to coatings in categories that permit less than 40 percent volume solids (non-volatiles). Such coatings are subject to the same limits regardless of weather conditions.

20.b. The permittee shall adhere to the following work practice requirements:

20.b.i. All handling and transfer of VOHAP-containing materials to and from containers, tanks, vats, drums, and piping systems is conducted in a manner that minimizes spills.

20.b.ii. All containers, tanks, vats, drums, and piping systems are free of cracks, holes, and other defects and remain closed unless materials are being added to or removed from them.

20.c. Exemptions:

20.c.i. The VOHAP coating limits do not apply to coatings used in volumes of less than 200 liters (52.8 gallons) per year, provided the total aggregate volume of all exempt coatings does not exceed 1,000 liters per year (264 gallons per year). The container storing exempt coatings shall be clearly labeled as "low-usage exempt," and the volume of each exempt coating applied shall be maintained in the facility's records.

20.c.ii. The VOHAP coating limits do not apply to coatings applied with hand-held, non-refillable, aerosol containers or to unsaturated polyester resin (i.e., fiberglass lay-up) coatings. Coatings applied to suitably prepared fiberglass surfaces for protective or decorative purposes are not exempted.

21. The permittee shall limit the use of coatings containing hexavalent chromium (Cr^6), hexamethylene-1,6-diisocyanate, and trivalent chromium (Cr^3); and adhere to the other restrictions (i.e., paint color of the tanks, etc.) as specified in this condition: [OAR 340-028-0620]

21.a. The use of coatings containing hexavalent chromium (Cr^6) is prohibited.

21.b. The use of coatings containing hexamethylene-1,6-diisocyanate (CAS # 822-06-0) is prohibited.

21.c. All coatings containing trivalent chromium (Cr^3) in concentration of two percent or greater by weight must be applied using hand applications (i.e., brush, roll, dip), applied within an enclosed paint booth equipped with a particulate control filter bank, or applied using another coating method with a transfer efficiency of at least 80 percent as approved by the Department.

21.d. Outdoor application of coatings containing trivalent chromium in concentration of less than two percent by weight is limited to 250 gallons per day.

21.e. The paint color of the vertical storage tanks located at the ballast water treatment plant shall be white.

21.f. The permittee shall restrict use of abrasive blast grit on dry dock #1 to 33 tons/day.

21.g. Blasting of detached parts or equipment shall be conducted indoors using baghouse control, whenever possible. Portable working containments such as blast sheds or shrouds shall be used to control particulate matter emissions from outdoor blasting of detached parts or equipment.

Table-III. Emission Limits and Standards applicable to Insignificant Activities

Applicable Requirements		Pollutant/ Parameter	Limit/Standard
Oregon Administrative Rule	Condition No.		
340-030-0500	22	opacity	20%
340-021-0020(1)(b)	23	PM/PM_{10}	0.1 gr/dscf
340-021-0030(1)(b)	24	PM/PM_{10}	0.1 gr/dscf
340-022-0180	25	VOC	Equipment specifications
340-022-0930 & 1030	26	VOC	Coating specifications
340-030-0460 (3)	27	VOC	Submersible filling.

22. The permittee shall not cause or allow the emissions of any air contaminant into the atmosphere for a period or periods aggregating more than thirty seconds in any one hour which is equal to or greater than 20% opacity, excluding uncombined water, from any insignificant source. Opacity shall be measured in accordance with condition 53. [OAR 340-030-0500] [State-only enforceable]

23. The permittee shall not cause or allow the emissions of particulate matter in excess of 0.1 grain per standard cubic foot, corrected to 12% CO_2 or 50% excess air, from any fuel-burning insignificant source. Particulate matter emissions shall be measured in accordance with condition 53. [OAR 340-021-0020(1)(b)]

24. The permittee shall not cause or allow the emissions of particulate matter in excess of 0.1 grain per standard cubic foot, from any non-fuel-burning insignificant source. Particulate matter emissions shall be measured in accordance with condition 53. [OAR 340-021-0030(1)(b)]

25. The permittee shall operate the parts/tools cleaning equipment and dip tanks at the permitted facility in accordance with OAR 340-022-0180.

26. The permittee shall not knowingly use or contract for the use of any non-complying spray paint or architectural coating manufactured after July 1, 1996; [OAR 340-022-0930 and 340-022-1030] and

24-730

All VOC-containing architectural coatings shall be stored in closed containers when not being accessed, filled, emptied, maintained, repaired or otherwise used. [OAR 340-022-1030]

27. All gasoline storage tanks with a capacity of 500 gallons or more, installed after January 1, 1970, shall be equipped with submersible filling devices or other vapor emission control systems. All gasoline storage tanks at the PSY are exclusively used for fueling the fleet vehicles. [OAR 340-030-0460 (3)] [State-only enforceable]

PLANT SITE EMISSION LIMITS

28. The short term emissions shall not exceed the following [OAR 340-028-1010 and 340-028-1020]:

Emissions Unit	Pollutant	Short Term PSEL	Monitoring Requirements	
			Method	Cond. No.
$COAT_{SHIP}$	VOC	18,600 lbs/day	Chemical (VOC) MB and Recordkeeping	48
$COAT_{MISC}$	VOC	260 lbs/day	Chemical (VOC) MB and Recordkeeping	48
BWT, ROT, and ROL	VOC	15,610 lbs/month	Recordkeeping	46 & 49
CUB and OVEN	PM_{10} SO_2 NO_x CO VOC	1,045 lbs/month 13,922 lbs/month 7,242 lbs/month * 1,260 lbs/month 101 lbs/month	Meter reading / Recordkeeping	46 & 47
SBO	PM_{10} PM	15,048 lbs/day 43,092 lbs/day	Recordkeeping of Daily material usage, and daily (job) schedule	46 & 47
SBI, WLD, and PIR	PM_{10} PM	6,274 lbs/month 6,615 lbs/month	Recordkeeping	46 & 47

* The NOx PSEL includes NOx emissions from OVEN.

29. The annual plant site emissions (tons/year) shall not exceed the following [OAR 340-028-1010 and 340-028-1020]:

Emissions Unit	PM_{10}	PM	SO_2	NO_x	CO	VOC
Plant Wide Basis, excluding Agg.	99.3	263.4	7.2	18.1 *	3.8	465.1
$COAT_{MISC}$	--	--	--	--	--	39.8
Agg. insig. activities (Agg)	1	1	1	1	1	1
Unassigned PSEL	24.5	--	--	--	--	--

* The NOx PSEL includes NOx emissions from OVEN.

29.a. Unassigned PSELs are available for internal use by the permittee for increase of emissions upon receipt of written approval by the Department.

29.b. The PSEL monitoring is specified in Conditions 46 through 49.

30. Once the installation of a new paint booth grouped under emissions unit $COAT_{MISC}$ is completed, the permittee shall adhere to the (synthetic minor) HAP limits specified in this condition, as determined from the monitoring specified in condition 48.f. [OAR 340-028-1050, 340-032-0500]

30.a. Aggregate HAP emissions from $COAT_{MISC}$, based on a twelve month rolling average, shall be less than 25 tons per year; and

30.b. Individual HAP emissions from $COAT_{MISC}$, based on a twelve month rolling average, shall be less than 10 tons per year.

30.c. The permittee shall notify the Department in writing, indicating the completion date of the $COAT_{MISC}$ new booth, within one month after the completion date. The Notice of completion form submitted pursuant to OAR 340-028-0820(6) satisfies this condition, and no additional report is necessary.

MONITORING REQUIREMENTS [OAR 340-028-2130(3)(a)]

Facility-wide monitoring:

31. The permittee shall inspect the unpaved area (when they exist during construction) and materials storage and transfer areas for excessive fugitive emissions as specified:

31.a. At a minimum of once per month, the permittee shall visually survey the unpaved area (when triggered by construction activities) and the materials storage/transfer areas for excess fugitive emissions. The minimum monthly monitoring frequency specified is also the required interval between two consecutive monitoring periods. For the purpose of this survey, excess fugitive emissions are considered to be any visible airborne emissions.

31.b. If sources of excess fugitive emissions are identified during the survey, the permittee shall use water or a chemical treatment to minimize the fugitive emissions, unless cold weather would make this activity result in hazardous conditions. If water is used to control the fugitive dust emissions, the permittee shall take care not to create a water quality problem from surface water run-off.

31.c. Record on the inspection forms, dates and times of visual surveys conducted, and any visible emissions observed.

32. The permittee shall monitor the sulfur content of each batch of residual oil and ASTM grade distillate oil sold, distributed, or used (in boilers), in accordance with the following methods or procedures:

32.a. obtaining a sulfur analysis certificate from the vendor for each batch; or

32.b. analyzing or having analyzed by a contract laboratory a composite of representative samples taken by the permittee from each batch of fuel oil received within 15 days of receipt. Liquid fuels shall be analyzed using ASTM D129-64, D1552-83, D4057-81, or equivalent method.

33. The permittee shall maintain a log summarizing actions taken during an applicable air pollution episode, pursuant to condition 6.

34. The permittee shall record all written complaints or complaints received via telephone or in person by the responsible official or a designated appointee that specifically refer to a complaint of odor or the particulate matter (> 250 micron) fall-out type of nuisance from the permitted facility. Said log shall also record permittee's actions to investigate, make a determination as to the validity of the complaint, and resolve the problem within two working days or within such longer time (not to exceed 7 days) as is reasonably necessary to resolve the problem that led to the complaint.

35. The permittee shall maintain the following records of employees hired by the permittee that perform work on the refrigeration system on-board the ship that use class I or class II ozone-depleting substances:

35.a. the name of the person certified and his/her affiliation;
35.b. a personal (i.e., worker) identification number;
35.c. the type (I, II, III, and/or Universal) of certification; and
35.d. the name of the certifying program, and the date the organization became a certifying program.

Emissions Unit specific monitoring:

36. Except as provided in condition 36.f, the permittee shall conduct visible emissions survey at each of the monitoring point of emissions unit CUB in accordance with the following procedures and frequencies:

36.a. At a minimum of once per week, the permittee shall conduct a six (6) minute visible emission survey using the procedures outlined in EPA Method 22. The minimum weekly monitoring frequency specified is also the required interval between two consecutive monitoring periods.

36.b. All visible emissions observations shall be conducted during period when the equipment is burning fuel.

36.c. If visible emissions, excluding condensed water vapor, from an individual monitoring point are detected for more than 5% (18 seconds) of the survey time, an EPA Method 9 test shall be conducted on that monitoring point for a six (6) minute period in accordance with the Department's Source Sampling Manual. If any of the observations during the specified 6-minute period exceed the applicable 20% opacity limit, the observation period shall continue until 60 minute of observations have been completed or until an exceedance of the opacity standard has been documented.

36.d. If the observer is unable to conduct the survey and/or EPA Method 9 tests due to visual interference caused by other visible emissions sources (e.g., fugitive emissions during high wind conditions) or due to weather conditions such as fog, heavy rain, or snow, the observer shall note such conditions on the data observation sheet and make at least three attempts in same day to conduct the surveys and/or tests at approximately 2 hours intervals throughout the day. If no observations are made for that day, the observer shall continue to attempt to conduct the survey and/or EPA Method 9 daily until a valid observation is made.

36.e. If visible surveys and/or observations conducted during 10 consecutive observation weeks show no visible emissions for a particular source, the permittee may reduce the minimum monitoring frequency to once per month for that source. Anytime the monthly visible emissions survey show

visible emissions, or when requested by the Department inspector, the observations for that source of visible emissions shall start over with weekly surveys, as noted in item a of this condition.

36.f. Monitoring protocols specified in this condition for CUB boiler are applicable only when that equipment burns oil and during the period in which oil is burned. As long as any of the equipment grouped under the emissions unit CUB is fueled by natural gas (or LPG), emissions from that equipment is assumed to be in compliance with the 20% opacity standard and the 0.1 (or 0.2) gr/scf loading limits; and the visual emissions survey required by this condition is waived for that equipment. For the purpose of verification, the permittee shall monitor and record the type(s) of fuel used in CUB, as specified in conditions 32 and 46. .

37. The permittee shall conduct visible emission surveys at each of the baghouse discharge point of emissions unit SBI in accordance with the following procedures and frequencies:

37.a. At a minimum of once per week, the permittee shall conduct a six (6) minute visible emission survey using the procedures outlined in EPA Method 22. The minimum weekly monitoring frequency specified is also the required interval between two consecutive monitoring periods.

37.b. All visible emissions observations shall be conducted during period when the equipment is operating.

37.c. If any visible emissions, excluding condensed water vapor, from an individual monitoring point are detected, an EPA Method 9 test shall be conducted on that monitoring point in accordance with the Department's Source Sampling Manual. The observation period shall continue until 60 minute of observations have been completed or until an exceedance has been documented.

37.d. If the observer is unable to conduct the survey and/or EPA Method 9 tests due to visual interference caused by other visible emissions sources (e.g., fugitive emissions during high wind conditions) or due to weather conditions such as fog, heavy rain, or snow, the observer shall note such conditions on the data observation sheet and make at least three attempts in same day to conduct the surveys and/or tests at approximately 2 hours intervals throughout the day. If no observations are made for that day, the observer shall continue to attempt to conduct the survey and/or EPA Method 9 daily until a valid observation is made.

37.e. If visible surveys and/or observations conducted during 10 consecutive observation weeks show no visible emissions for a particular source, the permittee may reduce the minimum monitoring frequency to once per month for that source. Anytime the monthly visible emissions survey show visible emissions, or when requested by the Department inspector, the observations for that source of visible emissions shall start over with weekly surveys, as noted in item a of this condition.

38. The permittee shall maintain the training records of all employees who are directly involved in the application of VOC-based coatings at $COAT_{SHP}$. The permittee shall also maintain the drawing/specifications of the solvent (paint gun) cleaning system and the types of cleaning solvents used. At minimum, the following information shall be kept:

38.a. Training/course materials (and all updates) used.

38.b. Employee hire dates and their training records.

39. The permittee shall inspect the outdoor blasting operations (SBO), and the material storage and collection processes associated with all blasting operations (SBI & SBO), to ensure that the work-practice requirements specified in condition 14 are properly being carried out:

39.a. At minimum of once per day when SBO activities are taking place, at each location the SBO activities are performed, the permittee shall visually inspect curtains and containment measures to ensure their proper placement, use, and effectiveness.

39.b. At minimum of once per week during May 1 through October 31, and at minimum of once per month the remainder of the year, the permittee shall visually inspect the following areas to ensure the provisions of condition 14 are met:

39.b.i. raw abrasive blast material storage and handling areas; and
39.b.ii. used abrasive blast material storage and handling areas.

39.c. Record findings - location and nature of deviation from prescribed operation, maintenance and work practice procedures.

39.d. Record corrective action taken (if any) as the result of the inspection - record date and a brief description of repair/correction.

39.e. The permittee shall maintain records of the inspection results including the dates and times of inspections.

40. The permittee shall maintain a log and record dates and sections of the PIR that were swept, pursuant to condition 15.

41. For the purpose of showing compliance with the requirements specified in condition 16, the permittee shall keep records of all products stored in the fixed roof (BWT) storage tank with a capacity greater than 39,000 gallons. The permittee may utilize the PSEL monitoring specified in conditions 46.b and 49.a for this purpose.

42. At minimum of once per year, the permittee shall conduct the preventive maintenance inspection on VDU, and make the necessary repairs as needed to ensure proper operations of VDU.

42.a. At minimum, inspect and/or test the following components:

42.a.i. Test emergency shut down devices;
42.a.ii. inspect pilot assembly for damage or loose wires, including the ignitor, U/V flare detector, and spark plug and insulator.
42.a.iii. test thermocouple for proper operating temperature;
42.a.iv. operate and calibrate (when necessary, e.g., component replacement) all instruments as per vendor instruction (manual);
42.a.v. inspect the detonation aerator internally;
42.a.vi. inspect the combustion chamber insulation;
42.a.vii. inspect burner assembly;

42.a.viii. inspect all dampers;
42.a.ix. inspect all vapor piping from T-15 to flare;
42.a.x. inspect gas piping and meter (located at building 63); and
42.a.xi. lubricate blower motor if necessary.

42.b. The permittee shall maintain the records of all inspections and repairs performed on VDU.

43. By no later than December 15, 1997, the permittee shall monitor compliance with condition 20.a in accordance with the following procedures, as specified in 40 CFR 63.785: (see Figure-1: "Flow diagram of compliance procedures", Appendix-B, for reference)

43.a. For each batch of coating received, the permittee shall identify the coating category and the applicable VOHAP limit(s) specified in condition 20.a; and then certify the as-supplied VOC content of the batch of coating. The permittee may use a certification supplied by the manufacturer for the batch, although the permittee retains liability should subsequent testing reveal a violation. If the permittee performs the certification testing, only one of the containers in which the batch of coating was received is required to be tested.

43.b. In lieu of testing each batch of coating, as applied, the permittee may determine compliance with the VOHAP limits specified in condition 20.a by using any combination of the procedures described in conditions 43.f.i, 43.f.ii, 43.f.iii, and 43.f.iv. The procedure used for each coating shall be determined and documented prior to application.

43.c. For the compliance procedures described in conditions 43.f.i through 43.f.iii, VOC (including exempt compounds listed as HAP) shall be used as a surrogate for VOHAP.

43.d. The results of any compliance demonstration conducted by the permittee or DEQ/EPA using Method 24 shall take precedence over the results using the procedures in conditions 43.f.i, 43.f.ii, or 43.f.iii.

43.e. The results of any compliance demonstration conducted by the permittee or DEQ/EPA using an approved test method to determine VOHAP content shall take precedence over the results using the procedures in condition 43.f.iv.

43.f. Coating Compliance Procedures:

43.f.i. Coatings to which thinning solvent will not be added. For coatings to which thinning solvent (or any other material) will not be added under any circumstance or to which only water is added, the permittee shall comply as follows:

43.f.i.(1) Certify the as-applied VOC content of each batch of coating.
43.f.i.(2) Notify the persons responsible for applying the coating that no thinning solvent may be added to the coating by affixing a label to each container of coating in the batch or through another means described in the implementation plan per 40 CFR 63.787.
43.f.i.(3) If the certified as-applied VOC content of each batch of coating used during a calendar month is less than or equal to the applicable VOHAP limit in condition 20.a (either in terms of g/L of coating or

g/L of solids), then compliance is demonstrated for that calendar month, unless a violation is revealed using Method 24.

43.f.ii. Coatings to which thinning solvent will be added--coating-by-coating compliance. For a coating to which thinning solvent is routinely or sometimes added, the permittee shall comply as follows:

43.f.ii.(1) Prior to the first application of each batch, designate a single thinner for the coating and calculate the maximum allowable thinning ratio (or ratios, if the source complies with the cold-weather limits in addition to the other limits specified in condition 20.a) for each batch as follows:

$$R = \frac{(V_s)(VOHAP\ limit) - m_{VOC}}{D_{th}} \qquad \text{Eqn. 1}$$

where:

R	=	Maximum allowable thinning ratio for a given batch (L thinner/L coating as supplied);
V_s	=	Volume fraction of solids in the batch as supplied (L solids/L coating as supplied);
VOHAP limit	=	Maximum allowable as-applied VOHAP content of the coating (g VOHAP/L solids);
m_{VOC}	=	VOC content of the batch as supplied [g VOC (including cure volatiles and exempt compounds on the HAP list)/L coating (including water and exempt compounds) as supplied];
D_{th}	=	Density of the thinner (g/L).

If V_s is not supplied directly by the coating manufacturer, the permittee shall determine V_s as follows:

$$V_s = 1 - \frac{m_{volatiles}}{D_{avg}} \qquad \text{Eqn. 2}$$

where:

$m_{volatiles}$	=	Total volatiles in the batch, including VOC, water, and exempt compounds (g/L coating); and
D_{avg}	=	Average density of volatiles in the batch (g/L).

The procedures specified in condition 52.d may be used to determine the values of variables defined in this paragraph. In addition, the permittee may choose to

construct nomographs, based on Equation 1, similar or identical to the one provided in appendix B of 40 CFR Part 63 Subpart II as a means of easily estimating the maximum allowable thinning ratio.

43.f.ii.(2) Prior to the first application of each batch, notify painters and other persons, as necessary, of the designated thinner and maximum allowable thinning ratio(s) for each batch of the coating by affixing a label to each container of coating or through another means described in the implementation plan per 40 CFR 63.787.

43.f.ii.(3) By the 15th day of each calendar month, determine the volume of each batch of the coating used, as supplied, during the previous month.

43.f.ii.(4) By the 15th day of each calendar month, determine the total allowable volume of thinner for the coating used during the previous month as follows:

$$V_{th} = \sum_{i=1}^{n} (R \times V_b)_i + \sum_{i=1}^{n} (R_{cold} \times V_{b\text{-}cold})_i \qquad \text{Eqn. 3}$$

where:

V_{th} = Total allowable volume of thinner for the previous month (L thinner);

V_b = Volume of each batch, as supplied and before being thinned, used during non-cold-weather days of the previous month (L coating as supplied);

R_{cold} = Maximum allowable thinning ratio for each batch used during cold-weather days (L thinner/L coating as supplied);

$V_{b\text{-}cold}$ = Volume of each batch, as supplied and before being thinned, used during cold-weather days of the previous month (L coating as supplied);

i = Each batch of coating; and

n = Total number of batches of the coating.

43.f.ii.(5) By the 15th day of each calendar month, determine the volume of thinner actually used with the coating during the previous month.

43.f.ii.(6) If the volume of thinner actually used with the coating [condition 43.f.ii.(5)] is less than or equal to the total allowable volume of thinner for the coating [condition 43.f.ii.(4)], then compliance is demonstrated for the coating for the previous month, unless a violation is revealed using Method 24.

43.f.iii. Coatings to which the same thinning solvent will be added--group compliance. For coatings to which the same thinning solvent (or other material) is routinely or sometimes added, the permittee shall comply as follows:

43.f.iii.(1) Designate a single thinner to be added to each coating during the month and "group" coatings according to their designated thinner.

43.f.iii.(2) Prior to the first application of each batch, calculate the maximum allowable thinning ratio (or ratios, if the source complies with the cold-weather limits in addition to the other limits specified in condition 20.a) for each batch of coating in the group using the equations in condition 43.f.ii.

43.f.iii.(3) Prior to the first application of each "batch," notify painters and other persons, as necessary, of the designated thinner and maximum allowable thinning ratio(s) for each batch in the group by affixing a label to each container of coating or through another means described in the implementation plan per 40 CFR 63.787.

43.f.iii.(4) By the 15th day of each calendar month, determine the volume of each batch of the group used, as supplied, during the previous month.

43.f.iii.(5) By the 15th day of each calendar month, determine the total allowable volume of thinner for the group for the previous month using Equation 3.

43.f.iii.(6) By the 15th day of each calendar month, determine the volume of thinner actually used with the group during the previous month.

43.f.iii.(7) If the volume of thinner actually used with the group [condition 43.f.iii.(6)] is less than or equal to the total allowable volume of thinner for the group [condition 43.f.iii.(5)], then compliance is demonstrated for the group for the previous month, unless a violation is revealed using Method 24.

43.f.iv. Demonstration of compliance through an alternative (i.e., other than Method 24) test method. The permittee shall comply as follows:

43.f.iv.(1) Certify the as-supplied VOHAP content (g VOHAP/L solids) of each batch of coating.

43.f.iv.(2) If no thinning solvent will be added to the coating, the permittee shall follow the procedure described in condition 43.f.i, except that VOHAP content shall be used in lieu of VOC content.

43.f.iv.(3) If thinning solvent will be added to the coating, the permittee shall follow the procedure described in condition 43.f.ii or 43.f.iii, except that in Equation 1: the term "m_{VOC}" shall be replaced by the term "m_{VOHAP}," defined as the VOHAP content of the coating as supplied (g VOHAP/L coating) and the term "D_{th}" shall be replaced by the term "$D_{th(VOHAP)}$" defined as the average density of the VOHAP thinner(s) (g/L).

43.g. A violation revealed through any approved test method shall result in a 1-day violation for enforcement purposes. A violation revealed through the recordkeeping procedures described in conditions 43.f.i through 43.f.iv shall result in a 30-day violation for enforcement purposes, unless the permittee provides sufficient data to demonstrate the specific days during which non-compliant coatings were applied.

44. For the purpose of showing compliance with the requirements specified in condition 21, the permittee shall adhere to the monitoring and recordkeeping specified below:

44.a. For each batch of new coating received, the permittee shall verify that hexavalent chromium or hexamethylene-1,6-diisocyanate is not present at any concentration in the coating.

44.b. The permittee shall record the date, amount of coating applied, location of application, and application method for all coatings containing trivalent chromium in concentration of 2 percent or greater by weight.

44.c. The permittee shall record the date, amount of coating applied, location of application, and application method for all coatings containing trivalent chromium in concentration of less than 2 percent by weight.

44.d. The permittee may rely upon information contained in the material safety data sheets (MSDS) for each coating to determine the relevant chemical content of coating materials. The permittee may also use other appropriate method (e.g., chemical analysis, product data sheet, etc.) to determine the relevant chemical content of coating materials.

Monitoring Requirements for PSEL and the VOC/HAP Coating Limits:

45. The permittee shall determine compliance with the Plant Site Emissions Limits specified in conditions 28 and 29, the (synthetic minor) HAP Limits specified in condition 30, and the coating limits specified in conditions 17 and 19, by conducting monitoring in accordance with the procedures, test methods, and frequencies identified in conditions 46 through 49.

46. The permittee shall monitor and maintain daily, monthly, and annual records of the following material and process parameters:

46.a. The permittee shall monitor and maintain daily and annual records of the following operating parameters:

EMISSIONS UNIT	OPERATING PARAMETER	UNIT	METHOD
SBO and. Dry Dock No.1	Abrasive materials (steel shot/slag) used each day during SBO activities. Monitor the usage on dry dock No.1 separately.	lbs	Estimate (Recordkeeping) the amount (J_i) of blast grits used at each outdoor job site (dry dock & elsewhere) and monitor the number of active days (n_i) spent on each job. Also record dates associated with each job, and types of controls (i.e., curtains, screens, etc.) utilized.

Operating parameter, P_i (lbs/day) = $\sum J_i / n_i$

46.b. The permittee shall monitor and maintain monthly and annual records of the following operating parameters:

EMISSIONS UNIT	OPERATING PARAMETER	UNIT	METHOD
SBI	Abrasive materials (steel shot/ slag) used.	lbs	Estimate (Recordkeeping) the amount (lbs) of abrasive materials used from the daily schedule of abrasive-blasting jobs conducted inside.
WLD	welding rods usage	lbs	obtained from job/purchase records.
CUB	NG burned residual oil burned	10^6 ft^3 gallons	from meter reading and/or purchase records.
OVEN	NG burned	10^6 ft^3	
PIR	vehicle miles traveled (VMT)	VMT - miles	maintain log of estimated vehicles miles traveled and background calculations/assumptions used.
BWT	oil slop throughput	gallons	Recordkeeping
ROT	oil slop throughput	gallons	Recordkeeping
ROL	reclaimed oil	gallons	Recordkeeping

47. The permittee shall determine the daily or monthly, and the annual emissions from the emissions units specified, by using the operating parameters obtained per condition 46, and applying to the following formula and the emissions factors listed below:

$$E_j = \Sigma (P_i\ EF_{ij}) = (P_1\ EF_{1j}) + (P_2\ EF_{2j}) + \ldots\ldots + (P_n\ EF_{nj})$$

where: E_j = pollutant emissions; lbs/day, lbs/month, or lbs/year.
P_i = operating parameters identified in condition 46.
EF_{ij} = emission factor for each emissions unit and pollutant identified in this condition.

47.a. EF_{ij} for Process (PM/PM_{10}) emissions units

Emissions Unit	Operating Parameter	PM	PM_{10}	UNIT
SBO **	abrasive materials used	6.3×10^{-2} (1 - EFF_i)	2.2×10^{-2} (1 - EFF_i)	lbs/lbs abrasive
SBI	abrasive materials used	6.3×10^{-5}	2.2×10^{-5}	lbs/lbs abrasive
WLD	welding rods used	–	3.65×10^{-2}	lbs/lbs wld. rod
PIR	VMT, paved road	1.7×10^{-1}	1.36×10^{-1}	lbs/VMT, paved

** Set the control efficiency (EFF_i) used to calculate the SBO PM/PM_{10} emissions to **0.05** (i.e., 5% control) when curtains and/or screens are utilized. The permittee shall obtain a written approval from the Department prior to using EFF_i other than $EFF_{curtains/screens}$ of 0.05 (i.e., 5% control).

47.b. EF_{ij} for Combustion emissions units

EU ID	FUEL	PM_{10} [1]	SO_2 [1]	NOx	CO	VOC	UNIT
CUB (Boilers)	residual oil	9.19(%S)+3.22	157(%S)	55	5	0.28	lbs/1000 gal
	natural gas	2.5 [2]	2.6	140	35	2.8	lbs/10^6 ft^3
OVEN	natural gas	--	--	100	--	--	lbs/10^6 ft^3

[1] The PM_{10} and SO_2 EFs are a function of sulfur content (%S) when residual oil is burned, in which %S is obtained per facility-wide monitoring condition 32.

[2] All EFs are based on AP42 data, except PM_{10} EF for NG combustion is DEQ EF based on ST.

48. The permittee shall determine the daily and the annual VOC emissions from emissions units $COAT_{SHIP}$ and $COAT_{MISC}$; the HAP emissions from emissions unit $COAT_{MISC}$; and the compliance status with respect to the coating limits established in conditions 17.a and 19, in accordance with the following procedures and frequencies:

48.a. The permittee shall monitor the following COAT operating parameters:

Operating parameters	Description of COAT Operating parameters	Monitoring Frequency
i	List the type of all coatings, thinners, and cleaning solvents used; and record the specific coating category identified in conditions 17.a or 19 of which the coatings and thinners were used under. For each type of cleaning solvents used, record whether the solvents were used at $COAT_{SHIP}$ or $COAT_{MISC}$.	daily or update as needed
VOL_i	Volume (gallons) of each coating type "i" used. (Note: VOL_i is always greater than $VOL_{w,i}$)	daily
$VOL_{w,i}$	Volume (gallons) of water and exempt VOCs in each coating volume VOL_i used.	daily or update as needed
$V_{th,i}$	Volume (gallons) of each type of thinner added to the coating	daily
$V_{cl,i}$	Volume (gallons) of each type of cleaning solvent used. If separation of V_{cl} from V_{th} is difficult, V_{cl} may be reported as V_{th}, but V_{th} shall never be reported as V_{cl}	daily
C_i	The VOC content (lbs/gal) in each coating volume VOL_i	daily or update as needed
$D_{th,i}$	Density (lbs/gal) of each thinner $V_{th,i}$ added	daily or update as needed
$D_{cl,i}$	Density (lbs/gal) of each cleaning solvents used	daily or update as needed
HW_m	The amount (lbs) of hazardous and non-hazardous waste generated from the marine vessel coating operations, $COAT_{SHIP}$, that are shipped offsite.	as occurred
$\%VHW_m$	The representative VOC content (weight fraction) of each batch of marine vessel coating-waste HW_m	
m	The representative number of days "m" and dates associated with the HW_m collection during the period of m-days.	

Operating parameters	Description of COAT Operating parameters	Monitoring Frequency
HW_n	The amount (lbs) of hazardous and non-hazardous waste generated from the non-marine vessel coating operations, $COAT_{MISC}$, that are shipped offsite.	as occurred
$\%VHW_n$	The representative VOC content (weight fraction) of each batch of non-marine vessel coating-waste HW_n	
n	The representative number of days "n" and dates associated with the HW_n collection during the period of n-days.	

48.b. The permittee shall determine the daily and annual emissions from the emissions unit $COAT_{SHIP}$ by using the operating parameters obtained per condition 48.a, and applying to the following formula:

(-C-) $$E_{DAY}\ (lbs/day) = \Sigma_{day}\ [(VOL_i\ C_i) + (V_{th,i}\ D_{th,i}) + (V_{cl,i}\ D_{cl,i})] - \%VHW_m\ HW_m / m$$

$$E_{ANNUAL}\ (tons/yr) = \Sigma_{annual}\ [(VOL_i\ C_i) + (V_{th,i}\ D_{th,i}) + (V_{cl,i}\ D_{cl,i}) - (\%VHW_m\ HW_m)] / 2{,}000$$

48.c. The permittee shall determine the daily and annual emissions from the emissions unit $COAT_{MISC}$ by using the operating parameters obtained per condition 48.a, and applying to the following formula:

$$E_{DAY}\ (lbs/day) = \Sigma_{day}\ [(VOL_i\ C_i) + (V_{th,i}\ D_{th,i}) + (V_{cl,i}\ D_{cl,i})] - \%VHW_n\ HW_n / n$$

$$E_{ANNUAL}\ (tons/yr) = \Sigma_{annual}\ [(VOL_i\ C_i) + (V_{th,i}\ D_{th,i}) + (V_{cl,i}\ D_{cl,i}) - (\%VHW_n\ HW_n)] / 2{,}000$$

48.d. From June 1 to August 31 of each year, for <u>each coating category</u> identified in condition 17.a, the permittee shall determine the weekly (Monday through Sunday) compliance status of the (ozone) seasonal coating limits by using the operating parameters obtained per condition 48.a, and applying to the following formula:

$$E_{SHIP,WEEK}\ (lbs/gal, less\ H_2O/exempt\ VOCs) = \Sigma_{week}\ [(VOL_i\ C_i + V_{th,i}\ D_{th,i}) / (VOL_i + V_{th,i} - VOL_{w,i})]$$

48.e. For <u>each coating category</u> identified in condition 19, the permittee shall determine the daily compliance status of the categorical RACT limits by using the operating parameters obtained per condition 48.a, and applying to the following formula:

$$E_{MISC,DAY}\ (lbs/gal.\ less\ H_2O\ \&\ exempt\ VOCs) = \Sigma_{day}\ [(VOL_i\ C_i + V_{th,i}\ D_{th,i}) / (VOL_i + V_{th,i} - VOL_{w,i})]$$

(-C-) For daily emissions calculation, variable HW_m or HW_n is the most recent batch of hazardous waste shipment that occurred prior to the daily calculation.

48.f. At the end of each month, after a new coating booth has been added to emissions unit $COAT_{MISC}$, the permittee shall determine the HAP emissions occurred in the previous 12-month period from $COAT_{MISC}$, using the operating parameters obtained under conditions 48.a and 48.f and applying to the methods specified in condition 48.f.i and/or 48.f.ii below:

Operating parameters	Description of COAT Operating parameters	Monitoring Frequency
$VHAP_i$	Total amount (lbs) of individual organic HAP "i" in all coatings, thinners, and cleaning solvents used at $COAT_{MISC}$, during the previous 12-month period.	monthly
$IHAP_i$	Total amount (lbs) of individual inorganic HAP "i" used in all coatings, thinners, and cleaning solvents at $COAT_{MISC}$, during the previous 12-month period.	
$VHAPW_{n,i}$	Total amount (lbs) of individual organic HAP "i" in both HW_n and HW_s, that originated from $COAT_{MISC}$, during the previous 12-month period. If separation is difficult, default value = 0.	as occurred
$IHAPW_{n,i}$	Total amount (lbs) of individual inorganic HAP "i" in both HW_n and HW_s, that originated from $COAT_{MISC}$, during the previous 12-month period. If separation is difficult, default value = 0.	

48.f.i. If the previous 12-month sum of all individual HAP emissions is less than 10 tons; or if the previous 12-month sum of all individual organic HAP emissions is less than 10 tons and all individual inorganic HAP emissions is also less than 10 tons, the permittee is in compliance with the HAP limits specified in condition 30:

$$\Sigma \ (VHAP_i + IHAP_i - IHAPW_{n,i} - VHAPW_{n,i}) < 10 \text{ tons/yr}; \text{ or}$$

$$\Sigma \ (VHAP_i - VHAPW_{n,i}) < 10 \text{ tons/yr, and}$$
$$\Sigma \ (IHAP_i - IHAPW_{n,i}) < 10 \text{ tons/yr.}$$

48.f.ii. If each individual HAP emission during the previous 12-month period is less than 10 tons, and the total aggregate sum of all organic and inorganic HAP emissions is less than 25 tons, the permittee is in compliance with the HAP limits specified in condition 30:

$$VHAP_i - VHAPW_{n,i} < 10 \text{ tons/yr for each individual organic HAP,}$$
$$IHAP_i - IHAPW_{n,i} < 10 \text{ tons/yr for each individual inorganic HAP, and}$$
$$\Sigma \ (VHAP_i - VHAPW_{n,i}) + (IHAP_i - IHAPW_{n,i}) < 25 \text{ tons/yr.}$$

48.f.iii. For the period of one year after the installation date of new booth at $COAT_{MISC}$, the previous 12-month period means the installation date to the monitoring date, which would be less than 12 months until a year from the installation date has passed.

48.f.iv. While either condition 48.f.i or 48.f.ii, or the combination of both, can be used to determine the minor HAP source status for $COAT_{MISC}$, condition 48.f.i does not require separation of individual HAPs because the aggregate sum of all individual HAPs being less than the individual HAP limit of 10 tons/yr, for either the organic or inorganic HAPs category, assures the 25 tons/yr aggregate limit will not be exceeded.

49. Except as provided in condition 49.c, the permittee shall calculate the VOC emissions from emissions units BWT, ROT, and ROL using the appropriate production throughput obtained per condition 46, and the AP42 algorithms and emissions factors provided below:

49.a. VOC emissions from each fixed roof storage tank grouped under emissions unit BWT shall be calculated based on the following AP42 algorithms:

L_{BWT} = Total loss = $L_B + L_W$ (lbs/yr)

L_B = fixed roof breathing loss = $2.26x10^2\ M_V\ [P/(P_A - P)]^{0.68}\ D^{1.73}\ H^{0.51}\ \Delta T^{0.5}\ F_P\ C\ K_C$

L_W = fixed roof working loss = $2.4x10^5\ M_V\ P\ V\ N\ K_N\ K_C$

49.a.i. Annual emission from BWT is the sum of emissions from individual fixed roof storage tanks:

$E_{BWT,\ ANNUAL} = \Sigma\ L_{BWT} / 2000$ (tons/year)

49.a.ii. Monthly emissions from BWT is calculated using the monthly throughput data (N and K_N) in L_W:

$E_{BWT,\ MONTHLY} = \Sigma L_B/12 + \Sigma L_W$ (lbs/month)

where:

M_V = average vapor molecular weight
P = average monthly stock true vapor pressure, in psia (see equation below)
P_A = average atmospheric pressure at tank location, psia; default = 14.7 psi
D = tank diameter, feet
H = average vapor space height - if not available, assume H equals 1/2 the tank height.
ΔT = average ambient diurnal temperature change, °F; default = 15°F (assumption)
F_P = paint factor; see TABLE-A
C = adjustment factor for small tanks with D < 30 feet
= 0.0771 (D) - 0.0013 (D^2) - 0.1334; otherwise C = 1 for D ≥ 30.
K_C = product factor; for crude oil, K_C = 0.65. For all other organic liquids, K_C = 1.0.
V = tank capacity, gallons
N = number of turnovers per year = Annual throughput (gal) divided by tank capacity, V
K_N = turnover factor; for N > 36, K_N = (180 + N)/6N. For N ≤ 36, K_N = 1

$$P = \exp\{[0.7553 - 413 \div (T_{MA}+459.6)]S^{0.5}\log_{10}(RVP) - [1.854 - 1042 \div (T_{MA}+459.6)]S^{0.5} + [2416 \div (T_{MA}+459.6) - 2.013]\log_{10}(RVP) - [8742 \div (T_{MA}+459.6)] + 15.64\}$$

Where:

T_{MA} = Average monthly stock temp. (°F) = $0.44T_{AA} + 0.56T_B + 0.0079\alpha I$
RVP = Reid vapor pressure, psi
S = Slope of the ASTM distillation curve at 10% evaporated, °F

T_{AA} = Monthly average ambient temperature, °F
T_B = Liquid bulk temp. (°F) = $T_{MA} + 6\alpha - 1$
α = Tank paint absorptance factor, dimensionless, see TABLE-B
I = Solar insolation factor, Btu/ft²d, see TABLE-C

TABLE-A. Paint Factors for Fixed Roof Tanks

TANK COLOR		PAINT FACTOR (F_P) Paint Condition	
Roof	Shell	Good	Poor
White	White	1.00	1.15
Aluminum (specular)	White	1.04	1.18
White	Aluminum (specular)	1.16	1.24
Aluminum (specular)	Aluminum (specular)	1.20	1.29
White	Aluminum (diffuse)	1.30	1.38
Aluminum (diffuse)	Aluminum (diffuse)	1.39	1.46
White	Gray	1.30	1.38
Light gray	Light gray	1.33	1.44[a]
Medium gray	Medium gray	1.40	1.58[a]

[a] Estimated from the ratios of the seven preceding paint factors.

TABLE-B. Paint solar absorptance for Fixed Roof Tanks

		PAINT FACTOR (α) Paint Condition	
Paint color*	Paint shade or type	Good	Poor
Aluminum	Specular	0.39	0.49
Aluminum	Diffuse	0.60	0.68
Gray	Light	0.54	0.63
Gray	Medium	0.68	0.74
Red	Primer	0.89	0.91
White	NA	0.17	0.34

[a] If the tank roof and shell are painted a different color, use the average value of α

TABLE-C. Solar insolation factor (I), Btu/ft² d

Month	I	Month	I
January	310	July	2037
February	554	August	1674
March	895	September	1217
April	1308	October	724
May	1663	November	388
June	1773	December	250

For annual average, use I = 1067.

49.b. The permittee shall determine the monthly and annual emissions from emissions units ROT and ROL, by using the operating parameters obtained per condition 46, and applying to the following formula and the emissions factors listed below:

$$E = \Sigma (P_i\ EF_i) = (P_1\ EF_1) + (P_2\ EF_2)$$

where: E = VOC emissions
Pi = operating parameters identified in condition 46.b
EF_i = VOC emission factor for ROT and ROL identified below:

VOC EF_i for emissions units ROT & ROL

Emissions Unit	P_i	VOC EF_i	UNIT
ROT	oil slop throughput, gallons	7.76×10^{-3}	lbs/gal
ROL	reclaimed oil, gallons	2×10^{-3}	lbs/gal

49.c. For emission calculations for storage tanks BWT and ROT, the permittee may use the EPA Tank 2.0 program (software), which is based on the same AP42 algorithms/factors identified in this condition to calculate the VOC emissions. The permittee may also use a later version of the EPA Tank program, if approved in writing by the Department.

50. Source-specific RACT Monitoring

50.a. Once the EPA approved source-specific RACT standards become effective as scheduled in condition 18, compliance with the RACT coating limits specified in condition 18.a shall be deemed satisfied by the successful determination of compliance with the NESHAP coating limits presented in condition 20. In the event one or more NESHAP coating limit is determined to be violated based on the outcome of the NESHAP compliance monitoring conducted per condition 43, the permittee must determine compliance with the RACT limit(s) of the coating category (e.g., General Use, Antifoulant, Prewash, etc.) in violation separately, using the methods specified in condition 48.d, in order to avoid being deemed to be in violation of both the NESHAP and RACT standards. The permittee shall retain all calculations and associated records used to verify compliance with the source-specific RACT standard.

50.b. The permittee shall monitor the employee training outlined in condition 18.b and the Best management practices requirements outlined in condition 18.c, and retain all relevant records as required per condition 55.e.

TEST METHODS AND PROCEDURES [OAR 340-028-2130(1)]

51. Unless otherwise specified in this permit, all testing shall be conducted in accordance with the Department's Source Sampling Manual. [OAR 340-028-1100]

52. NESHAP Test methods and procedures: [40 CFR 63.786] .

52.a. For the compliance procedures described in conditions 43.f.i through 43.f.iii, Method 24 of 40 CFR Part 60, appendix A, is the definitive method for determining the VOC content of coatings, as supplied or as applied. When a coating or thinner contains exempt compounds that are volatile HAP or VOHAP, the permittee shall ensure, when determining the VOC content of a coating, that the mass of these exempt compounds is included.

52.b. For the compliance procedure described in condition 43.f.iv, the Department must approve the test method for determining the VOHAP content of coatings and thinners. As part of the approval, the test method must meet the specified accuracy limits indicated below for sensitivity, duplicates, repeatability, and reproducibility coefficient of variation each determined at the 95 percent confidence limit. Each percentage value below is the corresponding coefficient of variation multiplied by 2.8 as in the ASTM Method E180-93: Standard Practice for Determining the Precision of ASTM Methods for Analysis and Testing of Industrial Chemicals (incorporation by reference--see 40 CFR 63.14).

52.b.i. Sensitivity: The overall sensitivity must be sufficient to identify and calculate at least one mass percent of the compounds of interest based on the original sample. The sensitivity is defined as ten times the noise level as specified in ASTM Method D3257-93: Standard Test Methods for Aromatics in Mineral Spirits by Gas Chromatography (incorporation by reference--see 40 CFR 63.14). In determining the sensitivity, the level of sample dilution must be factored in.

52.b.ii. Repeatability: First, at the 0.1-5 percent analyte range the results would be suspect if duplicates vary by more than 6 percent relative and/or day to day variation of mean duplicates by the same analyst exceeds 10 percent relative. Second, at greater than 5 percent analyte range the results would be suspect if duplicates vary by more than 5 percent relative and/or day to day variation of duplicates by the same analyst exceeds 5 percent relative.

52.b.iii. Reproducibility: First, at the 0.1-5 percent analyte range the results would be suspect if lab to lab variation exceeds 60 percent relative. Second, at greater than 5 percent range the results would be suspect if lab to lab variation exceeds 20 percent relative.

52.b.iv. Any test method should include information on the apparatus, reagents and materials, analytical procedure, procedure for identification and confirmation of the volatile species in the mixture being analyzed, precision and bias, and other details to be reported. The reporting should also include information on quality assurance (QA) auditing.

52.b.v. Multiple and different analytical techniques must be used for positive identification if the components in a mixture under analysis are not known. In such cases a single column gas chromatograph (GC) may not be adequate. A combination of equipment may be need such as a GC/mass spectrometer or GC/infrared system. (If a GC method is used, the operator must use practices in ASTM Method E260-91: Standard Practice for Gas Chromatography [incorporation by reference--see 40 CFR 63.14].)

52.c. A coating manufacturer or the permittee may use batch formulation data as a test method in lieu of Method 24 to certify the as-supplied VOC content of a coating if the manufacturer or the permittee has determined that batch formulation data have a consistent and quantitatively known relationship to Method 24 results. This determination shall consider the role of cure volatiles, which may cause emissions to exceed an amount based solely upon coating formulation data. Notwithstanding such determination, in the event of conflicting results, Method 24 shall take precedence.

52.d. The permittee shall use or ensure that the manufacturer uses the form and procedures mentioned in appendix A to determine values for the thinner and coating parameters used in Equations 1 and 2 of condition 43. The permittee shall ensure that the coating/thinner manufacturer (or

supplier) provides information on the VOC and VOHAP contents of the coatings/thinners and the procedure(s) used to determine these values.

53. Although source testing is not required by this permit for the permit conditions listed below, if source testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods and averaging times to measure the pollutant emissions:

Permit Condition	Test Method	Averaging Time	Special Conditions
12, 13, 23, and 24	ODEQ Methods 5, 7, or 8	average of three one-hour test runs	ODEQ Method 8 is for sources with exhaust gases at essentially ambient conditions (e.g. material handling cyclones); ODEQ Method 7 is for direct contact combustion sources (e.g., particle and veneer dryers); ODEQ Method 5 is for indirect contact fuel burning equipment (e.g., boilers) and any other source.
11 and 22	Modified EPA Method 9 in accordance with the Department's Source Sampling Manual	aggregate of three minutes in any 60 minute period	Each Method 9 observation shall represent a period of 15 seconds for the purpose of determining the aggregate amount of time in 60 minute period that the visible emissions are greater than the opacity limit. The test duration may be less than 60 minutes if a violation of the standard is documented before the full 60 minute observation period is completed.

RECORDKEEPING REQUIREMENTS [OAR 340-028-2130(3)(b)]

54. The permittee shall maintain the following general records of monitoring required by conditions 31 through 50:

54.a. the date, place as defined in the permit, and time of sampling or measurements;

54.b. the date(s) analyses were performed;

54.c. the company or entity that performed the analyses;

54.d. the analytical techniques or methods used;

54.e. the results of such analyses;

54.f. the operating conditions as existing at the time of sampling or measurement; and

54.g. the records of all physical and operating parameters used in this permit.

55. The permittee shall maintain the following specific records of required monitoring information:

55.a. fugitive dust inspection and maintenance activities records kept per condition 31;

55.b. fuel oil sulfur analyses certificates kept per condition 32;

55.c. recordkeeping per condition 33 of any actions taken during an applicable air pollution episode;

55.d. complaint log and investigation reports per condition 34, if any;

55.e. employee certification records and training records kept per conditions 35, 38, and 50;

55.f. visible emissions observation reports per conditions 36 and 37;

55.g. records of inspection and maintenance procedures kept per conditions 39, 40, and 42;

55.h. the HAP data kept per condition 44; and

55.i. daily, weekly, monthly, and/or annual records of production, fuel usage, and/or other relevant emissions data identified in conditions 46 through 50.

56. By no later than December 15, 1997, the permittee shall maintain the following specific records related to ship coating operations conducted under emissions unit $COAT_{SHIP}$ in accordance with 40 CFR 63.788:

56.a. The permittee shall maintain relevant records for such source of:

56.a.i. Any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements, if the permittee has been granted a waiver under 40 CFR 63.10(f);

56.a.ii. All documentation supporting the initial notification submitted under 40 CFR 63.787.

56.b. The permittee shall record the total volume of each of the exempt coatings applied to marine vessel and vessel parts at the source. Such records shall be compiled monthly, and the previous 12 month usage of exempt coatings shall be compared to the limits specified in condition 20.c.i.

56.c. The permittee shall compile records on a monthly basis. At a minimum, these records shall include:

~~56.c.i.~~ All documentation supporting initial notification;

~~56.c.ii.~~ A copy of the source's implementation plan;

56.c.iii. The volume of each low-usage-exempt coating applied;

56.c.iv. Identification of the coatings used, their appropriate coating categories, and the applicable VOHAP limit;

~~56.c.v.~~ Certification of the as-supplied VOC content of each batch of coating;

56.c.vi. A determination of whether containers meet the standards as described in condition 20.b.ii; and

56.c.vii. The results of any Method 24 or approved VOHAP measurement test conducted on individual containers of coating, as applied.

56.d. The records required by condition 56.c shall include additional information, as determined by the compliance procedure(s) described in condition 43.f that the source followed:

56.d.i. Coatings to which thinning solvent will not be added. The records maintained if demonstrating compliance using the procedure described in condition 43.f.i shall contain the following information:

~~56.d.i.(1)~~ Certification of the as-applied VOC content of each batch of coating; and

56.d.i.(2) The volume of each coating applied.

56.d.ii. Coatings to which thinning solvent will be added--coating-by-coating compliance. The records maintained by facilities demonstrating compliance using the procedure described in condition 43.f.ii shall contain the following information:

~~56.d.ii.(1)~~ The density and mass fraction of water and exempt compounds of each thinner and the volume fraction of solids (non-volatiles) in each batch, including any calculations;

56.d.ii.(2) The maximum allowable thinning ratio (or ratios, if the source complies with the cold-weather limits in addition to the other limits specified in condition 20.a for each batch of coating, including calculations;

56.d.ii.(3) If the source chooses to comply with the cold-weather limits, the dates and times during which the ambient temperature at the affected source was below 4.5°C (40°F) at the time the coating was applied and the volume used of each batch of the coating, as supplied, during these dates;

56.d.ii.(4) The volume used of each batch of the coating, as supplied;

56.d.ii.(5) The total allowable volume of thinner for each coating, including calculations; and

56.d.ii.(6) The actual volume of thinner used for each coating.

56.d.iii. Coatings to which the same thinning solvent will be added--group compliance. The records maintained by facilities demonstrating compliance using the procedure described in condition 43.f.iii shall contain the following information:

~~56.d.iii.(1)~~ The density and mass fraction of water and exempt compounds of each thinner and the volume fraction of solids in each batch, including any calculations;

56.d.iii.(2) The maximum allowable thinning ratio (or ratios, if the affected source complies with the cold-weather limits in addition to the other limits specified in condition 20.a) for each batch of coating, including calculations;

56.d.iii.(3) If the source chooses to comply with the cold-weather limits, the dates and times during which the ambient temperature at the affected source was below 4.5°C (40°F) at the time the coating was applied and the volume used of each batch in the group, as supplied, during these dates;

56.d.iii.(4) Identification of each group of coatings and their designated thinners;

56.d.iii.(5) The volume used of each batch of coating in the group, as supplied;

56.d.iii.(6) The total allowable volume of thinner for the group, including calculations; and

56.d.iii.(7) The actual volume of thinner used for the group.

56.d.iv. Demonstration of compliance through an alternative (i.e., non-Method 24) test method. The records maintained by facilities demonstrating compliance using the procedure described in condition 43.f.iv shall contain the following information:

56.d.iv.(1) Identification of the Administrator-approved VOHAP test method or certification procedure;

56.d.iv.(2) For coatings to which the source does not add thinning solvents, the source shall record the certification of the as-supplied and as-applied VOHAP content of each batch and the volume of each coating applied;

56.d.iv.(3) For coatings to which the source adds thinning solvent on a coating-by-coating basis, the source shall record all of the information required to be recorded by condition 56.d.ii; and

56.d.iv.(4) For coatings to which the source adds thinning solvent on a group basis, the source shall record all of the information required to be recorded by condition 56.d.iii.

56.e. If the permittee detects a violation of the standards specified in condition 20, the permittee shall, for the remainder of the reporting period during which the violation(s) occurred, include the following information in his or her records:

56.e.i. A summary of the number and duration of deviations during the reporting period, classified by reason, including known causes for which a Federally-approved or promulgated exemption from an emission limitation or standard may apply.

56.e.ii. Identification of the data availability achieved during the reporting period, including a summary of the number and total duration of incidents that the monitoring protocol failed to perform in accordance with the design of the protocol or produced data that did not meet minimum data accuracy and precision requirements, classified by reason.

56.e.iii. Identification of the compliance status as of the last day of the reporting period and whether compliance was continuous or intermittent during the reporting period.

56.e.iv. If, pursuant to condition 56.e.iv, the permittee identifies any deviation as resulting from a known cause for which no Federally-approved or promulgated exemption from an emission limitation or standard applies, the monitoring report shall also include all records that the source is required to maintain that pertain to the periods during which such deviation occurred and:

56.e.iv.(1) The magnitude of each deviation;

56.e.iv.(2) The reason for each deviation;

56.e.iv.(3) A description of the corrective action taken for each deviation, including action taken to minimize each deviation and action taken to prevent recurrence; and

56.e.iv.(4) All quality assurance activities performed on any element of the monitoring protocol.

57. Unless otherwise specified, the permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. All existing records required by the previous Air Contaminant Discharge Permit shall also be retained for five (5) years from the date of the monitoring, sample collection, measurement, report, or application.

57.a. For the NESHAP records required by condition 56, the permittee shall retain at least the most recent 2 years of data on site; and the remaining 3 years of NESHAP records may be retained off site.

57.b. The NESHAP data may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

REPORTING REQUIREMENTS [OAR 340-028-2130(3)(c)]

58. The permittee shall submit four (4) copies of the first semi-annual monitoring report, covering the period from January 1 to June 30, using Department approved forms, by July 31, unless otherwise approved in writing by the Department. One copy of the report shall be submitted to the Air Quality Division, two copies to the regional office, and one copy to the EPA Region X office. The semi-annual monitoring report shall include the semi-annual compliance certification.

59. The permittee shall submit four (4) copies of the annual monitoring report, using Department approved forms, by February 15, unless otherwise approved in writing by the Department. One copy of the report shall be submitted to the Air Quality Division, two copies to the regional office, and one copy to the EPA Region X office.

60. The annual monitoring report shall include the following general information:

60.a. the emission fee report; [OAR 340-028-2660]

60.b. the excess emissions upset log; [OAR 340-028-1440]

60.c. the emission statement, if becomes necessary; [OAR 340-028-1520] and

60.d. the second semi-annual compliance certification, covering the period from July 1 to December 31. [OAR 340-028-2160]

61. The annual monitoring report shall include the following specific information:

61.a. Annual VOC emissions from each of the emissions units $COAT_{SHP}$, $COAT_{MISC}$, BWT, ROL, and ROT; and associated material usage and/or annual throughputs (gal) of corresponding emissions unit.

61.b. Annual PM and PM_{10} emissions from SBO, SBI, and WLD and associated amount of abrasive materials used for the inside and outside jobs, and the amount of welding rods used.

61.c. Annual PM and PM_{10} emissions from PIR and corresponding VMT from paved and unpaved road.

61.d. Annual summary of emissions of each criteria pollutant PM_{10}, SO_2, NO_x, CO, and VOC from emissions unit CUB, including OVEN; and corresponding fuel(s) usage.

61.e. A tabulated results of (12-months rolling) HAP emissions from emissions unit $COAT_{MISC}$, as determined from condition 48.f.

61.f. A summary of maximum daily VOC emissions from $COAT_{SHIP}$ noted during each month and the corresponding dates. Also report all exceedances of the daily $COAT_{SHIP}$ (VOC) PSEL, if any, and corresponding dates.

61.g. A summary of maximum daily VOC emissions from $COAT_{MISC}$ noted during each month and the corresponding dates. Also report all exceedances of the daily $COAT_{MISC}$ (VOC) PSEL, if any, and corresponding dates.

61.h. A summary of maximum daily PM_{10} and PM emissions from SBO noted during each month and corresponding amount of abrasive materials used that day. Also report all exceedances of the daily PM_{10} or PM PSEL, if any, and associated amount of abrasive materials used and corresponding dates.

61.i. A summary of monthly VOC emissions from BWT, ROL, and ROT, and associated materials throughputs.

61.j. A summary of monthly PM and PM_{10} emissions from SBI and WLD, and corresponding amount of abrasive materials and welding rods used.

61.k. A summary of monthly PM and PM_{10} emissions from PIR, and corresponding VMT from paved roads.

61.l. A summary of monthly emissions of each criteria pollutant (PM_{10}, SO_2, NO_x, CO, VOC) from emissions units CUB and OVEN, and report each type and amount of fuels used.

61.m. A summary of maximum weekly VOC emissions rate from $COAT_{SHIP}$ noted during each month with respect to each of the weekly limits specified in condition 17.a, as determined from the monitoring conducted under conditions 48.a and 48.d. Also report all exceedances. The reporting period for this condition is the ozone season.

61.n. A summary of maximum daily VOC emissions rate from $COAT_{MISC}$ noted during each month with respect to each of the weekly limits specified in condition 19, as determined from the monitoring conducted under conditions 48.a and 48.e. Also report all exceedances.

62. NESHAP Reporting requirements.

The permittee shall submit a report to the EPA Region X office and the Department by July 31 and February 15, unless otherwise approved in writing by the Department. The July report shall cover the period from December 15 to June 14, and the December report shall cover the period from June 15 to December 14. Each report shall include all of the information that must be retained pursuant to conditions 56.c and 56.d, except for that information specified in conditions 56.c.i, 56.c.ii, 56.c.v, 56.d.i.(1), 56.d.ii.(1), and 56.d.iii.(1). If a violation at is detected, the source shall also report the information specified in condition 56.e for the reporting period during which the violation(s) occurred. To the extent possible, the report shall be organized according to the compliance procedure(s) followed each month by the source.

63. Addresses of regulatory agencies are the following, unless otherwise instructed:

Copies → 2 1 1

DEQ - Northwest Region	DEQ - Air Quality Division	Air Compliance Division US Environmental Protection Agency
2020 S.W. 4th Avenue, #400 Portland, OR 97201-5884	811 SW Sixth Avenue Portland, OR 97204	Mail Stop OAQ-107 1200 Sixth Avenue Seattle, WA 98101
(503) 229-5263	(503) 229-5359	–

NON-APPLICABLE REQUIREMENTS

64. Divisions of Chapter 340, Air Quality Oregon Administrative Rules (OARs), currently determined not applicable to the permittee are listed below. [OAR 340-028-2190]

64.a. The following OARs are not applicable because the source is not in the source category cited in the rules:

Division 022: rules 0120, 0130, 0137, 0150, 0153, 0175, 0200 to 0220, 0480 to 0540, 0560, 0580, 0610 to 0640.
Division 024: rules 0306, 0330, 0335.
Division 025: entire division.
Division 028: rules 0500 to 0520, 0800 to 0820, 2170, 2180.
Division 031: entire division.
Division 032: rules 0250, 0530 to 0690, 0710, 2620 to 2780, 2800, 5000, 5400, 5530 to 5585.

64.b. The following OARs are not applicable because the source is outside the special control area, non-attainment area or county cited in the rules:

Division 021: rules 0200 to 0245.
Division 024: rules 0301.
Division 030: entire division except rules 0400 to 0540.

64.c. The following OARs are not applicable because the source does not have specific emissions units cited in the rules:

Division 021: rules 0025, 0027, 0055.
Division 022: rules 0183, 0186, 0190, 0400 to 0403, 0405 to 0415.
Division 030: rules 0420, 0450, 0460(1)&(2).

64.d. The following OARs are not applicable because the source does not burn the fuel type cited in the rules:

Division 022: rules 0015, 0020.

64.e. The following OARs are not applicable because the source made no changes that would trigger the rule procedural requirements:

Division 028: rules 2240.

64.f. The following OARs are not applicable because the method/procedure is not used by the facility:

Division 022: rules 0140.
Division 028: rules 0400, 1030, 1040, 1050, 2130(8).
Division 032: rules 0300 to 0380.

64.g. The following OARs are not applicable because the rules applied in the past and the fees have been paid:

Division 028: rules 2400 to 2550, 2570.

65. The following federal regulations are not applicable to the permittee at the time of permit issuance because the source is not in the source category cited in the rules:

40 CFR Part 55, 57,
40 CFR Part 60 except subpart A and the Appendices,
40 CFR Part 61 except subparts A, M, and the Appendices,
40 CFR Part 62 except subparts A, MM,
40 CFR Part 63 except subparts A, II, and the Appendices,
40 CFR Parts 68, 72, 73, 75, 76,
40 CFR Part 82 (except subpart F),
40 CFR Parts 85 through 89,
Section 129 of the FCAA, Solid Waste,
Section 183(e) of the FCAA, Consumer and commercial products,
Section 183(f) of the FCAA, Tank Vessels.

GENERAL CONDITIONS

G1. General Provision

Terms not otherwise defined in the permit shall have the meaning assigned to such terms in the referenced regulation.

G2. Reference materials

Where referenced in this permit, the version of the following materials are effective as of the dates noted unless otherwise specified in the permit:

a. Source Sampling Manual; January 23, 1992 - State Implementation Plan Volume 3, Appendix A4;

b. Continuous Monitoring Manual; January 23, 1992 - State Implementation Plan Volume 3, Appendix A6; and

c. All state and federal regulations as in effect on the date of issuance of this permit.

G3. Compliance [OAR 340-028-2120(3)(n)(C), 340-028-2130(6), and 340-028-2160(4)]

a. The permittee shall comply with all conditions of the federal operating permit. Any permit condition noncompliance constitutes a violation of the Federal Clean Air Act and/or state rules and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. Any noncompliance with a permit condition specifically designated as enforceable only by the state constitutes a violation of state rules only and is grounds for enforcement action; for permit termination, revocation and re-issuance, or modification; or for denial of a permit renewal application.

b. Any schedule of compliance for applicable requirements with which the source is not in compliance at the time of permit issuance shall be supplemental to, and shall not sanction noncompliance with the applicable requirements on which it is based.

c. For applicable requirements that will become effective during the permit term, the source shall meet such requirements on a timely basis unless a more detailed schedule is expressly required by the applicable requirement.

G4. Compliance Monitoring and Enforcement [OAR 340-028-0300, 340-028-1100, 340-028-1120, 340-028-1130, 340-028-1140, 340-028-2130(3), 340-028-2160, 340-032-0270]

a. For the purpose of submitting semi-annual compliance certification reports, the permittee shall use, at a minimum, the information obtained from the monitoring requirements of this permit. The permittee shall not knowingly falsify or render inaccurate any monitoring device or method required to be maintained or followed by the permit.

b. The information obtained from the monitoring required by this permit can be used directly for enforcement.

G5. Certification [OAR 340-028-0300, 340-028-2120(5) and 340-028-2160(2)]

Any document submitted to the Department pursuant to this permit shall contain certification by a responsible official of truth, accuracy and completeness. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and, complete. The permittee shall promptly, upon discovery, report to the Department a material error or omission in these records, reports, plans, or other documents.

G6. Excess Emissions Reporting [OAR 340-028-1400 through 340-028-1460]

a. The permittee shall report all excess emissions in accordance with OAR 340-028-1400 through 340-028-1460. In summary, the permittee shall immediately (i.e., as soon as possible but in no case more than one hour after the beginning of the excess emission period) notify the Department by telephone or in person of any excess emission, other than pre-approved startup, shutdown, or scheduled maintenance. Notification shall, to the extent reasonably ascertainable at the time of notification, include the source name, nature of the emissions problem, name of the person making the report, name and telephone number of the contact person for further information, date and time of the onset of the upset condition, whether or not the incident was planned, the cause of the excess emission (e.g., startup, shutdown, maintenance, breakdown, or other), equipment involved in the upset, estimated type and quantity of excess emissions, estimated time of return to normal operations, efforts made to minimize emissions, and a description of remedial actions to be taken. Follow-up reporting shall be made in accordance with Department direction and OAR 340-028-1430(2) and 340-028-1440.

b. Notification shall be made to the appropriate regional office. Current Departmental telephone numbers are:

Portland: (503) 229-5554	Medford: (541) 776-6010	Bend: (541) 388-6146
Pendleton: (541) 276-4063	Salem: (503) 378-8240	

c. In the event of any excess emissions which are of a nature that could endanger public health and occur during non-business hours, weekends, or holidays, the permittee shall immediately notify the Department by calling the Oregon Emergency Response System (OERS). The current number is 1-800-452-0311.

d. If startups, shutdowns, or scheduled maintenance may result in excess emissions, the permittee shall submit startup, shutdown, or scheduled maintenance procedures used to minimize excess emissions to the Department for prior authorization, as required in OAR 340-028-1410 and 340-028-1420. New or modified procedures shall be received by the Department in writing at least 72 hours prior to the first occurrence of the excess emission event. The permittee shall abide by the approved procedures and have a copy available at all times.

e. The permittee shall notify the Department of planned startup/shutdown or scheduled maintenance events only if required by permit condition or if the source is located in a nonattainment area for a pollutant which may be emitted in excess of applicable standards.

f. The permittee shall maintain and submit to the Department a log of planned and unplanned excess emissions, on Department approved forms, in accordance with OAR 340-028-1440.

G7. Permit Deviation Reporting [OAR 340-028-2130(3)(c)(B)]

The permittee shall promptly report, by telephone or in person, any deviations from permit requirements that do not cause excess emissions, including those attributable to upset conditions, as defined in the permit, the probable cause of such deviations, and any corrective actions or preventative measures taken. Deviations are instances when any permit condition is violated. "Prompt" is defined as within seven (7) days of the deviation.

G8. Open Burning [OAR Chapter 340, Division 23]

The permittee is prohibited from conducting open burning, except as may be allowed by OAR 340-023-0025 through 340-023-0115.

G9. Asbestos [40 CFR Part 61, Subpart M (federally enforceable), OAR 340-032-5600 through 340-032-05650 and OAR Chapter 340, Division 33 (state-only enforceable)]

The permittee shall comply with OAR 340-032-5600 through 340-032-5650, OAR Chapter 340 Division 33, and 40 CFR Part 61, Subpart M when conducting any renovation or demolition activities at the facility.

G10. Stratospheric Ozone and Climate Protection [40 CFR 82 Subpart F, OAR 340-022-0420]

The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, Recycling and Emissions Reduction.

G11. Permit Shield [OAR 340-028-2190]

a. Compliance with this permit shall be deemed compliance with all applicable requirements as of the date of permit issuance provided that:

   i. such applicable requirements are specifically identified in the permit, or
   ii. such applicable requirements are specifically identified in the "Non-Applicable Requirements" section of this permit.

b. Nothing in this rule or in any federal operating permit shall alter or affect the following:

   i. the provisions of ORS 468.115 (enforcement in cases of emergency) and ORS 468.035 (function of department);
   ii. the liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
   iii. the applicable requirements of the national acid rain program, consistent with section 408(a) of the FCAA; or
   iv. the ability of the Department to obtain information from a source pursuant to ORS 468.095 (investigatory authority, entry on premises, status of records).

c. Sources are not shielded from applicable requirements that are enacted during the permit term, unless such applicable requirements are incorporated into the permit by administrative amendment, as provided in OAR 340-028-2230(1)(h), or significant permit modification.

G12. Inspection and Entry [OAR 340-028-2160(3)]

Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Department of Environmental Quality, or an authorized representative (including an authorized contractor acting as a representative of the EPA Administrator), to perform the following:

a. enter upon the permittee's premises where an Oregon Title V operating permit program source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;

b. have access to and copy, at reasonable times, any records that must be kept under conditions of the permit;

c. inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and

d. as authorized by the FCAA or state rules, sample or monitor, at reasonable times, substances or parameters, for the purposes of assuring compliance with the permit or applicable requirements.

G13. Fee Payment [OAR 340-028-2560, and 340-028-2580 through 340-028-2740]

The permittee shall pay an annual base fee and an annual emission fee for all regulated air pollutants except for carbon monoxide, any class I or class II substance subject to a standard promulgated under or established by Title VI of the Federal Clean Air Act, or any pollutant that is a regulated air pollutant solely because it is subject to a standard or regulation under section 112(r) of the Federal Clean Air Act. The permittee shall submit payment to the Department of Environmental Quality, Business Office, 811 SW 6th Avenue, Portland, OR 97204, within 30 days of the date the Department mails the fee invoice or August 1 of the year following the calendar year for which emission fees are paid, whichever is later. Disputes shall be submitted in writing to the Department of Environmental Quality. Payment shall be made regardless of the dispute. User-based fees shall be charged for specific activities (e.g., computer modeling review, ambient monitoring review, etc.) requested by the permittee.

G14. *Off-Permit Changes to the Source* [OAR 340-028-2220(2)]

a. The permittee shall monitor for, and record, any off-permit change to the source that:

i. is not addressed or prohibited by the permit;
ii. is not a Title I modification;
iii. is not subject to any requirements under Title IV of the FCAA;
iv. meets all applicable requirements;
v. does not violate any existing permit term or condition; and
vi. may result in emissions of regulated air pollutants subject to an applicable requirement but not otherwise regulated under this permit or may result in insignificant changes as defined in OAR 340-028-110.

b. A contemporaneous notification, as required in OAR 340-028-2220(2)(b), shall be submitted to the Department and the EPA.

c. The permittee shall keep a record describing off-permit changes made at the facility that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those off-permit changes.

d. The permit shield of condition G11 shall not extend to off-permit changes.

G15. Section 502(b)(10) Changes to the Source [OAR 340-028-2220(3)]

a. The permittee shall monitor for, and record, any section 502(b)(10) change to the source, which is defined as a change that would contravene an express permit term but would not:

i. violate an applicable requirement;
ii. contravene a federally enforceable permit term or condition that is a monitoring, recordkeeping, reporting, or compliance certification requirement; or
iii. be a Title I modification.

b. A minimum 7-day advance notification shall be submitted to the Department and the EPA in accordance with OAR 340-028-2220(3)(b).

c. The permit shield of condition G11 shall not extend to section 502(b)(10) changes.

G16. Administrative Amendment [OAR 340-028-2230]

Administrative amendments to this permit shall be requested and granted in accordance with OAR 340-028-2230. The permittee shall promptly submit an application for the following types of administrative amendments upon becoming aware of the need for one, but no later than 60 days of such event:

a. legal change of the registered name of the company with the Corporations Division of the State of Oregon, or

b. sale or exchange of the activity or facility.

G17. Minor Permit Modification [OAR 340-028-2250]

The permittee shall submit an application for a minor permit modification in accordance with OAR 340-028-2250.

G18. Significant Permit Modification [OAR 340-028-2260]

The permittee shall submit an application for a significant permit modification in accordance with OAR 340-028-2260

G19. Construction/Operation Modification [OAR 340-028-2270 and 340-032-0230 (state-only enforceable)]

No permittee shall construct, reconstruct, or make modifications required to be reviewed under OAR 340-028-2270 and 340-032-0230 (HAP sources only), the construction/operation modification rules, without receiving a Notice of Approval in accordance with OAR 340-028-2270. The permittee should

allow 60 days for Department review of applications for a construction/operation modification if public notice is not required, or 180 days if public notice is required.

G20. New Source Review Modification [OAR 340-028-1900]

No permittee shall construct or make modifications required to be reviewed under New Source Review (OAR 340-028-1900(1)) without receiving an Air Contaminant Discharge Permit (ACDP) (OAR 340-028-1700). The permittee should allow 180 days for Department review of an ACDP application for New Source Review.

G21. Need to Halt or Reduce Activity Not a Defense [OAR 340-028-2130(6)(b)]

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

G22. Duty to Provide Information [OAR 340-028-2130(6)(e) and OAR 340-028-0300]

The permittee shall furnish to the Department, within a reasonable time, any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Department copies of records required to be retained by the permit.

G23. Reopening for Cause [OAR 340-028-2130(6)(c) and 340-028-2280]

a. The permit may be modified, revoked, reopened and reissued, or terminated for cause as determined by the Department.

b. The filing of a request by the permittee for a permit modification, revocation and re-issuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

c. A permit shall be reopened and revised under any of the circumstances listed in OAR 340-028-2280(1)(a).

d. Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists.

G24. Severability Clause [OAR 340-028-2130(5)]

Upon any administrative or judicial challenge, all the emission limits, specific and general conditions, monitoring, recordkeeping, and reporting requirements of this permit, except those being challenged, remain valid and must be complied with.

G25. Permit Renewal and Expiration [OAR 340-028-2120(1)(a)(D) and 340-028-2210]

a. This permit shall expire at the end of its term. Permit expiration terminates the permittee's right to operate unless a timely and complete renewal application is submitted as described below.

b. Applications for renewal shall be submitted at least 12 months before the expiration of this permit, unless the Department requests an earlier submittal. If more than 12 months is required to process a permit renewal application, the Department shall provide no less than six (6) months for the owner or operator to prepare an application. Provided the permittee submits a timely and complete renewal application, this permit shall remain in effect until final action has been taken on the renewal application to issue or deny the permit.

G26. Permit Transference [OAR 340-028-2230(1)(d)]

The permit is not transferable to any person except as provided in OAR 340-028-2230(1)(d).

G27. Property Rights [OAR 340-028-0110(9)(c) and 340-028-2130(6)(d)]

The permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations, except as provided in OAR 340-028-2190.

G28. Permit Availability [OAR 340-028-0110(9)(c) and 340-028-2200(2)]

The permittee shall have available at the facility at all times a copy of the Oregon Title V Operating Permit and shall provide a copy of the permit to the Department or an authorized representative upon request.

ALL INQUIRIES SHOULD BE DIRECTED TO:

Northwest Region
2020 S.W. 4th Avenue, #400
Portland, OR 97201-5884
Telephone: (503) 229-5263

263224T3.doc

APPENDIX A

VOC DATA SHEET:[1]
PROPERTIES OF THE COATING "AS SUPPLIED" BY THE MANUFACTURER[2]

Coating Manufacturer:

Coating Identification:

Batch Identification:

Supplied To:

Properties of the coating as supplied[1] to the customer:

A. Coating Density: $(D_c)_s$ ___ g/L

[ ] ASTM D1475-90* [ ] Other[3]

B. Total Volatiles: $(m_v)_s$ ___ Mass Percent

[ ] ASTM D2369-93* [ ] Other[3]

C. Water Content:

1. $(m_w)_s$ ___ Mass Percent

[ ] ASTM D3792-91* [ ] ASTM D4017-90* [ ] Other[3]

2. $(v_w)_s$ ___ Volume Percent

[ ] Calculated [ ] Other[3]

D. Organic Volatiles: $(m_o)_s$ ___ Mass Percent

E. Nonvolatiles: $(v_n)_s$ ___Volume Percent

[ ] Calculated [ ] Other[3]

F. VOC Content $(VOC)_s$:

1. ___ g/L solids (nonvolatiles)

2. ___ g/L coating (less water and exempt compounds)

G. Thinner Density: D_{th}_____g/L

ASTM _____ [ ] Other[3]

Remarks: (use reverse side)

Signed:_____ Date:

*Incorporation by reference--see §63.14.
[1]Adapted from EPA-340/1-86-016 (July 1986), p. II-2.
[2]The subscript "s" denotes each value is for the coating "as supplied" by the manufacturer.
[3]Explain the other method used under "Remarks."

APPENDIX B

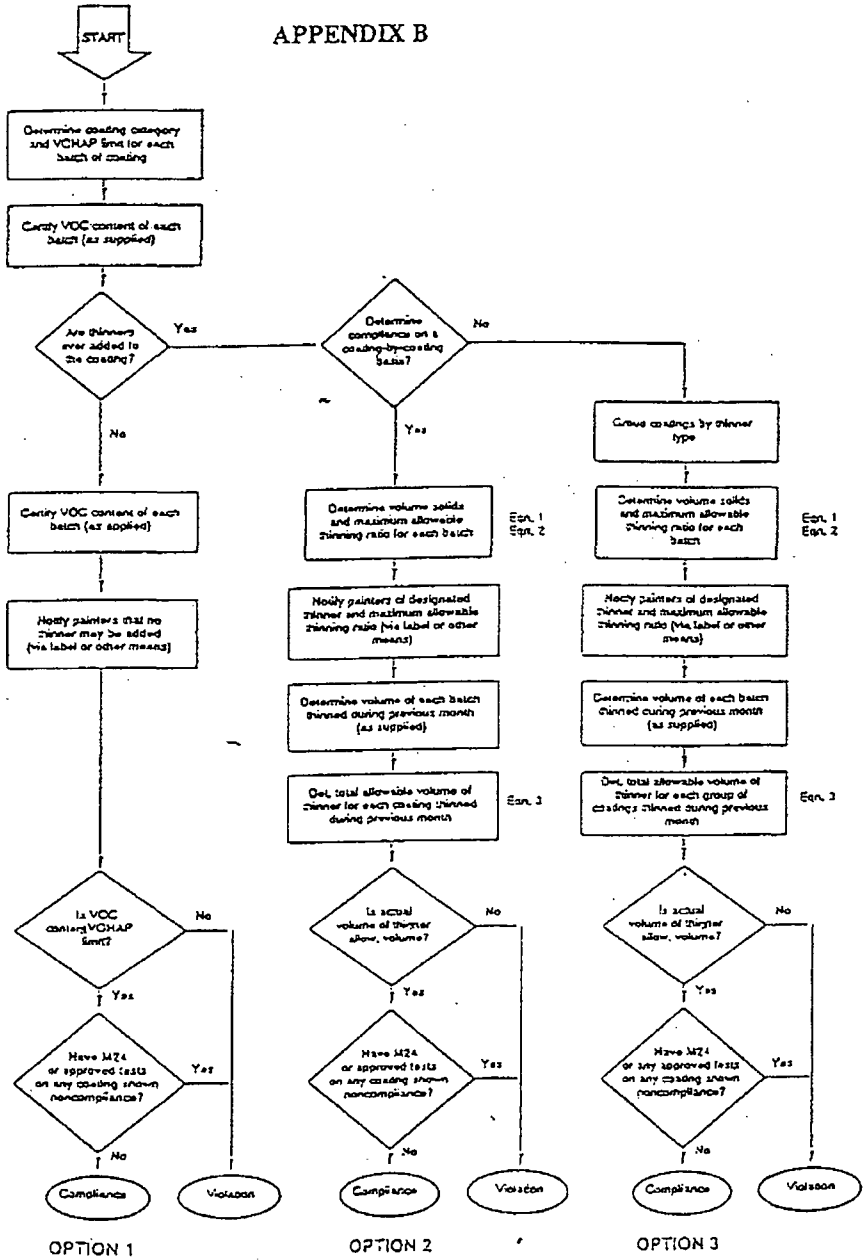

Figure 1. Flow diagram of compliance procedures.

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
OREGON TITLE V OPERATING PERMIT REVIEW REPORT

Cascade General, Inc.
5555 N. Channel Avenue
Portland, OR 97217

SOURCE TEST	COMP SCHE	COMS	CEMS	REPORT A S Q M	EXCESS R N	NSPS	NSR	PSD	RACT	NESHAP	SIZE	PUBLIC NOTICE
				X X	X				X	X	TV	III

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.55 gal/gal/ds

7.46 g/t

This permit review report supplements the Oregon Title V permit by including pertinent background information such as facility description, source's compliance history, emissions data, applicable rules and policies, and theories and engineering assumptions used to construct the permit. While the permit and not the review report is the legal document used by the permittee and the Department for compliance determination, this review report contains the permit background information which directly came from the application submitted and certified by the permittee to be true, accurate, and complete. If information supplied by the permittee, contained in this review report or in the application, are later determined to be false, it is the permittee's duty to supplement or correct the information upon becoming aware of any such false information.

PERMITTEE IDENTIFICATION

1. Shipyard America, LLC owns the Portland Ship Yard (PSY) which occupies 95 acres of property located at 5555 North Channel Avenue in Portland, Oregon. Cascade General, Inc. (CG) is a subsidiary of Shipyard America, LLC and is the operator of the PSY. Cascade General is the entity/permittee responsible for complying with the terms and limitations of this Title V permit. Mr. T. Alan Sprott is the director of CG environmental services, and he is currently identified as the primary responsible official for the permitted activities.

2. Permit Action: The proposed permit is a renewal of an existing Title V Permit 26-3224 that is scheduled to expire on January 1, 2003. The plant site emissions have decreased significantly and will continue to decline over the years, primarily due to the permanent reduction in ship repair business. Cascade General can operate under the plant site emissions cap that is below the major source threshold level for both criteria and hazardous air pollutants. Cascade General is required to continue to operate under a Title V permit because their marine coating operations ($COAT_{SHIP}$) are subject to NESHAP, and all NESHAP sources are required to operate under a Title V permit.

FACILITY DESCRIPTION

3. Numerous changes have occurred during the existing Title V permit term that resulted in significant reduction in the plant site emissions. First, Cascade General sold drydock 4 in July 2001, which eliminated the capacity to repair large vessels. Second, the size of the west coast merchant fleet has decreased, which significantly reduced the number of vessels needing service from PSY. Third, changes made in the United States Navy's policies resulted in no Navy vessels ported in PSY. Overall, the largest emissions reduction that resulted from down-sizing consist of VOC and HAP associated with the ship-coating application.

4. Cascade has identified one base operating scenario for the entire PSY operations. Vessels entering the shipyard for repairs dock at berths along the Swan Island Lagoon. There are also berths (306, 307, 308, 311, and 315) available for non-ship repair activities. Only the vessels requiring work on the exterior hull below the main deck must dock at Dry Docks 1 or 3. The largest dry dock (No. 4) was sold.

Typical repairs to the vessel exterior include abrasive (steel shot/slag) blasting, hydro-blasting, paint/coating applications, and/or welding. Typical repairs to the vessel interior may include boiler repair and testing and/or servicing of the ship's refrigeration system. There are also other works related to the ship repair such as pipe fitting, machining, steel fabrication and installation, and other miscellaneous mechanical work; which are all minor sources of air emissions.

Each berth and dry dock are equipped with pipelines for transferring oil slops (oil and water mixtures) from ship ballast tanks to the ballast water treatment plant for oil and water separation. There is also a central utility building (CUB) which houses an air compressor and two boilers for steam generation. Other sources of emissions include storage tanks, truck loading operations, and the road dust from vehicle travel.

5. While a ship is docked at the PSY awaiting or undergoing repairs, the boilers and/or auxiliary power generating system on board the ship are operated to provide heat and power for crew living quarters and other on-board ship facilities that are not part of the ship repair activities. The emissions generated from these on-board ship operations are not under the control of the permittee, and these emissions are not subject to the terms and limitations of this Oregon Title V Permit 26-3224. However, the maintenance and repair of a ship's refrigeration system conducted by an employee of the permittee or a contractor hired by the permittee are regulated by this permit. The permittee must ensure the federal requirements applicable to the use of ozone depleting chemicals are being met.

EMISSIONS UNIT AND POLLUTION CONTROL DEVICE IDENTIFICATION

6. Emissions units identified in this permit are grouped with respect to the common applicable requirements and the associated monitoring protocols. Number of emissions units identified in this permit do not represent physical structures; but rather they represent certain operations and/or activities conducted at the shipyard. In summary, the emissions units regulated by this permit are grouped as follow:

Emissions Unit	EU ID	Source-Classification Code
Ship Coating operations	$COAT_{SHIP}$	4-02-023-99
Misc. Coating operations	$COAT_{MISC}$	4-02-001-10
Ballast water storage tanks	BWT	4-07-146-98
Reclaimed Oil Tanks, controlled by thermal oxidizer VDU	ROT	4-07-016, 4-07-999-99
Central Utility Building (2 boilers)	CUB	1-02-004-02, 1-02-006-02
Abrasive blasting-Outdoor	SBO	3-09-002-01

Emissions Unit	EU ID	Source-Classification Code
Abrasive blasting-Inside, BH controlled	SBI	3-09-002-01
Welding	WLD	3-09-051-00
Paved Industrial Roads	PIR	4-02-888-01
Reclaimed Oil Load-out	ROL	4-06-001-97

Coating Operations: The surface coating operations conducted at the shipyard are categorized into two emissions units. Surface coating operations of marine vessel and vessel parts that normally occur at the dry docks and ship berths (they can also occur anywhere at the shipyard, including inside the building 73 and paint booths) are grouped under the emissions unit $COAT_{SHIP}$. Surface coating operations of fabricated non-marine parts that normally occur within the paint booths are grouped under the emissions unit $COAT_{MISC}$. The miscellaneous coating category has the first two digits SIC of 34 while $COAT_{SHIP}$ has the first two digit SIC of 37.

BWT (Ballast Water Tanks): The ballast water treatment plant (BWTP) has six (6) fixed-roof storage tanks (BWT), four (4) steam cookers, and six (6) oil/water separators: Each storage tank has a capacity of 24,000 barrels (1 million gallons), and is equipped with steam coils and surface oil skimmer. Tanks are used for storing oil and oily water prior to processing. First, the oily water is allowed to separate by gravity within the tank. Oil is skimmed off the top and fed to reclaimed oil tanks (ROT), and water is drawn off the bottom for further treatment in the cookers and separators. Any tank can be used for storage of bunker oil or reclaimed used oil.

The steam cookers consist of a series of four 8,400 gallons-capacity vats connected by weirs. Steam coils within each vat heat the oily water, and the heating increases the buoyancy of the oil particles. As the liquid level in the first cooker in series increases, the top layer of concentrated oil cascades over into the next cooker in series, and flows from the last cooker into the oil-water separators. Each oil separator functions independently, and operator can select any combination of separators to use. After oil separation, water flows by gravity to a sump and later pumped into one of two clean water tanks.

ROT (Reclaimed Oil Tanks): This emissions unit consists of four (4) horizontal storage tanks storing reclaimed oil, recovered from ballast water by heating/separation processes. The floating roof is not feasible on horizontal tanks. The ROT storage tanks are equipped with the (liquid storage) RACT level control (VDU), and therefore the storage of liquid with vapor pressure greater than 1.52 psi is allowed. Each storage tank has a capacity of 2,000 barrels (84,000 gallons), and it is also equipped with steam coils. A gas collection system gathers solvent vapor from ROT tanks (emitted through the vents whenever the system's pressure exceeds 5 inches of water) and routes the collected solvent vapor to the enclosed flare system VDU that uses a natural gas pilot. As identified in this permit, the emissions unit ROT is a VOC source, and the flare system (VDU) controlling VOC emissions from ROT is regarded as the combustion source which is grouped under the aggregate insignificant activities (refer to item 22 of this review report).

The construction of reclaimed oil tanks (ROT) was completed prior to June 11, 1973, and have not been modified since that time, except for the addition of flare (VDU) in 1993. The primary purpose of the flare was to reduce air pollutants, and the addition of the flare system does not fit the definition of "modification" under 40 CFR 60.14(e)(5). Accordingly the emissions unit ROT is not subject to the NSPS provisions.

ROL (Reclaimed Oil Load-out): This emissions unit represents VOC emitted during the loading operations of reclaimed oil from ROT into the tanker trucks.

CUB (Central Utility Building) houses two (2) fire-tube boilers with an individual capacity of 17,250 lbs of saturated steam (at 125 psi) per hour. Boilers were installed in November of 1977. Boilers burn natural gas as the primary fuel, and No. 6 fuel oil, stored in two 6,000 gallon underground storage tanks, is generally used as back-up during the natural gas curtailment period. The boiler has not been modified since the installation date (1977), and no provisions of 40 CFR Part 60, subpart Dc, apply to CUB boiler.

WLD (Welding jobs): The emissions unit WLD represents fumes and gases (PM_{10}) generated when (electric arc) welding various parts at anywhere throughout the PSY facility and on board the ship. The PM_{10} emissions are estimated based on the amount of welding rods used.

SBO (Abrasive blasting - Outside): This emissions unit represents abrasive blasting conducted outside, usually in preparation for surface coating operations. Curtains or screens are currently used to control the fugitive particulate emissions. As summarized in the emissions detail sheet, the emissions unit SBO is by far the single largest PM/PM_{10} emission source existing at the shipyard.

SBI (Abrasive blasting - Inside): This emissions unit represents interior (e.g., in tanks, cargo bays) abrasive blasting operations and the blasting jobs conducted inside blasting booths, in preparation for surface coating operations. The mobile baghouses (BAG-1) and the two stationary baghouses (BAG-2 & BAG-3) are used to control the particulate emissions from emissions unit SBI.

PCD ID	Capacity (acfm)	Rated Efficiency	Year Installed	Cleaning mechanism
BAG-1	24,000	99.9 %	1994	Continuous - pulse jet
BAG-2	30,000	99.9 %	1990	Mechanical intermittent with shaker
BAG-3	94,000	99.9 %	1985	Continuous - pulse jet

PIR (Vehicle travel on paved road): This emissions unit represents fugitive dust emissions generated from road traffic on paved roads and paved parking lots. The permittee has an option to include the PM/PM_{10} emissions from paved roads and paved parking lots within an urban growth boundary as categorically insignificant activities. While emissions from any insignificant activity are subject to the applicable requirements such as the opacity standard, they are excluded from the monitoring protocols (reduced work load). However, as will be discussed in the PSEL section (13.a) of this review report, PIR is considered a regulated EU in this permit, with the specific monitoring protocols.

UPR (Vehicle travel on unpaved road): This emissions unit represents fugitive dust emissions generated from road traffic on unpaved roads during the baseline year. The emissions unit UPR no longer exists. (see 13.b)

7. Cascade General has identified the following categorically insignificant activities:

- Constituents of a chemical mixture present at less than 1% by weight of any chemical or compound regulated under Divisions 20 through 32 of this chapter, or less than 0.1% by weight of any carcinogen listed in the U.S. Department of Health and Human Service's Annual Report on Carcinogens when usage of the chemical mixture is less than 100,000 pounds/year
- Evaporative and tail pipe emissions from on-site motor vehicle operation
- Distillate oil, kerosene, and gasoline fuel burning equipment rated at less than or equal to 0.4 million Btu/hr
- Natural gas and propane burning equipment rated at less than or equal to 2.0 million Btu/hr
- Office activities
- Food service activities
- Janitorial activities
- Personal care activities
- Grounds keeping activities including, but not limited to building painting and road and parking lot maintenance
- On-site laundry activities
- Instrument calibration
- Maintenance and repair shop
- Automotive repair shops or storage garages
- Air cooling or ventilating equipment not designed to remove air contaminants generated by or released from associated equipment
- Refrigeration systems with less than 50 pounds of charge of ozone depleting substances regulated under Title VI, including pressure tanks used in refrigeration systems but excluding any combustion equipment associated with such systems
- Bench scale laboratory equipment and laboratory equipment used exclusively for chemical and physical analysis, including associated vacuum producing devices but excluding research and development facilities
- Temporary construction activities
- Warehouse activities
- Accidental fires
- Air vents from air compressors
- Electrical charging stations
- Instrument air dryers and distribution
- Routine maintenance, repair, and replacement such as anticipated activities most often associated with and performed during regularly scheduled equipment outages to maintain a plant and its equipment in good operating condition, including but not limited to steam cleaning, abrasive use, and woodworking
- Electric motors
- Storage tanks, reservoirs, transfer and lubricating equipment used for ASTM grade distillate or residual fuels, lubricants, and hydraulic fluids

- On-site storage tanks not subject to any New Source Performance Standards (NSPS), including underground storage tanks (UST), storing gasoline or diesel used exclusively for fueling of the facility's fleet of vehicles
- Natural gas, propane, and liquefied petroleum gas (LPG) storage tanks and transfer equipment
- Pressurized tanks containing gaseous compounds
- Emissions from wastewater discharges to publicly owned treatment works (POTW) provided the source is authorized to discharge to the POTW, not including on-site wastewater treatment and/or holding facilities
- Fire suppression and training
- Health, safety, and emergency response activities
- Emergency generators and pumps used only during loss of primary equipment or utility service
- Non-contact steam vents and leaks and safety and relief valves for boiler steam distribution systems
- Non-contact steam vents on condensate receivers, deaerators and similar equipment
- Boiler blowdown tanks
- Industrial cooling towers that do not use chromium-based water treatment chemicals
- Oil/water separators in effluent treatment systems
- Combustion source flame safety purging on startup

EMISSION LIMITS AND STANDARDS

8. Oregon Administrative Rules with specific requirements (e.g., emission limits or standards) that have been determined to be applicable to Cascade General facility, along with the associated monitoring, recordkeeping, and reporting that are necessary to determine compliance with the aforementioned applicable requirements are incorporated in the Title-V permit:

Facility-wide applicable requirements:

a. Source Emission Reduction Plan (SERP), OAR 340-206-0050;
b. Fugitive dust control requirements, OAR 340-208-0210(2);
c. Particulate matter (> 250 micron) fall-out standard, state-only enforceable, OAR 340-208-450;
d. Odor/nuisance standards, state-only enforceable, OAR 340-208-0300;
e. Certification program for workers working with ozone-depleting chemicals, 40 CFR Part 81.161(a);

Emissions Unit specific Standards:

f. Opacity standard of OAR 340-208-0110;
g. Opacity standard of OAR 340-208-0600 applicable to non-fuel burning source;
h. grain loading limits of OAR 340-228-0210 and 340-226-0210;
i. equipment specifications, OAR 340-232-0150;
j. the fuel oil sulfur contents, OAR 340-228-0110;
k. Surface Coating Categorical RACT limits for miscellaneous coating operations, OAR 340-232-0160;

l. Source specific ($COAT_{SHIP}$) RACT limits for marine coating operations ($COAT_{SHIP}$), OAR 340-232-0020;
m. National Emission Standards for Hazardous Air Pollutants (NESHAP) for marine coating operations ($COAT_{SHIP}$), 40 CFR, Part 63.783 (became effective on 12/12/1997);
n. Usage limitations on sandblasting operations (SBO), OAR 340-226-0120;

Emissions limits applicable to Insignificant Activities:

o. Opacity standard of OAR 340-208-0600;
p. grain loading limits of OAR 340-228-0210 and 340-226-0210;
q. equipment specifications, OAR 340-232-0180; and
r. the architectural coating standards of OAR 340-242-0730 to 0750.

9. Coating RACT Limits for $COAT_{SHIP}$: First the ozone-season coating limits were applicable to surface coating operations of vessel and vessel parts ($COAT_{SHIP}$). These seasonal coating limits reflect the court-settlement agreement with the Sierra Club and Oregon Environmental Counsel (OEC), and they were applicable only during June through August of each year. Then the case-by-case and source-specific RACT coating limits were proposed in Addendum No.2 of ACDP 26-3224, which was issued to (then the owner/operator) Portland Shipyard on 10/04/95, and submitted to EPA (Region X) for approval. By law the source specific RACT limits became effective one year after the EPA approval date of May 6, 1997. Because the seasonal coating limits are identical to source-specific RACT limits, complying with the source-specific RACT limits the whole year ensures compliance with the seasonal limits, and therefore the seasonal limits are not repeated in the permit.

Furthermore, the categorical surface coating in manufacturing RACT rules, as specified in OAR 340-022-0170(5), are applicable to the surface coating operations of miscellaneous parts ($COAT_{MISC}$).

10. Non-Applicable Requirements: The Cascade General facility is not currently subject to any specific New Source Performance Standards (NSPS; 40 CFR Part 60). 40 CFR Part 61, subpart M could apply if asbestos is found at the facility. Furthermore, as is the case with any Title V sources, the general NESHSP provisions (subpart A) and the appendices of the federal regulations do apply. A list of non-applicable rules and summary of reasons are provided in the non-applicable requirements section of Title V permit 26-3224.

PLANT SITE EMISSION LIMITS

ENGINEERING ASSUMPTIONS & CORRECTIONS

11. CUB-BOILERS: The emission factors and engineering assumptions used to establish the baseline and current PSEL for boilers are the following:

a. The NG heating value of 1050 Btu/ft^3 - based on the 35 year average obtained from Northwest (NW) Natural Gas is used.

b. In lieu of the AP42 EF for SO_2 emissions (0.6 lbs/10^6 ft^3) from natural gas combustion, the NW Natural Gas factors (2.6 lbs/10^6 ft^3) is used to more accurately represent the sulfur content of natural gas sold in the state of Oregon, or northwestern states in general.

c. The DEQ PM_{10} EF of 2.5 lbs/10^6 ft^3 for natural gas combustion is used in both the commercial and industrial boiler categories. All PM/PM_{10} generated from fuel combustion are regarded as PM_{10}.

d. Using the emission factors discussed in items a through c above and applying to the boilers' fuel throughput yield the following CUB-boilers emissions:

Pollutant	Baseline PSEL (tons/yr)	Requested PSEL (tons/yr)
PM_{10}	0.4	1
SO_2	3.6	14
NO_X	8.1	5
CO	1.9	1
VOC	0.2	1
NG (10^6 ft^3/yr)	105.777	37
No.6 R. oil (gal/yr)	25,200	100,000

Detail emissions data provided in Appendix A - emissions detail sheets.

12. SBO & SBI: The following emissions data were used to establish the PM/PM_{10} PSEL from outdoor steel shot/slag blasting (SBO) and the baghouse-controlled indoor abrasive blasting (SBI):

a. SBO - PM and PM_{10} Emissions:

SBO PSEL	lbs of abrasive shot/slag	EF (lbs/lbs abrasive materials)	Emissions (tons/yr)
Baseline PM	2,800,000	6.3×10^{-2}	88.2
Proposed PM	2,000,000	5.99×10^{-2}	59.9
Baseline PM_{10}	2,800,000	2.2×10^{-2}	30.8
Proposed PM_{10}	2,000,000	2.09×10^{-2}	20.9

The current PM and PM_{10} EFs used to calculate the emissions from the outdoor abrasive blasting operations incorporate the control efficiency (EFF) of 5% provided by curtains and screens, which were not provided during the baseline year:

$$PM\ EF_{Current} = (1 - EFF/100\%)\ EF_{Baseline} = 5.99 \times 10^{-2}$$
$$PM_{10}\ EF_{Current} = (1 - EFF/100\%)\ EF_{Baseline} = 2.09 \times 10^{-2}$$

b. SBI - PM and PM_{10} Emissions:

SBI PSEL	lbs of abrasive shot/slag	EF (lbs/lbs abrasive materials)	Emissions (tons/yr)
Baseline PM	3,000,000	6.3×10^{-2}	94.5
Proposed PM	6,000,000	6.3×10^{-5}	0.2
Baseline PM_{10}	3,000,000	2.2×10^{-2}	33.0
Proposed PM_{10}	6,000,000	2.2×10^{-5}	0.1

The baghouse manufacturer's rated efficiency of 99.9% is used to update the current PM and PM_{10} EFs used to calculate the emissions from the indoor abrasive blasting operations:

$$PM\ EF_{Current} = (1 - 99.9\%/100\%)\ EF_{Baseline} = 6.3 \times 10^{-5}$$
$$PM_{10}\ EF_{Current} = (1 - 99.9\%/100\%)\ EF_{Baseline} = 2.2 \times 10^{-5}$$

13. PIR & UPR: Fugitive PM/PM_{10} emissions from paved (PIR) and unpaved (UPR) roads are included in the PSEL:

a. Paved Road (PIR) PM and PM_{10} Emissions (tons/yr):

PIR PSEL	VMT	EF (lbs/VMT)	Emissions
Baseline PM	60,000	2.36	70.8
Proposed PM	150,000	0.17	12.8
Baseline PM_{10}	60,000	1.89	56.6
Proposed PM_{10}	150,000	0.136	10.2

The following AP42 empirical equations were used to estimate the emission factors used to calculate the paved road PM emissions:

$$EF_{PM} = 0.077\ I\ (4/n)\ (s/10)\ (L/1000)\ (W/3)^{0.7}$$

EF_{PM} Variables		Baseline	Current
I =	industrial augmentation factor	7	1
n =	number of traffic lanes	2	2
s =	surface material silt content (%)	12.5	12.5
L =	surface dust loading (lb/mile)	1750	875
W =	average vehicle weight (ton)	3	3

Cascade General estimated the PM_{10} emissions from PIR to be 80 percent (%) of the PM emissions. Cascade General attributed the significant differences in the baseline and current versions of I and L to the assumption that about 50% reduction in the current surface dust loading factor (L) from the baseline L can be realized by (commitment) mechanically sweeping the road on a regular basis. Industrial augmentation factor I listed in AP42 ranges from 1 to 7. The permittee assigned the lowest factor of 1 for the current I and the highest factor of 7 for the baseline I. Permittee claims approximately one-half of the shipyard's area which was not occupied by building was unpaved, and proposed to set the baseline I equal to 7, claiming traffic on paved industrial roadway used to enter from

the unpaved area. The (current) I factor is set equal to 1 because the permittee claims vehicles travel entirely on paved surface now.

Because the current I factor is set equal to 1, the permit cannot grant the portion of PSEL requested for unpaved road emissions (UPR). In addition, because the current L factor has been reduced in half due to the mechanical sweeping, the permit contains an operation and maintenance requirement for PIR that includes sweeping of paved roads on a regular interval.

b. Unpaved Road (UPR) PM and PM_{10} Emissions (tons/yr):

UPR PSEL	VMT	EF (lbs/VMT)	Emissions
Baseline PM	584	9.85	2.9
Requested PM	584	9.85	0
Baseline PM_{10}	584	7.88	2.3
Requested PM_{10}	584	7.88	0

As discussed in item a above, the lowest industrial augment factor (I) of 1 was used to derive the PM/PM_{10} EF for the current PIR emissions. One of the reasons for assigning a such low I to the current PIR was the fact that the entire shipyard traffic travel on paved surface; and therefore no PSEL is assigned to the current UPR.

HISTORY OF PHYSICAL CHANGES TO THE FACILITY

14. BWTP: A review of the Department files indicates the ballast water treatment processes have changed significantly since the baseline year, which basically resulted in the over-all reduction of VOC emissions to the atmosphere. The surface pond that was used to hold the treated ballast water prior to discharge into the public water ways was closed in 1980. In addition, the physical capacity to treat the ballast water was increased, and the treatment methods have improved. The table below summarizes the physical changes that have occurred in the ballast water treatment since the baseline year:

- The Ballast Water Treatment Processes -	
Baseline operations	Current Operations
Tank 10 (7,000 bbl.)	BWT (six tanks, 24,000 bbl each)
Tank 11, 6 interconnected, 3500 bbl	Tank 11 (six interconnected, 3,500 bbl)
ROL (4 tanks, uncontrolled)	ROL (4 tanks, controlled with flare)
One Cooker	Four Cookers
One API Oil/water separator	Six Oil/water separator
Holding (surface) ponds	Clean Water Holding Tank

The original Title V permit application (addendum) dated 5/31/96 indicates approximately 147.5 tons of VOC were emitted during the baseline year from treating about 5.92×10^6 gallons of ballast water (oil slops). This baseline figure of 147.5 tons/yr is an estimate provided by CG during the initial Title V permit application stage. Title V permit application also estimated

VOC emissions (with controls) from treating about 15.3 million gallons of ballast water total about 72 tons (64.5 tpy from BWT, 6.0 tpy from ROT, and 1.6 tpy from ROL). In terms of treatment efficiency, this is a significant improvement over the baseline rate. The controlled VOC emissions rate from the ballast water treatment plant is approximately 0.01 lbs of VOC emitted per gallon of ballast water treated; whereas the baseline rate (using the 147.5 tons/yr estimate) was about 0.05 lbs VOC/gal. In terms of VOC emitted per gallon of ballast water treated, the emission control efficiency has improved by five (5) folds since the baseline year.

Although the surface pond has been permanently closed for over 20 years, the after-the-fact regulatory review can still be performed to reset the baseline rate in accordance with OAR 340-222-0043: Sources operating inside the designated ozone non-attainment area for which no categorical RACT requirements exist and that have the "potential to emit", as defined in OAR 340-232-0010, over 100 tons per year of VOC are subject to the source-specific RACT requirements, pursuant to OAR 340-232-0040(5). The VOC emissions from the ballast water treatment processes that occurred during the baseline year only became known when the permittee performed the Title V emissions inventory. If this baseline VOC emission was known when the RACT rules were first adopted, and if the permittee had requested emissions credit, the Department would have adjusted the uncontrolled VOC emissions from surface pond down to the RACT level required by rules.

As discussed earlier, a significant improvement has already been made to the ballast water treatment processes by construction of BWT, ROT, and ROL. The ROT storage tanks have been equipped with the (liquid storage) RACT level control consistent with the requirements set forth in OAR 340-232-0150. Pursuant to OAR 340-232-0040, the source subject to case-by-case RACT requirements can opt out by demonstrating that the source's potential to emit has fallen below the 100 tons/yr level. All the physical improvements made to the ballast water treatment processes have decreased the emissions to the current level of 72.1 tons/yr, and for the permitting purpose it is the level considered to be equivalent to the adjusted baseline emissions rate for the ballast water treatment processes.

BWTP	Ballast water (gallons)	EF (lbs/gal)	Adjusted Baseline *PSEL* (tons/yr)
BWT	15,330,912	8.41×10^{-3}	64.5
ROT	1,545,944	7.76×10^{-3}	6.00
ROL	1,545,944	0.002	1.55
Total:			72.1

The emission reduction (147.5 tons - 72.1 tons = 75.4 tons VOC) realized from the RACT level control reverts back to the Department. Pursuant to OAR 340-268-0040, emission reductions required by any state or federal regulations, or permit condition, can not be used for offsets.

15. DRY DOCK NO. 4 was under construction during the 1978 baseline year but it did not operate until 1979. Therefore the actual VOC emissions from DD#4 during the baseline year 1978 were zero. The latest Mutual Agreement and Order (MAO) signed on April 4, 1995 stipulates that DD#4 was completed in September 1978 and it was operational and in service by March 1979. The

parties to the 4/04/95 MAO agreed that DD#4 was not subject to the NSR requirements, and instead agreed to the (ozone) seasonal coating limits, as specified in ACDP addendum No.1 issued on May 4, 1995. The court decision that is reflected in the 4/04/95 MAO allocated a total baseline VOC emissions rate of 228 tons to DD#4, which was the baseline figure established in the Title V permit:

$COAT_{SHIP}$	Coating Usage (gallons)	EF (lbs/gal)	Baseline PSEL (tons/yr)
DD#4	--	--	228
Other dry docks and ship berths	35,400	5.0	88.5
Total $COAT_{SHIP}$:			316.5

As discussed DD#4 was sold in July of 2000, and therefore Cascade General no longer has the capacity to repair (very) large vessels. The PTE of VOC from DD#4 (i.e., $COAT_{SHIP}$) was estimated at 289 tons/yr, which is the DD#4 PTE figure provided by Cascade General in their (first) Title V permit application addendum dated May 31, 1996.

16. $COAT_{MISC}$: Air Contaminant Discharge Permit (ACDP) 26-3101 issued to (defunct) Southwest Marine, Inc established the baseline VOC PSEL of 36.4 tons per year, which is the adjusted baseline rate as required by surface coating RACT limit of 3.5 lbs VOC per gallon of coating applied:

$COAT_{MISC}$	Actual Baseline	Adjusted Baseline
	43.7 tons/yr	36.4 tons/yr

First original Title V permit 26-3224 was the product of combining two ACDPs issued to two separate facilities: Port of Portland regulated under ACDP 26-3224 and Cascade regulated under ACDP 26-3101.

BASELINE PSEL

17. In summary, the adjusted (i.e., netting) baseline PSEL for Cascade General are as follows:

EU ID	PM	PM_{10}	SO_2	NO_X	CO	VOC
$COAT_{SHIP}$	--	--	--	--	--	316.5
$COAT_{MISC}$						36.4
BWTP	--	--	--	--	--	72.1
SBO	88.2	30.8	--	--	--	--
SBI	94.5	33.0	--	--	--	--
UPR	2.9	2.3	--	--	--	--
PIR	70.8	56.7	--	--	--	--
WLD	--	0.6	--	--	--	--
CUB	--	0.4	3.6	8.1	1.9	0.2
Total (tons/yr):	256.4	123.7	3.6	8.1	1.9	425.1

PROPOSED PSEL

18. Proposed PSEL information:

Pollutant	Baseline Emission Rate (tons/yr)	Netting Basis		Plant Site Emission Limits (PSEL)		
		Previous (tons/yr)	Proposed (tons/yr)	Previous PSEL (tons/yr)	Proposed PSEL (tons/yr)	PSEL Increase (tons/yr)
PM	256	256	99	263	99	--
PM_{10}	124	124	99	99	99	--
SO_2	4	4	0	7	39	32
NO_x	8	8	0	18	39	21
CO	2	2	0	4	99	95
VOC	425	425	99	465	99	--

a. Generic Level PSEL: The proposed SO_2, NO_X, and CO PSEL established in the proposed permit are greater than the amount requested by the permittee, and they are also higher than the PSEL set forth in the previous (Title V) permit. The recently adopted Department rules no longer support PSEL less than the general level PSEL. Pursuant to OAR 340-222-0040, although source (i.e., boilers) has no capacity to emit, those pollutants with capacity less than Significant Emission Rate (SER) receive a generic level PSEL. The generic PSEL level for a pollutant is equal to the Significant Emission Rate (SER) for that pollutant minus 1 ton.

b. Proposed PM, PM_{10}, & VOC PSEL: The proposed PM, PM_{10}, and VOC PSEL are set equal to the level that is one ton per year less than the major source threshold level. The proposed PSEL for pollutants PM, PM_{10}, and VOC are each set equal to 99 tons per year, the annual limit that serves as the source's potential to emit. Due to the permanent reduction in ship repair business, although the physical capacity to emit remains intact, the permittee no longer needs to have current allowable emissions limits in the Title V permit. Cascade General volunteered to reduce the PTE through setting lower PSEL in their permit. In this case, PTE equals PSEL and it acts as synthetic minor limit. Although emissions are below the major (Title V) source level, Cascade General cannot opt out ot the Title V permit program because their marine loading operations are subject to NESHAP that must be regulated under Title V permit.

c. Netting basis is zero for any pollutant that has a generic level PSEL. Thus the netting basis for SO_2, NO_X, and CO has been set equal to zero. For pollutants PM, PM_{10}, and VOC, Cascade's netting basis equals the baseline PSEL minus unassigned PSEL.

d. Short-term PSEL: No short-term SER exist for any of the regulated pollutants in the area where the facility is located. Pursuant to OAR 340-222-0042, no short-term PSEL is

established in this ACDP. The monitoring requirements associated with the (previous) short-term PSEL are also no longer needed.

e. PSEL Compliance: OAR 340-222-0080 requires the averaging period for PSEL to be calculated on a rolling 12-month basis. Performing the annual emissions calculation once during the calendar year is no longer adequate. The annual emissions for the previous 12-month period must be calculated at the end of each calendar month, for a total of 12 times during the calendar year.

f. The PSEL is a federally enforceable limit on the potential to emit.

19. In addition to the PSEL, the permit includes the following unassigned emissions (tons/yr):

Pollutant	Unassigned Emissions	Emission Reduction Credits
PM	157	0
PM_{10}	25	0
SO_2	0	0
NO_x	0	0
CO	0	0
VOC	326	0

a. Unassigned emissions equal the (previous) netting basis minus the source's current PTE (99 tons/yr SM PSEL), minus any banked emission reduction credits (zero).

b. Any unassigned emissions in excess of the (pollutant specific) SER expires on July 1, 2007 in accordance with OAR 340-222-0045 (5):

Pollutant	Current Unassigned Emissions (tons/yr)	7/01/2007 Unassigned Emissions (tons/yr)
PM	157	25
PM_{10}	25	15
VOC	326	40

SIGNIFICANT EMISSION RATE ANALYSIS

20. For each pollutant, the proposed Plant Site Emission Limit is less than the Netting Basis plus the significant emission rate, thus no further air quality analysis is required.

21. An analysis of the proposed PSEL increases over the Netting Basis is shown in the following table. As discussed, the proposed SO_2, NO_X, and CO PSEL increases do not reflect the actual

CASCADE GENERAL
PORTLAND SHIPYARD

October 6, 2000

Mr. George Yun
Oregon Department of Environmental Quality
2020 SW Fourth Avenue
Suite 400
Portland, Oregon 97201

RE: Application of Architectural Coatings
Cascade General

Dear Mr. Yun:

This letter is submitted to request clarification regarding the applicability of the National Volatile Organic Compound Emission Standards for Architectural Coatings relative to the conditions of Cascade General's Title V operating permit. Specifically, Cascade General requests clarification as to whether it can apply coatings compliant with the Architectural Coatings rule, that have volatile organic compound (VOC) contents which are higher than those allowed by Cascade's permit or Oregon Administrative Rules (OAR).

Condition 19 of Cascade's Title V permit establishes VOC limits for coatings applied under emission unit $COAT_{misc}$. The VOC limit established by the condition for the category of extreme performance/high performance architectural coatings is 3.5 pounds per gallon (lb/gal). This VOC limit was derived from the corresponding VOC limits established for Extreme Performance Coatings and High Performance Architectural Coatings in the Surface Coating in Manufacturing rule, codified at OAR 340-232-0160. The definitions of Extreme Performance Coatings and High Performance Architectural Coatings applicable to Division 232 are:

> Extreme Performance Coatings means coatings designed for extreme environmental conditions such as exposure to any one of the following: continuous ambient weather conditions, temperature consistently above 95°C, detergents, abrasive and scouring agents, solvents, corrosive atmosphere, or similar environmental conditions.
>
> High Performance Architectural Coatings means coatings applied to aluminum panels and moldings being coated away from the place of installation.

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On September 11, 1998 the Environmental Protection Agency (EPA) published its final rule on architectural coatings (see attached). In general, the Architectural Coatings rule establishes VOC limits for 61 categories of architectural coatings. Architectural coatings are defined in the rule as:

> A coating recommended for field application to stationary structures and their appurtances, to portable buildings, to pavements, or to curbs. The definition excludes adhesives and coatings recommended by the manufacturer or importer solely for shop applications or solely for application to non-stationary structures such as airplanes, ships, boats, and railcars.

Manufacturers and importers of the coatings are the regulated entities, and are responsible for designating a coating's category. One of the coating categories of particular interest to Cascade is Impacted Immersion Coatings. This category is defined in the federal rule as:

> A high performance maintenance coating formulated and recommended for application to steel structures, subject to immersion in turbulent, debris-laden water. These coatings are specifically resistant to high-energy impact damage caused by floating ice or debris.

The VOC content limit established for Impacted Immersion Coatings is 6.5 lbs/gal. Accordingly, the VOC content of commercially available coatings categorized as Impacted Immersion Coatings approaches this limit. Vinyl coatings applied to steel flood gates used on dams fall into the category of Impacted Immersion Coatings.

It is not clear whether coatings categorized as Impacted Immersion Coatings are considered Extreme Performance Coatings under the Surface Coatings in Manufacturing rule, and consequently the equivalent RACT category in Cascade's permit, if the coatings are applied to newly fabricated structures in a shop prior to deployment. Therefore, we request clarification on the following issues.

1. Can Cascade apply Impacted Immersion Coatings at its facility, that are compliant with the federal Architectural Coating rule, to a new stationary structure (e.g., a new dam flood gate) that is fabricated off site, when the VOC content of such coatings is higher than Cascade's permitted RACT limits.

2. If the answer to question number 1 is yes, can Cascade establish a separate RACT category for the specific Architectural Coating for purposes of calculating daily emissions in accordance with condition 48e of its permit. This would be in lieu of including the Architectural Coatings in the extreme performance/high performance coatings RACT category established in condition 19.

3. If the answer to question number 1 is no, is there an administrative procedure that Cascade could follow to obtain an exception in accordance with 340-242-0160(3).

We appreciate your assistance in this matter. If you have questions or require additional information, please contact the undersigned at 503-247-1672.

Sincerely,

T. Alan Sprott
Director of Environmental Services

Enclosure

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
OREGON TITLE V OPERATING PERMIT

Northwest Region
2020 SW 4th, Suite 400
Portland, OR 97201
Telephone: (503) 229-5263

Issued in accordance with the provisions of
ORS 468A.040 and based on the land use compatibility findings included in the permit record.

ISSUED TO:

Cascade General, Inc.
5555 N. Channel Avenue
Portland, OR 97217

INFORMATION RELIED UPON:

Application Number: 020415
Received: 11/07/2002

PLANT SITE LOCATION:

5555 N. Channel Avenue
Portland, OR 97217

LAND USE COMPATIBILITY STATEMENT:

From: City of Portland
Dated: 04/19/95, 12/18/95

ISSUED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY

Audrey M O'Brien

Audrey O'Brien, Northwest Region AQ Manager

DEC 27 2002
Date

Nature of Business: Ship building and repair, industrial fabrication

Primary SIC: 3731

RESPONSIBLE OFFICIAL:

Name: Mr. T. Alan Sprott
Title: Director of Environmental Services Title:

FACILITY CONTACT PERSON:

Name: Mr. T. Alan Sprott
Director of Environmental Services
Phone: (503) 247-1672

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PERMITTED ACTIVITIES

1. Until such time as this permit expires or is modified or revoked, the permittee is allowed to discharge air contaminants from those processes and activities directly related to or associated with air contaminant source(s) in accordance with the requirements, limitations, and conditions of this permit. [OAR 340-218-0010 and 340-218-0120(2)]

2. All conditions in this permit are federally enforceable and state enforceable, except conditions 7, 8, 11, 21 are enforceable by the state only. [OAR 340-218-0060]

EMISSIONS UNIT (EU) AND POLLUTION CONTROL DEVICE (PCD) IDENTIFICATION

3. The emissions units and pollution control devices regulated by this permit are the following [OAR 340-218-0040(3)]:

3.a. Emissions Unit Identification

Emissions Unit	EU ID	Process Description
Ship Coating operations	$COAT_{SHIP}$	Painting of marine vessel and vessel parts throughout the ship yard including dry docks, berths, and all ship yard paint booths.
Misc. Coating operations	$COAT_{MISC}$	Painting of miscellaneous (non-marine) metal parts, primarily conducted in ship yard paint booths, including a future paint booth (Building 73A).
All Coating operations	COAT	$COAT_{SHIP}$ and $COAT_{MISC}$
Ballast water treatment plant	BWT	Six vertical (oil slops) storage tanks
Reclaimed Oil Tanks	ROT	Four horiz. (reclaimed oil) storage tanks; VOC exhaust routed to VDU
Central Utility Building	CUB	Two utility boilers BLR-1 & BLR-2 (25.4×10^6 btu/hr rated capacity)
Powder Coat Curing Oven	OVEN(-A-)	Capacity = 6×10^6 btu/hr.
Abrasive (Shot/slag) Blasting - Outside	SBO	Abrasive (metal shot/slag) blasting of marine vessel exteriors and parts not performed within a blast booth.
Abrasive (Shot/slag) Blasting - Inside	SBI	Abrasive (metal shot/slag) blasting of marine vessel interiors and vessel parts; controlled by BAG-1, BAG-2, & BAG-3.
Welding	WLD	Welding jobs
Paved Industrial Roads	PIR(-B-)	Vehicle travel on paved road
Unpaved Roads	UPR	Vehicle travel on unpaved road
Reclaimed Oil Loadout	ROL	Loading recovered oil from ROT into tanker truck

(-A-) A project that may be completed during the permit term.
(-B-) While paved roads and paved parking lots within an urban growth boundary are considered categorically insignificant activities, the PM/PM_{10} emissions from PIR are included in the PSEL at the permittee's request.

Plant site emission limit

LIST OF ABBREVIATIONS USED IN THIS PERMIT

ACDP	Air Contaminant Discharge Permit
acfm	actual cubic foot per minute
AQMA	Air quality management area
ASTM	American Society of Testing and Materials
bbl	barrel
BMP	Best management practices
Btu	British thermal unit
CFR	Code of federal regulations
CO_2	Carbon dioxide
CO	Carbon monoxide
Cr^6	Hexavalent Chromium
Cr^3	Trivalent Chromium
DEQ/ODEQ	Oregon Department of Environmental Quality
dscf	dry standard cubic foot
EF	emission factor
EPA	US Environmental Protection Agency
EU	Emissions unit
FCAA	Federal Clean Air Act
ft^3	cubic feet
gr/dscf	grain per dry standard cubic foot
HAP	Hazardous Air Pollutant as defined by OAR 340-032-0130
HCFC	Hydro-chloro-fluoro-carbons
ID	Identification number
I&M	Inspection and maintenance
LPG	Liquefied petroleum gas
MB	Material balance
mg/l	milligrams per liter
MMBtu	Million British thermal units
mvac	Motor vehicle air conditioner
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NG	Natural gas
NO_x	Oxides of nitrogen
O_2	Oxygen
OAR	Oregon Administrative Rules
ORS	Oregon Revised Statutes
O&M	Operation and maintenance
Pb	Lead
PCD	Pollution control device
PM	Particulate matter
PM_{10}	Particulate mater less than 10 microns in size
ppm	Part per million
ppmv	Part per million by volume
PSEL	Plant Site Emission Limit
psig	pounds per square inch
RACT	Reasonably Available Control Technology
RVP	Reid Vapor Pressure
scf	Standard cubic foot
SERP	Source Emission Reduction Plan
SIP	State Implementation Plan
SNAP	Significant New Alternative Policy
SO_2	Sulfur dioxide
ST	Source test
VE	Visible emissions
VOHAP	Volatile Organic Hazardous Air Pollutant (includes VOC listed as HAP & exempt-VOC listed as HAP)
VMT	Vehicle miles traveled
VOC	Volatile organic compound

3.b. Pollution Control Device Identification

Pollution Control Device	PCD ID	EU Controlled
Thermal Oxidizer - enclosed vapor combustor, rated eff. = 95%.	VDU	ROT: VOC exhaust
All mobile baghouses	BAG-1	Ship interiors & exteriors at the dry docks & berths
A baghouse at Building 50	BAG-2	SBI: indoor blasting operations
A baghouse at Building 73	BAG-3	
Curtains/Covers, etc.	n/a	SBO: Outdoor (dry docks) sandblast operations
Paint booth enclosures and filters	n/a	COAT: paint over-sprays (PM)

EMISSION LIMITS AND STANDARDS

The following Table-I through Table-III contain summaries of applicable requirements other than the Plant Site Emission Limits (PSEL), along with the monitoring methods for the emissions units to which those requirements apply.

Table-I. Facility-wide Emission Limits and Standards

Applicable Requirements		Pollutant/ Parameter	Limits/ Standards	Monitoring Requirements	
Oregon Administrative Rule / 40 CFR	Condition Number			Method	Condition Number
340-208-0210	4	Fugitive dust	No nuisance	I&M Recordkeeping	30 & 38
340-228-0100	5	Residual fuel oil sulfur content	1.75% by weight	%S analysis & Recordkeeping	31
340-206-0050	6	Any pollutant	SERP	Recordkeeping	32
340-208-0450	7	PM	< 250 micron	I&M Recordkeeping	33
340-208-0300	8	Nuisance	no nuisance	I&M Recordkeeping	33
40 CFR Part 82.161(a)	9	Ozone depleting chemicals	Employee certification prog.	Recordkeeping	34

4. The permittee shall not cause or permit any materials to be handled, transported, or stored; or a building, its appurtenances, or a road to be used, constructed, altered, repaired or demolished; or any equipment to be operated, without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions shall include the following: [OAR 340-208-0210]

4.a. Application of asphalt, water, or other suitable chemicals on unpaved roads, materials stock piles, and other surface, as needed to prevent airborne dusts;

4.b. full or partial enclosure of materials stockpiles; and/or

4.c. adequate containment during abrasive blasting or other similar operations.

5. The permittee shall not sell, distribute, use, or make available for use, any residual fuel oil containing more than 1.75 percent sulfur by weight. [OAR 340-228-0100]

6. In the event an Air Pollution Alert, Warning, or Emergency Episode is declared in the Portland area by the Department, the permittee shall take the action appropriate to the episode condition as described below. The permittee shall take such action when the permittee first becomes aware of such a declaration whether through news media, direct contact with the Department, or from other sources: [OAR 340-206-0050]

6.a. Alert, any pollutant:

The permittee shall review SERP and evaluate current and future work scopes; and prepare to take possible further action in case the episode escalates into a warning or an emergency stage. The permittee may encourage employees to voluntarily reduce operations of personal motor vehicle through car pooling, use of public transit, etc.

6.b. Warning, any pollutant:

The permittee shall reduce air contaminant emissions by postponing or deferring production to the maximum extent possible. At minimum, the permittee shall adhere to the following:

6.b.i. Postpone or reduce oil recycling separation processes (cookers and skimmers) at the Ballast Water Treatment Plant (BWTP) to the lowest level possible without causing personnel injury or equipment damage.

6.b.ii. Central Utility Building (CUB) boilers shall be fueled by natural gas (or LPG) only.

6.b.iii. Limit exterior hull blasting to light/spot blasting of vessel exteriors below the deep load line. Interior tank blasting is permitted with the use of dust collection system.

6.b.iv. Limit exterior coating and interior tank coating operations to spot coating only.

6.c. Emergency, any pollutant:

Continue with the emission reduction procedures of the warning level. If the declared meteorological episode is expected to persist for 24 hours or more at an emergency level, the permittee shall cease all BWTP oil separation, open air blasting and open air coating operations, except the operations needed to protect personal safety and process equipment.

7. The permittee shall not cause or permit the emission of any particulate matter larger than 250 microns in size at sufficient duration or quantity as to create an observable deposition upon the real property of another person, as required in OAR 340-208-0450. [State-only enforceable]

8. The permittee shall not cause or allow air contaminants from any source subject to regulation by the department to cause a nuisance. [OAR 340-208-0300] [State-only enforceable]

9. The permittee shall not perform work on the refrigeration system on-board any ship that uses class I or class II ozone-depleting substances, unless the employee performing the work is certified by an approved technician certification program under the requirements of 40 CFR Part 82.161(a).

Table-II. Emissions Unit Specific Emission Limits and Standards

EU/PCD ID	Applicable Requirements		Pollutant/ Parameter	Limit/ Standard	Monitoring Requirements	
	OAR / 40 CFR	Condition Number			Method	Condition Number
CUB	340-208-0110	10	visible emissions	20% Opacity 3 minutes	VE periodic monitoring	35
SBI / BAG-1, BAG-2, BAG-3	340-208-0110	10	visible emissions	20% Opacity 3 minutes	VE periodic monitoring	36
	340-208-0600	11	visible emissions	20% Opacity 30 seconds	VE periodic monitoring	36
CUB	340-228-0210	12	PM/PM_{10}	0.1 gr/dscf	VE/ST periodic monitoring	35 & 52
SBI / BAG-1, BAG-2, BAG-3	340-226-0210	13	PM/PM_{10}	0.1 gr/dscf	VE/ST periodic monitoring	36 & 52
SBO & SBI	340-226-0120	14	PM/PM_{10}	O&M requirements	I&M Recordkeeping	38
PIR	340-226-0120	15	PM/PM_{10}	O&M requirements	I&M Recordkeeping	39
BWT	340-232-0150	16	VOC	Equip specifications	Recordkeeping	40
ROT	340-232-0150	16	VOC	Equip specifications	I&M Recordkeeping	41
$COAT_{SHIP}$	340-232-0040	17	VOC	Source-specific RACT limits	MB Recordkeeping I&M Recordkeeping	49
$COAT_{MISC}$	340-232-0160	18	VOC	Surface Coating RACT limits	MB Recordkeeping	47.a & 47.e
$COAT_{SHIP}$	40 CFR, Part 63, Subpart II.	19	VOHAP	NESHAP for Ship-building / repair.	Testing and Recordkeeping	42
COAT / SBO	340-226-0110/0120	20	Cr, HAP	Usage limitations	Recordkeeping	43

10. The permittee shall not cause or allow the emissions of any air contaminant into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is equal to or greater than 20% opacity, excluding uncombined water, from emissions units CUB and SBI. Opacity shall be measured in accordance with condition 35 or 36. [OAR 340-208-0110]

11. The permittee shall not cause or allow the emissions of any air contaminant into the atmosphere for a period or periods aggregating more than thirty seconds in any one hour which is equal to or greater than 20% opacity, excluding uncombined water, from the SBI baghouses. Opacity shall be measured in accordance with condition 52. [OAR 340-208-0110] [State-only enforceable]

12. The emissions of particulate matter from emissions unit CUB shall not exceed 0.1 grain per standard cubic foot, corrected to 12% CO_2 or 50% excess air. Particulate matter emissions shall be measured in accordance with condition 52. [OAR 340-228-0210]

13. The permittee shall not cause or allow the emissions of particulate matter in excess of 0.1 grain per standard cubic foot from any of the baghouses used to control the emissions from the emissions unit SBI. Particulate matter emissions shall be measured in accordance with condition 52. [OAR 340-226-0210]

14. The permittee shall provide curtains or screens, or other equivalent control, to minimize particulate fugitive emissions from outdoor abrasive blasting operations (SBO), and minimize dust emissions from material handling activities (SBI, SBO): [OAR 340-226-0210]

14.a. Curtains and containment areas shall be used as necessary to provide reasonable control of particulate material in abrasive blasting operations where specific particulate removal systems (i.e., baghouses) are not used. Collected materials from such abrasive blasting operations shall be placed in appropriate containers in a timely manner.

14.b. Particulate material captured from the baghouse shall be transferred to a container(s) in a closed system such that particulate can not easily become airborne and escape to the atmosphere. After the container(s) are removed from the baghouse system and during storage of the particulate material, the container shall be closed such that particulate can not easily become airborne and escape to the atmosphere.

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15. At a minimum of once every two weeks, or sooner if needed (e.g., solid material spill), the permittee shall sweep the paved road ways and parking lots (PIR) using the mechanical sweeper and/or manually. This condition does not in any way relieve the permittee from having to comply with the requirements outlined in the permittee's Environmental Best Management Practices (BMP), document number 9, as amended. [OAR 340-028-0620]

16. All fixed roof storage tanks grouped under BWT having a storage capacity greater than 39,000 gallons shall not store volatile organic compounds with a true vapor pressure, as stored, greater than 1.52 psia at actual monthly average storage temperature, as measured per condition 40.

Exemption: The ROT horizontal tanks where VOC emissions are controlled by the control unit VDU are allowed to store products with higher vapor pressure. At least once per year, the permittee shall conduct the preventive maintenance inspection on VDU as specified in condition 41. [OAR 340-232-0150]

17. The permittee shall comply with the following source-specific RACT requirements for emissions unit $COAT_{SHIP}$: [10/04/95 ACDP 26-3224]

Reasonably available control technology

17.a. The VOC content of the surface coatings used for ship painting operations ($COAT_{SHIP}$) shall not exceed the following limits, expressed in pounds of VOC per gallon of coating, as applied, less water and exempt compounds:

Coating Category:	General Use Alkyds & Epoxies	Antifoulant	Prewash Primer	Zinc-Inorganic	Other Specialty
VOC content: (lbs/gal)	3.5	3.7	6.5	5.4	5.5

Are MSDS's of incoming products V'd against these limits.

17.b. The coating limits of condition 17.a are based on a weekly weighted average of the applied coatings in each category. The VOC content of coatings may be averaged only within a single coating category cited below. Excess VOC emissions in one coating category shall not be offset with lowered emissions in another coating category. The permittee shall determine compliance with the coating limit set for each coating category by dividing the total VOC content (lbs) of the coatings in a category used in one week by the total gallons of coatings, less water and exempt compounds, used in that same category during the same weekly averaging period (Monday 12:01 am through Sunday 12:00 midnight):

17.c. The permittee shall provide training and instruction for all employees who are directly involved in the application of VOC-based coatings at the PSY. The training/instruction program shall consist of a combination of on-the-job and classroom instructions, of which at least 4 hours shall be provided on initial training, followed by 2 hours of refresher training on an annual basis thereafter. The training/instruction shall provide workers with theory and (good) management practices for efficient use (minimization) of solvents and waste prevention. Training records shall be maintained on-site and be available for inspection by the Department personnel.

17.d. The permittee shall implement and adhere to the following Best management practices for solvent use:

17.d.i. Use of closed system for cleaning and flushing paint guns and lines. Flushing systems shall have only the minimum venting required to operate. As an alternative, a non-VOC solvent cleaning system may be used.

17.d.ii. Utilize distillation or other approved recovery methods to reclaim cleaning solvents to the extent feasible.

17.d.iii. Use the closed containers only for storage and transfer of solvents to and from the bulk storage area to the work area.

17.d.iv. Solvent-laden cloths or rags shall be stored in a container with cover (lid).

18. The VOC content of the surface coatings used for parts painting operations grouped under the emissions unit $COAT_{MISC}$ shall not exceed the following limits, expressed in pounds of VOC per gallon of coating, as applied, less water and exempt compounds, as measured on a weekly basis: [OAR 340-232-0160]

Coating Type	Clear coating	Forced air or air dried	Extreme perf./ High perf. Architectural	All other (oven dried, powder)
VOC content (lbs/gal)	4.3	3.5	3.5	3.0

19. The permittee shall comply with the following requirements applicable to emissions unit $COAT_{SHIP}$: [40 CFR, Part 63.783]

19.a. Except as provided in condition 19.c, the VOHAP content of coatings applied to marine vessels and vessel parts shall be within the applicable limits specified in the Table below, as determined by the procedures described in condition 42:

"VOHAP Limits for Marine Coatings ($COAT_{SHIP}$)"

Coating Category	VOHAP Limits [a, b, c]		
	grams/liter coating minus water and exempt compounds	grams/liter solids [d]	
		t ≥ 4.5°C	t < 4.5°C [e]
General Use :	340	571	728
Specialty :			
Air flask	340	571	728
Antenna	530	1,439	--
Antifoulant	400	765	971
Heat resistant	420	841	1,069
High-gloss	420	841	1,069
High-temperature	500	1,237	1,597
Inorganic zinc high-build	340	571	728
Military exterior	340	571	728
Mist	610	2,235	--
Navigational aids	550	1,597	--
Nonskid	340	571	728
Nuclear	420	841	1,069
Organic zinc	360	630	802
Pretreatment wash primer	780	11,095	--
Repair/maint. of thermoplastics	550	1,597	--
Rubber camouflage	340	571	728
Sealant for thermal spray Al	610	2,235	--
Special marking	490	1,178	--
Specialty interior	340	571	728
Tack coat	610	2,235	--
Undersea weapon systems	340	571	728
Weld-through precon. primer	650	2,885	--

a: The limits are expressed in two sets of equivalent units. Either set of limits may be used for the compliance procedure described in condition 42.f.i, but only the limits expressed in units of g/L solids (nonvolatiles) shall be used for the compliance procedures described in conditions 42.f.ii through 42.f.iv.

b: VOC (including exempt compounds listed as HAP) shall be used as a surrogate for VOHAP for those compliance procedures described in conditions 42.f.i through 42.f.iii.

c: To convert from g/L to lb/gal, multiply by (3.785 L/gal)(1/453.6 lb/g) or 1/120. For compliance purposes, metric units define the standards.

d: VOHAP limits expressed in units of mass of VOHAP per volume of solids were derived from the VOHAP limits expressed in units of mass of VOHAP per volume of coating assuming the coatings contain no water or exempt compounds and that the volumes of all components within a coating are additive.

e: These limits apply during cold-weather time periods, as defined in 40 CFR 63.782. Cold-weather allowances are not given to coatings in categories that permit less than 40 percent volume solids (non-volatiles). Such coatings are subject to the same limits regardless of weather conditions.

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19.b. The permittee shall adhere to the following work practice requirements:

19.b.i. All handling and transfer of VOHAP-containing materials to and from containers, tanks, vats, drums, and piping systems is conducted in a manner that minimizes spills.

19.b.ii. All containers, tanks, vats, drums, and piping systems are free of cracks, holes, and other defects and remain closed unless materials are being added to or removed from them.

19.c. Exemptions:

19.c.i. The VOHAP coating limits do not apply to coatings used in volumes of less than 200 liters (52.8 gallons) per year, provided the total aggregate volume of all exempt coatings does not exceed 1,000 liters per year (264 gallons per year). The container storing exempt coatings shall be clearly labeled as "low-usage-exempt," and the volume of each exempt coating applied shall be maintained in the facility's records.

19.c.ii. The VOHAP coating limits do not apply to coatings applied with hand-held, non-refillable, aerosol containers or to unsaturated polyester resin (i.e., fiberglass lay-up) coatings. Coatings applied to suitably prepared fiberglass surfaces for protective or decorative purposes are not exempted.

20. The permittee shall limit the use of coatings containing hexavalent chromium (Cr^6) and trivalent chromium (Cr^3); and adhere to the other restrictions specified in this condition: [OAR 340-226-0110 & 0120]

20.a. The use of coatings containing hexavalent chromium (Cr^6) is prohibited.

20.b. All coatings containing trivalent chromium (Cr^3) in concentration of two percent or greater by weight must be applied using hand applications (i.e., brush, roll, dip), applied within an enclosed paint booth equipped with a particulate control filter bank, or applied using another coating method with a transfer efficiency of at least 80 percent as approved by the Department.

20.c. Outdoor application of coatings containing trivalent chromium in concentration of less than two percent by weight is limited to 250 gallons per day.

20.d. The paint color of the vertical storage tanks located at the ballast water treatment plant shall be white.

20.e. The permittee shall restrict use of abrasive blast grit on dry dock #1 to 33 tons/day.

20.f. Blasting of detached parts or equipment shall be conducted indoors using baghouse control, whenever possible. Portable working containments such as blast sheds or shrouds shall be used to control particulate matter emissions from outdoor blasting of detached parts or equipment.

Table-III. Emission Limits and Standards applicable to Insignificant Activities

Applicable Requirements		Pollutant/ Parameter	Limit/Standard
Oregon Administrative Rule	Condition No.		
340-208-0600	21	opacity	20%
340-228-0210(1)(b)	22	PM/PM_{10}	0.1 gr/dscf
340-226-0210(1)(b)	23	PM/PM_{10}	0.1 gr/dscf
340-232-0180	24	VOC	Equipment specifications
340-242-0730	25	VOC	Coating specifications
340-208-0506	26	VOC	Submersible filling.

21. The permittee shall not cause or allow the emissions of any air contaminant into the atmosphere for a period or periods aggregating more than thirty seconds in any one hour which is equal to or greater than 20% opacity, excluding uncombined water, from any insignificant source. Opacity shall be measured in accordance with condition 52. [OAR 340-208-0600] [State-only enforceable]

22. The permittee shall not cause or allow the emissions of particulate matter in excess of 0.1 grain per standard cubic foot, corrected to 12% CO_2 or 50% excess air, from any fuel-burning insignificant source. Particulate matter emissions shall be measured in accordance with condition 52. [OAR 340-228-0210(1)(b)]

23. The permittee shall not cause or allow the emissions of particulate matter in excess of 0.1 grain per standard cubic foot, from any non-fuel-burning insignificant source. Particulate matter emissions shall be measured in accordance with condition 52. [OAR 340-228-0210(1)(b)]

24. The permittee shall operate the parts/tools cleaning equipment and dip tanks at the permitted facility in accordance with OAR 340-232-0180.

25. The permittee shall not knowingly use or contract for the use of any non-complying spray paint or architectural coating manufactured after July 1, 1996; [OAR 340-242-0730]

26. All gasoline storage tanks with a capacity of 500 gallons or more, installed after January 1, 1970, shall be equipped with submersible filling devices or other vapor emission control systems. All gasoline storage tanks at the PSY are exclusively used for fueling the fleet vehicles. [OAR 340-208-0506] [State-only enforceable]

PLANT SITE EMISSION LIMITS PSEL's

27. The annual plant site emissions based on 12-month rolling average shall not exceed the amount (tons/year) specified in this condition: [OAR 340-222-0020 and 340-222-0040]:

Emissions Unit	PM_{10}	PM	SO_2	NO_x	CO	VOC
Plant Wide Basis, including Agg.	99	99	39	39	99	99
$COAT_{MISC}$	--	--	--	--	--	39
Agg. insig. activities (Agg)	1	1	1	1	1	1

27.a. The annual plant site emissions limits apply to any 12-consecutive calendar month period; meaning the annual emissions for the previous 12-month period must be calculated at the end of each calendar month, for a total of 12 times during the calendar year.

27.b. The PSEL monitoring is specified in Conditions 45 through 48.

28. Unassigned Emissions [OAR 340-222-0045]

28.a. The following Unassigned Emissions are effective until July 1, 2007:

Pollutant	Limit	Unit
PM	157	tons per year
PM_{10}	25	tons per year
VOC	326	tons per year

28.b. After July 1, 2007, the following Unassigned Emissions become effective:

Pollutant	Limit	Units
PM	25	tons per year
PM_{10}	15	tons per year
VOC	40	tons per year

wow! what a difference! any probs?

29. Once the installation of a new paint booth grouped under emissions unit $COAT_{MISC}$ is completed, the permittee shall adhere to the (synthetic minor) HAP limits specified in this condition, as determined from the monitoring specified in condition 47.f. [OAR 340-222-0060, 340-244-0200]

29.a. Aggregate HAP emissions from $COAT_{MISC}$, based on a twelve month rolling average, shall be less than 25 tons per year; and

29.b. Individual HAP emissions from $COAT_{MISC}$, based on a twelve month rolling average, shall be less than 10 tons per year.

29.c. The permittee shall notify the Department in writing, indicating the completion date of the $COAT_{MISC}$ new booth, within one month after the completion date. The Notice of completion form submitted pursuant to OAR 340-210-0220(6) satisfies this condition, and no additional report is necessary.

← was this done?

MONITORING REQUIREMENTS [OAR 340-218-0050(3)(a)]

Facility-wide monitoring:

30. The permittee shall inspect the unpaved area (when they exist during construction) and materials storage and transfer areas for excessive fugitive emissions as specified:

30.a. At a minimum of once per month, the permittee shall visually survey the unpaved area (when triggered by construction activities) and the materials storage/transfer areas for excess fugitive emissions. The minimum monthly monitoring frequency specified is also the required interval between two consecutive monitoring periods. For the purpose of this survey, excess fugitive emissions are considered to be any visible airborne emissions.

30.b. If sources of excess fugitive emissions are identified during the survey, the permittee shall use water or a chemical treatment to minimize the fugitive emissions, unless cold weather would make this activity result in hazardous conditions. If water is used to control the fugitive dust emissions, the permittee shall take care not to create a water quality problem from surface water run-off.

30.c. Record on the inspection forms, dates and times of visual surveys conducted, and any visible emissions observed.

31. The permittee shall monitor the sulfur content of each batch of residual oil and ASTM grade distillate oil sold, distributed, or used (in boilers), in accordance with the following methods or procedures:

31.a. obtaining a sulfur analysis certificate from the vendor for each batch; or

31.b. analyzing or having analyzed by a contract laboratory a composite of representative samples taken by the permittee from each batch of fuel oil received within 15 days of receipt. Liquid fuels shall be analyzed using ASTM D129-64, D1552-83, D4057-81, or equivalent method.

32. The permittee shall maintain a log summarizing actions taken during an applicable air pollution episode, pursuant to condition 6.

33. The permittee shall record all written complaints or complaints received via telephone or in person by the responsible official or a designated appointee that specifically refer to a complaint of odor or the particulate matter (> 250 micron) fall-out type of nuisance from the permitted facility. Said log shall also record permittee's actions to investigate, make a determination as to the validity of the complaint, and resolve the problem within two working days or within such longer time (not to exceed 7 days) as is reasonably necessary to resolve the problem that led to the complaint.

34. The permittee shall maintain the following records of employees hired by the permittee that perform work on the refrigeration system on-board the ship that use class I or class II ozone-depleting substances:

34.a. the name of the person certified and his/her affiliation;
34.b. a personal (i.e., worker) identification number;
34.c. the type (I, II, III, and/or Universal) of certification; and
34.d. the name of the certifying program, and the date the organization became a certifying program.

Emissions Unit specific monitoring:

35. Except as provided in condition 35.f, the permittee shall conduct visible emissions survey at each of the monitoring point of emissions unit CUB in accordance with the following procedures and frequencies:

35.a. At a minimum of once per week, the permittee shall conduct a six (6) minute visible emission survey using the procedures outlined in EPA Method 22. The minimum weekly monitoring frequency specified is also the required interval between two consecutive monitoring periods.

35.b. All visible emissions observations shall be conducted during period when the equipment is burning fuel.

35.c. If visible emissions, excluding condensed water vapor, from an individual monitoring point are detected for more than 5% (18 seconds) of the survey time, an EPA Method 9 test shall be conducted on that monitoring point for a six (6) minute period in accordance with the Department's Source Sampling Manual. If any of the observations during the specified 6-minute period exceed the applicable 20% opacity limit, the observation period shall continue until 60 minute of observations have been completed or until an exceedance of the opacity standard has been documented.

35.d. If the observer is unable to conduct the survey and/or EPA Method 9 tests due to visual interference caused by other visible emissions sources (e.g., fugitive emissions during high wind conditions) or due to weather conditions such as fog, heavy rain, or snow, the observer shall note such conditions on the data observation sheet and make at least three attempts in same day to conduct the surveys and/or tests at approximately 2 hours intervals throughout the day. If no observations are made for that day, the observer shall continue to attempt to conduct the survey and/or EPA Method 9 daily until a valid observation is made.

35.e. If visible surveys and/or observations conducted during 10 consecutive observation weeks show no visible emissions for a particular source, the permittee may reduce the minimum monitoring frequency to once per month for that source. Anytime the monthly visible emissions survey show visible emissions, or when requested by the Department inspector, the observations for that source of visible emissions shall start over with weekly surveys, as noted in item a of this condition.

35.f. Monitoring protocols specified in this condition for CUB boiler are applicable only when that equipment burns oil and during the period in which oil is burned. As long as any of the equipment grouped under the emissions unit CUB is fueled by natural gas (or LPG), emissions from that equipment is assumed to be in compliance with the 20% opacity standard and the 0.1 (or 0.2) gr/scf loading limits; and the visual emissions survey required by this condition is waived for that equipment. For the purpose of verification, the permittee shall monitor and record the type(s) of fuel used in CUB, as specified in conditions 31 and 45.

36. The permittee shall conduct visible emission surveys at each of the baghouse discharge point of emissions unit SBI in accordance with the following procedures and frequencies:

36.a. At a minimum of once per week, the permittee shall conduct a six (6) minute visible emission survey using the procedures outlined in EPA Method 22. The minimum weekly monitoring frequency specified is also the required interval between two consecutive monitoring periods.

36.b. All visible emissions observations shall be conducted during period when the equipment is operating.

36.c. If any visible emissions, excluding condensed water vapor, from an individual monitoring point are detected, an EPA Method 9 test shall be conducted on that monitoring point in accordance with the Department's Source Sampling Manual. The observation period shall continue until 60 minute of observations has been completed or until an exceedance has been documented.

36.d. If the observer is unable to conduct the survey and/or EPA Method 9 tests due to visual interference caused by other visible emissions sources (e.g., fugitive emissions during high wind conditions) or due to weather conditions such as fog, heavy rain, or snow, the observer shall note such conditions on the data observation sheet and make at least three attempts in same day to conduct the surveys and/or tests at approximately 2 hours intervals throughout the day. If no observations are made for that day, the observer shall continue to attempt to conduct the survey and/or EPA Method 9 daily until a valid observation is made.

36.e. If visible surveys and/or observations conducted during 10 consecutive observation weeks show no visible emissions for a particular source, the permittee may reduce the minimum monitoring frequency to once per month for that source. Anytime the monthly visible emissions survey show visible emissions, or when requested by the Department inspector, the observations for that source of visible emissions shall start over with weekly surveys, as noted in item a of this condition.

37. The permittee shall maintain the training records of all employees who are directly involved in the application of VOC-based coatings at $COAT_{SIM}$. The permittee shall also maintain the drawing/specifications of the solvent (paint gun) cleaning system and the types of cleaning solvents used. At minimum, the following information shall be kept:

37.a. Training/course materials (and all updates) used.

37.b. Employee hire-dates and their training records.

38. The permittee shall inspect the outdoor blasting operations (SBO), and the material storage and collection processes associated with all blasting operations (SBI & SBO), to ensure that the work-practice requirements specified in condition 14 are properly being carried out:

38.a. At minimum of once per day when SBO activities are taking place, at each location the SBO activities are performed, the permittee shall visually inspect curtains and containment measures to ensure their proper placement, use, and effectiveness.

38.b. At minimum of once per week during May 1 through October 31, and at minimum of once per month the remainder of the year, the permittee shall visually inspect the following areas to ensure the provisions of condition 14 are met:

38.b.i. raw abrasive blast material storage and handling areas; and
38.b.ii. used abrasive blast material storage and handling areas.

38.c. Record findings - location and nature of deviation from prescribed operation, maintenance and work practice procedures.

38.d. Record corrective action taken (if any) as the result of the inspection - record date and a brief description of repair/correction.

38.e. The permittee shall maintain records of the inspection results including the dates and times of inspections.

39. The permittee shall maintain a log and record dates and sections of the PIR that were swept, pursuant to condition 15.

40. For the purpose of showing compliance with the requirements specified in condition 16, the permittee shall keep records of all products stored in the fixed roof (BWT) storage tank with a capacity greater than 39,000 gallons. The permittee may utilize the PSEL monitoring specified in conditions 45.b and 48.a for this purpose.

41. At minimum of once per year, the permittee shall conduct the preventive maintenance inspection on VDU, and make the necessary repairs as needed to ensure proper operations of VDU.

41.a. At minimum, inspect and/or test the following components:

- 41.a.i. Test emergency shut down devices;
- 41.a.ii. inspect pilot assembly for damage or loose wires, including the ignitor, U/V flare detector, and spark plug and insulator.
- 41.a.iii. test thermocouple for proper operating temperature;
- 41.a.iv. operate and calibrate (when necessary, e.g., component replacement) all instruments as per vendor instruction (manual);
- 41.a.v. inspect the detonation aerator internally;
- 41.a.vi. inspect the combustion chamber insulation;
- 41.a.vii. inspect burner assembly;
- 41.a.viii. inspect all dampers;
- 41.a.ix. inspect all vapor piping from T-15 to flare;
- 41.a.x. inspect gas piping and meter (located at building 63); and
- 41.a.xi. lubricate blower motor if necessary.

41.b. The permittee shall maintain the records of all inspections and repairs performed on VDU.

42. By no later than December 15, 1997, the permittee shall monitor compliance with condition 19.a in accordance with the following procedures, as specified in 40 CFR 63.785: (see Figure-1: "Flow diagram of compliance procedures", Appendix-B, for reference)

42.a. For each batch of coating received, the permittee shall identify the coating category and the applicable VOHAP limit(s) specified in condition 19.a; and then certify the as-supplied VOC content of the batch of coating. The permittee may use a certification supplied by the manufacturer for the batch, although the permittee retains liability should subsequent testing reveal a violation. If the permittee performs the certification testing, only one of the containers in which the batch of coating was received is required to be tested.

42.b. In lieu of testing each batch of coating, as applied, the permittee may determine compliance with the VOHAP limits specified in condition 19.a by using any combination of the procedures described in conditions 42.f.i, 42.f.ii, 42.f.iii, and 42.f.iv. The procedure used for each coating shall be determined and documented prior to application.

42.c. For the compliance procedures described in conditions 42.f.i through 42.f.iii, VOC (including exempt compounds listed as HAP) shall be used as a surrogate for VOHAP.

42.d. The results of any compliance demonstration conducted by the permittee or DEQ/EPA using Method 24 shall take precedence over the results using the procedures in conditions 42.f.i, 42.f.ii, or 42.f.iii.

42.e. The results of any compliance demonstration conducted by the permittee or DEQ/EPA using an approved test method to determine VOHAP content shall take precedence over the results using the procedures in condition 42.f.iv.

42.f. Coating Compliance Procedures:

42.f.i. Coatings to which thinning solvent will not be added. For coatings to which thinning solvent (or any other material) will not be added under any circumstance or to which only water is added, the permittee shall comply as follows:

42.f.i.(1) Certify the as-applied VOC content of each batch of coating.

42.f.i.(2) Notify the persons responsible for applying the coating that no thinning solvent may be added to the coating by affixing a label to each container of coating in the batch or through another means described in the implementation plan per 40 CFR 63.787.

42.f.i.(3) *If the certified as-applied VOC content of each batch of coating used* during a calendar month is less than or equal to the applicable VOHAP limit in condition 19.a (either in terms of g/L of coating or g/L of solids), then compliance is demonstrated for that calendar month, unless a violation is revealed using Method 24.

42.f.ii. Coatings to which thinning solvent will be added--coating-by-coating compliance. For a coating to which thinning solvent is routinely or sometimes added, the permittee shall comply as follows:

42.f.ii.(1) Prior to the first application of each batch, designate a single thinner for the coating and calculate the maximum allowable thinning ratio (or ratios, if the source complies with the cold-weather limits in addition to the other limits specified in condition 19.a) for each batch as follows:

$$R = \frac{(V_s)(\text{VOHAP limit}) - m_{VOC}}{D_{st}} \quad \text{Eqn. 1}$$

where:

R = Maximum allowable thinning ratio for a given batch (L thinner/L coating as supplied);

V_s	=	Volume fraction of solids in the batch as supplied (L solids/L coating as supplied);
VOHAP limit	=	Maximum allowable as-applied VOHAP content of the coating (g VOHAP/L solids);
m_{VOC}	=	VOC content of the batch as supplied [g VOC (including cure volatiles and exempt compounds on the HAP list)/L coating (including water and exempt compounds) as supplied];
D_{th}	=	Density of the thinner (g/L).

If V_s is not supplied directly by the coating manufacturer, the permittee shall determine V_s as follows:

$$V_s = 1 - \frac{m_{volatiles}}{D_{avg}} \qquad \text{Eqn. 2}$$

where:

$m_{volatiles}$	=	Total volatiles in the batch, including VOC, water, and exempt compounds (g/L coating); and
D_{avg}	=	Average density of volatiles in the batch (g/L).

The procedures specified in condition 51.d may be used to determine the values of variables defined in this paragraph. In addition, the permittee may choose to construct monographs, based on Equation 1, similar or identical to the one provided in appendix B of 40 CFR Part 63 Subpart II as a means of easily estimating the maximum allowable thinning ratio.

42.f.ii.(2) Prior to the first application of each batch, notify painters and other persons, as necessary, of the designated thinner and maximum allowable thinning ratio(s) for each batch of the coating by affixing a label to each container of coating or through another means described in the implementation plan per 40 CFR 63.787.

signs posted at job mix spe.

42.f.ii.(3) By the 15th day of each calendar month, determine the volume of each batch of the coating used, as supplied, during the previous month.

42.f.ii.(4) By the 15th day of each calendar month, determine the total allowable volume of thinner for the coating used during the previous month as follows:

$$V_{th} = \sum_{i=1}^{n} \left(R \times V_{\delta}\right)_i + \sum_{i=1}^{n} \left(R_{cold} \times V_{\delta-cold}\right)_i \qquad \text{Eqn. 3}$$

where:

V_{th}	=	Total allowable volume of thinner for the previous month (L thinner);
V_b	=	Volume of each batch, as supplied and before being thinned, used during non-cold-weather days of the previous month (L coating as supplied);
R_{cold}	=	Maximum allowable thinning ratio for each batch used during cold-weather days (L thinner/L coating as supplied);
$V_{b\text{-}cold}$	=	Volume of each batch, as supplied and before being thinned, used during cold-weather days of the previous month (L coating as supplied);
i	=	Each batch of coating; and
n	=	Total number of batches of the coating.

42.f.ii.(5) By the 15th day of each calendar month, determine the volume of thinner actually used with the coating during the previous month.

42.f.ii.(6) If the volume of thinner actually used with the coating [condition 42.f.ii.(5)] is less than or equal to the total allowable volume of thinner for the coating [condition 42.f.ii.(4)], then compliance is demonstrated for the coating for the previous month, unless a violation is revealed using Method 24.

42.f.iii. Coatings to which the same thinning solvent will be added--group compliance. For coatings to which the same thinning solvent (or other material) is routinely or sometimes added, the permittee shall comply as follows:

42.f.iii.(1) Designate a single thinner to be added to each coating during the month and "group" coatings according to their designated thinner.

42.f.iii.(2) Prior to the first application of each batch, calculate the maximum allowable thinning ratio (or ratios, if the source complies with the cold-weather limits in addition to the other limits specified in condition 19.a) for each batch of coating in the group using the equations in condition 42.f.ii.

42.f.iii.(3) Prior to the first application of each "batch," notify painters and other persons, as necessary, of the designated thinner and maximum allowable thinning ratio(s) for each batch in the group by affixing a label to each container of coating or through another means described in the implementation plan per 40 CFR 63.787.

42.f.iii.(4) By the 15th day of each calendar month, determine the volume of each batch of the group used, as supplied, during the previous month.

42.f.iii.(5) By the 15th day of each calendar month, determine the total allowable volume of thinner for the group for the previous month using Equation 3.

42.f.iii.(6) By the 15th day of each calendar month, determine the volume of thinner actually used with the group during the previous month.

42.f.iii.(7) If the volume of thinner actually used with the group [condition 42.f.iii.(6)] is less than or equal to the total allowable volume of thinner for the group [condition 42.f.iii.(5)], then compliance is demonstrated for the group for the previous month, unless a violation is revealed using Method 24.

42.f.iv. Demonstration of compliance through an alternative (i.e., other than Method 24) test method. The permittee shall comply as follows:

42.f.iv.(1) Certify the as-supplied VOHAP content (g VOHAP/L solids) of each batch of coating.

42.f.iv.(2) If no thinning solvent will be added to the coating, the permittee shall follow the procedure described in condition 42.f.i, except that VOHAP content shall be used in lieu of VOC content.

42.f.iv.(3) If thinning solvent will be added to the coating, the permittee shall follow the procedure described in condition 42.f.ii or 42.f.iii, except that in Equation 1: the term "m_{VOC}" shall be replaced by the term "m_{VOHAP}," defined as the VOHAP content of the coating as supplied (g VOHAP/L coating) and the term "D_{th}" shall be replaced by the term "$D_{th(VOHAP)}$" defined as the average density of the VOHAP thinner(s) (g/L).

42.g. A violation revealed through any approved test method shall result in a 1-day violation for enforcement purposes. A violation revealed through the recordkeeping procedures described in conditions 42.f.i through 42.f.iv shall result in a 30-day violation for enforcement purposes, unless the permittee provides sufficient data to demonstrate the specific days during which non-compliant coatings were applied.

43. For the purpose of showing compliance with the requirements specified in condition 20, the permittee shall adhere to the monitoring and recordkeeping specified below:

43.a. For each batch of new coating received, the permittee shall verify that hexavalent chromium is not present at any concentration in the coating. ⇐

43.b. The permittee shall record the date, amount of coating applied, location of application, and application method for all coatings containing trivalent chromium in concentration of 2 percent or greater by weight. ←

43.c. The permittee shall record the date, amount of coating applied, location of application, and application method for all coatings containing trivalent chromium in concentration of less than 2 percent by weight. ←

43.d. The permittee may rely upon information contained in the material safety data sheets (MSDS) for each coating to determine the relevant chemical content of coating materials. The permittee may also use other appropriate method (e.g., chemical analysis, product data sheet, etc.) to determine the relevant chemical content of coating materials. OK

Monitoring Requirements for PSEL and the VOC/HAP Coating Limits:

44. The permittee shall determine compliance with the Plant Site Emissions Limits specified in condition 27, the synthetic minor HAP Limits (for $COAT_{MISC}$) specified in condition 29, and the coating limits specified in conditions 17 and 18, by conducting monitoring in accordance with the procedures, test methods, and frequencies identified in conditions 45 through 48.

45. The permittee shall monitor and maintain the records of the following materials usage and process parameters as specified:

45.a. The permittee shall monitor and maintain daily and annual records of the following operating parameters:

EMISSIONS UNIT	OPERATING PARAMETER	UNIT	METHOD
SBO and Dry Dock No.1	Abrasive materials (steel shot/slag) used each day during SBO activities. Monitor the usage on dry dock No.1 separately.	lbs	Estimate (Recordkeeping) the amount (J_i) of blast grits used at each outdoor job site (dry dock & elsewhere) and monitor the number of active days (n_i) spent on each job. Also record dates associated with each job, and types of controls (i.e., curtains, screens, etc.) utilized.

Operating parameter, P_i (lbs/day) = $\sum J_i / n_i$

45.b. The permittee shall monitor and maintain monthly and annual records of the following operating parameters:

EMISSIONS UNIT	OPERATING PARAMETER	UNIT	METHOD
SBI	Abrasive materials (steel shot/ slag) used.	lbs	Estimate (Recordkeeping) the amount (lbs) of abrasive materials used from the daily schedule of abrasive-blasting jobs conducted inside.
WLD	welding rods usage	lbs	obtained from job/purchase records.
CUB	NG burned residual oil burned	10^6 ft^3 gallons	from meter reading and/or purchase records.
OVEN	NG burned	10^6 ft^3	
PIR	vehicle miles traveled (VMT)	VMT - miles	maintain log of estimated vehicles miles traveled and background calculations/assumptions used.
BWT	oil slop throughput	gallons	Recordkeeping
ROT	oil slop throughput	gallons	Recordkeeping
ROL	reclaimed oil	gallons	Recordkeeping

46. At the end of each month, the permittee shall determine the annual emissions (i.e., emissions during the previous 12-month period) from the emissions units identified, by using the operating parameters obtained in condition 45 and applying to the formula and the emissions factors listed below:

$$E_j = \sum (P_i \, EF_{ij}) = (P_1 \, EF_{1j}) + (P_2 \, EF_{2j}) + ... + (P_n \, EF_{nj})$$

where: E_j = pollutant emissions; lbs/day, lbs/month, or lbs/year.
P_i = operating parameters identified in condition 45.
EF_{ij} = emission factor for each emissions unit and pollutant identified in this condition.

46.a. EF_{ij} for Process (PM/PM_{10}) emissions units

Emissions Unit	Operating Parameter	PM	PM_{10}	UNIT
SBO **	abrasive materials used	6.3×10^{-2} (1 - EFF_i)	2.2×10^{-2} (1 - EFF_i)	lbs/lbs abrasive
SBI	abrasive materials used	6.3×10^{-5}	2.2×10^{-5}	lbs/lbs abrasive
WLD	welding rods used	--	3.65×10^{-2}	lbs/lbs wld. rod
PIR	VMT, paved road	1.7×10^{-1}	1.36×10^{-1}	lbs/VMT, paved

** Set the control efficiency (EFF_i) used to calculate the SBO PM/PM_{10} emissions to **0.05** (i.e., 5% control) when curtains and/or screens are utilized. The permittee shall obtain a written approval from the Department prior to using EFF_i other than $EFF_{curtains/screens}$ of 0.05 (i.e., 5% control).

46.b. EF_{ij} for Combustion emissions units

EU ID	FUEL	PM_{10} (1)	SO_2 (1)	NOx	CO	VOC	UNIT
CUB (Boilers)	residual oil	9.19(%S)+3.22	157(%S)	55	5	0.28	lbs/1000 gal
	natural gas	2.5 (2)	2.6	140	35	2.8	lbs/10^6 ft^3
OVEN	natural gas	--	--	100	--	--	lbs/10^6 ft^3

(1) The PM_{10} and SO_2 EFs are a function of sulfur content (%S) when residual oil is burned, in which %S is obtained per facility-wide monitoring condition 31.

(2) All EFs are based on AP42 data, except PM_{10} EF for NG combustion is DEQ EF based on ST.

47. The permittee shall determine the annual VOC emissions from emissions units $COAT_{SHIP}$ and $COAT_{MISC}$; the HAP emissions from emissions unit $COAT_{MISC}$; and the compliance status with respect to the coating RACT limits established in conditions 17 and 18, in accordance with the following procedures and frequencies:

47.a. The permittee shall monitor the following COAT operating parameters:

Operating parameters	Description of COAT Operating parameters	Monitoring Frequency
i	List the type of all coatings, thinners, and cleaning solvents used; and record the specific coating category identified in conditions 17 or 18 of which the coatings and thinners were used under. For each type of cleaning solvents used, record whether the solvents were used at $COAT_{SHIP}$ or $COAT_{MISC}$.	weekly or update as needed
VOL_i	Volume (gallons) of each coating type "i" used. (Note: VOL_i is always greater than $VOL_{w,i}$)	weekly
$VOL_{w,i}$	Volume (gallons) of water and exempt VOCs in each coating volume VOL_i used.	weekly or update as needed
$V_{th,i}$	Volume (gallons) of each type of thinner added to the coating	weekly
$V_{cl,i}$	Volume (gallons) of each type of cleaning solvent used. If separation of V_{cl} from V_{th} is difficult, V_{cl} may be reported as V_{th}, but V_{th} shall never be reported as V_{cl}	weekly
C_i	The VOC content (lbs/gal) in each coating volume VOL_i	weekly or update as needed

Operating parameters	Description of COAT Operating parameters	Monitoring Frequency
$D_{th,i}$	Density (lbs/gal) of each thinner $V_{th,i}$ added	weekly or update as needed
$D_{cl,i}$	Density (lbs/gal) of each cleaning solvents used	weekly or update as needed
HW_m	The amount (lbs) of hazardous and non-hazardous waste generated from the marine vessel coating operations, $COAT_{SHIP}$, that are shipped offsite.	as occurred
$\%VHW_m$	The representative VOC content (weight fraction) of each batch of marine vessel coating-waste HW_m	
m	The representative number of days "m" and dates associated with the HW_m collection during the period of m-days.	
HW_n	The amount (lbs) of hazardous and non-hazardous waste generated from the non-marine vessel coating operations, $COAT_{MISC}$, that are shipped offsite.	as occurred
$\%VHW_n$	The representative VOC content (weight fraction) of each batch of non-marine vessel coating-waste HW_n	
n	The representative number of days "n" and dates associated with the HW_n collection during the period of n-days.	

47.b. At the end of each month, the permittee shall determine the annual emissions from the emissions unit $COAT_{SHIP}$ by using the operating parameters obtained per condition 47.a and applying to the following formula:

$$E_{ANNUAL}\ (tons/yr) = \Sigma_{Previous\ 12\text{-}Month}\ [\ (VOL_i\ C_i) + (V_{th,i}\ D_{th,i}) + (V_{cl,i}\ D_{cl,i}) - (\%VHW_m\ HW_m)\ ]\ /\ 2{,}000$$

47.c. At the end of each month, the permittee shall determine annual emissions from the emissions unit $COAT_{MISC}$ by using the operating parameters obtained per condition 47.a and applying to the following formula:

$$E_{ANNUAL}\ (tons/yr) = \Sigma_{Previous\ 12\text{-}Month}\ [\ (VOL_i\ C_i) + (V_{th,i}\ D_{th,i}) + (V_{cl,i}\ D_{cl,i}) - (\%VHW_n\ HW_n)\ ]\ /\ 2{,}000$$

47.d. Except as noted in condition 49.a, for each coating category identified in condition 17.a, the permittee shall determine the weekly compliance status of the coating RACT limits by using the operating parameters obtained per condition 47.a and applying to the following formula:

$$E_{SHIP,WEEK}\ (lbs/gal,\ less\ H_2O\ \&\ exempt\ VOC) = \Sigma_{week}\ [(VOL_i\ C_i + V_{th,i}\ D_{th,i})\ /\ (VOL_i + V_{th,i} - VOL_{w,i})]$$

47.e. For each coating category identified in condition 18, the permittee shall determine the weekly compliance status of the categorical RACT limits by using the operating parameters obtained per condition 47.a and applying to the following formula:

$$E_{MISC,WEEK}\ (lbs/gal.\ less\ H_2O\ \&\ exempt\ VOC) = \Sigma_{week}\ [(VOL_i\ C_i + V_{th,i}\ D_{th,i})\ /\ (VOL_i + V_{th,i} - VOL_{w,i})]$$

47.f. At the end of each month, if and only if a new coating booth has been added to emissions unit $COAT_{MISC}$, the permittee shall determine the HAP emissions occurred in the previous 12-month

period from $COAT_{MISC}$, using the operating parameters obtained under conditions 47.a and 47.f and applying to the methods specified in condition 47.f.i and/or 47.f.ii:

Operating parameters	Description of COAT Operating parameters	Monitoring Frequency
$VHAP_i$	Total amount (lbs) of individual organic HAP "i" in all coatings, thinners, and cleaning solvents used at $COAT_{MISC}$, during the previous 12-month period.	monthly
$IHAP_i$	Total amount (lbs) of individual inorganic HAP "i" used in all coatings, thinners, and cleaning solvents at $COAT_{MISC}$, during the previous 12-month period.	
$VHAPW_{n,i}$	Total amount (lbs) of individual organic HAP "i" in both HW_m and HW_n, that originated from $COAT_{MISC}$, during the previous 12-month period. If separation is difficult, default value = 0.	as occurred
$IHAPW_{n,i}$	Total amount (lbs) of individual inorganic HAP "i" in both HW_m and HW_n, that originated from $COAT_{MISC}$, during the previous 12-month period. If separation is difficult, default value = 0.	

47.f.i. If the previous 12-month sum of all individual HAP emissions is less than 10 tons; or if the previous 12-month sum of all individual organic HAP emissions is less than 10 tons and all individual inorganic HAP emissions is also less than 10 tons, the permittee is in compliance with the HAP limits specified in condition 29:

$$\sum (VHAP_i + IHAP_i - IHAPW_{n,i} - VHAPW_{n,i}) < 10 \text{ tons/yr}; \text{ or}$$

$$\sum (VHAP_i - VHAPW_{n,i}) < 10 \text{ tons/yr, and}$$
$$\sum (IHAP_i - IHAPW_{n,i}) < 10 \text{ tons/yr.}$$

47.f.ii. If each individual HAP emission during the previous 12-month period is less than 10 tons, and the total aggregate sum of all organic and inorganic HAP emissions is less than 25 tons, the permittee is in compliance with the HAP limits specified in condition 29:

$$VHAP_i - VHAPW_{n,i} < 10 \text{ tons/yr for each individual organic HAP,}$$
$$IHAP_i - IHAPW_{n,i} < 10 \text{ tons/yr for each individual inorganic HAP, and}$$
$$\sum (VHAP_i - VHAPW_{n,i}) + (IHAP_i - IHAPW_{n,i}) < 25 \text{ tons/yr.}$$

47.f.iii. For the period of one year after the installation date of new booth at $COAT_{MISC}$, the previous 12-month period means the installation date to the monitoring date, which would be less than 12 months until a year from the installation date has passed.

47.f.iv. While either condition 47.f.i or 47.f.ii, or the combination of both, can be used to determine the minor HAP source status for $COAT_{MISC}$, condition 47.f.i does not require separation of individual HAPs because the aggregate sum of all individual HAPs being less than the individual HAP limit of 10 tons/yr, for either the organic or inorganic HAPs category, assures the 25 tons/yr aggregate limit will not be exceeded.

48. Except as provided in condition 48.c, the permittee shall calculate the VOC emissions from emissions units BWT, ROT, and ROL using the appropriate production throughput obtained per condition 45 and the AP42 algorithms and emissions factors provided below:

48.a. VOC emissions from each fixed roof storage tank grouped under emissions unit BWT shall be calculated based on the following AP42 algorithms:

$$L_{BWT} = \text{Total loss} = L_B + L_W \quad (\text{lbs/yr})$$

L_B = fixed roof breathing loss = $2.26 \times 10^{2}\ M_V\ [P/(P_A - P)]^{0.68}\ D^{1.73}\ H^{0.51}\ \Delta T^{0.5}\ F_P\ C\ K_C$
L_W = fixed roof working loss = $2.4 \times 10^{5}\ M_V\ P\ V\ N\ K_N\ K_C$

Annual emission from BWT is the sum of emissions from individual fixed roof storage tanks:

$$E_{BWT,\,ANNUAL} = \Sigma L_{BWT} / 2000 \quad (\text{tons/year})$$

where: M_V = average vapor molecular weight
P = average monthly stock true vapor pressure, in psia (see equation below)
P_A = average atmospheric pressure at tank location, psia; default = 14.7 psi
D = tank diameter, feet
H = average vapor space height - if not available, assume H equals 1/2 the tank height.
ΔT = average ambient diurnal temperature change, °F; default = 15°F (assumption)
F_P = paint factor; see TABLE-A
C = adjustment factor for small tanks with $D < 30$ feet
= $0.0771\ (D) - 0.0013\ (D^2) - 0.1334$; otherwise $C = 1$ for $D \geq 30$.
K_C = product factor; for crude oil, $K_C = 0.65$. For all other organic liquids, $K_C = 1.0$.
V = tank capacity, gallons
N = number of turnovers per year = Annual throughput (gal) divided by tank capacity, V
K_N = turnover factor; for $N > 36$, $K_N = (180 + N)/6N$. For $N \leq 36$, $K_N = 1$

$$P = \exp\{ [0.7553 - 413 \div (T_{MA}+459.6)] S^{0.5} \log_{10}(RVP) - [1.854 - 1042 \div (T_{MA}+459.6)]\ S^{0.5} + [2416 \div (T_{MA}+459.6) - 2.013] \log_{10}(RVP) - [8742 \div (T_{MA}+459.6)] + 15.64 \}$$

Where:
T_{MA} = Average monthly stock temp. (°F) = $0.44T_{AA} + 0.56T_B + 0.0079 \alpha I$
RVP = Reid vapor pressure, psi
S = Slope of the ASTM distillation curve at 10% evaporated, °F
T_{AA} = Monthly average ambient temperature, °F
T_B = Liquid bulk temp. (°F) = $T_{MA} + 6\alpha - 1$
α = Tank paint absorptance factor, dimensionless, see TABLE-B
I = Solar insolation factor, Btu/ft^{2}d, see TABLE-C

TABLE-A. Paint Factors for Fixed Roof Tanks

TANK COLOR		PAINT FACTOR (F_P) Paint Condition	
Roof	Shell	Good	Poor
White	White	1.00	1.15
Aluminum (specular)	White	1.04	1.18
White	Aluminum (specular)	1.16	1.24
Aluminum (specular)	Aluminum (specular)	1.20	1.29
White	Aluminum (diffuse)	1.30	1.38
Aluminum (diffuse)	Aluminum (diffuse)	1.39	1.46
White	Gray	1.30	1.38
Light gray	Light gray	1.33	1.44[a]
Medium gray	Medium gray	1.40	1.58[a]

[a] Estimated from the ratios of the seven preceding paint factors.

TABLE-B. Paint solar absorptance for Fixed Roof Tanks

Paint color*	Paint shade or type	PAINT FACTOR (∝) Paint Condition Good	Poor
Aluminum	Specular	0.39	0.49
Aluminum	Diffuse	0.60	0.68
Gray	Light	0.54	0.63
Gray	Medium	0.68	0.74
Red	Primer	0.89	0.91
White	NA	0.17	0.34

[a] If the tank roof and shell are painted a different color, use the average value of ∝

TABLE-C. Solar insolation factor (I), Btu/ft² d

Month	I	Month	I
January	310	July	2037
February	554	August	1674
March	895	September	1217
April	1308	October	724
May	1663	November	388
June	1773	December	250

For annual average, use I = 1067.

48.b. At the end of each month, the permittee shall determine the annual emissions from emissions units ROT and ROL, by using the operating parameters obtained per condition 45 and applying to the following formula and the emissions factors listed below:

Database other sources Tanks

$$E = \Sigma (P_i\ EF_i) = (P_1\ EF_1) + (P_2\ EF_2)$$

where: E = VOC emissions
Pi = operating parameters identified in condition 45.b
EF_i = VOC emission factor for ROT and ROL identified below:

Title V
Tanks
VA0934

VOC EF_i for emissions units ROT & ROL

Emissions Unit	P_i	VOC EF_i	UNIT
ROT	oil slop throughput, gallons	7.76×10^{-3}	lbs/gal
ROL	reclaimed oil, gallons	2×10^{-3}	lbs/gal

48.c. For emission calculations for storage tanks BWT and ROT, the permittee may use the EPA Tank 2.0 program (software), which is based on the same AP42 algorithms/factors identified in this condition to calculate the VOC emissions. The permittee may also use a later version of the EPA Tank program, if approved in writing by the Department.

49. Source-specific RACT Monitoring

49.a. Alternative to the methods specified in condition 47.d, compliance with the RACT coating limits specified in condition 17.a for $COAT_{SHIP}$ shall be deemed satisfied by the successful determination of compliance with the NESHAP coating limits presented in condition 19. In the event one or more NESHAP coating limit is determined to be violated based on the outcome of the NESHAP

compliance monitoring conducted per condition 42, the permittee must determine compliance with the RACT limit(s) of the coating category (e.g., General Use, Antifoulant, Prewash, etc.) in violation separately, using the methods specified in condition 47.d, in order to avoid being deemed to be in violation of both the NESHAP and RACT standards. The permittee shall retain all calculations and associated records used to verify compliance with the source-specific RACT standard.

49.b. The permittee shall monitor the employee training outlined in condition 17.c and the Best management practices requirements outlined in condition 17.d, and retain all relevant records as required per condition 54.e.

TEST METHODS AND PROCEDURES [OAR 340-218-0050(1)]

50. Unless otherwise specified in this permit, all testing shall be conducted in accordance with the Department's Source Sampling Manual. [OAR 340-212-0120]

51. NESHAP Test methods and procedures: [40 CFR 63.786] .

51.a. For the compliance procedures described in conditions 42.f.i through 42.f.iii, Method 24 of 40 CFR Part 60, appendix A, is the definitive method for determining the VOC content of coatings, as supplied or as applied. When a coating or thinner contains exempt compounds that are volatile HAP or VOHAP, the permittee shall ensure, when determining the VOC content of a coating, that the mass of these exempt compounds is included.

51.b. For the compliance procedure described in condition 42.f.iv, the Department must approve the test method for determining the VOHAP content of coatings and thinners. As part of the approval, the test method must meet the specified accuracy limits indicated below for sensitivity, duplicates, repeatability, and reproducibility coefficient of variation each determined at the 95 percent confidence limit. Each percentage value below is the corresponding coefficient of variation multiplied by 2.8 as in the ASTM Method E180-93: Standard Practice for Determining the Precision of ASTM Methods for Analysis and Testing of Industrial Chemicals (incorporation by reference--see 40 CFR 63.14).

51.b.i. Sensitivity: The overall sensitivity must be sufficient to identify and calculate at least one mass percent of the compounds of interest based on the original sample. The sensitivity is defined as ten times the noise level as specified in ASTM Method D3257-93: Standard Test Methods for Aromatics in Mineral Spirits by Gas Chromatography (incorporation by reference--see 40 CFR 63.14). In determining the sensitivity, the level of sample dilution must be factored in.

51.b.ii. Repeatability: First, at the 0.1-5 percent analyte range the results would be suspect if duplicates vary by more than 6 percent relative and/or day to day variation of mean duplicates by the same analyst exceeds 10 percent relative. Second, at greater than 5 percent analyte range the results would be suspect if duplicates vary by more than 5 percent relative and/or day to day variation of duplicates by the same analyst exceeds 5 percent relative.

51.b.iii. Reproducibility: First, at the 0.1-5 percent analyte range the results would be suspect if lab to lab variation exceeds 60 percent relative. Second, at greater than 5 percent range the results would be suspect if lab to lab variation exceeds 20 percent relative.

51.b.iv. Any test method should include information on the apparatus, reagents and materials, analytical procedure, procedure for identification and confirmation of the volatile

species in the mixture being analyzed, precision and bias, and other details to be reported. The reporting should also include information on quality assurance (QA) auditing.

51.b.v. Multiple and different analytical techniques must be used for positive identification if the components in a mixture under analysis are not known. In such cases a single column gas chromatograph (GC) may not be adequate. A combination of equipment may be need such as a GC/mass spectrometer or GC/infrared system. (If a GC method is used, the operator must use practices in ASTM Method E260-91: Standard Practice for Gas Chromatography [incorporation by reference--see 40 CFR 63.14].)

51.c. A coating manufacturer or the permittee may use batch formulation data as a test method in lieu of Method 24 to certify the as-supplied VOC content of a coating if the manufacturer or the permittee has determined that batch formulation data have a consistent and quantitatively known relationship to Method 24 results. This determination shall consider the role of cure volatiles, which may cause emissions to exceed an amount based solely upon coating formulation data. Notwithstanding such determination, in the event of conflicting results, Method 24 shall take precedence.

51.d. The permittee shall use or ensure that the manufacturer uses the form and procedures mentioned in appendix A to determine values for the thinner and coating parameters used in Equations 1 and 2 of condition 42. The permittee shall ensure that the coating/thinner manufacturer (or supplier) provides information on the VOC and VOHAP contents of the coatings/thinners and the procedure(s) used to determine these values.

52. Although source testing is not required by this permit for the permit conditions listed below, if source testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods and averaging times to measure the pollutant emissions:

Permit Condition	Test Method	Averaging Time	Special Conditions
12, 13, 22, and 23	ODEQ Methods 5, 7, or 8	average of three one-hour test runs	ODEQ Method 8 is for sources with exhaust gases at essentially ambient conditions (e.g. material handling cyclones); ODEQ Method 7 is for direct contact combustion sources (e.g., particle and veneer dryers); ODEQ Method 5 is for indirect contact fuel burning equipment (e.g., boilers) and any other source.
11 and 21	Modified EPA Method 9 in accordance with the Department's Source Sampling Manual	aggregate of three minutes in any 60 minute period	Each Method 9 observation shall represent a period of 15 seconds for the purpose of determining the aggregate amount of time in 60 minute period that the visible emissions are greater than the opacity limit. The test duration may be less than 60 minutes if a violation of the standard is documented before the full 60 minute observation period is completed.

RECORDKEEPING REQUIREMENTS [OAR 340-218-0050(3)(b)]

53. The permittee shall maintain the following general records of monitoring required by conditions 30 through 49:

53.a. the date, place as defined in the permit, and time of sampling or measurements;

53.b. the date(s) analyses were performed;

53.c. the company or entity that performed the analyses;
53.d. the analytical techniques or methods used;
53.e. the results of such analyses;
53.f. the operating conditions as existing at the time of sampling or measurement; and
53.g. the records of all physical and operating parameters used in this permit.

54. The permittee shall maintain the following specific records of required monitoring information:

54.a. fugitive dust inspection and maintenance activities records kept per condition 30;
54.b. fuel oil sulfur analyses certificates kept per condition 31;
54.c. recordkeeping per condition 32 of any actions taken during an applicable air pollution episode;
54.d. complaint log and investigation reports per condition 33, if any;
54.e. employee certification records and training records kept per conditions 34, 37, and 49;
54.f. visible emissions observation reports per conditions 35 and 36;
54.g. records of inspection and maintenance procedures kept per conditions 38, 39, and 41;
54.h. the HAP data kept per condition 43; and
54.i. weekly, monthly, and/or annual records of production, fuel usage, and/or other relevant emissions data identified in conditions 45 through 49.

55. NESHAP RECORDKEEPING: The permittee shall maintain the following specific records related to ship coating operations conducted under emissions unit $COAT_{SHIP}$ in accordance with 40 CFR 63.788:

55.a. The permittee shall maintain relevant records for such source of:

55.a.i. Any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements, if the permittee has been granted a waiver under 40 CFR 63.10(f);
55.a.ii. All documentation supporting the initial notification submitted under 40 CFR 63.787.

55.b. The permittee shall record the total volume of each of the exempt coatings applied to marine vessel and vessel parts at the source. Such records shall be compiled monthly, and the previous 12 month usage of exempt coatings shall be compared to the limits specified in condition 19.c.i.

55.c. The permittee shall compile records on a monthly basis. At a minimum, these records shall include:

55.c.i. All documentation supporting initial notification;
55.c.ii. A copy of the source's implementation plan;
55.c.iii. The volume of each low-usage-exempt coating applied;
55.c.iv. Identification of the coatings used, their appropriate coating categories, and the applicable VOHAP limit;
55.c.v. Certification of the as-supplied VOC content of each batch of coating;
55.c.vi. A determination of whether containers meet the standards as described in condition 19.b.ii; and
55.c.vii. The results of any Method 24 or approved VOHAP measurement test conducted on individual containers of coating, as applied.

55.d. The records required by condition 55.c shall include additional information, as determined by the compliance procedure(s) described in condition 42.f that the source followed:

55.d.i. Coatings to which thinning solvent will not be added. The records maintained if demonstrating compliance using the procedure described in condition 42.f.i shall contain the following information:

55.d.i.(1) Certification of the as-applied VOC content of each batch of coating; and

55.d.i.(2) The volume of each coating applied.

55.d.ii. Coatings to which thinning solvent will be added--coating-by-coating compliance. The records maintained by facilities demonstrating compliance using the procedure described in condition 42.f.ii shall contain the following information:

55.d.ii.(1) The density and mass fraction of water and exempt compounds of each thinner and the volume fraction of solids (non-volatiles) in each batch, including any calculations;

55.d.ii.(2) The maximum allowable thinning ratio (or ratios, if the source complies with the cold-weather limits in addition to the other limits specified in condition 19.a for each batch of coating, including calculations;

55.d.ii.(3) If the source chooses to comply with the cold-weather limits, the dates and times during which the ambient temperature at the affected source was below 4.5°C (40°F) at the time the coating was applied and the volume used of each batch of the coating, as supplied, during these dates;

55.d.ii.(4) The volume used of each batch of the coating, as supplied;

55.d.ii.(5) The total allowable volume of thinner for each coating, including calculations; and

55.d.ii.(6) The actual volume of thinner used for each coating.

55.d.iii. Coatings to which the same thinning solvent will be added--group compliance. The records maintained by facilities demonstrating compliance using the procedure described in condition 42.f.iii shall contain the following information:

55.d.iii.(1) The density and mass fraction of water and exempt compounds of each thinner and the volume fraction of solids in each batch, including any calculations;

55.d.iii.(2) The maximum allowable thinning ratio (or ratios, if the affected source complies with the cold-weather limits in addition to the other limits specified in condition 19.a) for each batch of coating, including calculations;

55.d.iii.(3) If the source chooses to comply with the cold-weather limits, the dates and times during which the ambient temperature at the affected source was below 4.5°C (40°F) at the time the coating was applied and the volume used of each batch in the group, as supplied, during these dates;

55.d.iii.(4) Identification of each group of coatings and their designated thinners;

55.d.iii.(5) The volume used of each batch of coating in the group, as supplied;

55.d.iii.(6) The total allowable volume of thinner for the group, including calculations; and

55.d.iii.(7) The actual volume of thinner used for the group.

55.d.iv. Demonstration of compliance through an alternative (i.e., non-Method 24) test method. The records maintained by facilities demonstrating compliance using the procedure described in condition 42.f.iv shall contain the following information:

55.d.iv.(1) Identification of the Administrator-approved VOHAP test method or certification procedure;

55.d.iv.(2) For coatings to which the source does not add thinning solvents, the source shall record the certification of the as-supplied and as-applied VOHAP content of each batch and the volume of each coating applied;

55.d.iv.(3) For coatings to which the source adds thinning solvent on a coating-by-coating basis, the source shall record all of the information required to be recorded by condition 55.d.ii; and

55.d.iv.(4) For coatings to which the source adds thinning solvent on a group basis, the source shall record all of the information required to be recorded by condition 55.d.iii.

55.e. If the permittee detects a violation of the standards specified in condition 19, the permittee shall, for the remainder of the reporting period during which the violation(s) occurred, include the following information in his or her records:

55.e.i. A summary of the number and duration of deviations during the reporting period, classified by reason, including known causes for which a Federally-approved or promulgated exemption from an emission limitation or standard may apply.

55.e.ii. Identification of the data availability achieved during the reporting period, including a summary of the number and total duration of incidents that the monitoring protocol failed to perform in accordance with the design of the protocol or produced data that did not meet minimum data accuracy and precision requirements, classified by reason.

55.e.iii. Identification of the compliance status as of the last day of the reporting period and whether compliance was continuous or intermittent during the reporting period.

55.e.iv. If, pursuant to condition 55.e.iv, the permittee identifies any deviation as resulting from a known cause for which no Federally-approved or promulgated exemption from an emission limitation or standard applies, the monitoring report shall also include all records that the source is required to maintain that pertain to the periods during which such deviation occurred and:

include these reports?

55.e.iv.(1) The magnitude of each deviation;

55.e.iv.(2) The reason for each deviation;

55.e.iv.(3) A description of the corrective action taken for each deviation, including action taken to minimize each deviation and action taken to prevent recurrence; and

55.e.iv.(4) All quality assurance activities performed on any element of the monitoring protocol.

55.f. For the NESHAP records required by condition 55, the permittee shall retain at least the most recent 2 years of data on site; and the remaining 3 years of NESHAP records may be retained off site.

55.g. The NESHAP data may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

56. Unless otherwise specified by permit condition, the permittee shall make every effort to maintain 100 percent of the records required by the permit. If information is not obtained or recorded for legitimate reasons (e.g., the monitor or data acquisition system malfunctions due to a power outage), the missing record(s) shall not be considered a permit deviation provided the amount of data lost does not exceed 10% of the averaging periods in a reporting period or 10% of the total operating hours in a reporting period, if no averaging time is specified. Upon discovering that a required record is missing, the permittee shall document the reason for the missing record. In addition, any missing record that can be recovered from other available information shall not be considered a missing record. [OAR 340-214-0110, 340-212-0160, and 340-218-0050(3)(b)]

57. Unless otherwise specified, the permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

REPORTING REQUIREMENTS [OAR 340-218-0050(3)(c)]

58. SEMI-ANNUAL REPORTING REQUIREMENTS: The permittee shall submit four (4) copies of the semi-annual monitoring report by July 31, unless otherwise approved in writing by the Department. The semi-annual monitoring report shall include the following information:

58.a. The first semi-annual compliance certification for the period January 1 through June 30 [OAR 340-218-0080] and the information specified in forms R1002 and R1003 for the same period. All instances of deviations from permit requirements shall be clearly identified in such report.

58.b. The permittee may use forms supplied by the Department or equivalent forms approved by the Department.

58.c. One copy of the semi-annual report shall be submitted to the DEQ Air Quality Division, two copies to the DEQ Northwest regional office, and one copy to the EPA Region X office.

59. ANNUAL REPORTING REQUIREMENTS: The permittee shall submit four (4) copies of the annual monitoring report by February 15, unless otherwise approved in writing by the Department. The annual monitoring report shall include the following information:

59.a. The second semi-annual compliance certification for the period July 1 through December 31 [OAR 340-218-0080] and the information specified in forms R1002 and R1003 for the same period. All instances of deviations from permit requirements shall be clearly identified in such reports.

59.b. The emission fee report [OAR 340-220-0100]

59.c. The emission statement, if applicable [OAR 340-214-0220]

59.d. The excess emissions upset log, if applicable [OAR 340-214-0340]

59.e. The annual certification that the risk management plan is being properly implemented, if triggered; OAR 340-244-0230. [OAR 340-218-0080(7)]

59.f. Other source-specific annual reporting requirements as specified elsewhere throughout the permit, including the following:

59.f.i. Annual VOC emissions from each of the emissions units $COAT_{SHIP}$, $COAT_{MISC}$, BWT, ROL, and ROT; and associated material usage and/or annual throughputs (gal) of corresponding emissions unit.

59.f.ii. Annual PM and PM_{10} emissions from SBO, SBI, and WLD and associated amount of abrasive materials used for the inside and outside jobs, and the amount of welding rods used.

59.f.iii. Annual PM and PM_{10} emissions from PIR and corresponding VMT from paved and unpaved road.

59.f.iv. Annual summary of emissions of each criteria pollutant PM_{10}, SO_2, NO_x, CO, and VOC from emissions unit CUB, including OVEN, and corresponding fuel(s) usage.

59.f.v. A tabulated results of (12-months rolling) HAP emissions from emissions unit $COAT_{MISC}$, as determined from condition 47.f.

59.f.vi. A summary of maximum weekly VOC emissions rate from $COAT_{MISC}$ noted during each month with respect to each of the weekly limits specified in condition 18, as determined from the monitoring conducted under conditions 47.a and 47.e. Also report all exceedances.

59.f.vii. Compliance with the $COAT_{SHIP}$ RACT limits is assured if no violation is documented in the NESHAP report submitted per condition 60. The NESHAP violation does not automatically translates to violation of the $COAT_{SHIP}$ RACT limits. Therefore, if any NESHAP violation is occurred, the permittee must report the weekly VOC emissions rate from $COAT_{SHIP}$ noted during the same period the NESHAP violation occurred. If and only if any NESHAP violations occurred, provide a summary of weekly VOC emissions rate from $COAT_{SHIP}$ noted during the violation period, as determined from the monitoring conducted under conditions 47.a and 47.d.

59.g. The permittee may use forms supplied by the Department or equivalent forms approved by the Department;

59.h. One copy of the annual report shall be submitted to the Air Quality Division, two copies to the Northwest regional office, and one copy to the EPA Region X office.

60. **NESHAP REPORTING REQUIREMENTS:** The permittee shall submit a report to the EPA Region X office and the Department by July 31 and February 15, unless otherwise approved in writing by the Department. The July report shall cover the period from December 15 to June 14, and the December report shall cover the period from June 15 to December 14. Each report shall include all of the information that must be retained pursuant to conditions 55.c and 055.d, except for that information specified in conditions 55.c.i, 55.c.ii, 55.c.v, 55.d.i.(1), 55.d.ii.(1), and 55.d.iii.(1). If a violation is detected, the source shall also report the information specified in condition 55.e for the reporting period during which the violation(s) occurred. To the extent possible, the report shall be organized according to the compliance procedure(s) followed each month by the source.

61. The permittee shall submit the following additional reports and/or information to the DEQ - Northwest Region as required by specific conditions within the permit:

61.a. source test plans/notifications prior to conducting actual test/measurements;
61.b. source test results within 45 days after the source test was done; and

61.c. when requested by the Department, submit all relevant records, data, and support information maintained at the plant site per recordkeeping requirements of conditions 0 through 57.

62. The (first & second) semi-annual compliance certification shall include the following (provided that the identification of applicable information may cross-reference the permit or previous reports, as applicable): [OAR 340-218-0080(6)(c)]

62.a. The identification of each term or condition of the permit that is the basis of the certification;

62.b. The identification of the method(s) or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period, and whether such methods or other means provide continuous or intermittent data. Such methods and other means shall include, at a minimum, the methods and means required under OAR 340-218-0050(3). If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the FCAA, which prohibits knowingly making a false certification or omitting material information;

62.c. The status of compliance with terms and conditions of the permit for the period covered by the certification, based on the method or means designated in OAR 340-218-0040(6)(c)(B). The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance, as defined under OAR 340-200-0020, occurred; and

62.d. Such other facts as the Department may require to determine the compliance status of the source.

63. Notwithstanding any other provision contained in any applicable requirement, the owner or operator may use monitoring as required under OAR 340-218-0050(3) and incorporated into the permit, in addition to any specified compliance methods, for the purpose of submitting compliance certifications. [OAR 340-218-0080(6)(e)]

64. Excess Emissions Reporting [OAR 340-214-0300 through 340-214-0360]

64.a. The permittee shall report all excess emissions in accordance with OAR 340-214-0300 through 340-214-0360. In summary, the permittee shall immediately (i.e., as soon as possible but in no case more than one hour after the beginning of the excess emission period) notify the Department by telephone or in person of any excess emission, other than pre-approved startup, shutdown, or scheduled maintenance. Notification shall, to the extent reasonably ascertainable at the time of notification, include the source name, nature of the emissions problem, name of the person making the report, name and telephone number of the contact person for further information, date and time of the onset of the upset condition, whether or not the incident was planned, the cause of the excess emission (e.g., startup, shutdown, maintenance, breakdown, or other), equipment involved in the upset, estimated type and quantity of excess emissions, estimated time of return to normal operations, efforts made to minimize emissions, and a description of remedial actions to be taken. Follow-up reporting shall be made in accordance with Department direction and OAR 340-214-0330(2) and 340-214-0340.

64.b. In the event of any excess emissions which are of a nature that could endanger public health and occur during non-business hours, weekends, or holidays, the permittee shall immediately notify the Department by calling the Oregon Accident Response System at 1-800-452-0311.

64.c. If startups, shutdowns, or scheduled maintenance may result in excess emissions, the permittee shall submit startup, shutdown, or scheduled maintenance procedures used to minimize excess emissions to the Department for prior authorization, as required in OAR 340-214-0310 and 340-214-0320. New or modified procedures shall be received by the Department in writing at least 72 hours prior to the first occurrence of the excess emission event. The permittee shall abide by the approved procedures and have a copy available at all times.

64.d. The permittee shall notify the Department of planned startup/shutdown or scheduled maintenance events only if required by permit condition or if the source is located in a nonattainment area for a pollutant which may be emitted in excess of applicable standards.

64.e. The permittee shall maintain and submit to the Department a log of planned and unplanned excess emissions, on Department approved forms, in accordance with OAR 340-214-0340.

65. The permittee shall promptly report deviations from permit requirements that do not cause excess emissions, including those attributable to upset conditions, as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. "Prompt" means within seven (7) days of the deviation. Deviations that cause excess emissions, as specified in OAR 340-214-0300 through 340-214-0360 shall be reported in accordance with OAR 340-214-0340. [OAR 340-218-0050(3)(c)(B)]

66. The permittee shall submit any required source test report within 30 days after the source test; unless otherwise approved in the source test plan. [OAR 340-218-0050(3)(c)(C) and 340-212-0120]

67. All required reports shall be certified by a responsible official consistent with OAR 340-218-0040(5); OAR [OAR 340-218-0050(3)(c)(D)]

68. Reporting requirements shall commence on the date of permit issuance unless otherwise specified in the permit. [OAR 340-218-0050(3)(c)(E)]

69. Addresses of regulatory agencies are the following, unless otherwise instructed:

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DEQ - Northwest Region	DEQ - Air Quality Division	EPA - Region X
2020 S.W. 4th Avenue, #400 Portland, OR 97201-5884	811 SW Sixth Avenue Portland, OR 97204	Mail Stop OAQ-107 1200 Sixth Avenue Seattle, WA 98101
(503) 229-5554	(503) 229-5359	--

4.75 3.95 3.95

NON-APPLICABLE REQUIREMENTS

70. Divisions of Chapter 340, Air Quality Oregon Administrative Rules (OARs), currently determined not applicable to the permittee are listed below. [OAR 340-218-0110]

70.a. The following OARs are not applicable because the source is not in the source category cited in the rules:

Division	202	All
Division	210	0100 – 0120, 0200 – 0220
Division	218	0090, 0100
Division	230	All
Division	232	0080, 0090, 0100, 0130, 0140, 0170, 0220 – 0240
Division	234	All
Division	236	All
Division	238	All
Division	244	0230
Division	256	0310, 0400, 0420
Division	258	0120 – 0190, 0220, 0240, 0270 – 0300

70.b. The following OARs are not applicable because the source is outside the special control area, non-attainment area or county cited in the rules:

Division	204	0080
Division	240	All

70.c. The following OARs are not applicable because the source does not have specific emissions units cited in the rules:

Division	208	0200, 0520, 0550, 0560
Division	232	0190, 0200, 0210
Division	242	0500 – 0520
Division	260	0010 – 0030

70.d. The following OARs are not applicable because the source does not sell, distribute, use, or make available for use, the fuel type cited in the rules:

Division	228	0110, 0120

70.e. The following OARs are not applicable because the method/procedure is not used by the facility:

Division	214	0130
Division	222	0050, 0060
Division	226	0400
Division	232	0120

71. The following federal regulations are not applicable to the permittee at the time of permit issuance because the source is not in the source category cited in the rules:

40 CFR Parts 55, 57,

40 CFR Part 60 except subpart A and the Appendices,
40 CFR Part 61except subparts A, M, and the Appendices,
40 CFR Part 62 except subparts A, MM,
40 CFR Part 63 except subpart A, and the Appendices,
40 CFR Parts 68, 72, 73, 75, 76, 77, 78
40 CFR Part 82 (except subpart F),
40 CFR Parts 85 through 89,
Section 129 of the FCAA, Solid Waste,
Section 183(e) of the FCAA, Consumer and commercial products,
Section 183(f) of the FCAA, Tank Vessels.

GENERAL CONDITIONS

G1. General Provision

Terms not otherwise defined in the permit shall have the meaning assigned to such terms in the referenced regulation.

G2. Reference materials

Where referenced in this permit, the version of the following materials are effective as of the dates noted unless otherwise specified in the permit:

a. Source Sampling Manual; January 23, 1992 - State Implementation Plan Volume 3, Appendix A4;
b. Continuous Monitoring Manual; January 23, 1992 - State Implementation Plan Volume 3, Appendix A6; and
c. All State and Federal regulations as in effect on the date of issuance of this permit.

G3. Compliance [OAR 340-218-0040(3)(n)(C), 340-218-0050(6), and 340-218-0080(4)]

a. The permittee shall comply with all conditions of the federal operating permit. Any permit condition noncompliance constitutes a violation of the Federal Clean Air Act and/or state rules and is grounds for enforcement action; for permit termination, revocation and re-issuance, or modification; or for denial of a permit renewal application. Any noncompliance with a permit condition specifically designated as enforceable only by the state constitutes a violation of state rules only and is grounds for enforcement action; for permit termination, revocation and re-issuance, or modification; or for denial of a permit renewal application.
b. Any schedule of compliance for applicable requirements with which the source is not in compliance at the time of permit issuance shall be supplemental to, and shall not sanction noncompliance with the applicable requirements on which it is based.
c. For applicable requirements that will become effective during the permit term, the source shall meet such requirements on a timely basis unless a more detailed schedule is expressly required by the applicable requirement.

G4. Credible Evidence:

Notwithstanding any other provisions contained in any applicable requirement, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any such applicable requirements. [OAR 340-214-0120]

G5. Certification [OAR 340-214-0110, 340-218-0040(5), 340-218-0050(3)(d), and 340-218-0080(2)]

Any document submitted to the Department pursuant to this permit shall contain certification by a responsible official of truth, accuracy and completeness. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and, complete. The permittee shall promptly, upon discovery, report to the Department a material error or omission in these records, reports, plans, or other documents.

G6. Open Burning [OAR Chapter 340, Division 264]

The permittee is prohibited from conducting open burning, except as may be allowed by OAR 340-264-0020 through 340-264-0200.

G7. Asbestos [40 CFR Part 61, Subpart M (Federally enforceable), OAR 340-248-0210 through 340-248-0280 and OAR Chapter 340, Division 248 (State-only enforceable)]

The permittee shall comply with OAR 340-248-0210 through 340-248-0280, OAR Chapter 340 Division 248, and 40 CFR Part 61, Subpart M when conducting any renovation or demolition activities at the facility.

G8. Stratospheric Ozone and Climate Protection [40 CFR 82 Subpart F, OAR 340-260-0040]

The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, Recycling and Emissions Reduction.

G9. Permit Shield [OAR 340-218-0110]

a. Compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance provided that:

i. such applicable requirements are included and are specifically identified in the permit, or
ii. the Department, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.

b. Nothing in this rule or in any Federal Operating Permit shall alter or affect the following:

i. the provisions of ORS 468.115 (enforcement in cases of emergency) and ORS 468.035 (function of department);
ii. the liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
iii. the applicable requirements of the national acid rain program, consistent with section 408(a) of the FCAA; or
iv. the ability of the Department to obtain information from a source pursuant to ORS 468.095 (investigatory authority, entry on premises, status of records).

c. Sources are not shielded from applicable requirements that are enacted during the permit term, unless such applicable requirements are incorporated into the permit by administrative amendment, as provided in OAR 340-218-0150(1)(h), or significant permit modification.

G10. Inspection and Entry [OAR 340-218-0080(3)]

Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Department of Environmental Quality, or an authorized representative (including an authorized contractor acting as a representative of the EPA Administrator), to perform the following:

a. enter upon the permittee's premises where an Oregon Title V operating permit program source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
b. have access to and copy, at reasonable times, any records that must be kept under conditions of the permit;
c. inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
d. as authorized by the FCAA or state rules, sample or monitor, at reasonable times, substances or parameters, for the purposes of assuring compliance with the permit or applicable requirements.

G11. Fee Payment [OAR 340-220-0010, and 340-220-0030 through 340-220-0190]

The permittee shall pay an annual base fee and an annual emission fee for all regulated air pollutants except for carbon monoxide, any class I or class II substance subject to a standard promulgated under or established by Title VI of the Federal Clean Air Act, or any pollutant that is a regulated air pollutant solely because it is subject to a standard or regulation under section 112(r) of the Federal Clean Air Act. The permittee shall submit payment to the Department of Environmental Quality, Business Office, 811 SW 6th Avenue, Portland, OR 97204, within 30 days of the date the Department mails the fee invoice or August 1 of the year following the calendar year for which emission fees are paid, whichever is later. Disputes shall be submitted in writing to the Department of Environmental Quality. Payment shall be made regardless of the dispute. User-based fees shall be charged for specific activities (e.g., computer modeling review, ambient monitoring review, etc.) requested by the permittee.

G12. Off-Permit Changes to the Source [OAR 340-218-0140(2)]

a. The permittee shall monitor for, and record, any off-permit change to the source that:

i. is not addressed or prohibited by the permit;
ii. is not a Title I modification;
iii. is not subject to any requirements under Title IV of the FCAA;
iv. meets all applicable requirements;
v. does not violate any existing permit term or condition; and
vi. may result in emissions of regulated air pollutants subject to an applicable requirement but not otherwise regulated under this permit or may result in insignificant changes as defined in OAR 340-200-0020.

b. A contemporaneous notification, if required under OAR 340-218-0140(2)(b), shall be submitted to the Department and the EPA.
c. The permittee shall keep a record describing off-permit changes made at the facility that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those off-permit changes.
d. The permit shield of condition G11 shall not extend to off-permit changes.

G13. Section 502(b)(10) Changes to the Source [OAR 340-218-0140(3)]

a. The permittee shall monitor for, and record, any section 502(b)(10) change to the source, which is defined as a change that would contravene an express permit term but would not:

i. violate an applicable requirement;
ii. contravene a federally enforceable permit term or condition that is a monitoring, recordkeeping, reporting, or compliance certification requirement; or
iii. be a Title I modification.

b. A minimum 7-day advance notification shall be submitted to the Department and the EPA in accordance with OAR 340-218-0140(3)(b).

c. The permit shield of condition G11 shall not extend to section 502(b)(10) changes.

G14. Administrative Amendment [OAR 340-218-0150]

Administrative amendments to this permit shall be requested and granted in accordance with OAR 340-218-0150. The permittee shall promptly submit an application for the following types of administrative amendments upon becoming aware of the need for one, but no later than 60 days of such event:

a. legal change of the registered name of the company with the Corporations Division of the State of Oregon, or

b. sale or exchange of the activity or facility.

G15. Minor Permit Modification [OAR 340-218-0150]

The permittee shall submit an application for a minor permit modification in accordance with OAR 340-218-0150.

G16. Significant Permit Modification [OAR 340-218-0180]

The permittee shall submit an application for a significant permit modification in accordance with OAR 340-218-0180

G17. Staying Permit Conditions [OAR 340-218-0050(6)(e)]

Notwithstanding condition G14 and G15, the filing of a request by the permittee for a permit modification, revocation and re-issuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

G18. Construction/Operation Modification [OAR 340-210-0205]

No permittee shall construct or make modifications required to be reviewed under OAR 340-218-0190, the construction/operation modification rules, without receiving a Notice of Approval in accordance with OAR 340-218-0190. The permittee should allow 60 days for Department review of applications for a construction/operation modification if public notice is not required, or 180 days if public notice is required.

G19. New Source Review Modification [OAR 340-224-0010]

No permittee shall construct or make modifications required to be reviewed under New Source Review (OAR 340-224-0010(1)) without receiving an Air Contaminant Discharge Permit (ACDP) (OAR 340-216-

0010). The permittee should allow 180 days for Department review of an ACDP application for New Source Review.

G20. Need to Halt or Reduce Activity Not a Defense [OAR 340-218-0050(6)(b)]

The need to halt or reduce activity shall not be a defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

G21. Duty to Provide Information [OAR 340-218-0050(6)(e) and OAR 340-214-0110]

The permittee shall furnish to the Department, within a reasonable time, any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Department copies of records required to be retained by the permit or, for information claimed to be confidential, the permittee may furnish such records to the Department along with a claim of confidentiality.

G22. Reopening for Cause [OAR 340-218-0050(6)(c) and 340-218-0200]

a. The permit may be modified, revoked, reopened and reissued, or terminated for cause as determined by the Department.
b. The filing of a request by the permittee for a permit modification, revocation and re-issuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
c. A permit shall be reopened and revised under any of the circumstances listed in OAR 340-218-0200(1)(a).
d. Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists.

G23. Severability Clause [OAR 340-218-0050(5)]

Upon any administrative or judicial challenge, all the emission limits, specific and general conditions, monitoring, recordkeeping, and reporting requirements of this permit, except those being challenged, remain valid and must be complied with.

G24. Permit Renewal and Expiration [OAR 340-218-0040(1)(a)(D) and 340-218-0130]

a. This permit shall expire at the end of its term. Permit expiration terminates the permittee's right to operate unless a timely and complete renewal application is submitted as described below.
b. Applications for renewal shall be submitted at least 12 months before the expiration of this permit, unless the Department requests an earlier submittal. If more than 12 months is required to process a permit renewal application, the Department shall provide no less than six (6) months for the owner or operator to prepare an application. Provided the permittee submits a timely and complete renewal application, this permit shall remain in effect until final action has been taken on the renewal application to issue or deny the permit.

G25. Permit Transference [OAR 340-218-0150(1)(d)]

The permit is not transferable to any person except as provided in OAR 340-218-0150(1)(d).

G26. Property Rights [OAR 340-200-0020(9)(c) and 340-218-0050(6)(d)]

The permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations, except as provided in OAR 340-218-0110.

G27. Permit Availability [OAR 340-200-0020(9)(c) and 340-218-0120(2)]

The permittee shall have available at the facility at all times a copy of the Oregon Title V Operating Permit and shall provide a copy of the permit to the Department or an authorized representative upon request.

ALL INQUIRIES SHOULD BE DIRECTED TO:

Northwest Region
2020 S.W. 4th Avenue, #400
Portland, OR 97201-5884
Telephone: (503) 229-5554

APPENDIX A

VOC DATA SHEET:[1]
PROPERTIES OF THE COATING "AS SUPPLIED" BY THE MANUFACTURER[2]

Coating Manufacturer:

Coating Identification:

Batch Identification:

Supplied To:

Properties of the coating as supplied[1] to the customer:

A. Coating Density: $(D_C)_S$ ___ g/L

[ ] ASTM D1475-90* [ ] Other[3]

B. Total Volatiles: $(m_V)_S$ ___ Mass Percent

[ ] ASTM D2369-93* [ ] Other[3]

C. Water Content:

1. $(m_W)_S$ ___ Mass Percent

[ ] ASTM D3792-91* [ ] ASTM D4017-90* [ ] Other[3]

2. $(v_W)_S$ ___ Volume Percent

[ ] Calculated [ ] Other[3]

D. Organic Volatiles: $(m_O)_S$ ___ Mass Percent

E. Nonvolatiles: $(v_n)_S$ ___Volume Percent

[ ] Calculated [ ] Other[3]

F. VOC Content $(VOC)_S$:

1. ___ g/L solids (nonvolatiles)

2. ___ g/L coating (less water and exempt compounds)

G. Thinner Density: D_{th}_____g/L

ASTM _____ [ ] Other[3]

Remarks: (use reverse side)

Signed:_____ Date:

*Incorporation by reference--see §63.14.
[1]Adapted from EPA-340/1-86-016 (July 1986), p. II-2.
[2]The subscript "s" denotes each value is for the coating "as supplied" by the manufacturer.
[3]Explain the other method used under "Remarks."

Vigor Industrial LLC

5555 N Channel Ave

Portland OR 97217

fax 503.247.1778

tel 503.247.1777

VIGOR
Industrial LLC

October 10, 2007

Mr. George Yun
Oregon Department of Environmental Quality
Northwest Region
2020 SW 4th, Suite 400
Portland, OR 97201

Re: Notification of Proposed Administrative and Off-Permit Changes

Dear Mr. Yun:

As specified in Oregon Administrative Rules and in accordance with Oregon Department of Environmental Quality Title V Air Permit Conditions G12 and G14, I am writing to notify you of an administrative amendment to legally change the registered name of the company as well as proposed changes in the physical location of approved sources within the facility. Attached are Forms MD904 and MD902 detailing the nature of the proposed changes and a facility drawing for clarity. Also enclosed is a description of Vigor Industrial LLC describing its relationship to its subsidiary companies which include Cascade General, Inc.

Please don't hesitate to contact me if you are in need of further clarification or have other questions at (503) 247-1672.

Sincerely,

T. Alan Sprott
Environmental Director
Vigor Industrial, LLC

Enclosures: (1) Form MD904 – Administrative Amendment
(2) Vigor Industrial Companies Detail
(3) Form MD902 – Off permit change – dry dock #1 move
(4) Form MD902 – Off permit change – add dry dock #5
(5) Facility chart with proposed changes

FORM MD904

Administrative Amendment — Answer Sheet

Facility name: Cascade General, Inc. Permit Number: 26-3224

1.	Contact Person: Name	T. Alan Sprott
	Title	Vice President
	Phone number	503-247-1672
	e-mail address	asprott@vigorindustrial.net
	Fax number	503-247-6050
2.	Describe the change: Change the name of the Title V Permittee to Vigor Industrial, LLC, the new parent company of Cascade General, Inc.	
3.	Date change will take effect:	Upon approval.
4.	Change regards ownership/operational control [yes/no]	yes
5.	Change provides more accurate emissions data [yes/no; if yes, attach appropriate form(s)]	no
6.	Construction permit incorporation [yes/no]	no
	enhanced permitting procedures used [yes/no]	no
	construction, purpose [describe]	n/a
	changes in operating conditions [describe]	n/a
7.	Suggested permit language	"Issued To: Vigor Industrial, LLC"

Statement of Certification:

Based on information and belief formed after reasonable inquiry, the statements and information in this document and any attachments are true, accurate and complete.

T. Alan Sprott
Name of Responsible Official

Vice President
Title of Responsible Official

T. Alan Sprott
Signature of Responsible Official

October 9, 2007
Date

Vigor Industrial LLC
5555 N. Channel Ave.
Portland, OR 97217
fax 503.247.1778
tel 503.247.1777

VIGOR
Industrial LLC

Vigor Industrial LLC provides the people and resources to deliver integrated industrial services to a range of customers in the public and private sectors. The company's heritage is well rooted in the Portland region's long history of shipbuilding and repair, and the associated traditions of craftsmanship. Vigor Industrial's family tree includes four subsidiary companies possessing distinct knowledge, experience and capabilities. These companies consist of Cascade General, Inc.; Washington Marine Repair, LLC; Specialty Finishes, LLC; and Shipyard Commerce Center, LLC. The management structure of these companies enables them to operate independently while also aligning resources seamlessly across business units to support a variety of industrial projects.

Cascade General specializes in providing ship repair and marine-related industrial services. The company's strengths lie in its people and world-class facilities. Its people offer strong project management capabilities, a skilled workforce, and the ability to solve difficult problems and to accomplish complex marine projects. Operating at the Portland Shipyard, Cascade General controls a modern repair facility with the infrastructure necessary to support major vessel overhaul and conversion projects.

Washington Marine Repair specializes in providing topside marine and voyage repair services. The company is equally capable of working efficiently at its home facility in Port Angeles or any location throughout the Pacific Northwest. Washington Marine Repair offers highly skilled personnel and an agile workforce capable of rapidly deploying anywhere in the region. The company's strength lies in the technical capabilities of its personnel, and the ability to perform complex vessel repair projects at remote locations.

Specialty Finishes provides powder coating, liquid coating, and industrial blasting and coating services. The company operates a powder coating line, three liquid coating lines, and a 25,000 square-foot blasting and coating shop for large industrial parts. Specialty Finishes offers the ability to coat a wide range of parts fabricated from a variety of materials, and in diverse shapes and sizes.

Shipyard Commerce Center provides industrial real estate services, heavy lift services, and wastewater treatment services. The company owns and manages the Portland Shipyard, which consists of 57 acres of riverfront land zoned heavy industrial. It provides services to tenants that include space leasing, facility maintenance, environmental consulting and permitting, safety consulting, and equipment repair and fabrication. The company also provides heavy lift services to move structures between land and water, and operates a permitted facility for processing industrial wastewater and oil.

Vigor Industrial is a privately-held company headquartered in Portland, Oregon. Through its four subsidiary companies, Vigor Industrial employs more than 500 people in two states. The company continues to seek opportunities in the metals fabrication, transportation and marine industries, and is committed to growing the heavy industrial base of the region.

FORM MD902
Answer Sheet

Off-Permit Change Notification

Facility name: Cascade General, Inc. Permit Number: 26-3224

Part A

1.	Contact Person: Name	T. Alan Sprott
	Title	Vice President
	Phone number	503-247-1672
	e-mail address	asprott@vigorindustrial.net
	Fax number	503-247-6050
2.	Describe the change: Move dry dock #1 from current position at Pier A to former location of dry dock #3 at south side of Pier C (see attachment A). Additionally request former cap of 33 tons blast grit/day assigned to dry dock #1 due to location at Pier A, be rescinded to the same unlimited grit tonnage for dry dock #3 when it was at the proposed relocation site at Pier C.	
3.	Date change will take effect:	October 30, 2007
4.	Will there be any change in emissions within the PSEL as a result of the off-permit change? If yes, complete Part B and attach documentation.	No.
5.	Pollutants	No additional.
6.	Will the change be subject to any requirements not already addressed in the permit? If yes, list the new requirements by rule citation.	No.
7.	Is the change addressed or prohibited by the permit?	No.
8.	Is the change a Title 1 modification?	No.
9.	Is the change subject to the Acid Rain program?	No.
10.	Will the change violate any existing permit term or condition?	No.

Statement of Certification:

Based on information and belief formed after reasonable inquiry, the statements and information in this document and any attachments are true, accurate and complete.

T. Alan Sprott
Name of Responsible Official

Vice President
Title of Responsible Official

T. Alan Sprott
Signature of Responsible Official

October 9, 2007
Date

FORM MD902
Answer Sheet

Off-Permit Change Notification

Facility name: Cascade General, Inc. Permit Number: 26-3224

Part A

1.	Contact Person: Name	T. Alan Sprott
	Title	Vice President
	Phone number	503-247-1672
	e-mail address	asprott@vigorindustrial.net
	Fax number	503-247-6050
2.	Describe the change: Add dry dock #5. Although this dock is made to be easily transported to different locations, its primary location will be the south side of Pier A (see attachment A).	
3.	Date change will take effect:	Ready for blast/coat operations November, 2007
4.	Will there be any change in emissions within the PSEL as a result of the off-permit change? If yes, complete Part B and attach documentation.	No, this dock will essentially replace the emission source of dry dock #4 which was sold during the term of the permit. Dry dock #4 was significantly larger (902' x 228') than dry dock #5 (256' x 400').
5.	Pollutants	No additional.
6.	Will the change be subject to any requirements not already addressed in the permit? If yes, list the new requirements by rule citation.	No.
7.	Is the change addressed or prohibited by the permit?	No.
8.	Is the change a Title 1 modification?	No.
9.	Is the change subject to the Acid Rain program?	No.
10.	Will the change violate any existing permit term or condition?	No.

Statement of Certification:

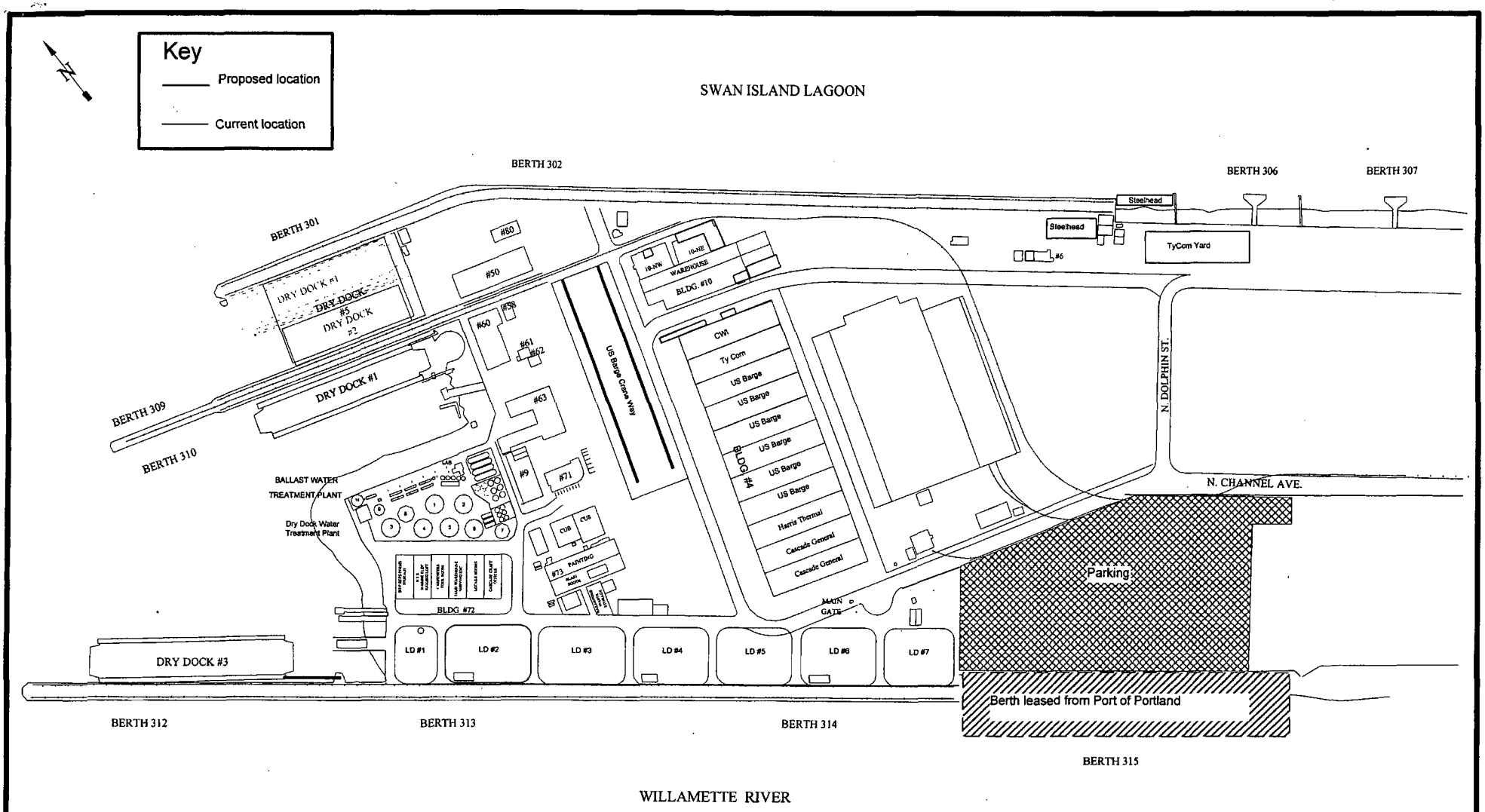
Based on information and belief formed after reasonable inquiry, the statements and information in this document and any attachments are true, accurate and complete.

T. Alan Sprott
Name of Responsible Official

Vice President
Title of Responsible Official

T. Alan Sprott
Signature of Responsible Official

October 9, 2007
Date



VIGOR Industrial LLC

APPROXIMATE SCALE: 1" = 400'

DRY DOCK LOCATION MAP

Attachment A

Oregon
John A. Kitzhaber, M.D., Governor

Department of Environmental Quality
Northwest Region
2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987
(503) 229-5263 Voice
TTY (503) 229-5471

CASCADE GENERAL, INC.
PO BOX 4367
PORTLAND, OR 97208

RE: ISSUANCE OF OREGON TITLE V
OPERATING PERMIT NO. 26-3224

The Department of Environmental Quality has completed processing your Oregon Title V Operating Permit application and has issued the enclosed permit. Also enclosed are the reporting and modification forms for Title V sources. Please use these forms for all reports submitted to the Department and all requests for permit modifications.

The permit became effective when signed by the Region Administrator. If you wish to appeal any of the conditions or limitations contained in the attached permit or if you have any questions, please contact George Yun at (503) 229-6093 . If issues related to the permit conditions cannot be resolved to your satisfaction, you may request a hearing before the Environmental Quality Commission or its authorized representative. Any such requests shall be made in writing within 20 days of the date of this letter, and shall clearly specify which permit conditions are being challenged and why, including each alleged factual or legal objection. Permit conditions that are not contested shall be in effect upon the date the permit was signed (OAR 340-28-2300). Once effective, the Title V Operating Permit will replace your existing Air Contaminant Discharge Permit.

You are urged to carefully read the permit and take all possible steps to ensure compliance with the conditions established.

Sincerely,

Audrey M O'Brien

Audrey O'Brien
Air Quality Manager
Northwest Region

AOB:sh
Enclosure
cc: Terri Sylvester / Air Quality Division
G Yun / NWR
EPA Region X
Source File

CASCADE GENERAL
PORTLAND SHIPYARD

RECEIVED
MAY 12 2004
DEPT OF ENVIRONMENTAL QUALITY
NORTHWEST REGION

May 11, 2004

Mr. George Yun
Department of Environmental Quality
2020 SW Fourth Avenue, Suite 400
Portland, OR 97201

RE: Application for Permit Modification
Cascade General, Inc.
Permit Number 26-3224

Dear Mr. Yun:

Attached please find permit application forms AP101 and MD906 submitted to initiate modification of Cascade General's Title V operating permit. Cascade General is requesting an increase in the Plant Site Emission Limit for PM to accommodate growth in the need for abrasive blasting services that was unanticipated at the time of the permit renewal. Cascade General is also requesting to move its unassigned emissions for PM10 and VOCs to increase the Plant Site Emission Limits for these pollutants to conform to recent changes in the Department's rules. Increases in emissions above the current Plant Site Emission Limits for these pollutants are not anticipated.

If you have questions or require additional information please do not hesitate to contact the undersigned at 503-247-1672. We appreciate your assistance on this project.

Sincerely,

T. Alan Sprott
Director of Environmental Services

Enclosures

5555 North Channel Avenue • Portland, Oregon USA 97217 • (503) 285-1111 • fax: (503) 247-1462 • www.casgen.com

FORM AP101
Answer Sheet

Administrative Information and Certification

Facility name: Cascade General, Inc. Permit Number: 26-3224
App. # 021050

1.	Site identifier:	Cascade General, Inc.
2.	Legal Name:	Cascade General, Inc.
3.	Mailing Address: P.O. Box or Street number	5555 N. Channel Ave
	City, State, ZIP	Portland, OR 97217
4.	Facility Address: Street number or descrption	5555 N. Channel Ave
	City, County, ZIP	Portland, OR 97217
5.	Owner: Name	Cascade General, Inc.
	Phone number	503-285-1111
6.	Contact Person: Name	T. Alan Sprott
	Title	Director of Environmental Services
	Phone number	503-247-1672
	e-mail address	Asprott@casgen.com
	Fax number	503-247-6050
7.	Business activity: Description	Ship Repair
	Standard Industrial Classification (SIC) Code	3731
8.	Other permits:	NPDES

Statement of Certification:

I have reviewed this application and all supporting documentation in their entirety and to the best of my knowledge, information, and belief formed after reasonable inquiry, the statements and information contained herein are true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and/or imprisonment for knowing violations.

The status of this facility's compliance with all air pollution control applicable requirements is reported in this application along with the methods to be used for compliance demonstration. For applicable requirements with which this facility is in compliance, this facility will continue to comply with such requirements. For applicable requirements that will become effective during the permit term, this facility will meet such requirements on a timely basis. If there are any applicable requirements for which this facility is not in compliance, a schedule of compliance is included in this permit application describing how compliance will be achieved.

T. ALAN SPROTT
Name of Responsible Official

DIRECTOR
Title of Responsible Official

T. Alan Sprott
Signature of Responsible Official

5/11/4
Date

FORM MD906

Significant Permit Modification Application — Answer Sheet

Facility name: Cascade General, Inc. Permit Number: 26-3224

Part A

1.	Contact Person: Name	T. Alan Sprott
	Title	Director of Environmental Services
	Phone number	503-247-1672
	e-mail address	Asprott@casgen.com
	Fax number	503-247-6050
2.	Describe the change: Move 157 tons of unassigned PM emissions to increase the Plant Site Emission Limit for PM from 99 tons to 256 tons. Move 25 tons of unassigned PM10 emissions to increase the Plant Site Emission Limit for PM10 from 99 tons to 124 tons. Move 326 tons of unassigned VOC emissions to increase the Plant Site Emission Limit for VOC from 99 tons to 425 tons.	
3.	Date change will take effect:	07/01/04
4.	Applicable requirements (describe and attach appropriate forms)	
5.	Change in emissions	yes
6.	Does the change involve construction of any new stationary sources or modifications to existing stationary sources	no
7.	Construction permit incorporation [yes/no]	no
	Type of construction/modification change	
	If Type 3 or 4 change, enhanced permitting procedures used [yes/no]	
	Construction, purpose [describe]	
	Changes in operating conditions [describe]	

8. Attached Form Series EU500, DV200, CD300, and CP700, as appropriate

Statement of Certification:

Based on information and belief formed after reasonable inquiry, the statements and information in this document and any attachments are true, accurate and complete.

T. ALAN SPROTT
Name of Responsible Official

DIRECTOR
Title of Responsible Official

T. Alan Sprott
Signature of Responsible Official

5/11/4
Date

Total Assessable Emissions: Regulated Pollutant Summary for 2003

FORM F1101

1. Facility name Cascade General, Inc.	2. Permit # 26-3224
3.a. Mailing address 5555 N. Channel Avenue b. City, State, Zip Code Portland, OR 97217	4.a. Contact name and title T. Alan Sprott, Director b. Area code and phone 503-247-1672

5. Regulated Air Pollutant	6. Assessable Emissions (tons)
PM_{10}	99
TSP	
SO_2	39
NO_x (as NO_2)	39
TRS (as H_2S)	
VOC	99
F	
Pb	
HCl	
HAP	
Other	
7. Total Assessable Emissions	276

Statement of Certification:

I have reviewed this report and all supporting documentation in their entirety and to the best of my knowledge, information, and belief formed after reasonable inquiry, the statements and information contained herein are true, accurate, and complete.

T. Alan Sprott
Name of designated responsible official

Director
Title of responsible official

T. Alan Sprott
Signature of responsible official

05/11/04
Date (mm/dd/yy)

Significant Permit Modification Application

Part B

Pollutant	Emissions increase or decrease (tons/yr)	PSEL (tons/yr)	
		Before change	After change
PM	157 tons	99	256
PM10	25	99	124
VOC	326	99	425

Attach form ED605.

CASCADE GENERAL
PORTLAND SHIPYARD

RECEIVED
MAY 12 2004
DEPT OF ENVIRONMENTAL QUALITY
NORTHWEST REGION

May 11, 2004

Mr. George Yun
Department of Environmental Quality
2020 SW Fourth Avenue, Suite 400
Portland, OR 97201

RE: Application for Permit Modification
Cascade General, Inc.
Permit Number 26-3224

Dear Mr. Yun:

Attached please find permit application forms AP101 and MD906 submitted to initiate modification of Cascade General's Title V operating permit. Cascade General is requesting an increase in the Plant Site Emission Limit for PM to accommodate growth in the need for abrasive blasting services that was unanticipated at the time of the permit renewal. Cascade General is also requesting to move its unassigned emissions for PM10 and VOCs to increase the Plant Site Emission Limits for these pollutants to conform to recent changes in the Department's rules. Increases in emissions above the current Plant Site Emission Limits for these pollutants are not anticipated.

If you have questions or require additional information please do not hesitate to contact the undersigned at 503-247-1672. We appreciate your assistance on this project.

Sincerely,

T. Alan Sprott
Director of Environmental Services

Enclosures

5555 North Channel Avenue • Portland, Oregon USA 97217 • (503) 285-1111 • fax: (503) 247-1462 • www.casgen.com

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
OREGON TITLE V OPERATING PERMIT

Northwest Region
2020 SW 4th, Suite 400
Portland, OR 97201
Telephone: (503) 229-5263

Issued in accordance with the provisions of
ORS 468A.040 and based on the land use compatibility findings included in the permit record.

ISSUED TO:

Cascade General, Inc.
5555 N. Channel Avenue
Portland, OR 97217

INFORMATION RELIED UPON:

Application Number: 021050
Received: 05/12/2004

PLANT SITE LOCATION:

5555 N. Channel Avenue
Portland, OR 97217

LAND USE COMPATIBILITY STATEMENT:

From: City of Portland
Dated: 04/19/95, 12/18/95

ISSUED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY

George Davis for
Cory Ann Wind, Northwest Region AQ Manager

6/29/2006
Date

Nature of Business: Ship building and repair, industrial fabrication

Primary SIC: 3731

RESPONSIBLE OFFICIAL:

Name: Mr. T. Alan Sprott
Title: Director of Environmental Services

FACILITY CONTACT PERSON:

Name: Mr. T. Alan Sprott
Title: Director of Environmental Services
Phone: (503) 247-1672

PERMIT ADDENDUM NUMBER 1
SIGNIFICANT PERMIT MODIFICATION

Administrative Amendment

Permit No.: 26-3224
Expiration Date: 01/01/2008

Cascade General, Inc.
5555 N. Channel Avenue
Portland, OR 97217

Application Number: 021050
Received: 05/12/2004

The Department is issuing this administrative amendment to the above-reference permit to correct an error. The permit was signed on July 29, 2006, but we erroneously dated July 29, 2002. The first page of the permit is hereby replaced with a corrected first page showing the correct signing date of the permit.

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
OREGON TITLE V OPERATING PERMIT

Northwest Region
2020 SW 4th, Suite 400
Portland, OR 97201
Telephone: (503) 229-5263

Issued in accordance with the provisions of
ORS 468A.040 and based on the land use compatibility findings included in the permit record.

ISSUED TO:

Cascade General, Inc.
5555 N. Channel Avenue
Portland, OR 97217

INFORMATION RELIED UPON:

Application Number: 021050
Received: 05/12/2004

PLANT SITE LOCATION:

5555 N. Channel Avenue
Portland, OR 97217

LAND USE COMPATIBILITY STATEMENT:

From: City of Portland
Dated: 04/19/95, 12/18/95

ISSUED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY

Cory Ann Wind, Northwest Region AQ Manager _____ Date _____

Nature of Business: Ship building and repair, industrial fabrication

Primary SIC: 3731

RESPONSIBLE OFFICIAL:

Name: Mr. T. Alan Sprott
Title: Director of Environmental Services

FACILITY CONTACT PERSON:

Name: Mr. T. Alan Sprott
Title: Director of Environmental Services
Phone: (503) 247-1672

PERMIT ADDENDUM NUMBER 1
SIGNIFICANT PERMIT MODIFICATION

In accordance with Oregon Administrative Rules 340-218-0180, this permit addendum No.1 is issued to transfer the unassigned emissions limits for PM, PM_{10}, and VOC in Condition 28 to their respective PSEL in Condition 27. In addition, permit conditions applicable to BOILER operations have been expanded to allow BOILER to utilize distillate and used fuel oil in addition to natural gas and residual fuel oil. The BOILER PSELs remain the same as in the existing permit. No increase in PSEL has been requested. The following Conditions in Title V Permit 26-3224 now read as follow:

Table-I. Facility-wide Emission Limits and Standards

Applicable Requirements		Pollutant/ Parameter	Limits/ Standards	Monitoring Requirements	
OAR/ 40 CFR	Condition Number			Method	Condition Number
340-228-0100	5	Fuel oil sulfur contents	0.3% ASTM-1 0.5% ASTM-2 1.75% Residual	%S analysis & Recordkeeping	31

5. The permittee shall not sell, distribute, use, or make available for use, any fuel oil that does not meet the sulfur limits specified in this condition.

   5.a. Distillate and Residual fuel oils must not contain more than:

   i. 0.3% sulfur by weight for ASTM Grade 1 distillate oil;
   ii. 0.5% sulfur by weight for ASTM Grade 2 distillate oil; and
   iii. 1.75% sulfur by weight for residual oil.

   5.b. The permittee must obtain analyses from the marketer or, if generated on site, have the used oil analyzed, so that it can be demonstrated that each batch/shipment of used oil does not exceed the used oil specifications contained in 40 CFR Part 279.11, Table 1, excluding the minimum flash point limit of 100°F.

27. The annual plant site emissions based on 12-month rolling average shall not exceed the amount (tons/year) specified in this condition: [OAR 340-222-0020 and 340-222-0040]:

Emissions Unit	PM_{10}	PM	SO_2	NO_x	CO	VOC
Plant-wide Basis	124	256	39	39	99	425
$COAT_{MISC}$	--	--	--	--	--	39
Agg. insig. activities	1	1	1	1	1	1
Netting Basis	124	256	4	8	2	425
Unassigned	0	0	0	0	0	0

27.a. The annual plant site emissions limits apply to any 12-consecutive calendar month period; meaning the annual emissions for the previous 12-month period must be calculated at the end of each calendar month, for a total of 12 times during the calendar year.

27.b. The PSEL monitoring is specified in Conditions 45 through 48.

28. [Reserved]

- Table in Condition 45.b has been expanded to include the CUB (Boilers) and VDU operating parameters (i.e., fuel oil usage) necessary to calculate the rolling-annual emissions:

EMISSIONS UNIT	OPERATING PARAMETER	UNIT	METHOD
CUB (Boilers)	NG burned	10^6 ft^3	From meter reading and/or purchase records
	residual oil burned	gallons	
	distillate oil burned	gallons	
	used oil burned	gallons	
VDU	Hours Operated	hrs	Meter

- Table in Condition 46.b has been expanded to include the CUB (Boilers), OVEN, and VDU emission factors necessary to calculate the emissions from fuel-combustion units:

EU ID	FUEL	PM_{10} (1)	SO_2 (1)	NOx	CO	VOC	UNIT
CUB (Boilers)	residual oil	9.19(%S)+3.22	157(%S)	55	5	0.28	lbs/1000 gal
	natural gas	2.5 (2)	2.6	140	35	2.8	lbs/10^6 ft^3
	distillate oil	2	142(%S)	20	5	0.2	lbs/1000 gal
	used oil	51	147(%S)	19	5	0.3	lbs/1000 gal
OVEN	natural gas	--	--	100	--	--	lbs/10^6 ft^3
VDU	(Hrs operated)	--	--	1.13	2.25	0.63	lbs/hr

59.f.iv. Annual summary of emissions of each criteria pollutant PM_{10}, SO_2, NO_x, CO, and VOC from emissions unit CUB, OVEN, and VDU, and corresponding fuel(s) usage.

70.d. The following OARs are not applicable because the source does not sell, distribute, use, or make available for use, the fuel type cited in the rules:

Division 228 0120

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
OREGON TITLE V OPERATING PERMIT REVIEW REPORT
FOR PERMIT ADDENDUM NO.1

Cascade General, Inc.
5555 N. Channel Avenue
Portland, OR 97217

SOURCE TEST	COMP SCHE	COMS	CEMS	REPORT A S Q M	EXCESS R N	NSPS	NSR	PSD	RACT	NESHAP	SIZE	PUBLIC NOTICE
				X X	X				X	X	TV	III

1. Permittee Identification: Vigor Industrial, LLC (formerly Shipyard America, LLC) owns the Portland Ship Yard (PSY) which occupies 57 acres of property located at 5555 North Channel Avenue in Portland, Oregon. Cascade General, Inc. (CG) is a subsidiary of Vigor Industrial, LLC and is one of the operators of the PSY. Cascade General is the entity/permittee responsible for complying with the terms and limitations of this Title V permit. Mr. T. Alan Sprott is the director of CG environmental services, and he is currently identified as the primary responsible official for the permitted activities.

2. Permit Action Summary: The proposed permit action is a significant permit modification to the existing Title V permit 26-3224 that was issued to Cascade General on December 27, 2002, which is scheduled to expire on January 1, 2008. The proposed permit addendum includes the following revisions to the existing permit:

   a. Plant site emission limits of Condition 27 are revised to include all of the unassigned emissions of Condition 28. Consequently Condition 28 is now obsolete.

   b. As described in emissions unit section of the permit, Cascade General utilizes enclosed vapor combustor (VDU) to control VOC vapors from Reclaimed Oil Tanks (ROT). The PSEL monitoring section of the permit now includes VDU emissions parameters and factors needed to calculate VDU-controlled emissions.

   c. The PSEL monitoring section of the permit currently includes BOILER emissions factors for when (2) boilers are fueled by either natural gas or residual fuel oil. Two utility boilers at Cascade General are capable of using other fuel. Therefore the permit conditions applicable to BOILER have been amended to allow boilers burn distillate or used fuel oil in addition to natural gas and residual fuel oil. BOILER PSELs remain the same as in the existing permit and no increase in PSEL has been granted. The permit simply allows Cascade General with additional fuel option. Cascade General estimates BOILER would burn approximately 300,000 gallons of used oil annually.

3. Proposed PSEL information

Pollutant	Baseline Emission Rate (tons/yr)	Plant Site Emission Limits (PSEL)		
		Previous PSEL (tons/yr)	Proposed PSEL (tons/yr)	PSEL Increase (tons/yr)
PM	256	99	256	157
PM_{10}	124	99	124	25
SO_2	4	39	39	–
NO_x	8	39	39	–
CO	2	99	99	–
VOC	425	99	425	326

a. Generic Level PSEL: The proposed SO_2, NO_X, and CO PSEL established in the proposed permit remain the same as in the existing permit. Pursuant to OAR 340-222-0040, the pollutants with capacity less than Significant Emission Rate (SER) receive a generic level PSEL. The generic PSEL level for a pollutant is equal to the Significant Emission Rate (SER) for that pollutant minus 1 ton.

b. Proposed PM, PM_{10}, & VOC PSEL: The PM, PM_{10}, and VOC PSEL in the existing permit were previously set equal to 99 tons/yr each, which is one ton per year less than the major source threshold level. Due to the reduction in ship repair business, although the physical capacity to emit remained intact, Cascade General previously requested that DEQ reduce the PTE through setting lower PSEL in their permit and move the rest to unassigned. However, Cascade General has exceeded the reduced PM/PM_{10} PSEL during the current permit term. In order to prevent the PSEL violations from reoccurring, this permit addendum proposes to move unassigned emissions back to their original PSEL.

c. Short-term PSEL: No short-term SER exist for any of the regulated pollutants in the area where the facility is located. Pursuant to OAR 340-222-0042, no short-term PSEL is established in this ACDP. The monitoring requirements associated with the (previous) short-term PSEL are also no longer needed.

d. PSEL Compliance: OAR 340-222-0080 requires the averaging period for PSEL to be calculated on a rolling 12-month basis. Performing the annual emissions calculation once during the calendar year is no longer adequate. The annual emissions for the previous 12-month period must be calculated at the end of each calendar month, for a total of 12 times during the calendar year.

e. The PSEL is a federally enforceable limit on the potential to emit.

4. Compliance History: Between August 2003 and February 2004, the annual PM PSEL of 99 tons/yr specified in Condition 27 of Title V Permit 26-3224 was exceeded seven times. Since the annual PSEL specified in the permit is based on 12-month rolling average, the annual emissions

are calculated for the preceding 12-month period for a total of 12 times during the calendar year, and one or two months of abnormally high production can cause the annual limit to be exceeded multiple times for a period of time. A sudden surge in CG's business during the summer of 2003 caused the PM PSEL violations:

Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04
107 tons	125 tons	128 tons	124 tons	119 tons	109 tons	105 tons

The Department issued Notice of Noncompliance (NON) AQ-NWR-04-024 on April 22, 2004, and the case was forwarded to the Department's enforcement section with a recommendation to proceed with formal enforcement action. The Department assessed a civil penalty of $12,000 and CG proposed a Supplemental Environmental Project as part of its penalty payment which was ultimately denied by the Department. CG paid the full amount of the civil penalty on December 21, 2005.

5. Public Notice: Pursuant to OAR 340-218-0210, the proposed permit addendum followed a category III permit review process, and the draft permit was placed on public notice from December 16, 2005 through January 23, 2006. The The Department received comments from Northwest Environmental Defense Center (NEDC). The comments received from NEDC along with Department responses are attached to this review report. The proposed permit was then forwarded to EPA on June 21, 2006, and the Department received a confirmation from EPA on June 28, 2006 indicating that they do not object to the issuance of the proposed permit.

Pollutant	Previously Unassigned Emissions	Existing PSEL	Proposed PSEL	Increase
PM	**157**	99	256	**157**
PM_{10}	**25**	99	124	**25**
SO_2	0	39	39	0
NO_X	0	39	39	0
CO	0	99	99	0
VOC	**326**	99	425	**326**

The increases in annual PSELs for PM, PM_{10}, and VOC represents administrative move of unassigned to PSEL section of the permit.

13.2.6 Abrasive Blasting

13.2.6.1 General[1-2]

Abrasive blasting is the use of abrasive material to clean or texturize a material such as metal or masonry. Sand is the most widely used blasting abrasive. Other abrasive materials include coal slag, smelter slags, mineral abrasives, metallic abrasives, and synthetic abrasives. Industries that use abrasive blasting include the shipbuilding industry, automotive industry, and other industries that involve surface preparation and painting. The majority of shipyards no longer use sand for abrasive blasting because of concerns about silicosis, a condition caused by respiratory exposure to crystalline silica. In 1991, about 4.5 million tons of abrasives, including 2.5 million tons of sand, 1 million tons of coal slag, 500 thousand tons of smelter slag, and 500 thousand tons of other abrasives were used for domestic abrasive blasting operations.

13.2.6.2 Process Description[1-9]

Abrasive blasting systems typically include three essential components: an abrasive container (i. e., blasting pot); a propelling device; and a blasting nozzle or nozzles. The exact equipment used depends to a large extent on the specific application and type(s) of abrasive.

Three basic methods can be used to project the abrasive towards the surface being cleaned: air pressure; centrifugal wheels; or water pressure. Air blast (or dry) systems use compressed air to propel the abrasive using either a suction-type or pressure-type process. Centrifugal wheel systems use a rotating impeller to mechanically propel the abrasive by a combination of centrifugal and inertial forces. Finally, the water (or wet) blast method uses either air pressure or water pressure to propel an abrasive slurry towards the cleaned surface.

Abrasive materials used in blasting can generally be classified as sand, slag, metallic shot or grit, synthetic, or other. The cost and properties associated with the abrasive material dictate its application. The following discusses the general classes of commonly used abrasives.

Silica sand is commonly used for abrasive blasting where reclaiming is not feasible, such as in unconfined abrasive blasting operations. Sand has a rather high breakdown rate, which can result in substantial dust generation. Worker exposure to free crystalline silica is of concern when silica sand is used for abrasive blasting.

Coal and smelter slags are commonly used for abrasive blasting at shipyards. Black Beauty™, which consists of crushed slag from coal-fired utility boilers, is a commonly used slag. Slags have the advantage of low silica content, but have been documented to release other contaminants, including hazardous air pollutants (HAP), into the air.

Metallic abrasives include cast iron shot, cast iron grit, and steel shot. Cast iron shot is hard and brittle and is produced by spraying molten cast iron into a water bath. Cast iron grit is produced by crushing oversized and irregular particles formed during the manufacture of cast iron shot. Steel shot is produced by blowing molten steel. Steel shot is not as hard as cast iron shot, but is much more durable. These materials typically are reclaimed and reused.

Synthetic abrasives, such as silicon carbide and aluminum oxide, are becoming popular substitutes for sand. These abrasives are more durable and create less dust than sand. These materials typically are reclaimed and reused.

Other abrasives include mineral abrasives (such as garnet, olivine, and staurolite), cut plastic, glass beads, crushed glass, and nutshells. As with metallic and synthetic abrasives, these other abrasives are generally used in operations where the material is reclaimed. Mineral abrasives are reported to create significantly less dust than sand and slag abrasives.

The type of abrasive used in a particular application is usually specific to the blasting method. Dry blasting is usually done with sand, metallic grit or shot, aluminum oxide (alumina), or silicon carbide. Wet blasters are operated with either sand, glass beads, or other materials that remain suspended in water.

13.2.6.3 Emissions And Controls[1,3,5-11]

Emissions —

Particulate matter (PM) and particulate HAP are the major concerns relative to abrasive blasting. Table 13.2.6-1 presents total PM emission factors for abrasive blasting as a function of wind speed. Higher wind speeds increase emissions by enhanced ventilation of the process and by retardation of coarse particle deposition.

Table 13.2.6-1 also presents fine particulate emission factors for abrasive blasting. Emission factors are presented for PM-10 and PM-2.5, which denote particles equal to or smaller than 10 and 2.5 microns in aerodynamic diameter, respectively. Emissions of PM of these size fractions are not significantly wind-speed dependent. Table 13.2.6-1 also presents an emission factor for controlled emissions from an enclosed abrasive blasting operation controlled by a fabric filter; the blasting media was 30/40 mesh garnet.

Limited data from Reference 3 give a comparison of total PM emissions from abrasive blasting using various media. The study indicates that, on the basis of tons of abrasive used, total PM emissions from abrasive blasting using grit are about 24 percent of total PM emissions from abrasive blasting with sand. The study also indicates that total PM emissions from abrasive blasting using shot are about 10 percent of total PM emissions from abrasive blasting with sand.

Hazardous air pollutants, typically particulate metals, are emitted from some abrasive blasting operations. These emissions are dependent on both the abrasive material and the targeted surface.

Controls —

A number of different methods have been used to control the emissions from abrasive blasting. Theses methods include: blast enclosures; vacuum blasters; drapes; water curtains; wet blasting; and reclaim systems. Wet blasting controls include not only traditional wet blasting processes but also high pressure water blasting, high pressure water and abrasive blasting, and air and water abrasive blasting. For wet blasting, control efficiencies between 50 and 93 percent have been reported. Fabric filters are used to control emissions from enclosed abrasive blasting operations.

Table 13.2.6-1. PARTICULATE EMISSION FACTORS FOR ABRASIVE BLASTING[a]

EMISSION FACTOR RATING: E

Source	Particle size	Emission factor, lb/1,000 lb abrasive
Sand blasting of mild steel panels[b] (SCC 3-09-002-02)	Total PM	
	5 mph wind speed	27
	10 mph wind speed	55
	15 mph wind speed	91
	PM-10[c]	13
	PM-2.5[c]	1.3
Abrasive blasting of unspecified metal parts, controlled with a fabric filter[d] (SCC 3-09-002-04)	Total PM	0.69

a One lb/1,000 lb is equal to 1 kg/Mg. Factors represent uncontrolled emissions, unless noted. SCC = Source Classification Code.

b Reference 10.

c Emissions of PM-10 and PM-2.5 are not significantly wind-speed dependent.

d Reference 11. Abrasive blasting with garnet blast media.

References For Section 13.2.6

1. C. Cowherd and J. Kinsey, *Development Of Particulate And Hazardous Emission Factors For Outdoor Abrasive Blasting*, EPA Contract No. 68-D2-0159, Midwest Research Institute, Kansas City, MO, June 1995.

2. Written communication from J. D. Hansink, Barton Mines Corporation, Golden, CO, to Attendees of the American Waterways Shipyard Conference, Pedido Beach, AL, October 28, 1991.

3. South Coast Air Quality Management District, *Section 2: Unconfined Abrasive Blasting,* Draft Document, El Monte, CA, September 8, 1988.

4. A. W. Mallory, "Guidelines For Centrifugal Blast Cleaning", *J. Protective Coatings And Linings, 1(1)*, June 1984.

5. B. Baldwin, "Methods Of Dust-Free Abrasive Blast Clearing", *Plant Engineering, 32(4)*, February 16, 1978.

6. B. R Appleman and J. A. Bruno, Jr., "Evaluation Of Wet Blast Cleaning Units", *J. Protective Coatings And Linings, 2(8)*, August 1985.

7. M. K. Snyder and D. Bendersky, *Removal Of Lead-Based Bridge Paints*, NCHRP Report 265, Transportation Research Board, Washington, DC, December 1983.

8. J. A. Bruno, "Evaluation Of Wet Abrasive Blasting Equipment", *Proceedings Of The 2nd Annual International Bridge Conference*, Pittsburgh, PA, June 17-19, 1985.

9. J. S. Kinsey, *Assessment Of Outdoor Abrasive Blasting*, Interim Report, EPA Contract No. 68-02 4395, Work Assignment No. 29, U. S. Environmental Protection Agency, Research Triangle Park, NC, September 11, 1989.

10. J. S. Kinsey, S. Schliesser, P. Murowchick, and C. Cowherd, *Development Of Particulate Emission Factors For Uncontrolled Abrasive Blasting Operations*, EPA Contract No. 68-D2-0159, Midwest Research Institute, Kansas City, MO, February 1995.

11. *Summary Of Source Test Results, Poly Engineering, Richmond, CA*, Bay Area Air Quality Management District, San Francisco, CA, November 19, 1990.

12. *Emission Factor Documentation For AP-42 Section 13.2.6, Abrasive Blasting, Final Report*, Midwest Research Institute, Cary, NC, September 1997.

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
OREGON TITLE V OPERATING PERMIT

Northwest Region
2020 SW 4th, Suite 400
Portland, OR 97201
Telephone: (503) 229-5263

Issued in accordance with the provisions of
ORS 468A.040 and based on the land use compatibility findings included in the permit record.

ISSUED TO:

Vigor Industrial LLC
5555 N. Channel Avenue
Portland, OR 97217

INFORMATION RELIED UPON:

Application Number: 22051
Received: 12/26/2006

PLANT SITE LOCATION:

5555 N. Channel Avenue
Portland, OR 97217

LAND USE COMPATIBILITY STATEMENT:

From: City of Portland
Dated: 04/19/95, 12/18/95

ISSUED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY

Cory Ann Wind, Northwest Region AQ Manager — Date: 11/19/08

Nature of Business: Ship building and repair, industrial fabrication

Primary SIC: 3731

RESPONSIBLE OFFICIAL:

Name: Mr. T. Alan Sprott
Title: Environmental Director

FACILITY CONTACT PERSON:

Name: Mr. T. Alan Sprott
Title: Environmental Director
Phone: (503) 247-1672

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LIST OF ABBREVIATIONS USED IN THIS PERMIT

ACDP	Air Contaminant Discharge Permit
acfm	actual cubic foot per minute
AQMA	Air quality management area
ASTM	American Society of Testing and Materials
bbl	barrel
BMP	Best management practices
Btu	British thermal unit
CFR	Code of federal regulations
CO_2	Carbon dioxide
CO	Carbon monoxide
Cr^{6}	Hexavalent Chromium
Cr^{3}	Trivalent Chromium
DEQ/ODEQ	Oregon Department of Environmental Quality
dscf	dry standard cubic foot
EF	emission factor
EPA	US Environmental Protection Agency
EU	Emissions unit
FCAA	Federal Clean Air Act
ft^3	cubic feet
gr/dscf	grain per dry standard cubic foot
HAP	Hazardous Air Pollutant as defined by OAR 340-032-0130
HCFC	Hydro-chloro-fluoro-carbons
ID	Identification number
I&M	Inspection and maintenance
LPG	Liquefied petroleum gas
MB	Material balance
mg/l	milligrams per liter
MMBtu	Million British thermal units
mvac	Motor vehicle air conditioner
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NG	Natural gas
NO_x	Oxides of nitrogen
O_2	Oxygen
OAR	Oregon Administrative Rules
ORS	Oregon Revised Statutes
O&M	Operation and maintenance
Pb	Lead
PCD	Pollution control device
PM	Particulate matter
PM_{10}	Particulate mater less than 10 microns in size
ppm	Part per million
ppmv	Part per million by volume
PSEL	Plant Site Emission Limit
psig	pounds per square inch
RACT	Reasonably Available Control Technology
RVP	Reid Vapor Pressure
scf	Standard cubic foot
SERP	Source Emission Reduction Plan
SIP	State Implementation Plan
SNAP	Significant New Alternative Policy
SO_2	Sulfur dioxide
ST	Source test
VE	Visible emissions
VOHAP	Volatile Organic Hazardous Air Pollutant (includes VOC listed as HAP & exempt-VOC listed as HAP)
VMT	Vehicle miles traveled
VOC	Volatile organic compound

PERMITTED ACTIVITIES

1. Until such time as this permit expires or is modified or revoked, the permittee is allowed to discharge air contaminants from those processes and activities directly related to or associated with air contaminant source(s) in accordance with the requirements, limitations, and conditions of this permit. [OAR 340-218-0010 and 340-218-0120(2)]

2. All conditions in this permit are federally enforceable, meaning that they are enforceable by DEQ, EPA, and citizens under the Clean Air Act, except that conditions 10, 11, 18, 36, G5, and G9 (OAR 340-248-0005 through 340-248-0180) are enforceable by the state only. [OAR 340-218-0060]

EMISSIONS UNIT (EU) AND POLLUTION CONTROL DEVICE (PCD) IDENTIFICATION

3. The emissions units and pollution control devices regulated by this permit are the following [OAR 340-218-0040(3)]:

3.a. Emissions Unit Identification

Emissions Unit	EU ID	Process Description
Ship Coating operations	$COAT_{SHIP}$	Painting of marine vessel and vessel parts throughout the shipyard including dry docks, berths, and all shipyard paint booths.
Misc. Coating operations	$COAT_{MISC}$	Painting of miscellaneous (non-marine) metal parts, primarily conducted in shipyard paint booths, including a future paint booth (Building 73A).
All Coating operations	COAT	$COAT_{SHIP}$ and $COAT_{MISC}$
Ballast water treatment plant	BWT	Six vertical (oil slops) storage tanks
Reclaimed Oil Tanks	ROT	Four horizontal (reclaimed oil) storage tanks – VOC emissions from ROT are routed to enclosed-flare system VDU
Central Utility Building	CUB	Two utility boilers BLR-1 & BLR-2 ($25.4x10^6$ Btu/hr rated capacity)
Abrasive (Shot/slag) Blasting - Outside	SBO	Abrasive (metal shot/slag) blasting of marine vessel exteriors and parts not performed within a blast booth.
Abrasive (Shot/slag) Blasting - Inside	SBI	Abrasive (metal shot/slag) blasting of marine vessel interiors and vessel parts; controlled by BAG-1, BAG-2, & BAG-3.
Welding	WLD	Welding jobs
Paved Industrial Roads	PIR[(-B-)]	Vehicle travel on paved road
Unpaved Roads	UPR	Vehicle travel on unpaved road
Reclaimed Oil Load out	ROL	Loading recovered oil from ROT into tanker truck

[(-B-)] While paved roads and paved parking lots within an urban growth boundary are considered categorically insignificant activities, the PM/PM_{10} emissions from PIR are included in the PSEL at the permittee's request.

3.b. Pollution Control Device Identification

Pollution Control Device	PCD ID	EU Controlled
Thermal Oxidizer - enclosed vapor combustor, rated eff. = 95%.	VDU	ROT: VOC exhaust
All mobile baghouses	BAG-1	Ship interiors & exteriors at the dry docks & berths
A baghouse at Building 73	BAG-3	SBI: indoor blasting operations
Curtains/Covers, etc.	n/a	SBO: Outdoor (dry docks) sandblast operations
Paint booth enclosures and filters	n/a	COAT: paint over-sprays (PM)

EMISSION LIMITS AND STANDARDS

The following Table-I through Table-III contain summaries of applicable requirements other than the Plant Site Emission Limits (PSEL), along with the monitoring methods for the emissions units to which those requirements apply.

Table-I. Facility-wide Emission Limits and Standards

Applicable Requirements		Pollutant/	Limit/	Monitoring Requirements	
OAR / 40 CFR	Condition Number	Parameter	Standard	Method	Condition Number
340-208-0210	4	Fugitive dust	No nuisance	I&M Recordkeeping	5 & 22
340-228-0100	6	Fuel oil sulfur content	0.3% ASTM-1 0.5% ASTM-2 1.75% Residual	%S analysis & Recordkeeping	7
340-206-0050	8	Any pollutant	SERP	Recordkeeping	9
340-208-0450	10	PM	< 250 micron	I&M Recordkeeping	12
340-208-0300	11	Nuisance	no nuisance	I&M Recordkeeping	12
40 CFR Part 82.161(a)	13	Ozone depleting chemicals	Employee certification program	Recordkeeping	14

4. **REQUIREMENT** The permittee shall not cause or permit any materials to be handled, transported, or stored; or a building, its appurtenances, or a road to be used, constructed, altered, repaired or demolished; or any equipment to be operated, without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions shall include the following: [OAR 340-208-0210]

   4.a. Application of asphalt, water, or other suitable chemicals on unpaved roads, materials stock piles, and other surface, as needed to prevent airborne dusts;

   4.b. full or partial enclosure of materials stockpiles; and/or

   4.c. adequate containment during abrasive blasting or other similar operations.

5. **MONITOR AND RECORD** The permittee shall inspect the unpaved area (when they exist during construction) and materials storage and transfer areas for excessive fugitive emissions as specified:

   5.a. At a minimum of once per month, the permittee shall visually survey the unpaved area (when triggered by construction activities) and the materials storage/transfer areas for excess fugitive emissions. The minimum monthly monitoring frequency specified is also the required interval between two consecutive monitoring periods. For the purpose of this survey, excess fugitive emissions are considered to be any visible airborne emissions.

   5.b. If sources of excess fugitive emissions are identified during the survey, the permittee shall use water or a chemical treatment to minimize the fugitive emissions, unless cold weather would make this activity result in hazardous conditions. If water is used to control the fugitive dust emissions, the permittee shall take care not to create a water quality problem from surface water run-off.

   5.c. Record on the inspection forms, dates and times of visual surveys conducted, and any visible emissions observed.

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6. **REQUIREMENT** The permittee shall not sell, distribute, use, or make available for use, any fuel oil that does not meet the sulfur limit specified in this condition. [OAR 340-228-0100]

   6.a. Distillate and Residual fuel oils must not contain more than:

      6.a.i. 0.3% sulfur by weight for ASTM Grade 1 distillate oil;
      6.a.ii. 0.5% sulfur by weight for ASTM Grade 2 distillate oil; and
      6.a.iii. 1.75% sulfur by weight for residual oil.

   6.b. The permittee must obtain analyses from the marketer or, if generated on site, have the used oil analyzed, so that it can be demonstrated that each batch/shipment of used oil burned in boiler does not exceed the used oil specifications contained in 40 CFR Part 279.11, Table 1, excluding the minimum flash point limit of 100°F.

7. **MONITOR AND RECORD** The permittee shall monitor the sulfur content of each batch of residual oil, used oil, and/or distillate oil sold, distributed, or used (in CUB Boilers), in accordance with the following methods or procedures:

   7.a. obtaining a sulfur analysis certificate from the vendor for each batch; or

7.b. analyzing or having analyzed by a contract laboratory a composite of representative samples taken by the permittee from each batch of fuel oil received within 15 days of receipt. Liquid fuels shall be analyzed using ASTM D129-64, D1552-83, D4057-81, or equivalent method.

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8. REQUIREMENT In the event an Air Pollution Alert, Warning, or Emergency Episode is declared in the Portland area by the Department, the permittee shall take the action appropriate to the episode condition as described below. The permittee shall take such action when the permittee first becomes aware of such a declaration whether through news media, direct contact with the Department, or from other sources: [OAR 340-206-0050]

8.a. Alert, any pollutant:

The permittee shall review SERP and evaluate current and future work scopes; and prepare to take possible further action in case the episode escalates into a warning or an emergency stage. The permittee may encourage employees to voluntarily reduce operations of personal motor vehicle through car pooling, use of public transit, etc.

8.b. Warning, any pollutant:

The permittee shall reduce air contaminant emissions by postponing or deferring production to the maximum extent possible. At minimum, the permittee shall adhere to the following:

8.b.i. Postpone or reduce oil recycling separation processes (cookers and skimmers) at the Ballast Water Treatment Plant (BWTP) to the lowest level possible without causing personnel injury or equipment damage.
8.b.ii. Central Utility Building (CUB) boilers shall be fueled by natural gas (or LPG) only.
8.b.iii. Limit exterior hull blasting to light/spot blasting of vessel exteriors below the deep load line. Interior tank blasting is permitted with the use of dust collection system.
8.b.iv. Limit exterior coating and interior tank coating operations to spot coating only.

8.c. Emergency, any pollutant:

Continue with the emission reduction procedures of the warning level. If the declared meteorological episode is expected to persist for 24 hours or more at an emergency level, the permittee shall cease all BWTP oil separation, open air blasting and open air-coating operations, except the operations needed to protect personal safety and process equipment.

9. MONITOR AND RECORD The permittee shall maintain a log summarizing actions taken during an applicable air pollution episode, pursuant to condition 8.

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10. **REQUIREMENT** The permittee shall not cause or permit the emission of any particulate matter larger than 250 microns in size at sufficient duration or quantity as to create an observable deposition upon the real property of another person, as required in OAR 340-208-0450. [State-only enforceable]

11. **REQUIREMENT** The permittee shall not cause or allow air contaminants from any source subject to regulation by the department to cause a nuisance. [OAR 340-208-0300] [State-only enforceable]

12. **MONITOR AND RECORD** The permittee shall record all written complaints or complaints received via telephone or in person by the responsible official or a designated appointee that specifically refer to a complaint of odor or the particulate matter (> 250 micron) fall-out type of nuisance from the permitted facility. Said log shall also record permittee's actions to investigate, make a determination as to the validity of the complaint, and resolve the problem within two working days or within such longer time (not to exceed 7 days) as is reasonably necessary to resolve the problem that led to the complaint.

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13. **REQUIREMENT** The permittee shall not perform work on the refrigeration system on-board any ship that use class I or class II ozone-depleting substances, unless the employee performing the work is certified by an approved technician certification program under the requirements of 40 CFR Part 82.161(a).

14. **MONITOR AND RECORD** The permittee shall maintain the following records of employees hired by the permittee that perform work on the refrigeration system on-board the ship that use class I or class II ozone-depleting substances:

    14.a. the name of the person certified and his/her affiliation;
    14.b. a personal (i.e., worker) identification number;
    14.c. the type (I, II, III, and/or Universal) of certification; and
    14.d. the name of the certifying program, and the date the organization became a certifying program.

Table-II. Emissions Unit Specific Emission Limits and Standards

EU & PCD ID	Applicable Requirements		Pollutant/ Parameter	Limit/ Standard	Monitoring Requirements	
	OAR / 40 CFR	Condition Number			Method	Condition Number
CUB (Boilers)	340-208-0110	15	visible emissions	20% Opacity 3 minutes	VE periodic monitoring	17
	340-228-0210	16	PM/PM_{10}	0.1 gr/dscf	VE/ST periodic monitoring	17 & 51
SBI/BAG-1, BAG-2, BAG-3 (Baghouses)	340-208-0600	18	visible emissions	20% Opacity 30 seconds	VE periodic monitoring	20
	340-226-0210	19	PM/PM_{10}	0.1 gr/dscf	VE/ST periodic monitoring	20 & 51
SBO & SBI	340-226-0120	21	PM/PM_{10}	O&M Requirements	I&M Recordkeeping	22
PIR	340-226-0120	23	PM/PM_{10}	O&M Requirements	I&M Recordkeeping	24
BWT	340-232-0150	25	VOC	Equipment Specification	Recordkeeping	26
ROT	340-232-0150	25	VOC	Equipment Specification	I&M Recordkeeping	27
COAT	340-226-0110 and -0120	28	Cr, HAP	Usage Limitations	Recordkeeping	29
$COAT_{SHIP}$	40 CFR, Part 63 Subpart II	30	VOHAP	NESHAP for Ship building & Repair	Testing and Recordkeeping	31
$COAT_{MISC}$	40 CFR, Part 63 Subpart MMMM	32	VOHAP	NESHAP for Misc. surface coating	Recordkeeping	32
$COAT_{SHIP}$	340-232-0040	33	VOC	Source-specific RACT limits	Mass Balance Recordkeeping and I&M Recordkeeping	34
$COAT_{MISC}$	340-232-0160	35	VOC	Surface coating RACT limits	Mass Balance Recordkeeping	47.a, 47.e

15. **REQUIREMENT FOR CUB (BOILERS)** The permittee shall not cause or allow the emissions from emissions unit CUB of any air contaminant into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is equal to or greater than 20% opacity, excluding uncombined water. Opacity shall be measured in accordance with condition 17. [OAR 340-208-0110]

16. **REQUIREMENT FOR CUB (BOILERS)** The emissions of particulate matter from emissions unit CUB shall not exceed 0.1 grain per standard cubic foot, corrected to 12% CO_2 or 50% excess air. Particulate matter emissions shall be measured in accordance with condition 51. [OAR 340-228-0210]

17. **MONITOR AND RECORD** Except as provided in condition 17.f, the permittee shall conduct visible emissions survey at each of the monitoring point of emissions unit CUB in accordance with the following procedures and frequencies:

17.a. At a minimum of once per week, the permittee shall conduct a six (6) minute visible emission survey using the procedures outlined in EPA Method 22. The minimum weekly monitoring frequency specified is also the required interval between two consecutive monitoring periods.

17.b. All visible emissions observations shall be conducted during period when the equipment is burning fuel.

17.c. If visible emissions, excluding condensed water vapor, from an individual monitoring point are detected for more than 5% (18 seconds) of the survey time, an EPA Method 9 test shall be conducted on that monitoring point for a six (6) minute period in accordance with the Department's Source Sampling Manual. If any of the observations during the specified 6-minute period exceed the applicable 20% opacity limit, the observation period shall continue until 60 minute of observations have been completed or until an exceedance of the opacity standard has been documented.

17.d. If the observer is unable to conduct the survey and/or EPA Method 9 tests due to visual interference caused by other visible emissions sources (e.g., fugitive emissions during high wind conditions) or due to weather conditions such as fog, heavy rain, or snow, the observer shall note such conditions on the data observation sheet and make at least three attempts in same day to conduct the surveys and/or tests at approximately 2 hours intervals throughout the day. If no observations are made for that day, the observer shall continue to attempt to conduct the survey and/or EPA Method 9 daily until a valid observation is made.

17.e. If visible surveys and/or observations conducted during 10 consecutive observation weeks show no visible emissions for a particular source, the permittee may reduce the minimum monitoring frequency to once per month for that source. Anytime the monthly visible emissions survey show visible emissions, or when requested by the Department inspector, the observations for that source of visible emissions shall start over with weekly surveys, as noted in item a of this condition.

17.f. Monitoring protocols specified in this condition for CUB boiler are applicable only when that equipment burns oil and during the period in which oil is burned. As long as any of the equipment grouped under the emissions unit CUB is fueled by natural gas (or LPG), emissions from that equipment is assumed to be in compliance with the 20% opacity standard and the 0.1 (or 0.2) gr/scf loading limits; and the visual emissions survey required by this condition is waived for that equipment. For the purpose of verification, the permittee shall monitor and record the type(s) of fuel used in CUB, as specified in conditions 7 and 45.

18. **REQUIREMENT FOR SBI (BAGHOUSES)** The permittee shall not cause or allow the emissions of any air contaminant into the atmosphere for a period or periods aggregating more than thirty seconds in any one hour which is equal to or greater than 20% opacity, excluding uncombined water, from the SBI baghouses. Opacity shall be measured in accordance with condition 20. [OAR 340-208-0110] [State-only enforceable]

19. **REQUIREMENT FOR SBI (BAGHOUSES)** The permittee shall not cause or allow the emissions of particulate matter in excess of 0.1 grain per standard cubic foot from any of the baghouses used to control the emissions from the emissions unit SBI. Particulate matter emissions shall be measured in accordance with condition 51. [OAR 340-226-0210]

20. **MONITOR AND RECORD** The permittee shall conduct visible emission surveys at each of the baghouse discharge point of emissions unit SBI in accordance with the following procedures and frequencies:

20.a. At a minimum of once per week, the permittee shall conduct a six (6) minute visible emission survey using the procedures outlined in EPA Method 22. The minimum weekly monitoring frequency specified is also the required interval between two consecutive monitoring periods.

20.b. All visible emissions observations shall be conducted during period when the equipment is operating.

20.c. If any visible emissions, excluding condensed water vapor, from an individual monitoring point are detected, an EPA Method 9 test shall be conducted on that monitoring point in accordance with the Department's Source Sampling Manual. The observation period shall continue until 60 minute of observations has been completed or until an exceedance has been documented.

20.d. If the observer is unable to conduct the survey and/or EPA Method 9 tests due to visual interference caused by other visible emissions sources (e.g., fugitive emissions during high wind conditions) or due to weather conditions such as fog, heavy rain, or snow, the observer shall note such conditions on the data observation sheet and make at least three attempts in same day to conduct the surveys and/or tests at approximately 2 hours intervals throughout the day. If no observations are made for that day, the observer shall continue to attempt to conduct the survey and/or EPA Method 9 daily until a valid observation is made.

20.e. If visible surveys and/or observations conducted during 10 consecutive observation weeks show no visible emissions for a particular source, the permittee may reduce the minimum monitoring frequency to once per month for that source. Anytime the monthly visible emissions survey show visible emissions, or when requested by the Department inspector, the observations for that source of visible emissions shall start over with weekly surveys, as noted in item 20.a of this condition.

21. **REQUIREMENT FOR SBO & SBI** The permittee shall provide curtains or screens, or other equivalent control, to minimize particulate fugitive emissions from outdoor abrasive blasting operations (SBO), and minimize dust emissions from material handling activities (SBI, SBO): [OAR 340-226-0210]

21.a. Curtains and containment areas shall be used as necessary to provide reasonable control of particulate material in abrasive blasting operations where specific particulate removal systems (i.e., baghouses) are not used. Collected materials from such abrasive blasting operations shall be placed in appropriate containers in a timely manner.

21.b. Particulate material captured from the baghouse shall be transferred to a container(s) in a closed system such that particulate cannot easily become airborne and escape to the atmosphere. After the container(s) are removed from the baghouse system and during storage of the particulate material, the container shall be closed such that particulate cannot easily become airborne and escape to the atmosphere.

21.c. Blasting of detached parts or equipment shall be conducted indoors using baghouse control whenever possible. Portable working containments such as blast sheds or shrouds shall be used to control particulate matter emissions from outdoor blasting of detached parts or equipment.

22. **MONITOR AND RECORD** The permittee shall inspect the outdoor blasting operations (SBO), and the material storage and collection processes associated with all blasting operations (SBI & SBO), to ensure that the work-practice requirements specified in condition 21 are properly being carried out:

22.a. At minimum of once per day when SBO activities are taking place, at each dry-dock location the SBO activities are performed, the permittee shall visually inspect curtains and containment measures to ensure their proper placement, use, and effectiveness.

22.b. At minimum of once per week during May 1 through October 31, and at minimum of once per month the remainder of the year, the permittee shall visually inspect the following areas to ensure the provisions of condition 21 are met:

22.b.i. raw abrasive blast material storage and handling areas; and
22.b.ii. used abrasive blast material storage and handling areas.

22.c. Record findings - location and nature of deviation from prescribed operation, maintenance and work practice procedures.

22.d. Record corrective action taken (if any) as the result of the inspection - record date and a brief description of repair/correction.

22.e. The permittee shall maintain records of the inspection results including the dates and times of inspections.

23. **REQUIREMENT FOR PIR** At a minimum of once every two weeks, or sooner if needed (e.g., solid material spill), the permittee shall sweep the paved roadways and parking lots (PIR) using the mechanical sweeper and/or manually. This condition does not in any way relieve the permittee from having to comply with the requirements outlined in the permittee's Environmental Best Management Practices (BMP). [OAR 340-028-0620]

24. **MONITOR AND RECORD** The permittee shall maintain a log and record dates and sections of the PIR that were swept.

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25. **REQUIREMENT FOR BWT** All fixed roof storage tanks grouped under BWT having a storage capacity greater than 39,000 gallons shall not store volatile organic compounds with a true vapor pressure, as stored, greater than 1.52 psia at actual monthly average storage temperature, as measured per condition 26. In addition, the paint color of the vertical storage tanks located at the ballast water treatment plant shall be white. [OAR 340-232-0150, 340-226-0140(4)]

EXEMPTION FOR ROT The ROT horizontal-tanks where VOC emissions are controlled by the control unit VDU are allowed to store products with higher vapor pressure. At least once per year, the permittee shall conduct the preventive maintenance inspection on VDU as specified in condition 27.

26. **MONITOR AND RECORD FOR BWT** For the purpose of showing compliance with the requirements specified in condition 25, the permittee shall keep records of all products stored in the fixed roof (BWT) storage tank with a capacity greater than 39,000 gallons. The permittee may utilize the PSEL monitoring specified in conditions 45.a and 48.a for this purpose.

27. **MONITOR AND RECORD FOR ROT** At minimum of once per year, the permittee shall conduct the preventive maintenance inspection on VDU, and make the necessary repairs as needed to ensure proper operations of VDU.

27.a. At minimum, inspect and/or test the following components:

- 27.a.i. Test emergency shut down devices;
- 27.a.ii. inspect pilot assembly for damage or loose wires, including the ignitor, U/V flare detector, and spark plug and insulator.
- 27.a.iii. test thermocouple for proper operating temperature;
- 27.a.iv. operate and calibrate (when necessary, e.g., component replacement) all instruments as per vendor instruction (manual);
- 27.a.v. inspect the detonation aerator internally;
- 27.a.vi. inspect the combustion chamber insulation; .
- 27.a.vii. inspect burner assembly;
- 27.a.viii. inspect all dampers;
- 27.a.ix. inspect all vapor piping from T-15 to flare;
- 27.a.x. inspect gas piping and meter (located at building 63); and
- 27.a.xi. lubricate blower motor if necessary.

27.b. The permittee shall maintain the records of all inspections and repairs performed on VDU.

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28. REQUIREMENT FOR COAT The permittee shall limit the use of coatings containing hexavalent chromium (Cr^6) and trivalent chromium (Cr^3) as specified: [OAR 340-226-0110, 0120, & 0140(4)]

28.a. The use of coatings containing hexavalent chromium (Cr^6) is prohibited.

28.b. All coatings containing trivalent chromium (Cr^3) in concentration of two percent or greater by weight must be applied using hand applications (i.e., brush, roll, dip), applied within an enclosed paint booth equipped with a particulate control filter bank, or applied using another coating method with a transfer efficiency of at least 80 percent as approved by the Department.

28.c. Outdoor application of coatings containing trivalent chromium in concentration of less than two percent by weight is limited to 250 gallons per day.

29. MONITOR AND RECORD For the purpose of showing compliance with the requirements specified in condition 28, the permittee shall adhere to the monitoring and recordkeeping specified below:

29.a. For each batch of new coating received, the permittee shall verify that hexavalent chromium is not present at any concentration in the coating.

29.b. The permittee shall record the date, amount of coating applied, location of application, and application method for all coatings containing trivalent chromium in concentration of 2 percent or greater by weight.

29.c. The permittee shall record the date, amount of coating applied, location of application, and application method for all coatings containing trivalent chromium in concentration of less than 2 percent by weight.

29.d. The permittee may rely upon information contained in the material safety data sheets (MSDS) for each coating to determine the relevant chemical content of coating materials. The permittee may also use other appropriate method (e.g., chemical analysis, product data sheet, etc.) to determine the relevant chemical content of coating materials.

30. **NESHAP REQUIREMENTS FOR $COAT_{SHIP}$** The permittee shall comply with the following requirements applicable to emissions unit $COAT_{SHIP}$: [40 CFR, Part 63.783]

30.a. Except as provided in condition 30.c, the VOHAP content of coatings applied to marine vessels and vessel parts shall be within the applicable limits specified in the Table below, as determined by the procedures described in condition 31:

"VOHAP Limits for Marine Coatings ($COAT_{SHIP}$)"

Coating Category	VOHAP Limits [i, ii, iii]		
	grams/liter coating minus water and exempt compounds	grams/liter solids [iv]	
		$t \geq 4.5°C$	$t < 4.5°C$ [v]
General Use :	340	571	728
Specialty :			
Air flask	340	571	728
Antenna	530	1,439	--
Antifoulant	400	765	971
Heat resistant	420	841	1,069
High-gross	420	841	1,069
High-temperature	500	1,237	1,597
Inorganic zinc high-build	340	571	728
Military exterior	340	571	728
Mist	610	2,235	--
Navigational aids	550	1,597	--
Nonskid	340	571	728
Nuclear	420	841	1,069
Organic zinc	360	630	802
Pretreatment wash primer	780	11,095	--
Repair/maint. of thermoplastics	550	1,597	--
Rubber camouflage	340	571	728
Sealant for thermal spray Al	610	2,235	--
Special marking	490	1,178	--
Specialty interior	340	571	728
Tack coat	610	2,235	--
Undersea weapon systems	340	571	728
Weld-through precon. primer	650	2,885	--

i: The limits are expressed in two sets of equivalent units. Either set of limits may be used for the compliance procedure described in condition 31.f.i, but only the limits expressed in units of g/L solids (nonvolatiles) shall be used for the compliance procedures described in conditions 31.f.ii through 31.f.iv.

ii: VOC (including exempt compounds listed as HAP) shall be used as a surrogate for VOHAP for those compliance procedures described in conditions 31.f.i through 31.f.iii.

iii: To convert from g/L to lb/gal, multiply by (3.785 L/gal)(1/453.6 lb/g) or 1/120. For compliance purposes, metric units define the standards.

iv: VOHAP limits expressed in units of mass of VOHAP per volume of solids were derived from the VOHAP limits expressed in units of mass of VOHAP per volume of coating assuming the coatings

contain no water or exempt compounds and that the volumes of all components within a coating are additive.

v: These limits apply during cold-weather time periods, as defined in 40 CFR 63.782. Cold-weather allowances are not given to coatings in categories that permit less than 40 percent volume solids (non-volatiles). Such coatings are subject to the same limits regardless of weather conditions.

30.b. The permittee shall adhere to the following work practice requirements:

30.b.i. All handling and transfer of VOHAP-containing materials to and from containers, tanks, vats, drums, and piping systems is conducted in a manner that minimizes spills.

30.b.ii. All containers, tanks, vats, drums, and piping systems are free of cracks, holes, and other defects and remain closed unless materials are being added to or removed from them.

30.c. Exemptions:

30.c.i. The VOHAP coating limits do not apply to coatings used in volumes of less than 200 liters (52.8 gallons) per year, provided the total aggregate volume of all exempt coatings does not exceed 1,000 liters per year (264 gallons per year). The container storing exempt coatings shall be clearly labeled as "low-usage exempt," and the volume of each exempt coating applied shall be maintained in the facility's records.

30.c.ii. The VOHAP coating limits do not apply to coatings applied with hand-held, non-refillable, aerosol containers or to unsaturated polyester resin (i.e., fiberglass lay-up) coatings. Coatings applied to suitably prepared fiberglass surfaces for protective or decorative purposes are not exempted.

31. MONITOR AND RECORD The permittee shall monitor compliance with condition 30 in accordance with the following procedures, as specified in 40 CFR 63.785: (see "Figure 1 to §63.785 Flow diagram of compliance procedures" for reference, Appendix-B)

31.a. For each batch of coating received, the permittee shall identify the coating category and the applicable VOHAP limit(s) specified in condition 30.a; and then certify the as-supplied VOC content of the batch of coating. The permittee may use a certification supplied by the manufacturer for the batch, although the permittee retains liability should subsequent testing reveal a violation. If the permittee performs the certification testing, only one of the containers in which the batch of coating was received is required to be tested.

31.b. In lieu of testing each batch of coating, as applied, the permittee may determine compliance with the VOHAP limits specified in condition 30.a by using any combination of the procedures described in conditions 31.f.i, 31.f.ii, 31.f.iii, and 31.f.iv. The procedure used for each coating shall be determined and documented prior to application.

31.c. For the compliance procedures described in conditions 31.f.i through 31.f.iii, VOC (including exempt compounds listed as HAP) shall be used as a surrogate for VOHAP.

31.d. The results of any compliance demonstration conducted by the permittee or DEQ/EPA using Method 24 shall take precedence over the results using the procedures in conditions 31.f.i, 31.f.ii, or 31.f.iii.

31.e. The results of any compliance demonstration conducted by the permittee or DEQ/EPA using an approved test method to determine VOHAP content shall take precedence over the results using the procedures in condition 31.f.iv.

31.f. Coating Compliance Procedures:

31.f.i. Coatings to which thinning solvent will not be added. For coatings to which thinning solvent (or any other material) will not be added under any circumstance or to which only water is added, the permittee shall comply as follows:

31.f.i.(1) Certify the as-applied VOC content of each batch of coating.

31.f.i.(2) Notify the persons responsible for applying the coating that no thinning solvent may be added to the coating by affixing a label to each container of coating in the batch or through another means described in the implementation plan per 40 CFR 63.787.

31.f.i.(3) If the certified as-applied VOC content of each batch of coating used during a calendar month is less than or equal to the applicable VOHAP limit in condition 30.a (either in terms of g/L of coating or g/L of solids), then compliance is demonstrated for that calendar month, unless a violation is revealed using Method 24.

31.f.ii. Coatings to which thinning solvent will be added--coating-by-coating compliance. For a coating to which thinning solvent is routinely or sometimes added, the permittee shall comply as follows:

31.f.ii.(1) Prior to the first application of each batch, designate a single thinner for the coating and calculate the maximum allowable thinning ratio (or ratios, if the source complies with the cold-weather limits in addition to the other limits specified in condition 30.a) for each batch as follows:

$$R = \frac{(V_s)(\text{VOHAP limit}) - m_{VOC}}{D_{th}} \quad \text{Eqn. 1}$$

Where:

R	=	Maximum allowable thinning ratio for a given batch (L thinner/L coating as supplied);
V_s	=	Volume fraction of solids in the batch as supplied (L solids/L coating as supplied);
VOHAP limit	=	Maximum allowable as-applied VOHAP content of the coating (g VOHAP/L solids);
m_{VOC}	=	VOC content of the batch as supplied [g VOC (including cure volatiles and exempt compounds on the HAP list)/L coating (including water and exempt compounds) as supplied];
D_{th}	=	Density of the thinner (g/L).

If V_s is not supplied directly by the coating manufacturer, the permittee shall determine V_s as follows:

$$V_s = 1 - \frac{m_{volatiles}}{D_{avg}} \qquad \text{Eqn. 2}$$

Where:

$m_{volatiles}$ = Total volatiles in the batch, including VOC, water, and exempt compounds (g/L coating); and

D_{avg} = Average density of volatiles in the batch (g/L).

The procedures specified in condition 50.d may be used to determine the values of variables defined in this paragraph. In addition, the permittee may choose to construct monographs, based on Equation 1, similar or identical to the one provided in appendix B of 40 CFR Part 63 Subpart II as a means of easily estimating the maximum allowable thinning ratio.

31.f.ii.(2) Prior to the first application of each batch, notify painters and other persons, as necessary, of the designated thinner and maximum allowable thinning ratio(s) for each batch of the coating by affixing a label to each container of coating or through another means described in the implementation plan per 40 CFR 63.787.

31.f.ii.(3) By the 15th day of each calendar month, determine the volume of each batch of the coating used, as supplied, during the previous month.

31.f.ii.(4) By the 15th day of each calendar month, determine the total allowable volume of thinner for the coating used during the previous month as follows:

$$V_{th} = \sum_{i=1}^{n} \left(R \times V_b\right)_i + \sum_{i=1}^{n} \left(R_{cold} \times V_{b-cold}\right)_i \qquad \text{Eqn. 3}$$

Where:

V_{th} = Total allowable volume of thinner for the previous month (L thinner);

V_b = Volume of each batch, as supplied and before being thinned, used during non-cold-weather days of the previous month (L coating as supplied);

R_{cold} = Maximum allowable thinning ratio for each batch used during cold-weather days (L thinner/L coating as supplied);

$V_{b\text{-}cold}$ = Volume of each batch, as supplied and before being thinned, used during cold-weather days of the previous month (L coating as supplied);

i = Each batch of coating; and

n = Total number of batches of the coating.

31.f.ii.(5) By the 15th day of each calendar month, determine the volume of thinner actually used with the coating during the previous month.

31.f.ii.(6) If the volume of thinner actually used with the coating [condition 31.f.ii.(5)] is less than or equal to the total allowable volume of thinner for the coating [condition 31.f.ii.(4)], then compliance is demonstrated for the coating for the previous month, unless a violation is revealed using Method 24.

31.f.iii. Coatings to which the same thinning solvent will be added--group compliance. For coatings to which the same thinning solvent (or other material) is routinely or sometimes added, the permittee shall comply as follows:

31.f.iii.(1) Designate a single thinner to be added to each coating during the month and "group" coatings according to their designated thinner.

31.f.iii.(2) Prior to the first application of each batch, calculate the maximum allowable thinning ratio (or ratios, if the source complies with the cold-weather limits in addition to the other limits specified in condition 30.a) for each batch of coating in the group using the equations in condition 31.f.ii.

31.f.iii.(3) Prior to the first application of each "batch," notify painters and other persons, as necessary, of the designated thinner and maximum allowable thinning ratio(s) for each batch in the group by affixing a label to each container of coating or through another means described in the implementation plan per 40 CFR 63.787.

31.f.iii.(4) By the 15th day of each calendar month, determine the volume of each batch of the group used, as supplied, during the previous month.

31.f.iii.(5) By the 15th day of each calendar month, determine the total allowable volume of thinner for the group for the previous month using Equation 3.

31.f.iii.(6) By the 15th day of each calendar month, determine the volume of thinner actually used with the group during the previous month.

31.f.iii.(7) If the volume of thinner actually used with the group [condition 31.f.iii.(6)] is less than or equal to the total allowable volume of thinner for the group [condition 31.f.iii.(5)], then compliance is demonstrated for the group for the previous month, unless a violation is revealed using Method 24.

31.f.iv. Demonstration of compliance through an alternative (i.e., other than Method 24) test method. The permittee shall comply as follows:

31.f.iv.(1) Certify the as-supplied VOHAP content (g VOHAP/L solids) of each batch of coating.

31.f.iv.(2) If no thinning solvent will be added to the coating, the permittee shall follow the procedure described in condition 31.f.i, except that VOHAP content shall be used in lieu of VOC content.

31.f.iv.(3) If thinning solvent will be added to the coating, the permittee shall follow the procedure described in condition 31.f.ii or 31.f.iii, except that in Equation 1: the term "m_{VOC}" shall be replaced by the term "m_{VOHAP}," defined as the VOHAP content of the coating as supplied (g VOHAP/L coating) and the term "D_{th}" shall be replaced by the term "$D_{th(VOHAP)}$" defined as the average density of the VOHAP thinner(s) (g/L).

31.g. A violation revealed through any approved test method shall result in a 1-day violation for enforcement purposes. A violation revealed through the recordkeeping procedures described in conditions 31.f.i through 31.f.iv shall result in a 30-day violation for enforcement purposes, unless the permittee provides sufficient data to demonstrate the specific days during which non-compliant coatings were applied.

32. **REQUIREMENT FOR $COAT_{MISC}$** The permittee must show that $COAT_{MISC}$ surface coating operation accounts for less than 10 percent of total surface coating activities (i.e., $COAT_{SHIP}$ and $COAT_{MISC}$) conducted at the facility. [40 CFR, Part 63.3881(e)(2)]

32.a. The permittee shall use the volume (e.g., liters or gallons) of coating solids used over compliance period (January 1 through December 31) when measuring relative surface coating activities.

32.b. The use of parameters other than coating consumption and volume solids content must be approved in writing by the Department.

32.c. Calculate the percentage of $COAT_{MISC}$ surface coating consumption relative to total coating consumption (i.e., $COAT_{SHIP}$ plus $COAT_{MISC}$) and include the result with the annual report submitted per condition 65.

33. **VOC RACT REQUIREMENT FOR $COAT_{SHIP}$** The permittee shall comply with the following source-specific RACT requirements for emissions unit $COAT_{SHIP}$: [10/04/95 ACDP 26-3224]

33.a. The VOC content of the surface coatings used for ship painting operations ($COAT_{SHIP}$) shall not exceed the following limits, expressed in pounds of VOC per gallon of coating, as applied, less water and exempt compounds:

Coating Category:	General Use Alkyds & Epoxies	Antifoulant	Prewash Primer	Zinc-Inorganic	Other Specialty
VOC content: (lbs/gal)	3.5	3.7	6.5	5.4	5.5

33.b. The coating limits of condition 33.a are based on a weekly weighted average of the applied coatings in each category. The VOC content of coatings may be averaged only within a single coating category. Excess VOC emissions in one coating category shall not be offset with lowered emissions in another coating category. The permittee shall determine compliance with the coating limit set for each coating category by dividing the total VOC content (lbs) of the coatings in a category used in one week by the total gallons of coatings, less water and exempt compounds, used in that same category during the same weekly averaging period (Monday 12:01 am through Sunday 12:00 midnight).

33.c. The permittee shall provide training and instruction for all employees who are directly involved in the application of VOC-based coatings at the shipyard. The training/instruction program shall consist of a combination of on-the-job and classroom instructions, of which at least 4 hours shall be provided on initial training, followed by 2 hours of refresher training on an annual basis thereafter. The training/instruction shall provide workers with theory and (good) management practices for efficient use (minimization) of solvents and waste prevention. Training records shall be maintained on-site and be available for inspection by the Department personnel.

33.d. The permittee shall implement and adhere to the following Best management practices for solvent use:

33.d.i. Use of closed system for cleaning and flushing paint guns and lines. Flushing systems shall have only the minimum venting required to operate. As an alternative, a non-VOC solvent cleaning system may be used.

33.d.ii. Utilize distillation or other approved recovery methods to reclaim cleaning solvents to the extent feasible.

33.d.iii. Use the closed containers only for storage and transfer of solvents to and from the bulk storage area to the work area.

33.d.iv. Solvent-laden cloths or rags shall be stored in a container with cover (lid).

34. **MONITOR AND RECORD**

34.a. The NESHAP VOHAP-Limits specified in Condition 30 applicable to $COAT_{SHIP}$ are more stringent than the RACT VOC-limits specified in Condition 33 applicable to the same emissions unit - $COAT_{SHIP}$. Additionally, compliance determination of VOC RACT Limits shares the same coating parameters and methodologies specified for calculating the plant site VOC and VOHAP emissions as specified in the PSEL monitoring condition 47.

34.b. Alternative to the methods specified in condition 47.d, compliance with the RACT coating limits specified in condition 33.a for $COAT_{SHIP}$ shall be deemed satisfied by the successful determination of compliance with the NESHAP coating limits presented in condition 30. However, in the event the NESHAP compliance monitoring conducted per Condition 31 determines violation of one or more coating limit, the permittee must determine compliance with the affected coating category (e.g., General Use, Antifoulant, Prewash, etc.) in violation separately in accordance with the methods specified in condition 47.d. The permittee shall retain all calculations and associated records used to verify compliance with the source-specific RACT standard.

34.c. The permittee shall maintain the training records of all employees who are directly involved in the application of VOC-based coatings at $COAT_{SHIP}$. The permittee shall also maintain the drawing/specifications of the solvent (paint gun) cleaning system and the types of cleaning solvents used. At minimum, the following information shall be kept:

34.c.i. Training/course materials (and all updates) used.
34.c.ii. Employee hire-dates and their training records.

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35. **VOC RACT REQUIREMENT FOR $COAT_{MISC}$** The VOC content of the surface coatings used for parts painting operations grouped under the emissions unit $COAT_{MISC}$ shall not exceed the following limits, expressed in pounds of VOC per gallon of coating, as applied, less water and exempt compounds, as measured on a weekly basis. The monitoring is specified in Condition 47. [OAR 340-232-0160]

Coating Type	Clear coating	Forced air or air dried	Extreme perf./ High perf. Architectural	All other (oven dried, powder)
VOC content (lbs/gal)	4.3	3.5	3.5	3.0

Table-III. Emission Limits and Standards applicable to Insignificant Activities

Applicable Requirements		Pollutant/ Parameter	Limit/Standard
Oregon Administrative Rule	Condition No.		
340-208-0600	36	opacity	20%
340-228-0210(1)(b)	37	PM/PM_{10}	0.1 gr/dscf
340-226-0210(1)(b)	38	PM/PM_{10}	0.1 gr/dscf
340-232-0180	39	VOC	Equipment specifications
340-242-0730	40	VOC	Coating specifications
340-208-0506	41	VOC	Submersible filling.

36. REQUIREMENT The permittee shall not cause or allow the emissions of any air contaminant into the atmosphere for a period or periods aggregating more than thirty seconds in any one-hour that is equal to or greater than 20% opacity, excluding uncombined water, from any insignificant source. Opacity shall be measured in accordance with condition 51. [OAR 340-208-0600] [State-only enforceable]

37. REQUIREMENT The permittee shall not cause or allow the emissions of particulate matter in excess of 0.1 grain per standard cubic foot, corrected to 12% CO_2 or 50% excess air, from any fuel-burning insignificant source. Particulate matter emissions shall be measured in accordance with condition 51. [OAR 340-228-0210(1)(b)]

38. REQUIREMENT The permittee shall not cause or allow the emissions of particulate matter in excess of 0.1 grain per standard cubic foot, from any non-fuel-burning insignificant source. Particulate matter emissions shall be measured in accordance with condition 51. [OAR 340-228-0210(1)(b)]

39. REQUIREMENT The permittee shall operate the parts/tools cleaning equipment and dip tanks at the permitted facility in accordance with OAR 340-232-0180.

40. REQUIREMENT The permittee shall not knowingly use or contract for the use of any non-complying spray paint or architectural coating manufactured after July 1, 1996; [OAR 340-242-0730]

41. REQUIREMENT All gasoline storage tanks with a capacity of 500 gallons or more, installed after January 1, 1970, shall be equipped with submersible filling devices or other vapor emission control systems. All gasoline storage tanks at the PSY are exclusively used for fueling the fleet vehicles. [OAR 340-208-0506] [State-only enforceable]

42. MONITOR, RECORD, & REPORT No monitoring, recordkeeping, or reporting is required for Insignificant Activities.

43. TEST No testing is required for Insignificant Activities. However, if testing is conducted for the purpose of demonstrating compliance, or verifying emission factors, the permittee shall use the test methods referenced in table of condition 51.

PLANT SITE EMISSION LIMITS

44. **REQUIREMENT** The annual plant site emissions based on 12-month rolling average shall not exceed the amount (tons/year) specified in this condition: [OAR 340-222-0020 and 340-222-0040 & 0041]:

Emissions Unit	PM_{10}	PM	SO_2	NO_x	CO	VOC
Plant-wide Basis	124	256	39	39	99	464

44.a. The annual plant site emissions limits apply to any 12-consecutive calendar month period; meaning the annual emissions for the previous 12-month period must be calculated at the end of each calendar month, for a total of 12 times during the calendar year.

44.b. The PSEL monitoring is specified in Conditions 45 through 48.

45. **MONITOR AND RECORD** The permittee shall determine compliance with the Plant Site Emissions Limits specified in condition 44, and the coating RACT limits specified in conditions 33 and 35, by conducting monitoring in accordance with the procedures, test methods, and frequencies identified in conditions 45 through 48: [OAR 340-218-0050(3)(a)]

45.a. The permittee shall monitor and maintain monthly and annual records of the following operating parameters:

EMISSIONS UNIT	OPERATING PARAMETER	UNIT	METHOD
SBO	Abrasive materials (steel shot/slag) used.	lbs	Estimate (Recordkeeping) the amount (lbs) of blast grits used at each outdoor job site (dry dock & elsewhere), and record dates associated with each job, and types of controls (i.e., curtains, screens, etc.) utilized.
SBI	Abrasive materials (steel shot/ slag) used.	lbs	Estimate (Recordkeeping) the amount (lbs) of abrasive materials used from the daily schedule of abrasive-blasting jobs conducted inside.
WLD	welding rods usage	lbs	obtained from job/purchase records.
CUB (Boilers)	NG burned	10^6 ft^3	From meter reading and/or purchase records
	residual oil burned	gallons	
	distillate oil burned	gallons	
	used oil burned	gallons	
VDU	Hours Operated	hrs	Recordkeeping/meter reading
OVEN	NG burned	10^6 ft^3	Recordkeeping/meter reading
PIR	vehicle miles traveled (VMT)	VMT - miles	maintain log of estimated vehicles miles traveled and background calculations/assumptions used.
BWT	oil slop throughput	gallons	Recordkeeping
ROT	oil slop throughput	gallons	Recordkeeping
ROL	reclaimed oil	gallons	Recordkeeping

46. CALCULATE EMISSIONS At the end of each month, the permittee shall determine the annual emissions (i.e., emissions during the previous 12-month period) from the emissions units identified, by using the operating parameters obtained in condition 45 and applying to the formula and the emissions factors listed below:

$$E_j = \Sigma (P_i\ EF_{ij}) = (P_1\ EF_{1j}) + (P_2\ EF_{2j}) + ... + (P_n\ EF_{nj})$$

where: E_j = pollutant emissions; lbs/day, lbs/month, or lbs/year.
P_i = operating parameters identified in condition 45.
EF_{ij} = emission factor for each emissions unit and pollutant identified in this condition.

46.a. EF_{ij} for Process (PM/PM_{10}) emissions units

Emissions Unit	Operating Parameter	PM	PM_{10}	UNIT
SBO **	abrasive materials used	$6.3 \times 10^{-2} (1 - EFF_i)$	$2.2 \times 10^{-2} (1 - EFF_i)$	lbs/lbs abrasive
SBI	abrasive materials used	6.3×10^{-5}	2.2×10^{-5}	lbs/lbs abrasive
WLD	welding rods used	--	3.65×10^{-2}	lbs/lbs wld. rod
PIR	VMT, paved road	1.7×10^{-1}	1.36×10^{-1}	lbs/VMT, paved

** Set the control efficiency (EFF_i) used to calculate the SBO PM/PM_{10} emissions to **0.05** (i.e., 5% control) when curtains and/or screens are utilized.

46.b. EF_{ij} for Combustion emissions units

EU ID	FUEL	PM_{10} (1)	SO_2 (1)	NOx	CO	VOC	UNIT
CUB (Boilers)	residual oil	9.19(%S)+3.22	157(%S)	55	5	0.28	lbs/1000 gal
	distillate oil	2	142(%S)	20	5	0.2	lbs/1000 gal
	used oil	51	147(%S)	19	5	0.3	lbs/1000 gal
	natural gas	2.5 (2)	2.6	140	35	2.8	lbs/10^6 ft^3
OVEN	natural gas	--	--	100	--	--	lbs/10^6 ft^3
VDU	(Hrs operated)	--	--	1.13	2.25	0.63	lbs/hr

(1) The PM_{10} and SO_2 EFs are a function of sulfur content (%S) when distillate or residual oil is burned. The sulfur % in oil is obtained per monitoring condition 7.

47. MONITOR AND RECORD COATING USAGE The permittee shall determine the annual VOC emissions from emissions units $COAT_{SHIP}$ and $COAT_{MISC}$; the HAP emissions from emissions unit $COAT_{MISC}$; and the compliance status with respect to the coating RACT limits established in conditions 33 and 35, in accordance with the following procedures and frequencies:

47.a. The permittee shall monitor the following COAT operating parameters:

Operating parameters	Description of COAT Operating parameters	Monitoring Frequency
i	List the type of all coatings, thinners, and cleaning solvents used; and record the specific coating category identified in conditions 33 or 35 of which the coatings and thinners were used under. For each type of cleaning solvents used, record whether the solvents were used at $COAT_{SHIP}$ or $COAT_{MISC}$.	weekly or update as needed

VOL_i	Volume (gallons) of each coating type "i" used. (Note: VOL_i is always greater than $VOL_{w,i}$)	weekly
$VOL_{w,i}$	Volume (gallons) of water and exempt VOCs in each coating volume VOL_i used.	weekly or update as needed
$V_{th,i}$	Volume (gallons) of each type of thinner added to the coating	weekly
$V_{cl,i}$	Volume (gallons) of each type of cleaning solvent used. If separation of V_{cl} from V_{th} is difficult, V_{cl} may be reported as V_{th}, but V_{th} shall never be reported as V_{cl}	weekly
C_i	The VOC content (lbs/gal) in each coating volume VOL_i	weekly or update as needed
$D_{th,i}$	Density (lbs/gal) of each thinner $V_{th,i}$ added	weekly or update as needed
$D_{cl,i}$	Density (lbs/gal) of each cleaning solvents used	weekly or update as needed
HW_m	The amount (lbs) of hazardous and non-hazardous waste generated from the marine vessel coating operations, $COAT_{SHIP}$, that are shipped offsite.	as occurred
$\%VHW_m$	The representative VOC content (weight fraction) of each batch of marine vessel coating-waste HW_m	
m	The representative number of days "m" and dates associated with the HW_m collection during the period of m-days.	
HW_n	The amount (lbs) of hazardous and non-hazardous waste generated from the non-marine vessel coating operations, $COAT_{MISC}$, that are shipped offsite.	as occurred
$\%VHW_n$	The representative VOC content (weight fraction) of each batch of non-marine vessel coating-waste HW_n	
n	The representative number of days "n" and dates associated with the HW_n collection during the period of n-days.	

47.b. At the end of each month, the permittee shall determine the annual emissions from the emissions unit $COAT_{SHIP}$ by using the operating parameters obtained per condition 47.a and applying to the following formula:

$$E_{ANNUAL}\ (tons/yr) = \Sigma_{Previous\ 12\text{-}Month}\ [\ (VOL_i\ C_i) + (V_{th,i}\ D_{th,i}) + (V_{cl,i}\ D_{cl,i}) - (\%VHW_m\ HW_m)\ ]\ /\ 2{,}000$$

47.c. At the end of each month, the permittee shall determine annual emissions from the emissions unit $COAT_{MISC}$ by using the operating parameters obtained per condition 47.a and applying to the following formula:

$$E_{ANNUAL}\ (tons/yr) = \Sigma_{Previous\ 12\text{-}Month}\ [\ (VOL_i\ C_i) + (V_{th,i}\ D_{th,i}) + (V_{cl,i}\ D_{cl,i}) - (\%VHW_n\ HW_n)\ ]\ /\ 2{,}000$$

47.d. Except as noted in condition 34.b, for each of the $COAT_{SHIP}$ category identified in condition 33.a, the permittee shall determine the weekly compliance status of the coating RACT limits by using the operating parameters obtained per condition 47.a and applying to the following formula:

$$E_{SHIP,WEEK}\ (lbs/gal,\ less\ H_2O\ \&\ exempt\ VOC) = \Sigma_{week}\ [(VOL_i\ C_i + V_{th,i}\ D_{th,i})\ /\ (VOL_i + V_{th,i} - VOL_{w,i})]$$

47.e. For each of the $COAT_{MISC}$ category identified in condition 35, the permittee shall determine the weekly compliance status of the categorical RACT limits by using the operating parameters obtained per condition 47.a and applying to the following formula:

$E_{MISC,WEEK}$ (lbs/gal. less H_2O & exempt VOC) = Σ_{week} [$(VOL_i\ C_i + V_{th,i}\ D_{th,i}) / (VOL_i + V_{th,i} - VOL_{w,i})$]

48. MONITOR AND RECORD PROCESS EMISSIONS Except as provided in condition 48.c, the permittee shall calculate the VOC emissions from emissions units BWT, ROT, and ROL using the appropriate production throughput obtained per condition 45 and the AP42 algorithms and emissions factors provided:

48.a. VOC emissions from each fixed roof storage tank grouped under emissions unit BWT shall be *calculated based on the following AP42 algorithms:*

L_{BWT} = Total loss = $L_B + L_W$ (lbs/yr)

L_B = fixed roof breathing loss = $2.26x10^2\ M_V\ [P/(P_A\ P)]^{0.68}\ D^{1.73}\ H^{0.51}\ \Delta T^{0.5}\ F_P\ C\ K_C$
L_W = fixed roof working loss = $2.4x10^5\ M_V\ P\ V\ N\ K_N\ K_C$

Annual emission from BWT is the sum of emissions from individual fixed roof storage tanks:

$$E_{BWT,\,ANNUAL} = \Sigma\ L_{BWT} / 2000 \quad \text{(tons/year)}$$

where: M_V = average vapor molecular weight
P = average monthly stock true vapor pressure, in psia (see equation below)
P_A = average atmospheric pressure at tank location, psia; default = 14.7 psi
D = tank diameter, feet
H = average vapor space height - if not available, assume H equals 1/2 the tank height.
ΔT = average ambient diurnal temperature change, °F; default = 15°F (assumption)
F_P = paint factor; see TABLE-A
C = adjustment factor for small tanks with D < 30 feet
= 0.0771 (D) - 0.0013 (D^2) - 0.1334; otherwise C = 1 for D ≥ 30.
K_C = product factor; for crude oil, K_C = 0.65. For all other organic liquids, K_C = 1.0.
V = tank capacity, gallons
N = number of turnovers per year = Annual throughput (gal) divided by tank capacity, V
K_N = turnover factor; for N > 36, K_N = (180 + N)/6N. For N ≤ 36, K_N = 1

P = **exp** { $[0.7553 - 413 \div (T_{MA}+459.6)] S^{0.5} \log_{10}(RVP) - [1.854 - 1042 \div (T_{MA}+459.6)]\ S^{0.5}$
$+ [2416 \div (T_{MA}+459.6) - 2.013] \log_{10}(RVP) - [8742 \div (T_{MA}+459.6)] + 15.64$ }

Where: T_{MA} = Average monthly stock temp. (°F) = $0.44T_{AA} + 0.56T_B + 0.0079 \alpha I$
RVP = Reid vapor pressure, psi
S = Slope of the ASTM distillation curve at 10% evaporated, °F
T_{AA} = Monthly average ambient temperature, °F
T_B = Liquid bulk temp. (°F) = $T_{MA} + 6\alpha - 1$
α = Tank paint absorptance factor, dimensionless, see TABLE-B
I = Solar insolation factor, Btu/ft²d, see TABLE-C

TABLE-A. Paint Factors for Fixed Roof Tanks

TANK COLOR		PAINT FACTOR (F_P) Paint Condition	
Roof	Shell	Good	Poor
White	White	1.00	1.15
Aluminum (specular)	White	1.04	1.18
White	Aluminum (specular)	1.16	1.24
Aluminum (specular)	Aluminum (specular)	1.20	1.29
White	Aluminum (diffuse)	1.30	1.38
Aluminum (diffuse)	Aluminum (diffuse)	1.39	1.46
White	Gray	1.30	1.38
Light gray	Light gray	1.33	1.44[a]

Medium gray	Medium gray	1.40	1.58[a]

[a] Estimated from the ratios of the seven preceding paint factors.

TABLE-B. Paint solar absorptance for Fixed Roof Tanks

		PAINT FACTOR (∝) Paint Condition	
Paint color*	Paint shade or type	Good	Poor
Aluminum	Specular	0.39	0.49
Aluminum	Diffuse	0.60	0.68
Gray	Light	0.54	0.63
Gray	Medium	0.68	0.74
Red	Primer	0.89	0.91
White	NA	0.17	0.34

[a] If the tank roof and shell are painted a different color, use the average value of ∝

TABLE-C. Solar insolation factor (I), Btu/ft^2 d

Month	I	Month	I
January	310	July	2037
February	554	August	1674
March	895	September	1217
April	1308	October	724
May	1663	November	388
June	1773	December	250

For annual average, use I = 1067.

48.b. At the end of each month, the permittee shall determine the annual emissions from emissions units ROT and ROL, by using the operating parameters obtained per condition 45 and applying to the following formula and the emissions factors listed:

$$E = \sum (P_i\ EF_i) = (P_1\ EF_1) + (P_2\ EF_2)$$

where: E = VOC emissions
Pi = operating parameters identified in condition 45.a
EF_i = VOC emission factor for ROT and ROL identified below:

VOC EF_i for emissions units ROT & ROL

Emissions Unit	P_i	VOC EF_i	UNIT
ROT	oil slop throughput, gallons	7.76×10^{-3}	lbs/gal
ROL	reclaimed oil, gallons	2×10^{-3}	lbs/gal

48.c. For emission calculations for storage tanks BWT and ROT, the permittee may use the EPA Tank 2.0 program (software), which is based on the same AP42 algorithms/factors identified in this condition to calculate the VOC emissions. The permittee may also use a later version of the EPA Tank program, if approved in writing by the Department.

TEST METHODS AND PROCEDURES [OAR 340-218-0050(1)]

49. Unless otherwise specified in this permit, all testing shall be conducted in accordance with the Department's Source Sampling Manual. [OAR 340-212-0120]

50. NESHAP Test methods and procedures: [40 CFR 63.786] .

50.a. For the compliance procedures described in conditions 31.f.i through 31.f.iii, Method 24 of 40 CFR Part 60, appendix A, is the definitive method for determining the VOC content of coatings, as supplied or as applied. When a coating or thinner contains exempt compounds that are volatile HAP or VOHAP, the permittee shall ensure, when determining the VOC content of a coating, that the mass of these exempt compounds is included.

50.b. For the compliance procedure described in condition 31.f.iv, the Department must approve the test method for determining the VOHAP content of coatings and thinners. As part of the approval, the test method must meet the specified accuracy limits indicated below for sensitivity, duplicates, repeatability, and reproducibility coefficient of variation each determined at the 95 percent confidence limit. Each percentage value below is the corresponding coefficient of variation multiplied by 2.8 as in the ASTM Method E180-93: Standard Practice for Determining the Precision of ASTM Methods for Analysis and Testing of Industrial Chemicals (incorporation by reference--see 40 CFR 63.14).

50.b.i. Sensitivity: The overall sensitivity must be sufficient to identify and calculate at least one mass percent of the compounds of interest based on the original sample. The sensitivity is defined as ten times the noise level as specified in ASTM Method D3257-93: Standard Test Methods for Aromatics in Mineral Spirits by Gas Chromatography (incorporation by reference--see 40 CFR 63.14). In determining the sensitivity, the level of sample dilution must be factored in.

50.b.ii. Repeatability: First, at the 0.1-5 percent analyte range the results would be suspect if duplicates vary by more than 6 percent relative and/or day-to-day variation of mean duplicates by the same analyst exceeds 10 percent relative. Second, at greater than 5 percent analyte range the results would be suspect if duplicates vary by more than 5 percent relative and/or day-to-day variation of duplicates by the same analyst exceeds 5 percent relative.

50.b.iii. Reproducibility: First, at the 0.1-5 percent analyte range the results would be suspect if lab-to-lab variation exceeds 60 percent relative. Second, at greater than 5 percent range the results would be suspect if lab-to-lab variation exceeds 20 percent relative.

50.b.iv. Any test method should include information on the apparatus, reagents and materials, analytical procedure, procedure for identification and confirmation of the volatile species in the mixture being analyzed, precision and bias, and other details to be reported. The reporting should also include information on quality assurance (QA) auditing.

50.b.v. Multiple and different analytical techniques must be used for positive identification if the components in a mixture under analysis are not known. In such cases, a single column gas chromatograph (GC) may not be adequate. A combination of equipment may be need such as a GC/mass spectrometer or GC/infrared system. (If a GC method is used, the operator must use practices in ASTM Method E260-91: Standard Practice for Gas Chromatography [incorporation by reference--see 40 CFR 63.14].)

50.c. A coating manufacturer or the permittee may use batch formulation data as a test method in lieu of Method 24 to certify the as-supplied VOC content of a coating if the manufacturer or the permittee has determined that batch formulation data have a consistent and quantitatively known relationship to Method 24 results. This determination shall consider the role of cure volatiles, which may cause

emissions to exceed an amount based solely upon coating formulation data. Notwithstanding such determination, in the event of conflicting results, Method 24 shall take precedence.

50.d. The permittee shall use or ensure that the manufacturer uses the form and procedures mentioned in appendix A to determine values for the thinner and coating parameters used in Equations 1 and 2 of condition 31. The permittee shall ensure that the coating/thinner manufacturer (or supplier) provides information on the VOC and VOHAP contents of the coatings/thinners and the procedure(s) used to determine these values.

51. Although source testing is not required by this permit for the permit conditions listed below, if source testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods and averaging times to measure the pollutant emissions:

Permit Condition	Test Method	Averaging Time	Special Conditions
16, 19, 37, and 38	ODEQ Methods 5, 7, or 8	average of three one-hour test runs	ODEQ Method 8 is for sources with exhaust gases at essentially ambient conditions (e.g. material handling cyclones); ODEQ Method 7 is for direct contact combustion sources (e.g., particle and veneer dryers); ODEQ Method 5 is for indirect contact fuel burning equipment (e.g., boilers) and any other source.
18 and 36	Modified EPA Method 9 in accordance with the Department's Source Sampling Manual	aggregate of three minutes in any 60 minute period	Each Method 9 observation shall represent a period of 15 seconds for the purpose of determining the aggregate amount of time in 60-minute period that the visible emissions are greater than the opacity limit. The test duration may be less than 60 minutes if a violation of the standard is documented before the full 60-minute observation period is completed.

RECORDKEEPING REQUIREMENTS [OAR 340-218-0050(3)(b)]

52. The permittee shall maintain the following general records of monitoring required by this permit:

- 52.a. the date, place as defined in the permit, and time of sampling or measurements;
- 52.b. the date(s) analyses were performed;
- 52.c. the company or entity that performed the analyses;
- 52.d. the analytical techniques or methods used;
- 52.e. the results of such analyses;
- 52.f. the operating conditions as existing at the time of sampling or measurement; and
- 52.g. the records of all physical and operating parameters used in this permit.

53. The permittee shall maintain the following specific records of required monitoring information:

- 53.a. fugitive dust inspection and maintenance activities records kept per condition 5;
- 53.b. fuel oil sulfur analyses certificates kept per condition 5;
- 53.c. recordkeeping per condition 9 of any actions taken during an applicable air pollution episode;
- 53.d. complaint log and investigation reports per condition 12, if any;
- 53.e. employee certification records and training records kept per conditions 14 and 34.c;
- 53.f. visible emissions observation reports per conditions 17 and 20;
- 53.g. records of inspection and maintenance procedures kept per conditions 22, 24, and 27;
- 53.h. the coating VOC and VOHAP usage data kept per conditions 29, 31, 32, 34, 47.a; and
- 53.i. weekly, monthly, and/or annual records of production, fuel usage, and/or other relevant emissions data specified in conditions 45 through 48.

54. NESHAP RECORDKEEPING: The permittee shall maintain the following specific records related to ship coating operations conducted under emissions unit $COAT_{SHIP}$ in accordance with 40 CFR 63.788:

54.a. The permittee shall maintain relevant records for such source of:

- 54.a.i. Any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements, if the permittee has been granted a waiver under 40 CFR 63.10(f);
- 54.a.ii. All documentation supporting the initial notification submitted under 40 CFR 63.787.

54.b. The permittee shall record the total volume of each of the exempt coatings applied to marine vessel and vessel parts at the source. Such records shall be compiled monthly, and the previous 12-month usage of exempt coatings shall be compared to the limits specified in condition 30.c.i.

54.c. The permittee shall compile records on a monthly basis. At a minimum, these records shall include:

- 54.c.i. All documentation supporting initial notification;
- 54.c.ii. A copy of the source's implementation plan;
- 54.c.iii. The volume of each low-usage-exempt coating applied;
- 54.c.iv. Identification of the coatings used, their appropriate coating categories, and the applicable VOHAP limit;
- 54.c.v. Certification of the as-supplied VOC content of each batch of coating;
- 54.c.vi. A determination of whether containers meet the standards as described in condition 30.b.ii; and
- 54.c.vii. The results of any Method 24 or approved VOHAP measurement test conducted on individual containers of coating, as applied.

54.d. The records required by condition 54.c shall include additional information, as determined by the compliance procedure(s) described in condition 31.f that the source followed:

54.d.i. Coatings to which thinning solvent will not be added. The records maintained if demonstrating compliance using the procedure described in condition 31.f.i shall contain the following information:

54.d.i.(1) Certification of the as-applied VOC content of each batch of coating; and

54.d.i.(2) The volume of each coating applied.

54.d.ii. Coatings to which thinning solvent will be added--coating-by-coating compliance. The records maintained by facilities demonstrating compliance using the procedure described in condition 31.f.ii shall contain the following information:

54.d.ii.(1) The density and mass fraction of water and exempt compounds of each thinner and the volume fraction of solids (non-volatiles) in each batch, including any calculations;

54.d.ii.(2) The maximum allowable thinning ratio (or ratios, if the source complies with the cold-weather limits in addition to the other limits specified in condition 30.a for each batch of coating, including calculations;

54.d.ii.(3) If the source chooses to comply with the cold-weather limits, the dates and times during which the ambient temperature at the affected source was below 4.5°C (40°F) at the time the coating was applied and the volume used of each batch of the coating, as supplied, during these dates;

54.d.ii.(4) The volume used of each batch of the coating, as supplied;

54.d.ii.(5) The total allowable volume of thinner for each coating, including calculations; and

54.d.ii.(6) The actual volume of thinner used for each coating.

54.d.iii. Coatings to which the same thinning solvent will be added--group compliance. The records maintained by facilities demonstrating compliance using the procedure described in condition 31.f.iii shall contain the following information:

54.d.iii.(1) The density and mass fraction of water and exempt compounds of each thinner and the volume fraction of solids in each batch, including any calculations;

54.d.iii.(2) The maximum allowable thinning ratio (or ratios, if the affected source complies with the cold-weather limits in addition to the other limits specified in condition 30.a) for each batch of coating, including calculations;

54.d.iii.(3) If the source chooses to comply with the cold-weather limits, the dates and times during which the ambient temperature at the affected source was below 4.5°C (40°F) at the time the coating was applied and the volume used of each batch in the group, as supplied, during these dates;

54.d.iii.(4) Identification of each group of coatings and their designated thinners;

54.d.iii.(5) The volume used of each batch of coating in the group, as supplied;

54.d.iii.(6) The total allowable volume of thinner for the group, including calculations; and

54.d.iii.(7) The actual volume of thinner used for the group.

54.d.iv. Demonstration of compliance through an alternative (i.e., non-Method 24) test method. The records maintained by facilities demonstrating compliance using the procedure described in condition 31.f.iv shall contain the following information:

- 54.d.iv.(1) Identification of the Administrator-approved VOHAP test method or certification procedure;
- 54.d.iv.(2) For coatings to which the source does not add thinning solvents, the source shall record the certification of the as-supplied and as-applied VOHAP content of each batch and the volume of each coating applied;
- 54.d.iv.(3) For coatings to which the source adds thinning solvent on a coating-by-coating basis, the source shall record all of the information required to be recorded by condition 54.d.ii; and
- 54.d.iv.(4) For coatings to which the source adds thinning solvent on a group basis, the source shall record all of the information required to be recorded by condition 54.d.iii.

54.e. If the permittee detects a violation of the standards specified in condition 28, the permittee shall, for the remainder of the reporting period during which the violation(s) occurred, include the following information in his or her records:

- 54.e.i. A summary of the number and duration of deviations during the reporting period, classified by reason, including known causes for which a Federally approved or promulgated exemption from an emission limitation or standard may apply.
- 54.e.ii. Identification of the data availability achieved during the reporting period, including a summary of the number and total duration of incidents that the monitoring protocol failed to perform in accordance with the design of the protocol or produced data that did not meet minimum data accuracy and precision requirements, classified by reason.
- 54.e.iii. Identification of the compliance status as of the last day of the reporting period and whether compliance was continuous or intermittent during the reporting period.
- 54.e.iv. If, pursuant to condition 54.e.iv, the permittee identifies any deviation as resulting from a known cause for which no Federally-approved or promulgated exemption from an emission limitation or standard applies, the monitoring report shall also include all records that the source is required to maintain that pertain to the periods during which such deviation occurred and:
  - 54.e.iv.(1) The magnitude of each deviation;
  - 54.e.iv.(2) The reason for each deviation;
  - 54.e.iv.(3) A description of the corrective action taken for each deviation, including action taken to minimize each deviation and action taken to prevent recurrence; and
  - 54.e.iv.(4) All quality assurance activities performed on any element of the monitoring protocol.

54.f. For the NESHAP records required by condition 54, the permittee shall retain at least the most recent 2 years of data on site; and the remaining 3 years of NESHAP records may be retained off site.

54.g. The NESHAP data may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

55. Unless otherwise specified by permit condition, the permittee shall make every effort to maintain 100 percent of the records required by the permit. If information is not obtained or recorded for legitimate reasons (e.g., the monitor or data acquisition system malfunctions due to a power outage), the missing record(s) shall not be considered a permit deviation provided the amount of data lost does not exceed 10% of the averaging periods in a reporting period or 10% of the total operating hours in a reporting period, if no averaging time is specified. Upon discovering that a required record is missing, the permittee shall document the reason for the missing record. In addition, any missing record that can be recovered from other available information shall not be considered a missing record. [OAR 340-214-0110, 340-212-0160, and 340-218-0050(3)(b)]

56. Unless otherwise specified, the permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

REPORTING REQUIREMENTS [OAR 340-218-0050(3)(c)]

GENERAL REPORTING REQUIREMENTS

57. Excess Emissions Reporting The permittee must report all excess emissions as follows: [OAR 340-214-0300 through 340-214-0360]

57.a. Within 1-hour of the event if feasible, but no later than the next working day, notify the Department of an excess emission event by phone, e-mail, or facsimile; and

57.b. Within 15 days of the excess emissions event, submit a written report that contains the following information: [OAR 340-214-0340(1)]

57.b.i. The date and time of the beginning of the excess emissions event and the duration or best estimate of the time until return to normal operation;

57.b.ii. The date and time the owner or operator notified the Department of the event;

57.b.iii. The equipment involved;

57.b.iv. Whether the event occurred during planned startup, planned shutdown, scheduled maintenance, or as a result of a breakdown, malfunction, or emergency;

57.b.v. Steps taken to mitigate emissions and corrective action taken, including whether the approved procedures for a planned startup, shutdown, or maintenance activity were followed;

57.b.vi. The magnitude and duration of each occurrence of excess emissions during the course of an event and the increase over normal rates or concentrations as determined by continuous monitoring or best estimate (supported by operating data and calculations);

57.b.vii. The final resolution of the cause of the excess emissions; and

57.b.viii. Where applicable, evidence supporting any claim that emissions in excess of technology-based limits were due to any emergency pursuant to OAR 340-214-0360.

57.c. In the event of any excess emissions which are of a nature that could endanger public health and occur during non-business hours, weekends, or holidays, the permittee must immediately notify the Department by calling the Oregon Accident Response System (OARs). The current number is 1-800-452-0311.

57.d. If startups, shutdowns, or scheduled maintenance may result in excess emissions, the permittee must submit startup, shutdown, or scheduled maintenance procedures used to minimize excess emissions to the Department for prior authorization, as required in OAR 340-214-0310 and 340-214-0320. New or modified procedures must be received by the Department in writing at least 72

hours prior to the first occurrence of the excess emission event. The permittee must abide by the approved procedures and have a copy available at all times.

57.e. The permittee must notify the Department of planned startup/shutdown or scheduled maintenance events.

57.f. The permittee must continue to maintain a log of all excess emissions in accordance with OAR 340-214-0340(3). However, the permittee is not required to submit the detailed log with the semi-annual and annual monitoring reports. The permittee is only required to submit a brief summary listing the date, time, and the affected emissions units for each excess emission that occurred during the reporting period. [OAR 340-218-0050(3)(c)]

58. Permit Deviations Reporting: The permittee must promptly report deviations from permit requirements that do not cause excess emissions, including those attributable to upset conditions, as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. "Prompt" means within 15 days of the deviation. Deviations that cause excess emissions, as specified in OAR 340-214-0300 through 340-214-0360 must be reported in accordance with Condition 57.

59. The permittee shall submit the following additional reports and/or information to the DEQ - Northwest Region as required by specific conditions within the permit:

59.a. source test plans/notifications prior to conducting actual test/measurements;
59.b. source test results within 45 days after the source test was done; and
59.c. when requested by the Department, submit all relevant records, data, and support information maintained at the plant site per recordkeeping requirements of this permit.

60. All required reports shall be certified by a responsible official consistent with OAR 340-218-0040(5); OAR [OAR 340-218-0050(3)(c)(D)]

61. Reporting requirements shall commence on the date of permit issuance unless otherwise specified in the permit. [OAR 340-218-0050(3)(c)(E)]

62. Addresses of regulatory agencies are the following, unless otherwise instructed:

DEQ - Northwest Region	DEQ - Air Quality Division	EPA - Region X
2020 S.W. 4th Avenue, #400 Portland, OR 97201-5884	811 SW Sixth Avenue Portland, OR 97204	Mail Stop OAQ-107 1200 Sixth Avenue Seattle, WA 98101
(503) 229-5554	(503) 229-5359	--

Semi-annual and Annual Reports

63. NESHAP (SUBPART II) REPORTING REQUIREMENTS: The permittee shall submit a report to the EPA Region X office and the Department by July 31 and February 15, unless otherwise approved in writing by the Department. The July report shall cover the period from December 15 to June 14, and the December report shall cover the period from June 15 to December 14. Each report shall include all of the information that must be retained pursuant to conditions 54.c and 054.d, except for that information specified in conditions 54.c.i, 54.c.ii, 54.c.v, 54.d.i.(1), 54.d.ii.(1), and 54.d.iii.(1). If a violation is detected, the source shall also report the information specified in condition 54.e for the reporting period during which the violation(s) occurred. To the extent possible, the report shall be organized according to the compliance procedure(s) followed each month by the source.

64. SEMI-ANNUAL REPORTING REQUIREMENTS: The permittee shall submit three (3) copies of the semi-annual monitoring report by July 31, unless otherwise approved in writing by the Department. The semi-annual monitoring report shall include the following information:

64.a. The first semi-annual compliance certification for the period January 1 through June 30 [OAR 340-218-0080] and the information specified in forms R1002 and R1003 for the same period. All instances of deviations from permit requirements shall be clearly identified in such report.

64.b. The permittee may use forms supplied by the Department or equivalent forms approved by the Department.

64.c. One copy of the semi-annual report shall be submitted to the EPA and two copies to the DEQ Northwest regional office.

65. ANNUAL REPORTING REQUIREMENTS: The permittee shall submit three (3) copies of the annual monitoring report by February 15, unless otherwise approved in writing by the Department. The annual monitoring report shall include the following information:

65.a. The second semi-annual compliance certification for the period July 1 through December 31 [OAR 340-218-0080] and the information specified in forms R1002 and R1003 for the same period. All instances of deviations from permit requirements shall be clearly identified in such reports.

65.b. The emission fee report [OAR 340-220-0100]

65.c. The emission statement, if applicable [OAR 340-214-0220]

65.d. The excess emissions upset log, if applicable [OAR 340-214-0340]

65.e. The annual certification that the risk management plans is being properly implemented, if triggered; OAR 340-244-0230. [OAR 340-218-0080(7)]

65.f. Other source-specific annual reporting requirements as specified elsewhere throughout the permit, including the following:

65.f.i. Annual VOC emissions from each of the emissions units $COAT_{SHIP}$, $COAT_{MISC}$, BWT, ROL, and ROT; and associated material usage and/or annual throughputs (gal) of corresponding emissions unit.

65.f.ii. Annual PM and PM_{10} emissions from SBO, SBI, and WLD and associated amount of abrasive materials used for the inside and outside jobs, and the amount of welding rods used.

65.f.iii. Annual PM and PM_{10} emissions from PIR and corresponding VMT from paved and unpaved road.

65.f.iv. Annual summary of emissions of each criteria pollutant PM_{10}, SO_2, NO_x, CO, and VOC from emissions unit CUB, OVEN, and VDU, and corresponding fuel(s) usage.

65.f.v. A summary of maximum weekly VOC emissions rate from $COAT_{MISC}$ noted during each month with respect to each of the weekly limits specified in condition 35, as determined from the monitoring conducted under conditions 47.a and 47.e. Also, report all exceedances.

65.f.vi. Compliance with the $COAT_{SHIP}$ RACT limits is assured if no violation is documented in the NESHAP report submitted per condition 63. The NESHAP violation does not automatically translates to violation of the $COAT_{SHIP}$ RACT limits. Therefore, if any NESHAP violation is occurred, the permittee must report the weekly VOC emissions rate from $COAT_{SHIP}$ noted during the same period the NESHAP violation occurred. If and only if any NESHAP violations occurred, provide a summary of weekly VOC emissions rate from $COAT_{SHIP}$ noted during the violation period, as determined from the monitoring conducted under conditions 47.a and 47.d.

65.f.vii. **NESHAP (subpart MMMM) Reporting:** Calculate the percentage of $COAT_{MISC}$ surface coating consumption relative to total coating consumption ($COAT_{SHIP}$ + $COAT_{MISC}$), as determined from Condition 32, and include the result with the annual report.

65.g. The permittee may use forms supplied by the Department or equivalent forms approved by the Department;

65.h. One copy of the annual report shall be submitted to the EPA and two copies to the DEQ Northwest regional office.

66. The (first & second) semi-annual compliance certification shall include the following (provided that the identification of applicable information may cross-reference the permit or previous reports, as applicable): [OAR 340-218-0080(6)(c)]

66.a. The identification of each term or condition of the permit that is the basis of the certification;

66.b. The identification of the method(s) or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period, and whether such methods or other means provide continuous or intermittent data. Such methods and other means shall include, at a minimum, the methods and means required under OAR 340-218-0050(3). If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the FCAA, which prohibits knowingly making a false certification or omitting material information;

66.c. The status of compliance with terms and conditions of the permit for the period covered by the certification, based on the method or means designated in OAR 340-218-0040(6)(c)(B). The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance, as defined under OAR 340-200-0020, occurred; and

66.d. Such other facts as the Department may require to determine the compliance status of the source.

67. Notwithstanding any other provision contained in any applicable requirement, the owner or operator may use monitoring as required under OAR 340-218-0050(3) and incorporated into the permit, in addition to any specified compliance methods, for the purpose of submitting compliance certifications. [OAR 340-218-0080(6)(e)]

NON-APPLICABLE REQUIREMENTS

68. Divisions of Chapter 340, Air Quality Oregon Administrative Rules (OARs), currently determined not applicable to the permittee are listed below. [OAR 340-218-0110]

68.a. The following OARs are not applicable because the source is not in the source category cited in the rules:

Division	202	All
Division	210	0100 – 0120, 0200 – 0220
Division	218	0090, 0100
Division	230	All
Division	232	0080, 0090, 0100, 0130, 0140, 0170, 0220 – 0240
Division	234	All
Division	236	All
Division	238	All
Division	244	0230
Division	256	0310, 0400, 0420
Division	258	0120 – 0190, 0220, 0240, 0270 – 0300

68.b. The following OARs are not applicable because the source is outside the special control area, non-attainment area or county cited in the rules:

Division	204	0080
Division	240	All

68.c. The following OARs are not applicable because the source does not have specific emissions units cited in the rules:

Division	208	0200, 0520, 0550, 0560
Division	232	0190, 0200, 0210
Division	242	0500 – 0520
Division	260	0010 – 0030

68.d. The following OARs are not applicable because the source does not sell, distribute, use, or make available for use, the fuel type cited in the rules:

Division	228	0120

68.e. The following OARs are not applicable because the method/procedure is not used by the facility:

Division	214	0130
Division	222	0050, 0060
Division	226	0400
Division	232	0120

69. The following federal regulations are not applicable to the permittee at the time of permit issuance because the source is not in the source category cited in the rules:

40 CFR Parts 55, 57, 68, 72, 73, 75, 76, 77, 78,
40 CFR Part 60 except subpart A and the Appendices,
40 CFR Part 61except subparts A, M, and the Appendices,
40 CFR Part 62 except subparts A, MM,
40 CFR Part 63 except subparts II, MMMM, A, and the Appendices,
40 CFR Part 82 (except subpart F),
40 CFR Parts 85 through 89,
Section 129 of the FCAA, Solid Waste,
Section 183(e) of the FCAA, Consumer and commercial products,
Section 183(f) of the FCAA, Tank Vessels.

GENERAL CONDITIONS

G1. General Provision

Terms not otherwise defined in this permit have the meaning assigned to such terms in the referenced regulation.

G2. Reference materials

Where referenced in this permit, the versions of the following materials are effective as of the dates noted unless otherwise specified in this permit:

a. Source Sampling Manual; January 23, 1992 - State Implementation Plan Volume 3, Appendix A4;
b. Continuous Monitoring Manual; January 23, 1992 - State Implementation Plan Volume 3, Appendix A6; and
c. All state and federal regulations as in effect on the date of issuance of this permit.

G3. Applicable Requirements [OAR 340-218-0010(3)(b)]

Oregon Title V Operating Permits do not replace requirements in Air Contaminant Discharge Permits (ACDP) issued to the source even if the ACDP(s) have expired. For a source operating under a Title V permit, requirements established in an earlier ACDP remain in effect notwithstanding expiration of the ACDP or Title V permit, unless a provision expires by its terms or unless a provision is modified or terminated following the procedures used to establish the requirement initially. Source specific requirements, including, but not limited to TACT, RACT, BACT, and LAER requirements, established in an ACDP must be incorporated into the Oregon Title V Operating Permit and any revisions to those requirements must follow the procedures used to establish the requirement initially.

G4. Compliance [OAR 340-218-0040(3)(n)(C), 340-218-0050(6), and 340-218-0080(4)]

a. The permittee must comply with all conditions of this permit. Any permit condition noncompliance constitutes a violation of the Federal Clean Air Act and/or state rules and is grounds for enforcement action; for permit termination, revocation and re-issuance, or modification; or for denial of a permit renewal application. Any noncompliance with a permit condition specifically designated as enforceable only by the state constitutes a violation of state rules only and is grounds for enforcement action; for permit termination, revocation and re-issuance, or modification; or for denial of a permit renewal application.
b. Any schedule of compliance for applicable requirements with which the source is not in compliance at the time of permit issuance is supplemental to, and does not sanction noncompliance with the applicable requirements on which it is based.
c. For applicable requirements that will become effective during the permit term, the source must meet such requirements on a timely basis unless a more detailed schedule is expressly required by the applicable requirement.

G5. Masking Emissions:

The permittee must not install or use any device or other means designed to mask the emission of an air contaminant that causes or is likely to cause detriment to health, safety, or welfare of any person or otherwise violate any other regulation or requirement. [OAR 340-208-0400] This condition is enforceable only by the State.

G6. Credible Evidence:

Notwithstanding any other provisions contained in any applicable requirement, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any such applicable requirements. [OAR 340-214-0120]

G7. Certification [OAR 340-214-0110, 340-218-0040(5), 340-218-0050(3)(c)(D), and 340-218-0080(2)]

Any document submitted to the Department or EPA pursuant to this permit must contain certification by a responsible official of truth, accuracy and completeness. All certifications must state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and, complete. The permittee must promptly, upon discovery, report to the Department a material error or omission in these records, reports, plans, or other documents.

G8. Open Burning [OAR Chapter 340, Division 264]

The permittee is prohibited from conducting open burning, except as may be allowed by OAR 340-264-0020 through 340-264-0200.

G9. Asbestos [40 CFR Part 61, Subpart M (federally enforceable), OAR Chapter 340-248-0005 through 340-248-0180 (state-only enforceable) and 340-248-0205 through 340-248-0280]

The permittee must comply with OAR Chapter 340, Division 248, and 40 CFR Part 61, Subpart M when conducting any renovation or demolition activities at the facility.

G10. Stratospheric Ozone and Climate Protection [40 CFR 82 Subpart F, OAR 340-260-0040]

The permittee must comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, Recycling and Emissions Reduction.

G11. Permit Shield [OAR 340-218-0110]

a. Compliance with the conditions of the permit is deemed compliance with any applicable requirements as of the date of permit issuance provided that:

   i. such applicable requirements are included and are specifically identified in the permit, or
   ii. the Department, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.

b. Nothing in this rule or in any federal operating permit alters or affects the following:

   i. the provisions of ORS 468.115 (enforcement in cases of emergency) and ORS 468.035 (function of department);
   ii. the liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
   iii. the applicable requirements of the national acid rain program, consistent with section 408(a) of the FCAA; or
   iv. the ability of the Department to obtain information from a source pursuant to ORS 468.095 (investigatory authority, entry on premises, status of records).

c. Sources are not shielded from applicable requirements that are enacted during the permit term, unless such applicable requirements are incorporated into the permit by administrative amendment, as provided in OAR 340-218-0150(1)(h), significant permit modification, or reopening for cause by the Department.

G12. Inspection and Entry [OAR 340-218-0080(3)]

Upon presentation of credentials and other documents as may be required by law, the permittee must allow the Department of Environmental Quality, or an authorized representative (including an authorized contractor acting as a representative of the EPA Administrator), to perform the following:

a. enter upon the permittee's premises where an Oregon Title V Operating Permit program source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
b. have access to and copy, at reasonable times, any records that must be kept under conditions of the permit;
c. inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
d. as authorized by the FCAA or state rules, sample or monitor, at reasonable times, substances or parameters, for the purposes of assuring compliance with the permit or applicable requirements.

G13. Fee Payment [OAR 340-220-0010, and 340-220-0030 through 340-220-0190]

The permittee must pay an annual base fee and an annual emission fee for particulates, sulfur dioxide, nitrogen oxides, and volatile organic compounds. The permittee must submit payment to the Department of Environmental Quality, Business Office, 811 SW 6th Avenue, Portland, OR 97204, within 30 days of the date the Department mails the fee invoice or August 1 of the year following the calendar year for which emission fees are paid, whichever is later. Disputes must be submitted in writing to the Department of Environmental Quality. Payment must be made regardless of the dispute. User-based fees will be charged for specific activities (e.g., computer modeling review, ambient monitoring review, etc.) requested by the permittee.

G14. Off-Permit Changes to the Source [OAR 340-218-0140(2)]

a. The permittee must monitor for, and record, any off-permit change to the source that:

i. is not addressed or prohibited by the permit;
ii. is not a Title I modification;
iii. is not subject to any requirements under Title IV of the FCAA;
iv. meets all applicable requirements;
v. does not violate any existing permit term or condition; and
vi. may result in emissions of regulated air pollutants subject to an applicable requirement but not otherwise regulated under this permit or may result in insignificant changes as defined in OAR 340-200-0020.

b. A contemporaneous notification, if required under OAR 340-218-0140(2)(b), must be submitted to the Department and the EPA.
c. The permittee must keep a record describing off-permit changes made at the facility that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those off-permit changes.
d. The permit shield of condition G9 does not extend to off-permit changes.

G15. Section 502(b)(10) Changes to the Source [OAR 340-218-0140(3)]

a. The permittee must monitor for, and record, any section 502(b)(10) change to the source, which is defined as a change that would contravene an express permit term but would not:

i. violate an applicable requirement;
ii. contravene a federally enforceable permit term or condition that is a monitoring, recordkeeping, reporting, or compliance certification requirement; or
iii. be a Title I modification.

b. A minimum 7-day advance notification must be submitted to the Department and the EPA in accordance with OAR 340-218-0140(3)(b).

c. The permit shield of condition G9 does not extend to section 502(b)(10) changes.

G16. Administrative Amendment [OAR 340-218-0150]

Administrative amendments to this permit must be requested and granted in accordance with OAR 340-218-0150. The permittee must promptly submit an application for the following types of administrative amendments upon becoming aware of the need for one, but no later than 60 days of such event:

a. legal change of the registered name of the company with the Corporations Division of the State of Oregon, or
b. sale or exchange of the activity or facility.

G17. Minor Permit Modification [OAR 340-218-0170]

The permittee must submit an application for a minor permit modification in accordance with OAR 340-218-0170.

G18. Significant Permit Modification [OAR 340-218-0180]

The permittee must submit an application for a significant permit modification in accordance with OAR 340-218-0180

G19. Staying Permit Conditions [OAR 340-218-0050(6)(c)]

Notwithstanding conditions G16 and G17, the filing of a request by the permittee for a permit modification, revocation and re-issuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

G20. Construction/Operation Modification [OAR 340-218-0190]

The permittee must obtain approval from the Department prior to construction or modification of any stationary source or air pollution control equipment in accordance with OAR 340-210-0200 through OAR 340-210-0250.

G21. New Source Review Modification [OAR 340-224-0010]

The permittee may not begin construction of a major source or a major modification of any stationary source without having received an air contaminant discharge permit (ACDP) from the Department and having satisfied the requirements of OAR 340, Division 224.

G22. Need to Halt or Reduce Activity Not a Defense [OAR 340-218-0050(6)(b)]

The need to halt or reduce activity will not be a defense. It will not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

G23. Duty to Provide Information [OAR 340-218-0050(6)(e) and OAR 340-214-0110]

The permittee must furnish to the Department, within a reasonable time, any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the permittee must also furnish to the Department copies of records required to be retained by the permit or, for information claimed to be confidential, the permittee may furnish such records to the Department along with a claim of confidentiality.

G24. Reopening for Cause [OAR 340-218-0050(6)(c) and 340-218-0200]

a. The permit may be modified, revoked, reopened and reissued, or terminated for cause as determined by the Department.
b. A permit must be reopened and revised under any of the circumstances listed in OAR 340-218-0200(1)(a).
c. Proceedings to reopen and reissue a permit must follow the same procedures as apply to initial permit issuance and affect only those parts of the permit for which cause to reopen exists.

G25. Severability Clause [OAR 340-218-0050(5)]

Upon any administrative or judicial challenge, all the emission limits, specific and general conditions, monitoring, recordkeeping, and reporting requirements of this permit, except those being challenged, remain valid and must be complied with.

G26. Permit Renewal and Expiration [OAR 340-218-0040(1)(a)(D) and 340-218-0130]

a. This permit expires at the end of its term, unless a timely and complete renewal application is submitted as described below. Permit expiration terminates the permittee's right to operate.
b. Applications for renewal must be submitted at least 12 months before the expiration of this permit, unless the Department requests an earlier submittal. If more than 12 months is required to process a permit renewal application, the Department must provide no less than six (6) months for the owner or operator to prepare an application.
c. Provided the permittee submits a timely and complete renewal application, this permit will remain in effect until final action has been taken on the renewal application to issue or deny the permit.

G27. Permit Transference [OAR 340-218-0150(1)(d)]

The permit is not transferable to any person except as provided in OAR 340-218-0150(1)(d).

G28. Property Rights [OAR 340-200-0020 and 340-218-0050(6)(d)]

The permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations, except as provided in OAR 340-218-0110.

G29. Permit Availability [OAR 340-200-0020 and 340-218-0120(2)]

The permittee must have available at the facility at all times a copy of the Oregon Title V Operating Permit and must provide a copy of the permit to the Department or an authorized representative upon request.

ALL INQUIRIES SHOULD BE DIRECTED TO:

Northwest Region
2020 S.W. 4th Avenue, #400
Portland, OR 97201-5884
Telephone: (503) 229-5554

APPENDIX A

VOC DATA SHEET:[1]
PROPERTIES OF THE COATING "AS SUPPLIED" BY THE MANUFACTURER[2]

Coating Manufacturer:

Coating Identification:

Batch Identification:

Supplied To:

Properties of the coating as supplied[1] to the customer:

A. Coating Density: $(D_c)_s$ ___ g/L

[ ] ASTM D1475-90* [ ] Other[3]

B. Total Volatiles: $(m_v)_s$ ___ Mass Percent

[ ] ASTM D2369-93* [ ] Other[3]

C. Water Content:

1. $(m_w)_s$ ___ Mass Percent

[ ] ASTM D3792-91* [ ] ASTM D4017-90* [ ] Other[3]

2. $(v_w)_s$ ___ Volume Percent

[ ] Calculated [ ] Other[3]

D. Organic Volatiles: $(m_o)_s$ ____ Mass Percent

E. Nonvolatiles: $(v_n)_s$ ____Volume Percent

[ ] Calculated [ ] Other[3]

F. VOC Content $(VOC)_s$:

1. ____ g/L solids (nonvolatiles)

2. ____ g/L coating (less water and exempt compounds)

G. Thinner Density: D_{th}_____g/L

ASTM _____ [ ] Other[3]

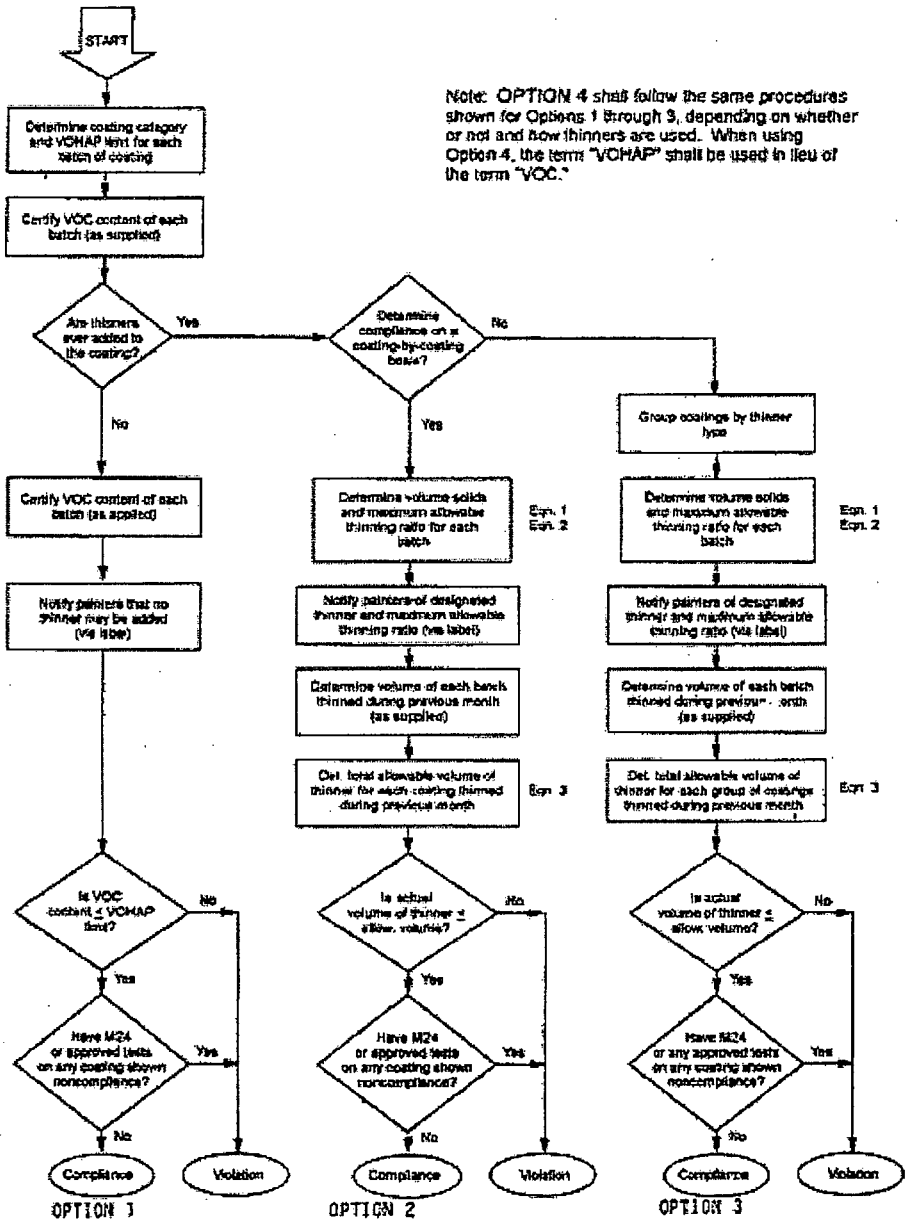
Remarks: (use reverse side)

Signed:_____ Date:

*Incorporation by reference--see §63.14.
[1]Adapted from EPA-340/1-86-016 (July 1986), p. II-2.
[2]The subscript "s" denotes each value is for the coating "as supplied" by the manufacturer.
[3]Explain the other method used under "Remarks."

APPENDIX B

Figure 1 to §63.785 Flow diagram of compliance procedures



Note: OPTION 4 shall follow the same procedures shown for Options 1 through 3, depending on whether or not and how thinners are used. When using Option 4, the term "VOHAP" shall be used in lieu of the term "VOC."

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
OREGON TITLE V OPERATING PERMIT
REVIEW REPORT

Northwest Region
2020 SW Fourth Ave., Suite 400
Portland, OR 97201

Source Information:

SIC	3731
NAICS	

Source Categories (Part and code)	

Compliance and Emissions Monitoring Requirements:

Unassigned emissions	
Emission credits	
Compliance schedule	
Source test [date(s)]	

COMS	
CEMS	
Ambient monitoring	

Reporting Requirements:

Annual report (due date)	February 15
Emission fee report (due date)	February 15
SACC (due date)	July 15
Quarterly report (due dates)	

Monthly report (due dates)	
Excess emissions report	imm
NESHAP (II) reports	Feb-15, July 31

Air Programs

NSPS (list subparts)	
NESHAP (list subparts)	II, MMMM
CAM	
Regional Haze (RH)	
Synthetic Minor (SM)	
Part 68 Risk Management	
CFC	
RACT	X
TACT	

Title V	X
ACDP (SIP)	
Major HAP source	X
Federal major source	X
NSR	
PSD	
Acid Rain	
Clean Air Mercury Rule (CAMR)	

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LIST OF ABBREVIATIONS

AQMA	Air Quality Management Area
ASTM	American Society of Testing and Materials
BDT	bone dry ton
CEMS	continuous emissions monitoring system
CFR	Code of Federal Regulations
CMS	continuous monitoring system
CO	carbon monoxide
COMS	continuous opacity monitoring system
DEQ	Oregon Department of Environmental Quality
dscf	dry standard cubic feet
EF	emission factor
EPA	United State Environmental Protection Agency
EU	emissions unit
FCAA	Federal Clean Air Act
gr/dscf	grains per dry standard cubic feet
HAP	hazardous air pollutant
ID	identification code
I&M	inspection and maintenance
MB	material balance
Mlb	1000 pounds
MM	million
NA	not applicable
NESHAP	National Emission Standard for Hazardous Air Pollutants
NO_x	oxides of nitrogen
NSPS	New Source Performance Standard
NSR	New Source Review
O_2	Oxygen
OAR	Oregon Administrative Rules
ORS	Oregon Revised Statutes
O&M	operation and maintenance
Pb	lead
PCD	pollution control device
PM	particulate matter
PM_{10}	particulate matter less than 10 microns in size
PSD	Prevention of Significant Deterioration
PSEL	Plant Site Emission Limit
SO_2	sulfur dioxide
ST	source test
VE	visible emissions
VMT	vehicle mile traveled
VOC	volatile organic compound

INTRODUCTION

1. PERMIT ACTION SUMMARY: The proposed permit is a renewal of an existing Title V Permit 26-3224 and its Addendum No.1. The plant site emissions limits and the applicable requirements and associated monitoring, recordkeeping, and reporting requirements established in the existing permit remain mostly the same in the proposed permit renewal.

2. In accordance with OAR 340-218-0120(1)(f), this review report is intended to provide the legal and factual basis for the draft permit conditions. In most cases, the legal basis for a permit condition is included in the permit by citing the applicable regulation. In addition, the factual basis for the requirement may be the same as the legal basis. However, when the regulation is not specific and only provides general requirements, this review report intends to provide a more thorough explanation of the factual basis for the draft permit conditions.

3. The permit modification, off-permit changes, 502(b)(10) changes, and administrative amendments that occurred during the current permit term include the following:

Date	Permit Revision	Brief explanation
June 29, 2006	Significant Permit Modification (Addendum No.1)	Plant site emission limits were revised to include all of the unassigned emissions. The existing permit no longer contains any unassigned emissions.
		Added conditions to allow and regulate boilers to use distillate and used fuel oil in addition to natural gas and residual fuel oil that boilers were already using.
October 2007	Administrative amendment	"Vigor Industrial, LLC" became the owner and operator of Cascade General, Inc.
October 2007	Off permit change	Dry dock No.1 relocated from its "Pier A" location to south side of "Pier C" where dry dock No. 4 used to occupy. Dry dock No.4 was sold to overseas company back in July of 2000.
November 2007	Off permit change	Dry dock No.5 can easily transported but locate DD#5 at the north side of "Pier C" where dry dock No. 2 used to occupy. Dry dock No.2 no longer exists at the facility.

PERMITTEE IDENTIFICATION

4. Vigor Industrial, LLC is made of four subsidiary companies that include Cascade General, Inc.; Washington Marine Repair, LLC; Specialty Finishes LLC; and Shipyard Commerce Center, LLC. The current structure of four subsidiary companies enables them to operate independently while utilizing resources across each company to conduct a variety of industrial projects. Cascade General, Inc. operates a ship repair facility in the Portland Ship Yard (PSY) that occupies 57 acres of property located at 5555 North Channel Avenue in Portland, Oregon. Vigor Industrial, LLC (VIGOR), for which CG is a part of, is responsible for complying with the terms and limitations established in Title V permit 26-3224. Mr. T. Alan Sprott is the Vice president and the primary responsible official for the permitted activities conducted at the Vigor ship repair facilities.

FACILITY DESCRIPTION

5. Cascade General, Inc. is a subsidiary of "Vigor Industrial, LLC" that operates a shipbuilding and repair facility in PSY, which also includes a barge building facility - "US Barge". Typical repairs to the vessel exterior include abrasive (steel shot/slag) blasting, coating applications, and welding. Typical repairs to the vessel interior may include abrasive (steel shot/slag) blasting, coating, boiler repair and testing, and/or servicing of the ship's refrigeration system. Other repair work may include pipe fitting, machining, steel fabrication and installation, and other miscellaneous tasks.

   Vessels entering the shipyard for repairs dock at berths along the Swan Island Lagoon. Berths 306, 307, 308, 311, and 315 are also available for non-ship repair activities. Dry docks 1 or 3 is used for the vessels requiring work on the exterior hull below the main deck. Cascade General sold the largest dry dock (formerly No. 4) that existed at the PSY back in 2001, and consequently Vigor no longer has the capacity to repair super-large vessels. The pipelines transfer oil slops from ships (ballast tanks) docked at berths and dry docks to the ballast water treatment plant. Central Utility Building (CUB) houses an air compressor and two boilers for steam generation. Other miscellaneous emission sources include storage tanks, truck-loading operations, and the vehicle travel that generates road dust.

   Of all the ship repair/building operations conducted at the PSY, the PM/PM_{10} emissions from outdoor sandblasting operations (SBO) and VOC/VOHAP emissions from ship-coating applications ($COAT_{SHIP}$) are the two-major sources of emissions that exist at the VIGOR facility (i.e., PSY).

EMISSIONS UNIT AND POLLUTION CONTROL DEVICE IDENTIFICATION

6. Emissions units identified in this permit are grouped with respect to the common applicable requirements and the associated monitoring protocol, and they are grouped as follow:

Emissions Unit	EU ID	Source-Classification Code
Ship Coating operations	$COAT_{SHIP}$	4-02-023-99
Misc. Coating operations	$COAT_{MISC}$	4-02-001-10
Ballast water storage tanks	BWT	4-07-146-98
Reclaimed Oil Tanks, VDU flare	ROT, VDU	4-07-016, 4-07-999-99
Reclaimed Oil Load-out	ROL	4-06-001-97
Central Utility Building (2 boilers)	CUB	1-02-004-02, 1-02-006-02
Abrasive blasting-Outdoor	SBO	3-09-002-01
Abrasive blasting-Inside, BH controlled	SBI	3-09-002-01
Welding	WLD	3-09-051-00
Paved Industrial Roads	PIR	4-02-888-01

Coating Operations: The surface coating operations conducted at the shipyard are categorized into two emissions units. Surface coating operations of marine vessel and vessel parts that normally occur at the ships docked at dry docks and berths are grouped under the emissions unit $COAT_{SHIP}$. Surface coating operations of fabricated non-marine parts that normally occur within the paint booths are grouped under the emissions unit $COAT_{MISC}$. The coating operations can actually occur anywhere at the shipyard. The miscellaneous coating category has the first two digits SIC of 34 while $COAT_{SHIP}$ has the first two-digit SIC of 37.

BWT (Ballast Water Tanks): The ballast water treatment plant (BWTP) has six (6) fixed-roof storage tanks (BWT), four (4) steam cookers, and six (6) oil/water separators: Each storage tank is equipped with steam coils and surface oil skimmer and has the capacity of 24,000 barrels (1 million gallons). The oily and water are immiscible and they separate into two layers inside the storage tank. The oil-skimmer skims the lighter oily-layer from the top and skimmed-oil is fed into the reclaimed oil tanks (ROT). The water from the bottom of the BWT tanks and pumped into the steam cookers and oil/water separators for further treatment and recovery. The permittee can also use any storage tank to store bunker and/or reclaimed/used oils.

The steam cookers consist of a series of four 8,400 gallons-capacity vats connected by weirs. Steam coils within each vat heat the oily water as the heating increases the buoyancy of the oil particles. As the liquid level in the first cooker in series increases, the top layer of concentrated oil cascades over into the next cooker in series until it flows from the last cooker into the oil-water separators. Each of the six oil-water separators functions independently, and operator can select any combination of separators to use. After oil separation, water flows by gravity to a sump and later pumped into one of two clean water tanks.

ROT (Reclaimed Oil Tanks): This emissions unit consists of four (4) horizontal storage tanks storing reclaimed oil recovered from ballast water by heating/separation processes. Each ROT tank equipped with steam coils has a capacity of 2,000 barrels (84,000 gallons). The VOC vapors from ROT tanks emit through the vents whenever the system's pressure exceeds 5 inches of water, and VOC-vapors are routed to the enclosed flare system VDU for abatement. The permit identifies ROT as a VOC emission source, and the flare system VDU that abate VOC emissions from ROT as the combustion source.

ROL (Reclaimed Oil Load-out): This emissions unit represents VOC emitted during the loading operations of reclaimed oil into the tanker trucks and trailers.

CUB (Central Utility Building, Boilers): Central Utility Buildings houses two (2) fire-tube boilers, and each boiler has the capacity of 17,250 lbs/hr of saturated steam at 125 psi. Boilers are capable of burning natural gas, distillate, used, or residual fuel oil. Two underground storage tanks with a 6,000 gallon-capacity each store fuel oil. The Boilers were installed in November of 1977 and they have not been modified since. No provisions of 40 CFR Part 60, subpart Dc, apply to CUB boilers.

WLD (Welding jobs): The emissions unit WLD represents welding operations that generate (PM_{10}) fumes. The (electric arc) welding operations can occur at anywhere throughout the PSY facility off and on board the ship. The permit estimates PM_{10} emissions based on the welding rod usage.

SBO (Abrasive blasting - Outside): This emissions unit represents abrasive blasting conducted outdoors, mostly on dry-docks 1 and 3 in preparation for surface coating operations. Large curtains and screens are hung across either one or both ends of dry-dock in an attempt to partially control the fugitive particulate emissions. The emissions unit SBO is by far the single largest PM/PM_{10} emission source existing at the shipyard.

SBI (Abrasive blasting - Inside): This emissions unit represents interior (e.g., in tanks, cargo bays) abrasive blasting operations and the blasting jobs conducted inside the blast room/building. There are two stationary baghouses (BAG-2 & BAG-3) and one mobile baghouse (BAG-1) to control the particulate emissions from indoor sandblasting operations (SBI).

PCD ID	Capacity (acfm)	Rated Efficiency	Year Installed	Cleaning mechanism
BAG-1	24,000	99.9 %	1994	Continuous - pulse jet
BAG-2	30,000	99.9 %	1990	Mechanical intermittent with shaker
BAG-3	94,000	99.9 %	1985	Continuous - pulse jet

PIR (Vehicle travel on paved road): This emissions unit represents fugitive dust emissions generated from road traffic on paved roads and paved parking lots. Oregon Administrative Rules define emissions from paved roads and paved parking lots within an urban growth boundary as categorically insignificant activities. While categorically insignificant activity must comply with all of the applicable requirements, the permit does not usually include any monitoring and record keeping protocols associated with the insignificant activities. However, as detailed in the PSEL section (item No. 21.d) of this review report, the road sweeping activities significantly reduced the PM/PM_{10} emissions from the baseline to current level. The permit will continue to employ monitoring and recordkeeping associated with the PIR-maintenance to ensure the PM/PM_{10} emission-reduction realized remain valid.

UPR (Vehicle travel on unpaved road): This emissions unit represents fugitive dust emissions generated from road traffic on unpaved roads during the baseline year. The entire shipyard has been paved and UPR no longer exists. (see item No. 21.d and 21.e of this review report)

7. Categorically insignificant activities include the following:

- Constituents of a chemical mixture present at less than 1% by weight of any chemical or compound regulated under Divisions 20 through 32 of this chapter, or less than 0.1% by weight of any carcinogen listed in the U.S. Department of Health and Human Service's Annual Report on Carcinogens when usage of the chemical mixture is less than 100,000 pounds/year
- Evaporative and tailpipe emissions from on-site motor vehicle operation
- Distillate oil, kerosene, and gasoline fuel burning equipment rated at less than or equal to 0.4 million Btu/hr
- Natural gas and propane burning equipment rated at less than or equal to 2.0 million Btu/hr
- Office activities
- Food service activities
- Janitorial activities
- Personal care activities

- Grounds keeping activities including, but not limited to building painting and road and parking lot maintenance
- On-site laundry activities
- Instrument calibration
- Maintenance and repair shop
- Automotive repair shops or storage garages
- Air cooling or ventilating equipment not designed to remove air contaminants generated by or released from associated equipment
- Refrigeration systems with less than 50 pounds of charge of ozone depleting substances regulated under Title VI, including pressure tanks used in refrigeration systems but excluding any combustion equipment associated with such systems
- Bench scale laboratory equipment and laboratory equipment used exclusively for chemical and physical analysis, including associated vacuum producing devices but excluding research and development facilities
- Temporary construction activities
- Warehouse activities
- Accidental fires
- Air vents from air compressors
- Electrical charging stations
- Instrument air dryers and distribution
- Routine maintenance, repair, and replacement such as anticipated activities most often associated with and performed during regularly scheduled equipment outages to maintain a plant and its equipment in good operating condition, including but not limited to steam cleaning, abrasive use, and woodworking
- Electric motors
- Storage tanks, reservoirs, transfer and lubricating equipment used for ASTM grade distillate or residual fuels, lubricants, and hydraulic fluids
- On-site storage tanks not subject to any New Source Performance Standards (NSPS), including underground storage tanks (UST), storing gasoline or diesel used exclusively for fueling of the facility's fleet of vehicles
- Natural gas, propane, and liquefied petroleum gas (LPG) storage tanks and transfer equipment
- Pressurized tanks containing gaseous compounds
- Emissions from wastewater discharges to publicly owned treatment works (POTW) provided the source is authorized to discharge to the POTW, not including on-site wastewater treatment and/or holding facilities
- Fire suppression and training
- Health, safety, and emergency response activities
- Emergency generators and pumps used only during loss of primary equipment or utility service
- Non-contact steam vents and leaks and safety and relief valves for boiler steam distribution systems
- Non-contact steam vents on condensate receivers, deaerators and similar equipment
- Boiler blowdown tanks
- Industrial cooling towers that do not use chromium-based water treatment chemicals
- Oil/water separators in effluent treatment systems
- Combustion source flame safety purging on startup

EMISSION LIMITS AND STANDARDS, TESTING, MONITORING, AND RECORDKEEPING

8. Oregon Administrative Rules with specific requirements (e.g., emission limits or standards) that have been determined to be applicable to the VIGOR facility are identified in this section. The applicable requirements along with the associated monitoring, recordkeeping, and reporting that are necessary to determine compliance with the aforementioned applicable requirements are incorporated in this Title-V permit.

9. Facility-wide applicable requirements:

   9.a. Source Emission Reduction Plan (SERP), OAR 340-206-0050, applicable to a major source located inside Portland AQMA that emits more than 100 tons/yr of PM, PM, and VOC;
   9.b. Fugitive dust control requirements, OAR 340-208-0210(2);
   9.c. Particulate matter (> 250 micron) fall-out standard, state-only enforceable, OAR 340-208-450;
   9.d. No nuisance requirement, state-only enforceable, OAR 340-208-0300; and
   9.e. Certification program required for workers working with ozone-depleting chemicals (i.e., refrigerants) on-board ship, 40 CFR Part 81.161(a).

10. Emissions Unit specific Standards:

   10.a. the fuel oil sulfur contents, OAR 340-228-0100, applicable to CUB Boilers when distillate or residual fuel oils are used;
   10.b. Opacity standard (20%, 3-minutes) of OAR 340-208-0110 applicable to CUB Boilers and SBI baghouses;
   10.c. Opacity standard (20%, 30-seconds) of OAR 340-208-0600 applicable to SBI baghouses;
   10.d. grain loading limit of OAR 340-226-0210 applicable to non-fuel burning equipment SBI;
   10.e. grain loading limit of OAR 340-228-0210 applicable to fuel burning equipment CUB;
   10.f. operation and work practice requirements of OAR 340-226-0120 applicable to SBO and SBI;
   10.g. equipment specifications and/or storage limitations of OAR 340-232-0150 applicable to BWT and ROT storage tanks;
   10.h. Surface Coating Categorical RACT limits for miscellaneous coating operations ($COAT_{MISC}$), OAR 340-232-0160, applicable when coating non-marine vessel parts;
   10.i. Source specific ($COAT_{SHIP}$) RACT limits for marine coating operations ($COAT_{SHIP}$), OAR 340-232-0020, applicable when coating marine vessel of vessel parts;
   10.j. National Emission Standards for Hazardous Air Pollutants (NESHAP, subpart II) applicable to marine coating operations ($COAT_{SHIP}$), 40 CFR, Part 63.783;
   10.k. National Emission Standards for Hazardous Air Pollutants (NESHAP, subpart MMMM) applicable to miscellaneous coating operations ($COAT_{MISC}$), 40 CFR, Part 63.3881:

   While Vigor meets the applicability criteria of NESHAP Subparts II and MMMM, §63.3881(e)(2) allows Vigor with an alternative option to comply with the emission limitation representing the predominant surface coating activity. Specifically the $COAT_{SHIP}$ activity accounts for more than 90% of all the surface coating activities ($COAT_{SHIP}$ and $COAT_{MISC}$) performed at the shipyard, and compliance with NESHAP subpart II applicable to $COAT_{SHIP}$ constitutes compliance with both subparts II and MMMM.

11. Emissions limits applicable to Insignificant Activities:

11.a. Opacity standard of OAR 340-208-0600;
11.b. grain loading limits of OAR 340-226-0210 and 340-228-0210; and
11.c. architectural coating standards of OAR 340-242-0730 (4).

12. History of Coating RACT Limits applicable to $COAT_{SHIP}$: Initially the coating VOC limits were applicable to surface coating operations of vessel and vessel parts ($COAT_{SHIP}$) during the ozone-season only, or July through August of each year. These seasonal coating limits reflected the court-settlement agreement with the Sierra Club and Oregon Environmental Counsel (OEC). Air Contaminant Discharge Permit (ACDP 26-3224) Addendum No.2 issued to (then the owner/operator) Portland Shipyard on 10/04/95 contained the case-by-case and source-specific RACT coating limits that became effective one year after the EPA approval date of May 6, 1997. Because the seasonal coating limits are identical to source-specific RACT limits, complying with the source-specific RACT limits throughout the year ensures compliance with the seasonal limits, and therefore the permit do not duplicate the seasonal coating limits.

13. Emissions limits applicable to Insignificant Activities: This facility has insignificant emissions units (IEUs) that include categorically insignificant activities and aggregate insignificant emissions, as defined in OAR 340-200-0020. For the most part, the standards that apply to IEUs are for opacity (20% limit) and particulate matter (0.1 gr/dscf limit). The Department does not consider it likely that IEUs could exceed an applicable emissions limit or standard because IEUs are generally equipment or activities that do not have any emission controls (e.g., small natural gas fired space heaters) and do not typically have visible emissions. Since there are no controls, no visible emissions, and the emissions are less than one ton per year, the Department does not believe that specific monitoring, recordkeeping, or reporting is necessary for assuring compliance with the standards.

14. Non-Applicable Requirements: The Vigor Industrial LLC - shipyard facility is not currently subject to any specific New Source Performance Standards (NSPS; 40 CFR Part 60). A list of non-applicable rules and summary of reasons are provided in the non-applicable requirements section of Title V permit 26-3224. Note that 40 CFR Part 61, subpart M could apply if asbestos is found at the facility. Furthermore, as is the case with any Title V sources, the general NESHSP provisions (subpart A) and the appendices of the federal regulations always apply.

15. General Monitoring Requirements: Section 70.6(a)(3)(i) requires that all monitoring and analysis procedures or test methods required under applicable requirements be contained in Title V permits. In addition, where the applicable requirement does not require periodic testing or monitoring, periodic monitoring must be prescribed that is sufficient to yield reliable data from the relevant time period that is representative of the source's compliance with the permit.

The requirement to include in a permit testing, monitoring, recordkeeping, reporting, and compliance certification sufficient to assure compliance does not require the permit to impose the same level of rigor with respect to all emissions units and applicable requirement situations. It does not require extensive testing or monitoring to assure compliance with the applicable requirements for emissions units that do not have significant potential to violate emission limitations or other requirements under normal operating conditions. Where compliance with the underlying applicable requirement for an insignificant emission unit is not threatened by a lack of a regular program of

monitoring and where periodic testing or monitoring is not otherwise required by the applicable requirement, then in this instance, the status quo (i.e., **no monitoring**) will meet section 70.6(a)(3)(i).

The monitoring frequency (i.e., daily, weekly, monthly, or yearly) specified in the monitoring condition is the time elapsed between two subsequent monitoring performed by the permittee. It may not be practical to interpret the frequency specified in the permit as being exact calendar time frame. For example, the permittee is required to monitor their production and fuel usage on a monthly basis to show compliance with the PSEL set forth in the permit. The term "monthly" is not meant to be strictly limited to interpretation as a "calendar month" as the production cycle may either end before or extend beyond the last day of a calendar month. Within reason, the permittee is allowed to use the alternative monitoring frequency such as an "accounting month" following their production cycle. This "accounting" period similarly applies to all monitoring frequencies specified in the permit.

16. PSEL monitoring: Emission factors and empirical formulas applied to estimate the plant site emissions for purpose of determining compliance with the PSEL are not, by themselves, enforceable limits. These emissions factors and formulas need to be reviewed on an on-going basis, as they are subject to change as the process is modified and/or additional controls are implemented, and as new emissions data becomes available through source testing and/or research. The original Title 5 permit issued to PSY established the 5% PM control efficiency reflective of curtains and screens that were provided at one-end of drydock during the outdoor sandblasting operations (SBO). The existing 5% PM control efficiency can change if the permittee establishes additional curtains and screens or implements more efficient control and can quantify the level of improvement.

17. Test Methods and Procedures section of the permit provides the permittee and Department exact test methods to be used to measure pollutant emissions in the event that testing is conducted for any reason. This section does not by itself require the permittee to conduct any more testing than those specified in the permit. Although the permit may not require testing because other routine monitoring is used to determine compliance, the Department and EPA always have the authority to require testing if deemed necessary to determine compliance with an emission limit or standard. In addition, the permittee may volunteer to conduct testing to confirm the compliance status. In any case, the methods to be used for testing in the event that testing is conducted are included in the permit.

18. Recordkeeping requirements in this permit are drafted pursuant to OAR 340-218-0050(3)(b). The records of all monitoring specified in the Oregon Title-V Operating Permit must be kept at the plant site for at least 5 years, unless longer period is specified (for certain NSPS data). All records necessary to determine compliance with any permit condition shall be made available to the DEQ/EPA inspectors upon request.

19. Reporting requirements in this permit are drafted pursuant to OAR 340-218-0050(3)(c). The permittee is required to submit NESHAP report and semi-annual compliance certification to the Department twice per year. The semi-annual reports are for certifying compliance with the permit requirements. The annual report consists of the second semi-annual compliance certification; in addition to the product throughputs, and other relevant data needed to determine compliance with the PSEL.

PLANT SITE EMISSION LIMITS

20. The following table provides a summary of baseline emissions, netting basis, and the plant site emission limits incorporated in the proposed permit:

Pollutant	Baseline Emission Rate (tons/yr)	Netting Basis		Plant Site Emission Limits (PSEL)		
		Previous (tons/yr)	Proposed (tons/yr)	Previous PSEL (tons/yr)	Proposed PSEL (tons/yr)	PSEL Increase (tons/yr)
PM	256	256	256	263	263	0
PM_{10}	124	124	124	124	124	0
SO_2	4	4	4	39	39	0
NO_x	8	8	8	39	39	0
CO	2	2	2	99	99	0
VOC	500	425	425	464	464	0

20.a. Baseline Emission Rate is an estimate of actual pollutant emissions that occurred during the baseline period of 1978. Emissions Detail Sheets at the end of this review report provide the 1978 production data and emission factors used to estimate the baseline PSEL.

20.b. Netting Baseline equals the baseline emission rate adjusted down with respect to any emission reductions required by rules or through voluntary measures, plus any emission increases approved through New Source Review. There have been no regulatory or (permanent) voluntary reductions of PSEL, and there have been no PSEL increases approved through NSR.

20.c. PSEL for PM and PM_{10} remain the same as the netting basis, which equals baseline emissions rate.

20.d. PSEL for SO_2, NO_X, and CO established in the permit are higher than the amount requested by the permittee. Pursuant to OAR 340-222-0040, although source (i.e., boilers) has no capacity to emit, those pollutants with capacity less than Significant Emission Rate (SER) receive a generic level PSEL. The generic PSEL level for a pollutant is equal to the Significant Emission Rate (SER) for that pollutant minus 1 ton.

20.e. PSEL for VOC is 39 tons greater than its netting basis, but it is equal to the VOC PSEL established in the previous permit.

20.f. Short-term PSEL: No short-term SER exist for any of the regulated pollutants in the area where the Cascade General facility is located. Pursuant to OAR 340-222-0042, the permit no longer establishes short-term PSEL. The short-tem/daily grit usage limit of condition 20.e that restricted the daily grit usage to 33 tons on drydock #1 is also no longer valid. While there were several drydocks including the largest DD#4, the daily grit usage limit was imposed on DD#1 only due to its "Pier A" location. Drydock #4

was sold to overseas company in July of 2000. Drydock #1 was moved from its original Pier A location to the south of berth 310, adjacent to dry-dock #5 where no daily restrictions ever existed.

20.g. PSEL Compliance: OAR 340-222-0080 requires the averaging period for PSEL to be calculated on a rolling 12-month basis. The annual emissions for the previous 12-month period must be calculated at the end of each month, for a total of 12 times during the calendar year. The PSEL is a federally enforceable limit on the potential to emit.

21. PSEL Emissions Basis:

21.a. Emissions from CUB-Boilers:

Pollutant	Baseline (tons/yr)	Proposed (tons/yr)
PM_{10}	0.4	1
SO_2	3.6	14
NO_X	8.1	5
CO	1.9	1
VOC	0.2	1
NG (10^6 ft^3/yr) usage:	105.777	37
Residual oil (gal/yr) usage:	25,200	100,000

21.a.i. The Natural Gas heating value used is 1050 Btu/ft^3.

21.a.ii. The NW Natural Gas Company factor of 2.6 lbs/10^6 ft^3 is used in lieu of the AP42 EF of 0.6 lbs SO_2 /10^6 ft^3, which more accurately represent the sulfur content of natural gas sold in the northwestern states.

21.a.iii. The DEQ PM_{10} EF of 2.5 lbs/10^6 ft^3 is used for natural gas combustion in both the commercial and industrial boiler categories. All PM/PM_{10} generated from fuel combustion are regarded as PM_{10}.

21.b. SBO: The following emissions data were used to establish the PM and PM_{10} PSEL from outdoor sandblasting operations (SBO):

SBO PSEL	lbs of abrasive shot/slag	EF (lbs/lbs abrasive materials)	Emissions (tons/yr)
Baseline PM	2,800,000	6.3×10^{-2}	88.2
Proposed PM	2,000,000	5.99×10^{-2}	59.9
Baseline PM_{10}	2,800,000	2.2×10^{-2}	30.8
Proposed PM_{10}	2,000,000	2.09×10^{-2}	20.9

The proposed PM and PM_{10} emission factors (EF) used to calculate the emissions from the outdoor abrasive blasting operations incorporate the control efficiency (EFF) of 5% that curtains and screens are believe to provide. There were no curtains/screens provided at the drydock during the baseline year:

$$PM\ EF_{Current} = (1 - EFF/100\%)\ EF_{Baseline} = 5.99 \times 10^{-2}$$
$$PM_{10}\ EF_{Current} = (1 - EFF/100\%)\ EF_{Baseline} = 2.09 \times 10^{-2}$$

21.c. SBI: The following emissions data were used to establish the PM and PM_{10} PSEL from baghouse-controlled indoor sandblasting operations (SBI):

SBI PSEL	lbs of abrasive shot/slag	EF (lbs/lbs abrasive materials)	Emissions (tons/yr)
Baseline PM	3,000,000	6.3×10^{-2}	94.5
Proposed PM	6,000,000	6.3×10^{-5}	0.2
Baseline PM_{10}	3,000,000	2.2×10^{-2}	33.0
Proposed PM_{10}	6,000,000	2.2×10^{-5}	0.1

The baghouse manufacturer's rated efficiency of 99.9% is used to update the current PM and PM_{10} EFs used to calculate the emissions from the indoor abrasive blasting operations:

$$PM\ EF_{Current} = (1 - 99.9\%/100\%)\ EF_{Baseline} = 6.3 \times 10^{-5}$$
$$PM_{10}\ EF_{Current} = (1 - 99.9\%/100\%)\ EF_{Baseline} = 2.2 \times 10^{-5}$$

21.d. Paved Road (PIR) PM and PM_{10} Emissions (tons/yr):

PIR PSEL	VMT	EF (lbs/VMT)	Emissions
Baseline PM	60,000	2.36	70.8
Proposed PM	150,000	0.17	12.8
Baseline PM_{10}	60,000	1.89	56.6
Proposed PM_{10}	150,000	0.136	10.2

Emission factors used to calculate the PM and PM_{10} emissions from paved roads and parking lots were based on the AP42 empirical equation and factors:

$$EF_{PM} = 0.077\ I\ (4/n)\ (s/10)\ (L/1000)\ (W/3)^{0.7}$$

EF_{PM} Variables		Baseline	Current
I =	industrial augmentation factor	7	1
n =	number of traffic lanes	2	2
s =	surface material silt content (%)	12.5	12.5
L =	surface dust loading (lb/mile)	1750	875
W =	average vehicle weight (ton)	3	3

The permittee (then PSY) estimated the PM_{10} emissions from PIR to be 80 percent (%) of the PM emissions. The permittee attributed the significant differences in the baseline and current versions of "I" and "L" to the assumption that approximately 50% reduction in the surface dust loading factor (L) was realized by mechanically sweeping the paved roads on a regular basis. Industrial augmentation factor "I" listed in AP42 ranges from 1 to 7. The permittee assigned the lowest factor of 1 for the current-I and the highest factor of 7 for the baseline-I. Permittee claims approximately one-half of the shipyard's area that was not occupied by building was unpaved, and set the baseline-I equal to 7 since traffics on paved industrial roads were significantly affected by the unpaved area. The current-I factor is set equal to 1 because the all vehicles travel on paved surface. The current-L factor is half the

baseline-L attributed to the mechanical sweeping, and therefore the permit establishes the operation and work practice requirements for PIR that include periodic sweeping of paved roads.

21.e. Unpaved Road (UPR) PM and PM_{10} Emissions (tons/yr):

UPR PSEL	VMT	EF (lbs/VMT)	Emissions
Baseline PM	584	9.85	2.9
Requested PM	n/a	9.85	0
Baseline PM_{10}	584	7.88	2.3
Requested PM_{10}	n/a	7.88	0

22. HISTORY OF PHYSICAL CHANGES TO THE BWTP: A review of the previous ACDP files indicates the ballast water treatment processes have changed significantly since the baseline year, and the modified treatment process have significantly reduced the plant site VOC emissions. There was a surface pond at PSY during the baseline period that held the ballast water prior to discharge into the Willamette river. PSY permanently close the surface pond in 1980. Physical changes that have occurred to the ballast-water treatment processes since the baseline year are as follows:

- The Ballast Water Treatment Processes -	
Baseline operations	Current Operations
Tank 10 (7,000 bbl.)	BWT (six tanks, 24,000 bbl each)
Tank 11, 6 interconnected, 3500 bbl	Tank 11 (six interconnected, 3,500 bbl)
ROL (4 tanks, uncontrolled)	ROL (4 tanks, VOC controlled with flare)
One Cooker	Four Cookers
One API Oil/water separator	Six Oil/water separator
Surface (holding) pond	Clean Water Holding Tank

The original Title-V permit application (addendum dated 05/31/1996) indicates 147.5 tons of VOC were emitted during the baseline year from treating 5.92×10^6 gallons of ballast water using the surface pond. However, utilizing the current BWT facility, about 72 tons of VOC (64.5 tons from BWT, 6 tons from ROT, 1.6 tons from ROL) would be released from treating 15.3 million gallons of ballast water. In terms of VOC emissions rate, the current BWT facility emits approximately 0.01 lbs of VOC per gallon of ballast water treated whereas the surface pond method used during the baseline year emitted about 0.05 lbs VOC/gal.

Sources operating inside the designated ozone non-attainment area (when original Title V permit was issued back in 1996) for which no categorical RACT requirements exist and that have the "potential to emit"over 100 tons of VOC per year are subject to the source-specific RACT requirements specified in OAR 340-232-0040. The VOC emissions from the ballast water treatment processes during the baseline year were unknown until PSY performed the plant-wide emissions inventory during the original Title V permitting stage. In accordance with OAR 340-222-0043, uncontrolled VOC emissions from surface pond would need to adjusted down to the RACT level required by the Department rules: The ROT storage tanks have been equipped with the (liquid storage) RACT level control consistent with the requirements set forth in OAR 340-232-0150. Pursuant to OAR 340-232-0040, the source subject to case-by-case RACT requirements can opt out by demonstrating that the source's potential to emit has fallen below the 100 tons/yr level.

The BWT facility was built in 1979 by Port of Portland who conceived the oil market in Alaska would bring fleet of tankers to PSY but that never materialized. Regardless of its original intent, the BWT facility (compared to surface pond) decreased the baseline VOC emissions to the current level of 72 tons/yr, which the Department accepted as the netting basis for the ballast water treatment processes.

BWTP	Ballast water (gallons)	EF (lbs/gal)	Netting Basis (tons/yr)
BWT	15,330,912	8.41×10^{-3}	64.5
ROT	1,545,944	7.76×10^{-3}	6.00
ROL	1,545,944	0.002	1.55
Total:			72.1**

** The actual baseline VOC emissions from surface pond totaled 147.5 tons from treating 5.92×10^6 gallons of ballast water.

23. DRY DOCK NO. 4 was under construction during the 1978 baseline year but it did not operate until 1979, which means the actual VOC emissions from DD#4 during the baseline year 1978 were zero. The Mutual Agreement and Order (MAO) signed on April 4, 1995 stipulated that the construction of DD#4 was complete in September 1978 and it was operational and in service by March 1979. The parties to the 4/04/95 MAO agreed that DD#4 was not subject to the NSR requirements, and agreed to the ozone-seasonal coating limits, as specified in ACDP addendum No.1 issued on May 4, 1995. The court decision that is reflected in the 4/04/95 MAO allocated a total baseline VOC emissions rate of 228 tons to DD#4, which was the baseline figure established in the original Title V permit:

$COAT_{SHIP}$	Coating Usage (gallons)	EF (lbs/gal)	Baseline Emissions (tons/yr)
DD#4	--	--	228
Other dry docks and ship berths	35,400	5.0	88.5
Total $COAT_{SHIP}$:			316.5

Cascade General sold DD#4 back in July of 2000 but since purchased the newer dry docks. The PTE and netting basis will remain the same as the baseline rate.

24. $COAT_{MISC}$: Air Contaminant Discharge Permit (ACDP) 26-3101 issued to (defunct) Southwest Marine, Inc established the VOC netting basis of 36.4 tons per year, which is the adjusted baseline rate as required by surface coating RACT limit of 3.5 lbs VOC per gallon of coating applied:

$COAT_{MISC}$	Baseline Emissions	Netting Basis
	43.7 tons/yr	36.4 tons/yr

The original Title V permit 26-3224 combined two ACDPs issued to two separate entities operating within the PSY: Port of Portland regulated under ACDP 26-3224 and Cascade General regulated under ACDP 26-3101.

25. In summary, the netting basis include the following:

EU ID	PM	PM_{10}	SO_2	NO_X	CO	VOC
$COAT_{SHIP}$	--	--	--	--	--	316.5
$COAT_{MISC}$						36.4
BWTP	--	--	--	--	--	72.1
SBO	88.2	30.8	--	--	--	--
SBI	94.5	33.0	--	--	--	--
UPR	2.9	2.3	--	--	--	--
PIR	70.8	56.7	--	--	--	--
WLD	--	0.6	--	--	--	--
CUB	--	0.4	3.6	8.1	1.9	0.2
Total (tons/yr):	256	124	4	8	2	425 **

** The actual baseline VOC emissions rate equals 500 tons.

26. Significant Emission Rate: The proposed Plant Site Emission Limit for each regulated pollutant is less than its Netting Basis and SER, and no further air quality analysis is required.

Pollutant	SER	Requested increase over previous netting basis	Increase due to utilizing capacity that existed in the baseline period	Increase due to physical changes or changes in the method of operation
PM	25	0	0	0
PM_{10}	15	0	0	0
SO_2	40	35	0	0
NO_x	40	31	0	0
CO	100	97	0	0
VOC	40	0	0	0

As discussed earlier, the proposed SO_2, NO_X, and CO PSEL increases do not reflect the actual emission increases. The permitted source does not have the physical capacity to emit these pollutants at their generic level.

HAZARDOUS AIR POLLUTANTS

27. Vigor Industrial, LLC is a major source of hazardous air pollutants (HAPs) because it has the potential to emit (PTE) of more than 10 tons/year of individual HAP and the PTE of more than 25 tons/year of combined HAPs. National Emission Standards for Hazardous Air Pollutants (NESHAP, subpart II) for marine coating operations ($COAT_{SHIP}$), 40 CFR, Part 63.783 are incorporated in the permit to regulate the facility's HAP emissions. Emissions detail sheets attached to this review report provides summary of Vigor's potential HAP emissions.

28. Toxic and Flammable Substance Usage for Accidental Release Prevention

Emissions detail sheets attached to this review report provides a summary of Vigor's Toxic substance usage.

29. Stratospheric Ozone Depleting Substances

The permittee may perform work on the refrigeration system on board the ship that use the following stratospheric ozone-depleting substances:

Ozone-depleting substance	Class type	Replacement chemical
Chlorofluorocarbon-12 (R-12)	I	R-134a
Hydrochlorofluorocarbon-22 (R-22)	II	No replacement identified
$C_2F_3Cl_3$-(CFC113)	I	Non-chlorinated hydrocarbons
1,1,1 Trichloroethane	I	Non-chlorinated hydrocarbons
Carbon Tetrachloride	I	Non-chlorinated hydrocarbons

30. Accidental Release Prevention: The Vigor facility is not currently subject to the accidental release prevention regulation in 40 CFR 68. No quantities of listed substances used in a process at this facility exceed the quantities that trigger applicability of the risk management plan (RMP) by the date specified in 40 CFR 68.10.

GENERAL BACKGROUND INFORMATION

31. Other permits issued or required by the Department of Environmental Quality for this source include an NPDES permit (NPDES 101393) for their wastewater discharge, and a general NPDES permit (1200-Z) for their storm water discharge. The Vigor facility in PSY is a large quantity hazardous waste generator (ORD 18076198413).

32. A Land Use Compatibility Statement signed by the City of Portland on December 18, 1995 granted approval of the facility operations.

33. The source located in a maintenance area for ground-level ozone and Carbon Monoxide (CO). The permitted facility is a major source of (ozone precursor) VOC but a minor source of NO_x and CO.

34. Aggregate Insignificant Activities identified by Vigor include the following:

AIA	PM	PM_{10}	SO_2	CO	VOC	NO_x	HAPs
VDU (Flare for ROT)	<.021	<.021	<.121	<.543	<.093	<.1	--
BWTP (Steam) Cookers	--	--	--	--	<.677	--	<.677
Vessel-boiler repair, test	<.034	<.032	<.482	<.009	<.001	<.097	<.035
Vessel fueling from barge	--	--	--	--	<.051	--	<.051
Oven	--	0.05	0.05	0.39	0.07	--	
Total Aggregate:	< 1	< 1	< 1	< 1	< 1	< 1	< 1

All units expressed as "tons/yr".

This permit does not intend to limit "aggregate insignificant activities" to only those currently identified in the permit application. No groups of activities are identified in this permit just for the purpose of identifying insignificant activities, which tend to be a moving target. Instead, the permit aggregate limits reflect the rule limits, as defined in OAR 340-200-0020. The rules allow the permittee to add more categorical insignificant activities to their existing list, and similarly, the permittee may add more insignificant activities to their existing aggregate source list, provided the aggregate emissions of any individual (regulated) pollutant do not exceed the permit (rule) aggregate insignificant limit.

COMPLIANCE HISTORY

35. Vigor exceeded the annual PM PSEL of 256 tons/yr specified in Condition 27 of Title-V Permit 26-3224 three times for 12-month periods ending in January, February, and March of 2007. Vigor is required to determine compliance with the annual PSEL at the end of each month for a total of 12 times during the calendar year. Because of the rolling-nature of the annual PSEL, the compliance determination uses the same data (e.g., monthly production) multiple times until the rolling/averaging periods affected run their course. A sudden surge in Vigor's sandblasting activities in January of 2007 caused the annual PM PSEL violations three times:

Emission Period	PM Emission (tons)	Exceedance (tons)
02/01/2006 to 01/31/2007	279	23
03/01/2006 to 02/28/2007	292	36
04/01/2006 to 03/31/2007	297	41

The Department issued Pre-Enforcement Notice (PEN-POR-AQ-2007-0013) on July 9, 2007, and the case was forwarded to the Department's enforcement section with a recommendation to proceed with formal enforcement action. The Department assessed a civil penalty of $16,000 and Vigor paid the full amount of the civil penalty on May 27, 2008.

PUBLIC NOTICE

36. Pursuant to OAR 340-218-0210, the proposed permit followed a Category-III permit review process, and the draft permit was placed on public notice from September 19, 2008 to October 27, 2008. The Department did not receive any comment from the public during the public notice period. The proposed permit was forwarded to EPA on October 31, 2008. The Department received a notice from EPA on November 4, 2008 confirming that EPA do not object to the issuance for the proposed permit. The public's right to petition the EPA Administrator to object this permit remains open until February 13, 2009.

Pollutant	Existing PSEL (tons/yr)	Proposed PSEL (tons/yr)	Increase (tons/yr)
PM	263	263	0
PM_{10}	124	124	0
SO_2	39	39	0
NO_x	39	39	0
CO	99	99	0
VOC	464	464	0

EMISSIONS DETAIL SHEETS

Excel Spreadsheets A1 – A8 attached.

gdy
Vigor-R3

PLANT SITE EMISSION DETAIL SHEET
SUMMARY

ANNUAL PSEL (ALL SOURCES ADDED TOGETHER) & SER ANALYSIS

ANNUAL (tons/yr)	PM10	PM	SO2	NOx	CO	VOC
NETTING BASIS	124	256	4	8	2	425
PSEL	124 (1)	256 (1)	39 (2)	39 (2)	99 (2)	464 (3)
OVER (UNDER) NETTING BASIS	0	0	35	31	97	39
SIGNIFICANT EMISSION RATE (SER)	15	25	40	40	100	40

CURRENT AVERAGE ANNUAL EMISSIONS (tons/year) BY EMISSION SOURCES

EMISSION SOURCE		PM10	PM	SO2	NOx	CO	VOC
Ship Coating Operations (COATship)		--	--	--	--	--	53.00
Miscellaneous Coating (COATmisc)		--	--	--	--	--	25.00
Ballast Water Tanks (BWT)		--	--	--	--	--	53.20
Reclaimed Oil Tank (ROT)		--	--	--	--	--	inc.
Reclaimed Oil Loadout (ROL)		--	--	--	--	--	inc.
Enclosed Vapor Combustor (VDU)		--	--	--	3.390	6.75	1.89
Central Utility Building (CUB)	NG	0.06	--	0.06	3.15	0.79	0.06
Central Utility Building (CUB)	Res. Oil	0.00	--	0.00	0.00	0.00	0.00
Central Utility Building (CUB)	Used Oil	2.68		3.86	1.00	0.26	0.02
Central Utility Building (CUB)	Dist. Oil	0.00		0.00	0.00	0.00	0.00
Powder Coat Curing Oven (OVEN)	NG	--	--	--	0.15	--	--
Sandblasting-outside (SBO)		64.92	185.89	--	--	--	--
Sandblasting-inside (SBI)		0.08	0.22	--	--	--	--
Welding (WLD)		1.83	--	--	--	--	--
Paved Industrial Roads (PIR)		10.51	13.14	--	--	--	--
Unpaved Roads (UPR)		0.00	0.00	--	--	--	--
TOTAL (tons/yr):		80	199	4	8	8	133

(1) The PM and PM_{10} PSEL incorporated in the permit equal their netting basis.

(2) The SO_2, NO_X, and CO PSEL incorporated in the permit is the generic level PSEL required by rules.

(3) The VOC PSEL equals its netting basis plus the SER (39 tons/yr) increase approved by the Department.

PLANT SITE EMISSIONS DETAIL SHEET
PM10 EMISSIONS

******* PLANT SITE PM10 EMISSIONS *******

EMISSIONS UNIT	BASELINE ANNUAL OPERATING PARAMETER		lb/LB.	n.g. lb/MMft3	r. oil lb/gal	lb/gal	lb/VMT		PM10 (tons/yr)
Central Utility Building (CUB)	105.777	MMft3 natural gas		2.50E+00					0.132
	25200	gal. residual oil			1.93E-02				0.243
Sandblasting-outside (SBO)	2800000	lbs of sand blasted (outside)	2.20E-02						30.800
Sandblasting-inside (SBI)	3000000	lbs of sand blasted (inside)	2.20E-02						33.000
Welding (WLD)	31000	lbs of welding rod used	3.65E-02						0.566
Paved Industrial Roads (PIR)	60000	estimated VMT (paved road)					1.89E+00		56.700
Unpaved Roads (UPR)	584	estimated VMT (unpaved road)					7.88E+00		2.301
								TOTAL PM10:	123.742

EMISSIONS UNIT	CURRENT ANNUAL OPERATING PARAMETER		lb/LB.	n.g. lb/MMft3	r/d oil lb/gal	u.oil lb/gal	lb/VMT		PM10 (tons/yr)
Central Utility Building (CUB)	44.96666667	MMft3 natural gas		2.50E+00					0.056
	0	gal. residual oil			1.93E-02				0.000
	105023	gal. used oil				5.10E-02			2.678
	0	gal. distillate oil			2.00E-03				0.000
Sandblasting-outside (SBO)	6212000	lbs of sand blasted (outside)	2.09E-02						64.915
Sandblasting-inside (SBI)	6956000	lbs of sand blasted (inside)	2.20E-05						0.077
Welding (WLD)	100440	lbs of welding rod used	3.65E-02						1.833
Paved Industrial Roads (PIR)	154598	estimated VMT (paved road)					1.36E-01		10.513
Unpaved Roads (UPR)	–	estimated VMT (unpaved road)					7.88E+00		0.000
								TOTAL PM10:	80.072

PLANT SITE EMISSIONS DETAIL SHEET
PM & SO2 EMISSIONS

******* PLANT SITE PM EMISSIONS *******

EMISSIONS UNIT	BASELINE ANNUAL OPERATING PARAMETER		lb/LB.	n.g. lb/MMft3	r. oil lb/gal	lb/gal	lb/VMT		PM (tons/yr)
Sandblasting-outside (SBO)	2800000	lbs of sand blasted (outside)	6.30E-02						88.200
Sandblasting-inside (SBI)	3000000	lbs of sand blasted (inside)	6.30E-02						94.500
Paved Industrial Roads (PIR)	60000	estimated VMT (paved road)					2.36E+00		70.800
Unpaved Roads (UPR)	584	estimated VMT (unpaved road)					9.85E+00		2.876
								TOTAL PM:	256.376

EMISSIONS UNIT	CURRENT ANNUAL OPERATING PARAMETER		lb/LB.	n.g. lb/MMft3	Oil lb/gal	lb/gal	lb/VMT		PM (tons/yr)
Sandblasting-outside (SBO)	6212000	lbs of sand blasted (outside)	5.99E-02						185.894
Sandblasting-inside (SBI)	6956000	lbs of sand blasted (inside)	6.30E-05						0.219
Paved Industrial Roads (PIR)	154598	estimated VMT (paved road)					1.70E-01		13.141
Unpaved Roads (UPR)	--	estimated VMT (unpaved road)					9.85E+00		0.000
								TOTAL PM:	199.254

******* PLANT SITE SO2 EMISSIONS *******

EMISSIONS UNIT	BASELINE ANNUAL OPERATING PARAMETER		lb/LB.	n.g. lb/MMft3	r. oil lb/gal	lb/gal	lb/VMT		SO2 (tons/yr)
Central Utility Building (CUB)	105.777	MMft3 natural gas		2.60					0.14
	25200	gal. residual oil			0.275				3.46
								TOTAL:	3.60

EMISSIONS UNIT	CURRENT ANNUAL OPERATING PARAMETER		lb/LB.	lb/MMft3	r/d oil lb/gal	u.oil lb/gal	lb/VMT		SO2 (tons/yr)
Central Utility Building (CUB)	44.96666667	MMft3 natural gas		2.60					0.06
	0	gal. residual oil			0.275				0.00
	105023	gal. used oil				0.074			3.86
	0	gal. distillate oil			0.071				0.00
								TOTAL:	3.92

PLANT SITE EMISSIONS DETAIL SHEET
NOx & CO EMISSIONS

******* PLANT SITE NOx EMISSIONS *******

EMISSIONS UNIT	BASELINE ANNUAL OPERATING PARAMETER	lb/LB.	n.g. lb/MMft3	r. oil lb/gal	lb/gal	lb/VMT		NOx (tons/yr)
Central Utility Building (CUB)	105.777 MMft3 natural gas		140.00					7.40
	25200 gal. residual oil			0.055				0.69
							TOTAL:	8.10

EMISSIONS UNIT	CURRENT ANNUAL OPERATING PARAMETER	lb/LB.	n.g. lb/MMft3	r/d oil lb/gal	u.oil lb/gal	lb/hr		NOx (tons/yr)
Central Utility Building (CUB)	44.96666667 MMft3 natural gas		140.00					3.15
	0 gal. residual oil			0.055				0.00
	105023 gal. used oil				0.019			1.00
	0 gal. distillate oil			0.020				0.00
Enclosed Vapor Combustor (VDU)	6000 hours operated					1.13		3.39
Powder Coat Curing Oven (OVEN)	3.008571429 MMft3 natural gas		100.00					0.15
							TOTAL:	7.69

******* PLANT SITE CO EMISSIONS *******

EMISSIONS UNIT	BASELINE ANNUAL OPERATING PARAMETER	lb/LB.	n.g. lb/MMft3	r. oil lb/gal	lb/gal	lb/VMT		CO (tons/yr)
Central Utility Building (CUB)	105.777 MMft3 natural gas		35.00					1.85
	25200 gal. residual oil			0.005				0.06
							TOTAL:	1.91

EMISSIONS UNIT	CURRENT ANNUAL OPERATING PARAMETER	lb/LB.	n.g. lb/MMft3	r/d oil lb/gal	u.oil lb/gal	lb/Hr		CO (tons/yr)
Central Utility Building (CUB)	44.96666667 MMft3 natural gas		35.00					0.79
	0 gal. residual oil			0.005				0.00
	105023 gal. used oil				0.005			0.26
	0 gal. distillate oil			0.005				0.00
Enclosed Vapor Combustor (VDU)	6000 hours operated					2.25		6.75
							TOTAL:	7.80

PLANT SITE EMISSIONS DETAIL SHEET
VOC EMISSIONS

***** PLANT SITE VOC EMISSIONS *****

EMISSIONS UNIT	BASELINE ANNUAL OPERATING PARAMETER		lb/LB.	n.g. lb/MMft3	r. oil lb/gal	lb/gal	lb/VMT	VOC (tons/yr)
Ship Coating Operations (COATship)	35400	gallons coating				5		88.50
Emissions allocated to Dry Dock No.4:								228.00
Miscellaneous Coating (COATmisc)	20800	gallons coating				3.5		36.40
Netting Basis for BWT/ROT/ROL: (1)								72.05
Ballast Water Tanks (BWT)	–	oil/water througput (gal.)				–		0.00
Reclaimed Oil Tank (ROT)	–	oil slops throughput				–		0.00
Central Utility Building (CUB)	105.777	MMft3 natural gas		2.80				0.15
	25200	gal. residual oil			2.80E-04			0.004
							TOTAL:	425.10

EMISSIONS UNIT	CURRENT ANNUAL OPERATING PARAMETER		lb/LB.	n.g. lb/MMft3	Oil lb/gal	lb/gal	lb/Hr	VOC (tons/yr)
Ship Coating Operations (COATship) (2)	Chemical MB of actual coating usage							53.00
Miscellaneous Coating (COATmisc) (2)	Chemical MB of actual coating usage							25.00
Ballast Water Tanks (BWT)	8300000	oil/water througput (gal.)				AP42 (3)		14.10
Reclaimed Oil Tank (ROT)	600000	oil slops throughput				AP42 (3)		0.01
Reclaimed Oil Loadout (ROL)	860000	reclaimed oil transfer (gal)				AP42 (3)		0.12
Enclosed Vapor Combustor (VDU)	6000	hours operated					0.63	1.89
Central Utility Building (CUB)	44.96666667	MMft3 natural gas		2.80				0.06
	0	gal. residual oil			2.80E-04			0.00
	105023	gal. used oil			3.00E-04			0.02
	0	gal. distillate oil			2.00E-04			0.00
							TOTAL:	94.20

(1) BASELINE VOC emissions from treating (5,920,000 gal/yr & 16,200 gal/day) ballast water, adjusted down and set equal to the current rate of emissions from BWT, ROT, and ROL.
(2) The VOC PSEL for COATship & COATmisc based chemical MB of actual coating/solvent usage (& waste generated).
(3) Breathing, working, and loading losses of VOC are based on materials throughput and the AP42 (tank prog.) emperical equations.

PLANT SITE EMISSIONS DETAIL - DATA ENTRY SHEET

EMISSIONS UNIT	ANNUAL OPERATING PARAMETER BASELINE		PSEL		UNIT	
Ship Coating Operations (COATship)	35400	(2) gallons	53	(1) tons/yr	gallons coating	
Emissions allocated to Dry Dock No.4:	228	tons/yr				
Miscellaneous Coating (COATmisc)	20800	gallons	25	(1) tons/yr	gallons coating	
Netting Basis for BWT/ROT/ROL:	72.05	(3)	--		tons/yr & lbs/day	
Ballast Water Tanks (BWT)	--		8.30E+06		oil/water throughput (gal.)	
Reclaimed Oil Tank (ROT)	--		6.00E+05		oil slops throughput	tons/yr
Reclaimed Oil Loadout (ROL)	511350		8.60E+05		reclaimed oil transfer (gal)	53.2
Enclosed Vapor Combustor (VDU)	--		6.00E+03		hours operated	
Central Utility Building (CUB)	105.777		44.97		MMft3 natural gas	
	25200		0		gal. residual oil	
	--		105023		gal. used oil	
	--		0		gal. distillate oil	
Powder Coat Curing Oven (OVEN)	--		3.01E+00		MMft3 natural gas	
Sandblasting-outside (SBO)	2800000		6212000		lbs of sand blasted (outside)	
Sandblasting-inside (SBI)	3000000		6956000		lbs of sand blasted (inside)	
Welding (WLD)	31000		100440		lbs of welding rod used	
Paved Industrial Roads (PIR)	60000		154598		estimated VMT (paved road)	
Unpaved Roads (UPR)	584		--		estimated VMT (unpaved road)	

NON-COMBUSTION EMISSIONS UNIT	POLLUTANT	BASELINE EF SHORT	BASELINE EF LONG	CURRENT EF SHORT	CURRENT EF LONG		UNIT	REFERENCE
COATship	VOC	5.00E+00	5.00E+00	(1)	(1)		lbs/gal	Chemical MB
COATmisc	VOC	3.50E+00	3.50E+00	(1)	(1)		lbs/gal	Chemical MB
BWT	VOC	--	--	--	AP42	(4)	lbs/gal	AP42 12.3.1
ROT	VOC	--	--	--	AP42	(4)	lbs/gal	AP42 12.3.1
ROL	VOC	2.00E+00	2.00E+00	--	AP42	(4)	lbs/1000 gal.	AP42 12.3.1
SBO	PM	6.30E-02	6.30E-02	5.99E-02	5.99E-02	(6)	lbs/lbs sand	4/22/95 ST
	PM10	2.20E-02	2.20E-02	2.09E-02	2.09E-02	(6)	lbs/lbs sand	4/22/95 ST
SBI	PM	6.30E-02	6.30E-02	6.30E-05	6.30E-05	(5)	lbs/lbs sand	4/22/95 ST
	PM10	2.20E-02	2.20E-02	2.20E-05	2.20E-05	(5)	lbs/lbs sand	4/22/95 ST
WLD	PM10	3.65E-02	3.65E-02	3.65E-02	3.65E-02		lbs/lbs w. rod	AWS 1979
PIR	PM	2.36E+00	2.36E+00	1.70E-01	1.70E-01		lbs/VMT	AP42
	PM10	1.89E+00	1.89E+00	1.36E-01	1.36E-01		lbs/VMT	AP42
UPR	PM	9.85E+00	9.85E+00	9.85E+00	9.85E+00		lbs/VMT	AP42
	PM10	7.88E+00	7.88E+00	7.88E+00	7.88E+00		lbs/VMT	AP42

EMISSIONS FACTORS FOR FUEL COMBUSTION SOURCE:	CUB - BOILERS NG lb/MMft³	CUB - BOILERS Res. Oil lb/1000 gal	CUB - BOILERS Used Oil lb/1000 gal	CUB - BOILERS Dist. Oil lb/1000 gal	OVEN: NG (lb/MMft3)	VDU (lb/Hr)	REFERENCE except as noted
PM10	2.50	19.30	51.00	2.00	--	--	DEQ/AP42
SO2	2.60	274.75	73.50	71.00	--	--	DEQ/AP42
NOx	140.00	55.00	19.00	20.00	100	1.13	AP42
CO	35.00	5.00	5.00	5.00	--	2.25	AP42
VOC	2.80	0.28	0.30	0.20	--	0.63	AP42
NO.6 OIL SULFUR CONTENT (%S)	--	1.75	0.5	0.5			AP42

(1) The current VOC PSEL for "COATship" and "COATmisc" based on chemical MB of actual coating/solvent usage and representative VOC contents.
(2) The baseline VOC PSEL for "COATship" is based on coating usage (35,400 gal/yr & 4166 gal/day) and the VOC content of 5 lbs VOC/gal.
(3) BASELINE VOC emissions from treating (5,920,000 gal/yr & 16,200 gal/day) ballast water, adjusted down and set equal to the current rate of emissions from BWT, ROT, and ROL.
(4) Breathing and working VOC losses are based on materials throughput and the AP42 (Tank 2.0 program) emperical equations.
(5) The current SBI's PM and PM10 EFs are based on the **99.9% efficiency** of BAG-1 and BAG-2.
(6) The current SBO's PM and PM10 EFs are based on the **5% control efficiency** provided by curtains and screens.
Note: The PM10 & SO2 EFs are based on the sulfur content in oil burned in boilers. The PSEL based on rule S% limits.

SUMMARY EMISSIONS DATA FOR HAPs

POLLUTANT	COATship 20000 gallons Paint applied	COATmisc 10000 gallons Paint applied	Boilers 355656 gal oil & 432 MMft3 NG	Tanks Breathing & Working loss	
Arsenic compounds			5.20E-04	+	5.20E-04
Benzene			3.22E-02		3.22E-02
Beryllium compounds			1.10E-04	ROL	1.10E-04
Bis (2-ethylhexyl) phthalate (DEHP)	6.72E-03	3.36E-03		Loading loss	1.01E-02
Cadmium compounds			4.20E-04		4.20E-04
Chromium compounds			5.70E-04	+	5.70E-04
Cobalt compounds	6.72E-03	3.36E-03			1.01E-02
Cumene	4.03E-02	2.02E-02		WLD	6.05E-02
Epichlorohydrin	4.80E-03	2.40E-03		welding	7.20E-03
Ethyl benzene	1.61E+00	8.07E-01			2.42E+00
Formaldehyde	9.60E-03	4.80E-03	2.30E-02		3.74E-02
Glycol ethers	2.00E+00	1.00E+00			3.00E+00
Hexamethylene-1, 6-diisocyanate					0.00E+00
Hexane					0.00E+00
isopropyl alcohol	9.22E-02	4.61E-02			1.38E-01
Lead compounds			4.09E-03		4.09E-03
Manganese compounds	9.60E-02	4.80E-02	6.90E-04		1.45E-01
Mercury compounds			9.00E-05		9.00E-05
Methanol	3.26E-02	1.63E-02			4.90E-02
Methyl ethyl ketone (2-Butanone)	4.25E-02	2.13E-02			6.38E-02
Methyl isobutyl ketone (Hexone)	1.48E-01	7.38E-02			2.21E-01
Nickel compounds					0.00E+00
Polycylic organic matter			2.30E-04		2.30E-04
Propylene oxide					0.00E+00
Selenium compounds			6.20E-04		6.20E-04
Stylene	3.74E-02	1.87E-02			5.62E-02
Tolune	4.82E-01	2.41E-01			7.22E-01
Xylenes (isomers & mixture)	7.69E+00	3.84E+00			11.53
Potential To Emit (tons/year):	12.30	6.15	0.06	0.80	19.30

TOXIC SUBSTANCE USAGE

CHEMICAL NAME	CAS NUMBER	INSIGNIFICANT	1,001-10,000	10,001-20,000	20,001-50,000	> 50,000
Arsenic	7440-38-2	X				
Benzene	71-43-2	X				
Beryllium	7440-41-7	X				
n-butyl alcohol, 1-butanol	71-36-3		X			
chromates (as Cr)	7440-47-3	X				
bis(2-ethylhexyl)phthalate	117-81-7					X
Cadmium	7440-43-9	X				
carbon tetrachloride	56-23-5			X		
Copper	7440-50-8			X		
lead compounds (as Pb)	7439-92-1	X				
lead molybdate/chromate	12656858	X				
ethyl benzene	100-41-4					X
Formaldehyde	50-00-0		X			
manganese compounds	7439-96-5	X				
Mercury	7439-97-6	X				
Methane	74-82-8	X				
Methanol	67-56-1				X	
Methyl ethyl ketone (2-Butanone)	78-93-3					X
Methyl isobutyl ketone (Hexone)	108-10-1					X
Nickel	7440-02-0	X				
Propylene oxide	75-56-9	X				
Selenium	7782-49-2					
Tolune	108-88-3					X
1,2,4-trimethylbenzene	95-63-6	X				
Xylenes (isomers & mixture)	108-38-3					X

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
OREGON TITLE V OPERATING PERMIT
REVIEW REPORT

Northwest Region
2020 SW Fourth Ave., Suite 400
Portland, OR 97201

Source Information:

SIC	3731
NAICS	336611

Source Categories (Part and code)	

Compliance and Emissions Monitoring Requirements:

Unassigned emissions	
Emission credits	
Compliance schedule	
Source test [date(s)]	

COMS	
CEMS	
Ambient monitoring	

Reporting Requirements:

Annual report (due date)	February 15
Emission fee report (due date)	February 15
SACC (due date)	July 15
Quarterly report (due dates)	

Monthly report (due dates)	
Excess emissions report	~~15 days~~ 24hr event
NESHAP (II) reports	Feb-15, July 31

?

Air Programs

NSPS (list subparts)	
NESHAP (list subparts)	II, MMMM
CAM	
Regional Haze (RH)	
Synthetic Minor (SM)	
Part 68 Risk Management	
CFC	
RACT	X
TACT	

Title V	X
ACDP (SIP)	
Major HAP source	X
Federal major source	X
NSR	
PSD	
Acid Rain	
Clean Air Mercury Rule (CAMR)	

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LIST OF ABBREVIATIONS

AQMA	Air Quality Management Area
ASTM	American Society of Testing and Materials
BDT	bone dry ton
CEMS	continuous emissions monitoring system
CFR	Code of Federal Regulations
CMS	continuous monitoring system
CO	carbon monoxide
COMS	continuous opacity monitoring system
DEQ	Oregon Department of Environmental Quality
dscf	dry standard cubic feet
EF	emission factor
EPA	United State Environmental Protection Agency
EU	emissions unit
FCAA	Federal Clean Air Act
gr/dscf	grains per dry standard cubic feet
HAP	hazardous air pollutant
ID	identification code
I&M	inspection and maintenance
MB	material balance
Mlb	1000 pounds
MM	million
NA	not applicable
NESHAP	National Emission Standard for Hazardous Air Pollutants
NO_x	oxides of nitrogen
NSPS	New Source Performance Standard
NSR	New Source Review
O_2	Oxygen
OAR	Oregon Administrative Rules
ORS	Oregon Revised Statutes
O&M	operation and maintenance
Pb	lead
PCD	pollution control device
PM	particulate matter
PM_{10}	particulate matter less than 10 microns in size
PSD	Prevention of Significant Deterioration
PSEL	Plant Site Emission Limit
SO_2	sulfur dioxide
ST	source test
VE	visible emissions
VMT	vehicle mile traveled
VOC	volatile organic compound

SACC?

SER?

INTRODUCTION

1. PERMIT ACTION SUMMARY: The proposed permit is a renewal of an existing Title V Permit 26-3224 and its Addendum No.1. The plant site emissions limits and the applicable requirements and associated monitoring, recordkeeping, and reporting requirements established in the existing permit remain mostly the same in the proposed permit renewal.

2. In accordance with OAR 340-218-0120(1)(f), this review report is intended to provide the legal and factual basis for the draft permit conditions. In most cases, the legal basis for a permit condition is included in the permit by citing the applicable regulation. In addition, the factual basis for the requirement may be the same as the legal basis. However, when the regulation is not specific and only provides general requirements, this review report intends to provide a more thorough explanation of the factual basis for the draft permit conditions.

3. The permit modification, off-permit changes, 502(b)(10) changes, and administrative amendments that occurred during the current permit term include the following:

Date	Permit Revision	Brief explanation
June 29, 2006	Significant Permit Modification (Addendum No.1)	Plant site emission limits were revised to include all of the unassigned emissions. The existing permit no longer contains any unassigned emissions.
		Added conditions to allow and regulate boilers to use distillate and used fuel oil in addition to natural gas and residual fuel oil that boilers were already using.
October 2007	Administrative amendment	"Vigor Industrial, LLC" became the owner and operator of Cascade General, Inc.
October 2007	Off permit change	Dry dock No.1 relocated from its "Pier A" location to south side of "Pier C" where dry dock No.4 used to occupy. Dry dock No.4 was sold to overseas company back in July of 2000.
November 2007	Off permit change	Dry dock No.5 can easily transported but locate DD#5 at the north side of "Pier C" where dry dock No. 2 used to occupy. Dry dock No.2 no longer ~~exists~~ in use at the facility.

PERMITTEE IDENTIFICATION

4. Vigor Industrial, LLC is made of four subsidiary companies that include Cascade General, Inc.; Washington Marine Repair, LLC; Specialty Finishes LLC; and Shipyard Commerce Center, LLC. The current structure of four subsidiary companies enables them to operate independently while utilizing resources across each company to conduct a variety of industrial projects. Cascade General, Inc. operates a ship repair facility in the Portland Ship Yard (PSY) that occupies 57 acres of property located at 5555 North Channel Avenue in Portland, Oregon. Vigor Industrial, LLC (VIGOR), for which CG is a part ~~of~~, is responsible for complying with the terms and limitations established in Title V permit 26-3224. Mr. T. Alan Sprott is the Vice president and the primary responsible official for the permitted activities conducted at the Vigor ship repair facilities.

FACILITY DESCRIPTION

5. Cascade General, Inc. is a subsidiary of "Vigor Industrial, LLC" that operates a shipbuilding and repair facility in PSY, which also includes a barge building facility - "US Barge". Typical repairs to the vessel exterior include abrasive (steel shot/slag) blasting, coating applications, and welding. Typical repairs to the vessel interior may include abrasive (steel shot/slag) blasting, coating, boiler repair and testing, and/or servicing of the ship's refrigeration system. Other repair work may include pipe fitting, machining, steel fabrication and installation, and other miscellaneous tasks.

Vessels entering the shipyard for repairs dock at berths along the Swan Island Lagoon and Willamette River. Berths 306, 307, 308, 311 and 315 are also available for non-ship repair activities. Dry docks 1 of 3 is also used for the vessels requiring work on the exterior hull below the main deck. Cascade General sold the largest dry dock (formerly No. 4) that existed at the PSY back in 2001, and consequently Vigor no longer has the capacity to repair super-large vessels. The pipelines transfer oil slops from ships (ballast tanks) docked at berths and dry docks to the ballast water treatment plant. The Central Utility Building (CUB) houses an air compressor and two boilers for steam generation. Other miscellaneous emission sources include storage tanks, truck-loading operations, and the vehicle travel that generates road dust.

Of all the ship repair/building operations conducted at the PSY, the PM/PM_{10} emissions from outdoor sandblasting operations (SBO) and VOC/VOHAP emissions from ship-coating applications ($COAT_{SHIP}$) are the two-major sources of emissions that exist at the VIGOR facility (i.e., PSY).

EMISSIONS UNIT AND POLLUTION CONTROL DEVICE IDENTIFICATION

6. Emissions units identified in this permit are grouped with respect to the common applicable requirements and the associated monitoring protocol, and they are grouped as follow:

Emissions Unit	EU ID	Source-Classification Code
Ship Coating operations	$COAT_{SHIP}$	4-02-023-99
Misc. Coating operations	$COAT_{MISC}$	4-02-001-10
Ballast water storage tanks	BWT	4-07-146-98
Reclaimed Oil Tanks, VDU flare	ROT, VDU	4-07-016, 4-07-999-99
Reclaimed Oil Load-out	ROL	4-06-001-97
Central Utility Building (2 boilers)	CUB	1-02-004-02, 1-02-006-02
Abrasive blasting-Outdoor	SBO	3-09-002-01
Abrasive blasting-Inside, BH controlled	SBI	3-09-002-01
Welding	WLD	3-09-051-00
Paved Industrial Roads	PIR	4-02-888-01

Coating Operations: The surface coating operations conducted at the shipyard are categorized into two emissions units. Surface coating operations of marine vessel and vessel parts that normally occur at the ships docked at dry docks and berths are grouped under the emissions unit $COAT_{SHIP}$. Surface coating operations of fabricated non-marine parts that normally occur within the paint booths are grouped under the emissions unit $COAT_{MISC}$. The coating operations can actually occur anywhere at the shipyard. The miscellaneous coating category has the first two digits SIC of 34 while $COAT_{SHIP}$ has the first two-digit SIC of 37.

why need to mention smaller tanks?

BWT (Ballast Water Tanks): The ballast water treatment plant (BWTP) has six (6) fixed-roof storage tanks (BWT), four (4) steam cookers, and six (6) oil/water separators: Each storage tank is equipped with steam coils and surface oil skimmer and has the capacity of 24,000 barrels (1 million gallons). The oily and water are immiscible and they separate into two layers inside the storage tank. The oil-skimmer skims the lighter oily-layer from the top and skimmed-oil is fed into the reclaimed oil tanks (ROT). The water from the bottom of the BWT tanks and pumped into the steam cookers and oil/water separators for further treatment and recovery. The permittee can also use any storage tank to store bunker and/or reclaimed/used oils.

The steam cookers consist of a series of four 8,400 gallons-capacity vats connected by weirs. Steam coils within each vat heat the oily water as the heating increases the buoyancy of the oil particles. As the liquid level in the first cooker in series increases, the top layer of concentrated oil cascades over into the next cooker in series until it flows from the last cooker into the oil-water separators. Each of the six oil-water separators functions independently, and operator can select any combination of separators to use. After oil separation, water flows by gravity to a sump and later pumped into one of two clean water tanks.

ok

ROT (Reclaimed Oil Tanks): This emissions unit consists of four (4) horizontal storage tanks storing reclaimed oil recovered from ballast water by heating/separation processes. Each ROT tank equipped with steam coils has a capacity of 2,000 barrels (84,000 gallons). The VOC vapors from ROT tanks emit through the vents whenever the system's pressure exceeds 5 inches of water, and VOC-vapors are routed to the enclosed flare system VDU for abatement. The permit identifies ROT as a VOC emission source, and the flare system VDU that abate VOC emissions from ROT as the combustion source.

ROL (Reclaimed Oil Load-out): This emissions unit represents VOC emitted during the loading operations of reclaimed oil into the tanker trucks and trailers.

CUB (Central Utility Building, Boilers): Central Utility Buildings houses two (2) fire-tube boilers, and each boiler has the capacity of 17,250 lbs/hr of saturated steam at 125 psi. Boilers are capable of burning natural gas, distillate, used, or residual fuel oil. Two underground storage tanks with a 6,000 gallon-capacity each store fuel oil. The Boilers were installed in November of 1977 and they have not been modified since. No provisions of 40 CFR Part 60, subpart Dc, apply to CUB boilers.

WLD (Welding jobs): The emissions unit WLD represents welding operations that generate (PM_{10}) fumes. The (electric arc) welding operations can occur at anywhere throughout the PSY facility off and on board the ship. The permit estimates PM_{10} emissions based on the welding rod usage.

SBO (Abrasive blasting - Outside): This emissions unit represents abrasive blasting conducted outdoors, mostly on dry-docks 1 and 3 in preparation for surface coating operations. Large curtains and screens are hung across either one or both ends of dry-dock in an attempt to partially control the fugitive particulate emissions. The emissions unit SBO is by far the single largest PM/PM_{10} emission source existing at the shipyard.

SBI (Abrasive blasting - Inside): This emissions unit represents interior (e.g., in tanks, cargo bays) abrasive blasting operations and the blasting jobs conducted inside the blast room/building. There are two stationary baghouses (BAG-2 & BAG-3) and one mobile baghouse (BAG-1) to control the particulate emissions from indoor sandblasting operations (SBI).

2 Still?

PCD ID	Capacity (acfm)	Rated Efficiency	Year Installed	Cleaning mechanism
BAG-1	24,000	99.9 %	1994	Continuous - pulse jet
BAG-2	30,000	99.9 %	1990	Mechanical intermittent with shaker
BAG-3	94,000	99.9 %	1985	Continuous - pulse jet

PIR (Vehicle travel on paved road): This emissions unit represents fugitive dust emissions generated from road traffic on paved roads and paved parking lots. Oregon Administrative Rules define emissions from paved roads and paved parking lots within an urban growth boundary as categorically insignificant activities. While categorically insignificant activity must comply with all of the applicable requirements, the permit does not usually include any monitoring and record keeping protocols associated with the insignificant activities. However, as detailed in the PSEL section (item No. 21.d) of this review report, the road sweeping activities significantly reduced the PM/PM_{10} emissions from the baseline to current level. The permit will continue to employ monitoring and recordkeeping associated with the PIR-maintenance to ensure the PM/PM_{10} emission-reduction realized remain valid.

UPR (Vehicle travel on unpaved road): This emissions unit represents fugitive dust emissions generated from road traffic on unpaved roads during the baseline year. The entire shipyard has been paved and UPR no longer exists. (see item No. 21.d and 21.e of this review report)

7. Categorically insignificant activities include the following:

- Constituents of a chemical mixture present at less than 1% by weight of any chemical or compound regulated under Divisions 20 through 32 of this chapter, or less than 0.1% by weight of any carcinogen listed in the U.S. Department of Health and Human Service's Annual Report on Carcinogens when usage of the chemical mixture is less than 100,000 pounds/year
- Evaporative and tailpipe emissions from on-site motor vehicle operation
- Distillate oil, kerosene, and gasoline fuel burning equipment rated at less than or equal to 0.4 million Btu/hr
- Natural gas and propane burning equipment rated at less than or equal to 2.0 million Btu/hr
- Office activities
- Food service activities
- Janitorial activities
- Personal care activities

- Grounds keeping activities including, but not limited to building painting and road and parking lot maintenance
- On-site laundry activities
- Instrument calibration
- Maintenance and repair shop
- Automotive repair shops or storage garages
- Air cooling or ventilating equipment not designed to remove air contaminants generated by or released from associated equipment
- Refrigeration systems with less than 50 pounds of charge of ozone depleting substances regulated under Title VI, including pressure tanks used in refrigeration systems but excluding any combustion equipment associated with such systems
- Bench scale laboratory equipment and laboratory equipment used exclusively for chemical and physical analysis, including associated vacuum producing devices but excluding research and development facilities
- Temporary construction activities
- Warehouse activities
- Accidental fires
- Air vents from air compressors
- Electrical charging stations
- Instrument air dryers and distribution
- Routine maintenance, repair, and replacement such as anticipated activities most often associated with and performed during regularly scheduled equipment outages to maintain a plant and its equipment in good operating condition, including but not limited to steam cleaning, abrasive use, and woodworking
- Electric motors
- Storage tanks, reservoirs, transfer and lubricating equipment used for ASTM grade distillate or residual fuels, lubricants, and hydraulic fluids
- On-site storage tanks not subject to any New Source Performance Standards (NSPS), including underground storage tanks (UST), storing gasoline or diesel used exclusively for fueling of the facility's fleet of vehicles
- Natural gas, propane, and liquefied petroleum gas (LPG) storage tanks and transfer equipment
- Pressurized tanks containing gaseous compounds
- Emissions from wastewater discharges to publicly owned treatment works (POTW) provided the source is authorized to discharge to the POTW, not including on-site wastewater treatment and/or holding facilities
- Fire suppression and training
- Health, safety, and emergency response activities
- Emergency generators and pumps used only during loss of primary equipment or utility service
- Non-contact steam vents and leaks and safety and relief valves for boiler steam distribution systems
- Non-contact steam vents on condensate receivers, deaerators and similar equipment
- Boiler blowdown tanks
- Industrial cooling towers that do not use chromium-based water treatment chemicals
- Oil/water separators in effluent treatment systems
- Combustion source flame safety purging on startup

EMISSION LIMITS AND STANDARDS, TESTING, MONITORING, AND RECORDKEEPING

8. Oregon Administrative Rules with specific requirements (e.g., emission limits or standards) that have been determined to be applicable to the VIGOR facility are identified in this section. The applicable requirements along with the associated monitoring, recordkeeping, and reporting that are necessary to determine compliance with the aforementioned applicable requirements are incorporated in this Title-V permit.

9. Facility-wide applicable requirements:

Do we need to write one of these?

- 9.a. Source Emission Reduction Plan (SERP), OAR 340-206-0050, applicable to a major source located inside Portland AQMA that emits more than 100 tons/yr of PM, PM, and VOC;
- 9.b. Fugitive dust control requirements, OAR 340-208-0210(2);
- 9.c. Particulate matter (> 250 micron) fall-out standard, state-only enforceable, OAR 340-208-450;
- 9.d. No nuisance requirement, state-only enforceable, OAR 340-208-0300; and
- 9.e. Certification program required for workers working with ozone-depleting chemicals (i.e., refrigerants) on-board ship, 40 CFR Part 81.161(a).

10. Emissions Unit specific Standards:

- 10.a. The fuel oil sulfur contents, OAR 340-228-0100, applicable to CUB Boilers when distillate or residual fuel oils are used;

VxC also?

- 10.b. Opacity standard (20%, 3-minutes) of OAR 340-208-0110 applicable to CUB Boilers and SBI baghouses;
- 10.c. Opacity standard (20%, 30-seconds) of OAR 340-208-0600 applicable to SBI baghouses;
- 10.d. grain loading limit of OAR 340-226-0210 applicable to non-fuel burning equipment SBI;
- 10.e. grain loading limit of OAR 340-228-0210 applicable to fuel burning equipment CUB;
- 10.f. operation and work practice requirements of OAR 340-226-0120 applicable to SBO and SBI;
- 10.g. equipment specifications and/or storage limitations of OAR 340-232-0150 applicable to BWT and ROT storage tanks;
- 10.h. Surface Coating Categorical RACT limits for miscellaneous coating operations ($COAT_{MISC}$), OAR 340-232-0160, applicable when coating non-marine vessel parts;
- 10.i. Source specific ($COAT_{SHIP}$) RACT limits for marine coating operations ($COAT_{SHIP}$), OAR 340-232-0020, applicable when coating marine vessel of vessel parts;
- 10.j. National Emission Standards for Hazardous Air Pollutants (NESHAP, subpart II) applicable to marine coating operations ($COAT_{SHIP}$), 40 CFR, Part 63.783;
- 10.k. National Emission Standards for Hazardous Air Pollutants (NESHAP, subpart MMMM) applicable to miscellaneous coating operations ($COAT_{MISC}$), 40 CFR, Part 63.3881:

  While Vigor meets the applicability criteria of NESHAP Subparts II and MMMM, §63.3881(e)(2) allows Vigor with an alternative option to comply with the emission limitation representing the predominant surface coating activity. Specifically the $COAT_{SHIP}$ activity accounts for more than 90% of all the surface coating activities ($COAT_{SHIP}$ and $COAT_{MISC}$) performed at the shipyard, and compliance with NESHAP subpart II applicable to $COAT_{SHIP}$ constitutes compliance with both subparts II and MMMM.

11. Emissions limits applicable to Insignificant Activities:

11.a. Opacity standard of OAR 340-208-0600;
11.b. grain loading limits of OAR 340-226-0210 and 340-228-0210; and
11.c. architectural coating standards of OAR 340-242-0730 (4).

12. History of Coating RACT Limits applicable to $COAT_{SHIP}$: Initially the coating VOC limits were applicable to surface coating operations of vessel and vessel parts ($COAT_{SHIP}$) during the ozone-season only, or July through August of each year. These seasonal coating limits reflected the court-settlement agreement with the Sierra Club and Oregon Environmental Counsel (OEC). Air Contaminant Discharge Permit (ACDP 26-3224) Addendum No.2 issued to (then the owner/operator) Portland Shipyard on 10/04/95 contained the case-by-case and source-specific RACT coating limits that became effective one year after the EPA approval date of May 6, 1997. Because the seasonal coating limits are identical to source-specific RACT limits, complying with the source-specific RACT limits throughout the year ensures compliance with the seasonal limits, and therefore the permit do not duplicate the seasonal coating limits.

13. Emissions limits applicable to Insignificant Activities: This facility has insignificant emissions units (IEUs) that include categorically insignificant activities and aggregate insignificant emissions, as defined in OAR 340-200-0020. For the most part, the standards that apply to IEUs are for opacity (20% limit) and particulate matter (0.1 gr/dscf limit). The Department does not consider it likely that IEUs could exceed an applicable emissions limit or standard because IEUs are generally equipment or activities that do not have any emission controls (e.g., small natural gas fired space heaters) and do not typically have visible emissions. Since there are no controls, no visible emissions, and the emissions are less than one ton per year, the Department does not believe that specific monitoring, recordkeeping, or reporting is necessary for assuring compliance with the standards.

14. Non-Applicable Requirements: The Vigor Industrial LLC - shipyard facility is not currently subject to any specific New Source Performance Standards (NSPS; 40 CFR Part 60). A list of non-applicable rules and summary of reasons are provided in the non-applicable requirements section of Title V permit 26-3224. Note that 40 CFR Part 61, subpart M could apply if asbestos is found at the facility. Furthermore, as is the case with any Title V sources, the general NESHAP provisions (subpart A) and the appendices of the federal regulations always apply.

15. General Monitoring Requirements: Section 70.6(a)(3)(i) requires that all monitoring and analysis procedures or test methods required under applicable requirements be contained in Title V permits. In addition, where the applicable requirement does not require periodic testing or monitoring, periodic monitoring must be prescribed that is sufficient to yield reliable data from the relevant time period that is representative of the source's compliance with the permit.

The requirement to include in a permit testing, monitoring, recordkeeping, reporting, and compliance certification sufficient to assure compliance does not require the permit to impose the same level of rigor with respect to all emissions units and applicable requirement situations. It does not require extensive testing or monitoring to assure compliance with the applicable requirements for emissions units that do not have significant potential to violate emission limitations or other requirements under normal operating conditions. Where compliance with the underlying applicable requirement for an insignificant emission unit is not threatened by a lack of a regular program of

monitoring and where periodic testing or monitoring is not otherwise required by the applicable requirement, then in this instance, the status quo (i.e., **no monitoring**) will meet section 70.6(a)(3)(i).

The monitoring frequency (i.e., daily, weekly, monthly, or yearly) specified in the monitoring condition is the time elapsed between two subsequent monitoring performed by the permittee. It may not be practical to interpret the frequency specified in the permit as being exact calendar time frame. For example, the permittee is required to monitor their production and fuel usage on a monthly basis to show compliance with the PSEL set forth in the permit. The term "monthly" is not meant to be strictly limited to interpretation as a "calendar month" as the production cycle may either end before or extend beyond the last day of a calendar month. Within reason, the permittee is allowed to use the alternative monitoring frequency such as an "accounting month" following their production cycle. This "accounting" period similarly applies to all monitoring frequencies specified in the permit.

16. PSEL monitoring: Emission factors and empirical formulas applied to estimate the plant site emissions for purpose of determining compliance with the PSEL are not, by themselves, enforceable limits. These emissions factors and formulas need to be reviewed on an on-going basis, as they are subject to change as the process is modified and/or additional controls are implemented, and as new emissions data becomes available through source testing and/or research. The original Title 5 permit issued to PSY established the 5% PM control efficiency reflective of curtains and screens that were provided at one-end of drydock during the outdoor sandblasting operations (SBO). The existing 5% PM control efficiency can change if the permittee establishes additional curtains and screens or implements more efficient control and can quantify the level of improvement.

17. Test Methods and Procedures section of the permit provides the permittee and Department exact test methods to be used to measure pollutant emissions in the event that testing is conducted for any reason. This section does not by itself require the permittee to conduct any more testing than those specified in the permit. Although the permit may not require testing because other routine monitoring is used to determine compliance, the Department and EPA always have the authority to require testing if deemed necessary to determine compliance with an emission limit or standard. In addition, the permittee may volunteer to conduct testing to confirm the compliance status. In any case, the methods to be used for testing in the event that testing is conducted are included in the permit.

18. Recordkeeping requirements in this permit are drafted pursuant to OAR 340-218-0050(3)(b). The records of all monitoring specified in the Oregon Title-V Operating Permit must be kept at the plant site for at least 5 years, unless longer period is specified (for certain NSPS data). All records necessary to determine compliance with any permit condition shall be made available to the DEQ/EPA inspectors upon request.

19. Reporting requirements in this permit are drafted pursuant to OAR 340-218-0050(3)(c). The permittee is required to submit NESHAP report and semi-annual compliance certification to the Department twice per year. The semi-annual reports are for certifying compliance with the permit requirements. The annual report consists of the second semi-annual compliance certification; in addition to the product throughputs, and other relevant data needed to determine compliance with the PSEL.

PLANT SITE EMISSION LIMITS

20. The following table provides a summary of baseline emissions, netting basis, and the plant site emission limits incorporated in the proposed permit:

Pollutant	Baseline Emission Rate (tons/yr)	Netting Basis		Plant Site Emission Limits (PSEL)		
		Previous (tons/yr)	Proposed (tons/yr)	Previous PSEL (tons/yr)	Proposed PSEL (tons/yr)	PSEL Increase (tons/yr)
PM	256	256	256	263	263	0
PM_{10}	124	124	124	124	124	0
SO_2	4	4	4	39	39	0
NO_x	8	8	8	39	39	0
CO	2	2	2	99	99	0
VOC	500	425	425	464	464	0

20.a. Baseline Emission Rate is an estimate of actual pollutant emissions that occurred during the baseline period of 1978. Emissions Detail Sheets at the end of this review report provide the 1978 production data and emission factors used to estimate the baseline PSEL.

20.b. Netting Baseline equals the baseline emission rate adjusted down with respect to any emission reductions required by rules or through voluntary measures, plus any emission increases approved through New Source Review. There have been no regulatory or (permanent) voluntary reductions of PSEL, and there have been no PSEL increases approved through NSR.

20.c. PSEL for PM and PM_{10} remain the same as the netting basis, which equals baseline emissions rate.

20.d. PSEL for SO_2, NO_X, and CO established in the permit are higher than the amount requested by the permittee. Pursuant to OAR 340-222-0040, although source (i.e., boilers) has no capacity to emit, those pollutants with capacity less than Significant Emission Rate (SER) receive a generic level PSEL. The generic PSEL level for a pollutant is equal to the Significant Emission Rate (SER) for that pollutant minus 1 ton.

20.e. PSEL for VOC is 39 tons greater than its netting basis, but it is equal to the VOC PSEL established in the previous permit.

20.f. Short-term PSEL: No short-term SER exist for any of the regulated pollutants in the area where the Cascade General facility is located. Pursuant to OAR 340-222-0042, the permit no longer establishes short-term PSEL. The short-tem/daily grit usage limit of condition 20.e that restricted the daily grit usage to 33 tons on drydock #1 is also no longer valid. While there were several drydocks including the largest DD#4, the daily grit usage limit was imposed on DD#1 only due to its "Pier A" location. Drydock #4

was sold to overseas company in July of 2000. Drydock #1 was moved from its original Pier A location to the south of berth 310, adjacent to dry-dock #5 where no daily restrictions ever existed.

20.g. PSEL Compliance: OAR 340-222-0080 requires the averaging period for PSEL to be calculated on a rolling 12-month basis. The annual emissions for the previous 12-month period must be calculated at the end of each month, for a total of 12 times during the calendar year. The PSEL is a federally enforceable limit on the potential to emit.

21. PSEL Emissions Basis:

21.a. Emissions from CUB-Boilers:

Pollutant	Baseline (tons/yr)	Proposed (tons/yr)
PM_{10}	0.4	1
SO_2	3.6	14
NO_X	8.1	5
CO	1.9	1
VOC	0.2	1
NG (10^6 ft^3/yr) usage:	105.777	37
Residual oil (gal/yr) usage:	25,200	100,000

21.a.i. The Natural Gas heating value used is 1050 Btu/ft^3.

21.a.ii. The NW Natural Gas Company factor of 2.6 lbs/10^6 ft^3 is used in lieu of the AP42 EF of 0.6 lbs SO_2 /10^6 ft^3, which more accurately represent the sulfur content of natural gas sold in the northwestern states.

21.a.iii. The DEQ PM_{10} EF of 2.5 lbs/10^6 ft^3 is used for natural gas combustion in both the commercial and industrial boiler categories. All PM/PM_{10} generated from fuel combustion are regarded as PM_{10}.

21.b. SBO: The following emissions data were used to establish the PM and PM_{10} PSEL from outdoor sandblasting operations (SBO):

SBO PSEL	lbs of abrasive shot/slag	EF (lbs/lbs abrasive materials)	Emissions (tons/yr)
Baseline PM	2,800,000	6.3×10^{-2}	88.2
Proposed PM	2,000,000	5.99×10^{-2}	59.9
Baseline PM_{10}	2,800,000	2.2×10^{-2}	30.8
Proposed PM_{10}	2,000,000	2.09×10^{-2}	20.9

The proposed PM and PM_{10} emission factors (EF) used to calculate the emissions from the outdoor abrasive blasting operations incorporate the control efficiency (EFF) of 5% that curtains and screens are believe to provide. There were no curtains/screens provided at the drydock during the baseline year:

$$PM\ EF_{Current} = (1 - EFF/100\%)\ EF_{Baseline} = 5.99 \times 10^{-2}$$
$$PM_{10}\ EF_{Current} = (1 - EFF/100\%)\ EF_{Baseline} = 2.09 \times 10^{-2}$$

21.c. SBI: The following emissions data were used to establish the PM and PM_{10} PSEL from baghouse-controlled indoor sandblasting operations (SBI):

SBI PSEL	lbs of abrasive shot/slag	EF (lbs/lbs abrasive materials)	Emissions (tons/yr)
Baseline PM	3,000,000	6.3×10^{-2}	94.5
Proposed PM	6,000,000	6.3×10^{-5}	0.2
Baseline PM_{10}	3,000,000	2.2×10^{-2}	33.0
Proposed PM_{10}	6,000,000	2.2×10^{-5}	0.1

The baghouse manufacturer's rated efficiency of 99.9% is used to update the current PM and PM_{10} EFs used to calculate the emissions from the indoor abrasive blasting operations:

$$PM\ EF_{Current} = (1 - 99.9\%/100\%)\ EF_{Baseline} = 6.3 \times 10^{-5}$$
$$PM_{10}\ EF_{Current} = (1 - 99.9\%/100\%)\ EF_{Baseline} = 2.2 \times 10^{-5}$$

21.d. Paved Road (PIR) PM and PM_{10} Emissions (tons/yr):

PIR PSEL	VMT	EF (lbs/VMT)	Emissions
Baseline PM	60,000	2.36	70.8
Proposed PM	150,000	0.17	12.8
Baseline PM_{10}	60,000	1.89	56.6
Proposed PM_{10}	150,000	0.136	10.2

Emission factors used to calculate the PM and PM_{10} emissions from paved roads and parking lots were based on the AP42 empirical equation and factors:

$$EF_{PM} = 0.077\ I\ (4/n)\ (s/10)\ (L/1000)\ (W/3)^{0.7}$$

EF_{PM} Variables		Baseline	Current
I =	industrial augmentation factor	7	1
n =	number of traffic lanes	2	2
s =	surface material silt content (%)	12.5	12.5
L =	surface dust loading (lb/mile)	1750	875
W =	average vehicle weight (ton)	3	3

The permittee (then PSY) estimated the PM_{10} emissions from PIR to be 80 percent (%) of the PM emissions. The permittee attributed the significant differences in the baseline and current versions of "I" and "L" to the assumption that approximately 50% reduction in the surface dust loading factor (L) was realized by mechanically sweeping the paved roads on a regular basis. Industrial augmentation factor "I" listed in AP42 ranges from 1 to 7. The permittee assigned the lowest factor of 1 for the current-I and the highest factor of 7 for the baseline-I. Permittee claims approximately one-half of the shipyard's area that was not occupied by building was unpaved, and set the baseline-I equal to 7 since traffics on paved industrial roads were significantly affected by the unpaved area. The current-I factor is set equal to 1 because the all vehicles travel on paved surface. The current-L factor is half the

baseline-L attributed to the mechanical sweeping, and therefore the permit establishes the operation and work practice requirements for PIR that include periodic sweeping of paved roads.

21.e. Unpaved Road (UPR) PM and PM_{10} Emissions (tons/yr):

UPR PSEL	VMT	EF (lbs/VMT)	Emissions
Baseline PM	584	9.85	2.9
Requested PM	n/a	9.85	0
Baseline PM_{10}	584	7.88	2.3
Requested PM_{10}	n/a	7.88	0

22. HISTORY OF PHYSICAL CHANGES TO THE BWTP: A review of the previous ACDP files indicates the ballast water treatment processes have changed significantly since the baseline year, and the modified treatment process has significantly reduced the plant site VOC emissions. There was a surface pond at PSY during the baseline period that held the ballast water prior to discharge into the Willamette river. PSY permanently close the surface pond in 1980. Physical changes that have occurred to the ballast-water treatment processes since the baseline year are as follows:

- The Ballast Water Treatment Processes -	
Baseline operations	Current Operations
Tank 10 (7,000 bbl.)	BWT (six tanks, 24,000 bbl each)
Tank 11, 6 interconnected, 3500 bbl	Tank 11 (six interconnected, 3,500 bbl)
ROL (4 tanks, uncontrolled)	ROL (4 tanks, VOC controlled with flare)
One Cooker	Four Cookers
One API Oil/water separator	Six Oil/water separator
Surface (holding) pond	Clean Water Holding Tank

The original Title-V permit application (addendum dated 05/31/1996) indicates 147.5 tons of VOC were emitted during the baseline year from treating 5.92×10^6 gallons of ballast water using the surface pond. However, utilizing the current BWT facility, about 72 tons of VOC (64.5 tons from BWT, 6 tons from ROT, 1.6 tons from ROL) would be released from treating 15.3 million gallons of ballast water. In terms of VOC emissions rate, the current BWT facility emits approximately 0.01 lbs of VOC per gallon of ballast water treated whereas the surface pond method used during the baseline year emitted about 0.05 lbs VOC/gal.

Sources operating inside the designated ozone non-attainment area (when original Title V permit was issued back in 1996) for which no categorical RACT requirements exist and that have the "potential to emit"over 100 tons of VOC per year are subject to the source-specific RACT requirements specified in OAR 340-232-0040. The VOC emissions from the ballast water treatment processes during the baseline year were unknown until PSY performed the plant-wide emissions inventory during the original Title V permitting stage. In accordance with OAR 340-222-0043, uncontrolled VOC emissions from surface pond would need to adjusted down to the RACT level required by the Department rules: The ROT storage tanks have been equipped with the (liquid storage) RACT level control consistent with the requirements set forth in OAR 340-232-0150. Pursuant to OAR 340-232-0040, the source subject to case-by-case RACT requirements can opt out by demonstrating that the source's potential to emit has fallen below the 100 tons/yr level.

The BWT facility was built in 1979 by Port of Portland who conceived the oil market in Alaska would bring fleet of tankers to PSY but that never materialized. Regardless of its original intent, the BWT facility (compared to surface pond) decreased the baseline VOC emissions to the current level of 72 tons/yr, which the Department accepted as the netting basis for the ballast water treatment processes.

BWTP	Ballast water (gallons)	EF (lbs/gal)	Netting Basis (tons/yr)
BWT	15,330,912	8.41×10^{-3}	64.5
ROT	1,545,944	7.76×10^{-3}	6.00
ROL	1,545,944	0.002	1.55
Total:			72.1**

** The actual baseline VOC emissions from surface pond totaled 147.5 tons from treating 5.92×10^{6} gallons of ballast water.

23. DRY DOCK NO. 4 was under construction during the 1978 baseline year but it did not operate until 1979, which means the actual VOC emissions from DD#4 during the baseline year 1978 were zero. The Mutual Agreement and Order (MAO) signed on April 4, 1995 stipulated that the construction of DD#4 was complete in September 1978 and it was operational and in service by March 1979. The parties to the 4/04/95 MAO agreed that DD#4 was not subject to the NSR requirements, and agreed to the ozone-seasonal coating limits, as specified in ACDP addendum No.1 issued on May 4, 1995. The court decision that is reflected in the 4/04/95 MAO allocated a total baseline VOC emissions rate of 228 tons to DD#4, which was the baseline figure established in the original Title V permit:

$COAT_{SHIP}$	Coating Usage (gallons)	EF (lbs/gal)	Baseline Emissions (tons/yr)
DD#4	--	--	228
Other dry docks and ship berths	35,400	5.0	88.5
Total $COAT_{SHIP}$:			316.5

Cascade General sold DD#4 back in July of 2000 but since purchased the newer dry docks. The PTE and netting basis will remain the same as the baseline rate.

24. $COAT_{MISC}$: Air Contaminant Discharge Permit (ACDP) 26-3101 issued to (defunct) Southwest Marine, Inc established the VOC netting basis of 36.4 tons per year, which is the adjusted baseline rate as required by surface coating RACT limit of 3.5 lbs VOC per gallon of coating applied:

$COAT_{MISC}$	Baseline Emissions	Netting Basis
	43.7 tons/yr	36.4 tons/yr

The original Title V permit 26-3224 combined two ACDPs issued to two separate entities operating within the PSY: Port of Portland regulated under ACDP 26-3224 and Cascade General regulated under ACDP 26-3101.

25. In summary, the netting basis include the following:

EU ID	PM	PM_{10}	SO_2	NO_X	CO	VOC
$COAT_{SHIP}$	--	--	--	--	--	316.5
$COAT_{MISC}$						36.4
BWTP	--	--	--	--	--	72.1
SBO	88.2	30.8	--	--	--	--
SBI	94.5	33.0	--	--	--	--
UPR	2.9	2.3	--	--	--	--
PIR	70.8	56.7	--	--	--	--
WLD	--	0.6	--	--	--	--
CUB	--	0.4	3.6	8.1	1.9	0.2
Total (tons/yr):	256	124	4	8	2	425 **

** The actual baseline VOC emissions rate equals 500 tons.

26. Significant Emission Rate: The proposed Plant Site Emission Limit for each regulated pollutant is less than its Netting Basis and SER, and no further air quality analysis is required.

Pollutant	SER	Requested increase over previous netting basis	Increase due to utilizing capacity that existed in the baseline period	Increase due to physical changes or changes in the method of operation
PM	25	0	0	0
PM_{10}	15	0	0	0
SO_2	40	35	0	0
NO_x	40	31	0	0
CO	100	97	0	0
VOC	40	0	0	0

As discussed earlier, the proposed SO_2, NO_X, and CO PSEL increases do not reflect the actual emission increases. The permitted source does not have the physical capacity to emit these pollutants at their generic level.

HAZARDOUS AIR POLLUTANTS

27. Vigor Industrial, LLC is a major source of hazardous air pollutants (HAPs) because it has the potential to emit (PTE) of more than 10 tons/year of individual HAP and the PTE of more than 25 tons/year of combined HAPs. National Emission Standards for Hazardous Air Pollutants (NESHAP, subpart II) for marine coating operations ($COAT_{SHIP}$), 40 CFR, Part 63.783 are incorporated in the permit to regulate the facility's HAP emissions. Emissions detail sheets attached to this review report provides summary of Vigor's potential HAP emissions.

28. Toxic and Flammable Substance Usage for Accidental Release Prevention

Emissions detail sheets attached to this review report provides a summary of Vigor's Toxic substance usage.

29. Stratospheric Ozone Depleting Substances

The permittee may perform work on the refrigeration system on board the ship that use the following stratospheric ozone-depleting substances:

Ozone-depleting substance	Class type	Replacement chemical
Chlorofluorocarbon-12 (R-12)	I	R-134a
Hydrochlorofluorocarbon-22 (R-22)	II	No replacement identified
$C_2F_3Cl_3$-(CFC113)	I	Non-chlorinated hydrocarbons
1,1,1 Trichloroethane	I	Non-chlorinated hydrocarbons
Carbon Tetrachloride	I	Non-chlorinated hydrocarbons

30. Accidental Release Prevention: The Vigor facility is not currently subject to the accidental release prevention regulation in 40 CFR 68. No quantities of listed substances used in a process at this facility exceed the quantities that trigger applicability of the risk management plan (RMP) by the date specified in 40 CFR 68.10.

GENERAL BACKGROUND INFORMATION

31. Other permits issued or required by the Department of Environmental Quality for this source include an NPDES permit (NPDES 101393) for their wastewater discharge, and a general NPDES permit (1200-Z) for their storm water discharge. The Vigor facility in PSY is a large quantity hazardous waste generator (ORD 1807619~~8413).~~ 34

180761934
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32. A Land Use Compatibility Statement signed by the City of Portland on December 18, 1995 granted approval of the facility operations.

33. The source located in a maintenance area for ground-level ozone and Carbon Monoxide (CO). The permitted facility is a major source of (ozone precursor) VOC but a minor source of NO_x and CO.

34. Aggregate Insignificant Activities identified by Vigor include the following:

AIA	PM	PM_{10}	SO_2	CO	VOC	NO_x	HAPs
VDU (Flare for ROT)	<.021	<.021	<.121	<.543	<.093	<.1	--
BWTP (Steam) Cookers	--	--	--	--	<.677	--	<.677
Vessel-boiler repair, test	<.034	<.032	<.482	<.009	<.001	<.097	<.035
Vessel fueling from barge	--	--	--	--	<.051	--	<.051
Oven	--	0.05	0.05	0.39	0.07	--	
Total Aggregate:	< 1	< 1	< 1	< 1	< 1	< 1	< 1

All units expressed as "tons/yr".

This permit does not intend to limit "aggregate insignificant activities" to only those currently identified in the permit application. No groups of activities are identified in this permit just for the purpose of identifying insignificant activities, which tend to be a moving target. Instead, the permit aggregate limits reflect the rule limits, as defined in OAR 340-200-0020. The rules allow the permittee to add more categorical insignificant activities to their existing list, and similarly, the permittee may add more insignificant activities to their existing aggregate source list, provided the aggregate emissions of any individual (regulated) pollutant do not exceed the permit (rule) aggregate insignificant limit.

COMPLIANCE HISTORY

35. Vigor exceeded the annual PM PSEL of 256 tons/yr specified in Condition 27 of Title-V Permit 26-3224 three times for 12-month periods ending in January, February, and March of 2007. Vigor is required to determine compliance with the annual PSEL at the end of each month for a total of 12 times during the calendar year. Because of the rolling-nature of the annual PSEL, the compliance determination uses the same data (e.g., monthly production) multiple times until the rolling/averaging periods affected run their course. A sudden surge in Vigor's sandblasting activities in January of 2007 caused the annual PM PSEL violations three times:

Emission Period	PM Emission (tons)	Exceedance (tons)
02/01/2006 to 01/31/2007	279	23
03/01/2006 to 02/28/2007	292	36
04/01/2006 to 03/31/2007	297	41

The Department issued Pre-Enforcement Notice (PEN-POR-AQ-2007-0013) on July 9, 2007, and the case was forwarded to the Department's enforcement section with a recommendation to proceed with formal enforcement action. The Department assessed a civil penalty of $16,000 and Vigor paid the full amount of the civil penalty on May 27, 2008.

PUBLIC NOTICE

36. The proposed permit action is a category III permit action and public notice is required. The draft permit will be placed on public notice from **June XX, 2008** to **July YY, 2008** to allow any interested public to submit written comments. The Department will hold a public hearing if requested by ten or more individuals or one person representing a group of ten or more individuals. After the comment period, and the hearing if deemed appropriate, the Department will review all comments received and revise the (draft) permit as necessary. A proposed permit will then be sent to EPA for a 45 day review period. The Department may request EPA to expedite their review to 5 days if no substantive or adverse comments were received during the comment period. In any event, the public will have 105 days (45 day EPA review period plus 60 days) from the date the proposed permit is sent to EPA to appeal the permit with EPA. The permit will be issued following EPA's review.

EMISSIONS DETAIL SHEETS

Excel Spreadsheets A1 – A8 attached.

gdy
Vigor-R1

Oregon Title V Air Operating Permit
Renewal Application Information

FORM AP106
Answer Sheet

Facility name: Cascade General, Inc. Permit Number: 26-3224

1.	Contact Person: Name	T. Alan Sprott
	Title	VP
	Phone number	503-247-1672
	e-mail address	asprott@vigorindustrial.net
	Fax number	503-247-6050
2.	Permit cover page changes:	None
3.	Were there any off-permit changes?	No
	If yes, integrate changes into renewal permit? [if no, explain]	NA
4.	Were there any section 502(b)(10) changes?	No
	If yes, integrate changes into renewal permit? [if no, explain]	NA
5.	Process information: Production	See attached
	Fuel usage	See attached
	Raw material usage	NA
6.	Operating schedule hours/day	24
	days/week	7
	weeks/year	52
	Seasonal months	12
7	Number of employees	300
8.	Will there be any changes to the operating scenario(s)? [if yes, describe and attach form AP103]	No
9.	Will there be any new, modified, or reconstructed stationary sources or air pollution control equipment? [if yes, attach appropriate form(s)]	No
10.	Are the current emissions units correctly identified and defined in the permit? [if no, provide necessary revisions]	Yes
11.	Does the CAM rule apply to any of the emissions units? [if yes, list the pollutant-specific emissions units that the rules apply to and attach form CP709]	No
12.	Does the accidental release prevention regulation apply to the facility? [if yes, list the regulated substances present in processes at the facility and identify the applicable program]	No
13.	Are there any other new applicable requirements? [if yes, list the new applicable	Yes. Subpart MMMM - NESHAP. Miscellaneous Metal Parts and Products

	requirements, emissions units, and attach a series CP700 form that describes the proposed monitoring]	
14.	Are there any requested changes in the Plant Site Emissions Limits (PSEL) other than those identified in item 9 above? [if yes answer the following]	No
	Are the changes a result of having better emissions information such as a new emission factor from a recent source test? If yes, complete and attach any applicable emissions forms from series ED600.	
	Are the changes due to an increase in production? If yes, complete and attach the applicable emissions form from series ED600. If the emissions increases are greater than the significant emission rate (SER), the owner or operator will need to provide an assessment of the air quality impact in accordance with OAR 340-222-0041(3)(b).	
15.	Is the source in compliance with all of the conditions of the current permit? [if no, attach a compliance schedule]	Yes
16.	Are there any requested changes to testing conditions? [if yes, identify the condition, the requested change, and the reason]	No
17.	Are there any requested changes to monitoring conditions other than those being replaced by CAM? [if yes, identify the condition, the requested change, and the reason]	No
18.	Are there any requested changes to recordkeeping conditions? [if yes, identify the condition, the requested change, and the reason]	No
19.	Are there any requested changes to reporting conditions? [if yes, identify the condition, the requested change, and the reason]	No
20.	Are there any requested changes to the non-applicable requirements? [if yes, identify the condition, the requested change, and the reason]	Yes. After relocation of drydock 1, remove restriction on abrasive grit usage. Condition 20. e.
21.	Are there any other requested changes to any condition? [if yes, identify the condition, the requested change, and the reason]	No

Statement of Certification:

Based on information and belief formed after reasonable inquiry, the statements and information in this document and any attachments are true, accurate and complete. I also certify that all statements made concerning compliance, which are based on monitoring required by the permit but not required to be submitted to the Department, are true, accurate and complete based on information and belief formed after reasonable inquiry

ALAN SCOTT

Name of Responsible Official

VP

Title of Responsible Official

Alan Scott

Signature of Responsible Official

12/22/16

Date

Oregon
Theodore Kulongoski, Governor

Department of Environmental Quality
Northwest Region Office
2020 SW 4th Avenue, Suite 400
Portland, Oregon. 97201
(503) 229-5554
FAX (503) 229-6945

November 19, 2008

Vigor Industrial, LLC
Attn: Alan Sprott
Director of Environmental Services
5555 N. Channel Avenue
Portland, Oregon 97217

Re: Issuance of Oregon Title V
Operating Permit Renewal
Permit No. 26-3224
Application No.22051

The Department of Environmental Quality has completed processing your Oregon Title V Operating Permit renewal application and has issued the enclosed permit. Based upon the material contained in your application, the additional submissions and comments made by you, and the comments received in response to the public notice, the Department has issued the enclosed Oregon Title V Operating Permit renewal.

The permit became effective the date it was signed. If you wish to appeal any of the conditions or limitations contained in the attached permit or if you have any questions, please contact George Yun at (503) 229-6093. If issues related to the permit conditions cannot be resolved to your satisfaction, you may request a hearing before the Environmental Quality Commission or its authorized representative. Any such requests shall be made in writing within 20 days of the date of this letter, and shall clearly specify which permit conditions are being challenged and why, including each alleged factual or legal objection. Permit conditions that are not contested shall be in effect upon the date the permit was signed (OAR 340-218-0220).

You are urged to carefully read the permit and take all possible steps to ensure compliance with the conditions established.

Sincerely,

Cory Wind
Region Manager
Air Quality Program

bh
Enclosure
cc: DEQ:Air Quality Division
Affected States
EPA

DEQ-DC1

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
OREGON TITLE V OPERATING PERMIT

Northwest Region
2020 SW 4th, Suite 400
Portland, OR 97201
Telephone: (503) 229-5263

Issued in accordance with the provisions of
ORS 468A.040 and based on the land use compatibility findings included in the permit record.

ISSUED TO:

Vigor Industrial LLC
5555 N. Channel Avenue
Portland, OR 97217

INFORMATION RELIED UPON:

Application Number: 22051
Received: 12/26/2006

PLANT SITE LOCATION:

5555 N. Channel Avenue
Portland, OR 97217

LAND USE COMPATIBILITY STATEMENT:

From: City of Portland
Dated: 04/19/95, 12/18/95

ISSUED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY

Cory Ann Wind, Northwest Region AQ Manager — Date: 11/19/08

Nature of Business: Ship building and repair, industrial fabrication

Primary SIC: 3731

RESPONSIBLE OFFICIAL:

Name: Mr. T. Alan Sprott
Title: Environmental Director

FACILITY CONTACT PERSON:

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Title: Environmental Director
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LIST OF ABBREVIATIONS USED IN THIS PERMIT

ACDP	Air Contaminant Discharge Permit
acfm	actual cubic foot per minute
AQMA	Air quality management area
ASTM	American Society of Testing and Materials
bbl	barrel
BMP	Best management practices
Btu	British thermal unit
CFR	Code of federal regulations
CO_2	Carbon dioxide
CO	Carbon monoxide
Cr^6	Hexavalent Chromium
Cr^3	Trivalent Chromium
DEQ/ODEQ	Oregon Department of Environmental Quality
dscf	dry standard cubic foot
EF	emission factor
EPA	US Environmental Protection Agency
EU	Emissions unit
FCAA	Federal Clean Air Act
ft^3	cubic feet
gr/dscf	grain per dry standard cubic foot
HAP	Hazardous Air Pollutant as defined by OAR 340-032-0130
HCFC	Hydro-chloro-fluoro-carbons
ID	Identification number
I&M	Inspection and maintenance
LPG	Liquefied petroleum gas
MB	Material balance
mg/l	milligrams per liter
MMBtu	Million British thermal units
mvac	Motor vehicle air conditioner
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NG	Natural gas
NO_x	Oxides of nitrogen
O_2	Oxygen
OAR	Oregon Administrative Rules
ORS	Oregon Revised Statutes
O&M	Operation and maintenance
Pb	Lead
PCD	Pollution control device
PM	Particulate matter
PM_{10}	Particulate mater less than 10 microns in size
ppm	Part per million
ppmv	Part per million by volume
PSEL	Plant Site Emission Limit
psig	pounds per square inch
RACT	Reasonably Available Control Technology
RVP	Reid Vapor Pressure
scf	Standard cubic foot
SERP	Source Emission Reduction Plan
SIP	State Implementation Plan
SNAP	Significant New Alternative Policy
SO_2	Sulfur dioxide
ST	Source test
VE	Visible emissions
VOHAP	Volatile Organic Hazardous Air Pollutant (includes VOC listed as HAP & exempt-VOC listed as HAP)
VMT	Vehicle miles traveled
VOC	Volatile organic compound

PERMITTED ACTIVITIES

1. Until such time as this permit expires or is modified or revoked, the permittee is allowed to discharge air contaminants from those processes and activities directly related to or associated with air contaminant source(s) in accordance with the requirements, limitations, and conditions of this permit. [OAR 340-218-0010 and 340-218-0120(2)]

2. All conditions in this permit are federally enforceable, meaning that they are enforceable by DEQ, EPA, and citizens under the Clean Air Act, except that conditions 10, 11, 18, 36, G5, and G9 (OAR 340-248-0005 through 340-248-0180) are enforceable by the state only. [OAR 340-218-0060]

EMISSIONS UNIT (EU) AND POLLUTION CONTROL DEVICE (PCD) IDENTIFICATION

3. The emissions units and pollution control devices regulated by this permit are the following [OAR 340-218-0040(3)]:

3.a. Emissions Unit Identification

Emissions Unit	EU ID	Process Description
Ship Coating operations	$COAT_{SHIP}$	Painting of marine vessel and vessel parts throughout the shipyard including dry docks, berths, and all shipyard paint booths.
Misc. Coating operations	$COAT_{MISC}$	Painting of miscellaneous (non-marine) metal parts, primarily conducted in shipyard paint booths, including a future paint booth (Building 73A).
All Coating operations	COAT	$COAT_{SHIP}$ and $COAT_{MISC}$
Ballast water treatment plant	BWT	Six vertical (oil slops) storage tanks
Reclaimed Oil Tanks	ROT	Four horizontal (reclaimed oil) storage tanks – VOC emissions from ROT are routed to enclosed-flare system VDU
Central Utility Building	CUB	Two utility boilers BLR-1 & BLR-2 (25.4×10^6 Btu/hr rated capacity)
Abrasive (Shot/slag) Blasting - Outside	SBO	Abrasive (metal shot/slag) blasting of marine vessel exteriors and parts not performed within a blast booth.
Abrasive (Shot/slag) Blasting - Inside	SBI	Abrasive (metal shot/slag) blasting of marine vessel interiors and vessel parts; controlled by BAG-1, BAG-2, & BAG-3.
Welding	WLD	Welding jobs
Paved Industrial Roads	PIR[(-B-)]	Vehicle travel on paved road
Unpaved Roads	UPR	Vehicle travel on unpaved road
Reclaimed Oil Load out	ROL	Loading recovered oil from ROT into tanker truck

[(-B-)] While paved roads and paved parking lots within an urban growth boundary are considered categorically insignificant activities, the PM/PM_{10} emissions from PIR are included in the PSEL at the permittee's request.

3.b. Pollution Control Device Identification

Pollution Control Device	PCD ID	EU Controlled
Thermal Oxidizer - enclosed vapor combustor, rated eff. = 95%.	VDU	ROT: VOC exhaust
All mobile baghouses	BAG-1	Ship interiors & exteriors at the dry docks & berths
A baghouse at Building 73	BAG-3	SBI: indoor blasting operations
Curtains/Covers, etc.	n/a	SBO: Outdoor (dry docks) sandblast operations
Paint booth enclosures and filters	n/a	COAT: paint over-sprays (PM)

EMISSION LIMITS AND STANDARDS

The following Table-I through Table-III contain summaries of applicable requirements other than the Plant Site Emission Limits (PSEL), along with the monitoring methods for the emissions units to which those requirements apply.

Table-I. Facility-wide Emission Limits and Standards

Applicable Requirements		Pollutant/	Limit/	Monitoring Requirements	
OAR / 40 CFR	Condition Number	Parameter	Standard	Method	Condition Number
340-208-0210	4	Fugitive dust	No nuisance	I&M Recordkeeping	5 & 22
340-228-0100	6	Fuel oil sulfur content	0.3% ASTM-1 0.5% ASTM-2 1.75% Residual	%S analysis & Recordkeeping	7
340-206-0050	8	Any pollutant	SERP	Recordkeeping	9
340-208-0450	10	PM	< 250 micron	I&M Recordkeeping	12
340-208-0300	11	Nuisance	no nuisance	I&M Recordkeeping	12
40 CFR Part 82.161(a)	13	Ozone depleting chemicals	Employee certification program	Recordkeeping	14

4. REQUIREMENT The permittee shall not cause or permit any materials to be handled, transported, or stored; or a building, its appurtenances, or a road to be used, constructed, altered, repaired or demolished; or any equipment to be operated, without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions shall include the following: [OAR 340-208-0210]

4.a. Application of asphalt, water, or other suitable chemicals on unpaved roads, materials stock piles, and other surface, as needed to prevent airborne dusts;

4.b. full or partial enclosure of materials stockpiles; and/or

4.c. adequate containment during abrasive blasting or other similar operations.

5. MONITOR AND RECORD The permittee shall inspect the unpaved area (when they exist during construction) and materials storage and transfer areas for excessive fugitive emissions as specified:

5.a. At a minimum of once per month, the permittee shall visually survey the unpaved area (when triggered by construction activities) and the materials storage/transfer areas for excess fugitive emissions. The minimum monthly monitoring frequency specified is also the required interval between two consecutive monitoring periods. For the purpose of this survey, excess fugitive emissions are considered to be any visible airborne emissions.

5.b. If sources of excess fugitive emissions are identified during the survey, the permittee shall use water or a chemical treatment to minimize the fugitive emissions, unless cold weather would make this activity result in hazardous conditions. If water is used to control the fugitive dust emissions, the permittee shall take care not to create a water quality problem from surface water run-off.

5.c. Record on the inspection forms, dates and times of visual surveys conducted, and any visible emissions observed.

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6. REQUIREMENT The permittee shall not sell, distribute, use, or make available for use, any fuel oil that does not meet the sulfur limit specified in this condition. [OAR 340-228-0100]

6.a. Distillate and Residual fuel oils must not contain more than:

6.a.i. 0.3% sulfur by weight for ASTM Grade 1 distillate oil;
6.a.ii. 0.5% sulfur by weight for ASTM Grade 2 distillate oil; and
6.a.iii. 1.75% sulfur by weight for residual oil.

6.b. The permittee must obtain analyses from the marketer or, if generated on site, have the used oil analyzed, so that it can be demonstrated that each batch/shipment of used oil burned in boiler does not exceed the used oil specifications contained in 40 CFR Part 279.11, Table 1, excluding the minimum flash point limit of 100°F.

7. MONITOR AND RECORD The permittee shall monitor the sulfur content of each batch of residual oil, used oil, and/or distillate oil sold, distributed, or used (in CUB Boilers), in accordance with the following methods or procedures:

7.a. obtaining a sulfur analysis certificate from the vendor for each batch; or

7.b. analyzing or having analyzed by a contract laboratory a composite of representative samples taken by the permittee from each batch of fuel oil received within 15 days of receipt. Liquid fuels shall be analyzed using ASTM D129-64, D1552-83, D4057-81, or equivalent method.

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8. **REQUIREMENT** In the event an Air Pollution Alert, Warning, or Emergency Episode is declared in the Portland area by the Department, the permittee shall take the action appropriate to the episode condition as described below. The permittee shall take such action when the permittee first becomes aware of such a declaration whether through news media, direct contact with the Department, or from other sources: [OAR 340-206-0050]

8.a. Alert, any pollutant:

The permittee shall review SERP and evaluate current and future work scopes; and prepare to take possible further action in case the episode escalates into a warning or an emergency stage. The permittee may encourage employees to voluntarily reduce operations of personal motor vehicle through car pooling, use of public transit, etc.

8.b. Warning, any pollutant:

The permittee shall reduce air contaminant emissions by postponing or deferring production to the maximum extent possible. At minimum, the permittee shall adhere to the following:

8.b.i. Postpone or reduce oil recycling separation processes (cookers and skimmers) at the Ballast Water Treatment Plant (BWTP) to the lowest level possible without causing personnel injury or equipment damage.

8.b.ii. Central Utility Building (CUB) boilers shall be fueled by natural gas (or LPG) only.

8.b.iii. Limit exterior hull blasting to light/spot blasting of vessel exteriors below the deep load line. Interior tank blasting is permitted with the use of dust collection system.

8.b.iv. Limit exterior coating and interior tank coating operations to spot coating only.

8.c. Emergency, any pollutant:

Continue with the emission reduction procedures of the warning level. If the declared meteorological episode is expected to persist for 24 hours or more at an emergency level, the permittee shall cease all BWTP oil separation, open air blasting and open air-coating operations, except the operations needed to protect personal safety and process equipment.

9. **MONITOR AND RECORD** The permittee shall maintain a log summarizing actions taken during an applicable air pollution episode, pursuant to condition 8.

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10. **REQUIREMENT** The permittee shall not cause or permit the emission of any particulate matter larger than 250 microns in size at sufficient duration or quantity as to create an observable deposition upon the real property of another person, as required in OAR 340-208-0450. [State-only enforceable]

11. **REQUIREMENT** The permittee shall not cause or allow air contaminants from any source subject to regulation by the department to cause a nuisance. [OAR 340-208-0300] [State-only enforceable]

12. **MONITOR AND RECORD** The permittee shall record all written complaints or complaints received via telephone or in person by the responsible official or a designated appointee that specifically refer to a complaint of odor or the particulate matter (> 250 micron) fall-out type of nuisance from the permitted facility. Said log shall also record permittee's actions to investigate, make a determination as to the validity of the complaint, and resolve the problem within two working days or within such longer time (not to exceed 7 days) as is reasonably necessary to resolve the problem that led to the complaint.

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13. **REQUIREMENT** The permittee shall not perform work on the refrigeration system on-board any ship that use class I or class II ozone-depleting substances, unless the employee performing the work is certified by an approved technician certification program under the requirements of 40 CFR Part 82.161(a).

14. **MONITOR AND RECORD** The permittee shall maintain the following records of employees hired by the permittee that perform work on the refrigeration system on-board the ship that use class I or class II ozone-depleting substances:

    14.a. the name of the person certified and his/her affiliation;
    14.b. a personal (i.e., worker) identification number;
    14.c. the type (I, II, III, and/or Universal) of certification; and
    14.d. the name of the certifying program, and the date the organization became a certifying program.

Table-II. Emissions Unit Specific Emission Limits and Standards

EU & PCD ID	Applicable Requirements		Pollutant/ Parameter	Limit/ Standard	Monitoring Requirements	
	OAR / 40 CFR	Condition Number			Method	Condition Number
CUB (Boilers)	340-208-0110	15	visible emissions	20% Opacity 3 minutes	VE periodic monitoring	17
	340-228-0210	16	PM/PM_{10}	0.1 gr/dscf	VE/ST periodic monitoring	17 & 51
SBI/BAG-1, BAG-2, BAG-3 (Baghouses)	340-208-0600	18	visible emissions	20% Opacity 30 seconds	VE periodic monitoring	20
	340-226-0210	19	PM/PM_{10}	0.1 gr/dscf	VE/ST periodic monitoring	20 & 51
SBO & SBI	340-226-0120	21	PM/PM_{10}	O&M Requirements	I&M Recordkeeping	22
PIR	340-226-0120	23	PM/PM_{10}	O&M Requirements	I&M Recordkeeping	24
BWT	340-232-0150	25	VOC	Equipment Specification	Recordkeeping	26
ROT	340-232-0150	25	VOC	Equipment Specification	I&M Recordkeeping	27
COAT	340-226-0110 and -0120	28	Cr, HAP	Usage Limitations	Recordkeeping	29
$COAT_{SHIP}$	40 CFR, Part 63 Subpart II	30	VOHAP	NESHAP for Ship building & Repair	Testing and Recordkeeping	31
$COAT_{MISC}$	40 CFR, Part 63 Subpart MMMM	32	VOHAP	NESHAP for Misc. surface coating	Recordkeeping	32
$COAT_{SHIP}$	340-232-0040	33	VOC	Source-specific RACT limits	Mass Balance Recordkeeping and I&M Recordkeeping	34
$COAT_{MISC}$	340-232-0160	35	VOC	Surface coating RACT limits	Mass Balance Recordkeeping	47.a, 47.e

15. **REQUIREMENT FOR CUB (BOILERS)** The permittee shall not cause or allow the emissions from emissions unit CUB of any air contaminant into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is equal to or greater than 20% opacity, excluding uncombined water. Opacity shall be measured in accordance with condition 17. [OAR 340-208-0110]

16. **REQUIREMENT FOR CUB (BOILERS)** The emissions of particulate matter from emissions unit CUB shall not exceed 0.1 grain per standard cubic foot, corrected to 12% CO_2 or 50% excess air. Particulate matter emissions shall be measured in accordance with condition 51. [OAR 340-228-0210]

17. **MONITOR AND RECORD** Except as provided in condition 17.f, the permittee shall conduct visible emissions survey at each of the monitoring point of emissions unit CUB in accordance with the following procedures and frequencies:

17.a. At a minimum of once per week, the permittee shall conduct a six (6) minute visible emission survey using the procedures outlined in EPA Method 22. The minimum weekly monitoring frequency specified is also the required interval between two consecutive monitoring periods.

17.b. All visible emissions observations shall be conducted during period when the equipment is burning fuel.

17.c. If visible emissions, excluding condensed water vapor, from an individual monitoring point are detected for more than 5% (18 seconds) of the survey time, an EPA Method 9 test shall be conducted on that monitoring point for a six (6) minute period in accordance with the Department's Source Sampling Manual. If any of the observations during the specified 6-minute period exceed the applicable 20% opacity limit, the observation period shall continue until 60 minute of observations have been completed or until an exceedance of the opacity standard has been documented.

17.d. If the observer is unable to conduct the survey and/or EPA Method 9 tests due to visual interference caused by other visible emissions sources (e.g., fugitive emissions during high wind conditions) or due to weather conditions such as fog, heavy rain, or snow, the observer shall note such conditions on the data observation sheet and make at least three attempts in same day to conduct the surveys and/or tests at approximately 2 hours intervals throughout the day. If no observations are made for that day, the observer shall continue to attempt to conduct the survey and/or EPA Method 9 daily until a valid observation is made.

17.e. If visible surveys and/or observations conducted during 10 consecutive observation weeks show no visible emissions for a particular source, the permittee may reduce the minimum monitoring frequency to once per month for that source. Anytime the monthly visible emissions survey show visible emissions, or when requested by the Department inspector, the observations for that source of visible emissions shall start over with weekly surveys, as noted in item a of this condition.

17.f. Monitoring protocols specified in this condition for CUB boiler are applicable only when that equipment burns oil and during the period in which oil is burned. As long as any of the equipment grouped under the emissions unit CUB is fueled by natural gas (or LPG), emissions from that equipment is assumed to be in compliance with the 20% opacity standard and the 0.1 (or 0.2) gr/scf loading limits; and the visual emissions survey required by this condition is waived for that equipment. For the purpose of verification, the permittee shall monitor and record the type(s) of fuel used in CUB, as specified in conditions 7 and 45.

18. REQUIREMENT FOR SBI (BAGHOUSES) The permittee shall not cause or allow the emissions of any air contaminant into the atmosphere for a period or periods aggregating more than thirty seconds in any one hour which is equal to or greater than 20% opacity, excluding uncombined water, from the SBI baghouses. Opacity shall be measured in accordance with condition 20. [OAR 340-208-0110] [State-only enforceable]

19. REQUIREMENT FOR SBI (BAGHOUSES) The permittee shall not cause or allow the emissions of particulate matter in excess of 0.1 grain per standard cubic foot from any of the baghouses used to control the emissions from the emissions unit SBI. Particulate matter emissions shall be measured in accordance with condition 51. [OAR 340-226-0210]

20. MONITOR AND RECORD The permittee shall conduct visible emission surveys at each of the baghouse discharge point of emissions unit SBI in accordance with the following procedures and frequencies:

20.a. At a minimum of once per week, the permittee shall conduct a six (6) minute visible emission survey using the procedures outlined in EPA Method 22. The minimum weekly monitoring frequency specified is also the required interval between two consecutive monitoring periods.

20.b. All visible emissions observations shall be conducted during period when the equipment is operating.

20.c. If any visible emissions, excluding condensed water vapor, from an individual monitoring point are detected, an EPA Method 9 test shall be conducted on that monitoring point in accordance with the Department's Source Sampling Manual. The observation period shall continue until 60 minute of observations has been completed or until an exceedance has been documented.

20.d. If the observer is unable to conduct the survey and/or EPA Method 9 tests due to visual interference caused by other visible emissions sources (e.g., fugitive emissions during high wind conditions) or due to weather conditions such as fog, heavy rain, or snow, the observer shall note such conditions on the data observation sheet and make at least three attempts in same day to conduct the surveys and/or tests at approximately 2 hours intervals throughout the day. If no observations are made for that day, the observer shall continue to attempt to conduct the survey and/or EPA Method 9 daily until a valid observation is made.

20.e. If visible surveys and/or observations conducted during 10 consecutive observation weeks show no visible emissions for a particular source, the permittee may reduce the minimum monitoring frequency to once per month for that source. Anytime the monthly visible emissions survey show visible emissions, or when requested by the Department inspector, the observations for that source of visible emissions shall start over with weekly surveys, as noted in item 20.a of this condition.

21. REQUIREMENT FOR SBO & SBI The permittee shall provide curtains or screens, or other equivalent control, to minimize particulate fugitive emissions from outdoor abrasive blasting operations (SBO), and minimize dust emissions from material handling activities (SBI, SBO): [OAR 340-226-0210]

21.a. Curtains and containment areas shall be used as necessary to provide reasonable control of particulate material in abrasive blasting operations where specific particulate removal systems (i.e., baghouses) are not used. Collected materials from such abrasive blasting operations shall be placed in appropriate containers in a timely manner.

21.b. Particulate material captured from the baghouse shall be transferred to a container(s) in a closed system such that particulate cannot easily become airborne and escape to the atmosphere. After the container(s) are removed from the baghouse system and during storage of the particulate material, the container shall be closed such that particulate cannot easily become airborne and escape to the atmosphere.

21.c. Blasting of detached parts or equipment shall be conducted indoors using baghouse control whenever possible. Portable working containments such as blast sheds or shrouds shall be used to control particulate matter emissions from outdoor blasting of detached parts or equipment.

22. MONITOR AND RECORD The permittee shall inspect the outdoor blasting operations (SBO), and the material storage and collection processes associated with all blasting operations (SBI & SBO), to ensure that the work-practice requirements specified in condition 21 are properly being carried out:

22.a. At minimum of once per day when SBO activities are taking place, at each dry-dock location the SBO activities are performed, the permittee shall visually inspect curtains and containment measures to ensure their proper placement, use, and effectiveness.

22.b. At minimum of once per week during May 1 through October 31, and at minimum of once per month the remainder of the year, the permittee shall visually inspect the following areas to ensure the provisions of condition 21 are met:

22.b.i. raw abrasive blast material storage and handling areas; and
22.b.ii. used abrasive blast material storage and handling areas.

22.c. Record findings - location and nature of deviation from prescribed operation, maintenance and work practice procedures.

22.d. Record corrective action taken (if any) as the result of the inspection - record date and a brief description of repair/correction.

22.e. The permittee shall maintain records of the inspection results including the dates and times of inspections.

23. **REQUIREMENT FOR PIR** At a minimum of once every two weeks, or sooner if needed (e.g., solid material spill), the permittee shall sweep the paved roadways and parking lots (PIR) using the mechanical sweeper and/or manually. This condition does not in any way relieve the permittee from having to comply with the requirements outlined in the permittee's Environmental Best Management Practices (BMP). [OAR 340-028-0620]

24. **MONITOR AND RECORD** The permittee shall maintain a log and record dates and sections of the PIR that were swept.

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25. **REQUIREMENT FOR BWT** All fixed roof storage tanks grouped under BWT having a storage capacity greater than 39,000 gallons shall not store volatile organic compounds with a true vapor pressure, as stored, greater than 1.52 psia at actual monthly average storage temperature, as measured per condition 26. In addition, the paint color of the vertical storage tanks located at the ballast water treatment plant shall be white. [OAR 340-232-0150, 340-226-0140(4)]

EXEMPTION FOR ROT The ROT horizontal-tanks where VOC emissions are controlled by the control unit VDU are allowed to store products with higher vapor pressure. At least once per year, the permittee shall conduct the preventive maintenance inspection on VDU as specified in condition 27.

26. **MONITOR AND RECORD FOR BWT** For the purpose of showing compliance with the requirements specified in condition 25, the permittee shall keep records of all products stored in the fixed roof (BWT) storage tank with a capacity greater than 39,000 gallons. The permittee may utilize the PSEL monitoring specified in conditions 45.a and 48.a for this purpose.

27. **MONITOR AND RECORD FOR ROT** At minimum of once per year, the permittee shall conduct the preventive maintenance inspection on VDU, and make the necessary repairs as needed to ensure proper operations of VDU.

27.a. At minimum, inspect and/or test the following components:

- 27.a.i. Test emergency shut down devices;
- 27.a.ii. inspect pilot assembly for damage or loose wires, including the ignitor, U/V flare detector, and spark plug and insulator.
- 27.a.iii. test thermocouple for proper operating temperature;
- 27.a.iv. operate and calibrate (when necessary, e.g., component replacement) all instruments as per vendor instruction (manual);
- 27.a.v. inspect the detonation aerator internally;
- 27.a.vi. inspect the combustion chamber insulation;
- 27.a.vii. inspect burner assembly;
- 27.a.viii. inspect all dampers;
- 27.a.ix. inspect all vapor piping from T-15 to flare;
- 27.a.x. inspect gas piping and meter (located at building 63); and
- 27.a.xi. lubricate blower motor if necessary.

27.b. The permittee shall maintain the records of all inspections and repairs performed on VDU.

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28. **REQUIREMENT FOR COAT** The permittee shall limit the use of coatings containing hexavalent chromium (Cr^6) and trivalent chromium (Cr^3) as specified: [OAR 340-226-0110, 0120, & 0140(4)]

28.a. The use of coatings containing hexavalent chromium (Cr^6) is prohibited.

28.b. All coatings containing trivalent chromium (Cr^3) in concentration of two percent or greater by weight must be applied using hand applications (i.e., brush, roll, dip), applied within an enclosed paint booth equipped with a particulate control filter bank, or applied using another coating method with a transfer efficiency of at least 80 percent as approved by the Department.

28.c. Outdoor application of coatings containing trivalent chromium in concentration of less than two percent by weight is limited to 250 gallons per day.

29. **MONITOR AND RECORD** For the purpose of showing compliance with the requirements specified in condition 28, the permittee shall adhere to the monitoring and recordkeeping specified below:

29.a. For each batch of new coating received, the permittee shall verify that hexavalent chromium is not present at any concentration in the coating.

29.b. The permittee shall record the date, amount of coating applied, location of application, and application method for all coatings containing trivalent chromium in concentration of 2 percent or greater by weight.

29.c. The permittee shall record the date, amount of coating applied, location of application, and application method for all coatings containing trivalent chromium in concentration of less than 2 percent by weight.

29.d. The permittee may rely upon information contained in the material safety data sheets (MSDS) for each coating to determine the relevant chemical content of coating materials. The permittee may also use other appropriate method (e.g., chemical analysis, product data sheet, etc.) to determine the relevant chemical content of coating materials.

30. **NESHAP REQUIREMENTS FOR $COAT_{SHIP}$** The permittee shall comply with the following requirements applicable to emissions unit $COAT_{SHIP}$: [40 CFR, Part 63.783]

30.a. Except as provided in condition 30.c, the VOHAP content of coatings applied to marine vessels and vessel parts shall be within the applicable limits specified in the Table below, as determined by the procedures described in condition 31:

"VOHAP Limits for Marine Coatings ($COAT_{SHIP}$)"

Coating Category	VOHAP Limits [i, ii, iii]		
	grams/liter coating minus water and exempt compounds	grams/liter solids [iv]	
		$t \geq 4.5°C$	$t < 4.5°C$ [v]
General Use :	340	571	728
Specialty :			
Air flask	340	571	728
Antenna	530	1,439	--
Antifoulant	400	765	971
Heat resistant	420	841	1,069
High-gross	420	841	1,069
High-temperature	500	1,237	1,597
Inorganic zinc high-build	340	571	728
Military exterior	340	571	728
Mist	610	2,235	--
Navigational aids	550	1,597	--
Nonskid	340	571	728
Nuclear	420	841	1,069
Organic zinc	360	630	802
Pretreatment wash primer	780	11,095	--
Repair/maint. of thermoplastics	550	1,597	--
Rubber camouflage	340	571	728
Sealant for thermal spray Al	610	2,235	--
Special marking	490	1,178	--
Specialty interior	340	571	728
Tack coat	610	2,235	--
Undersea weapon systems	340	571	728
Weld-through precon. primer	650	2,885	--

i: The limits are expressed in two sets of equivalent units. Either set of limits may be used for the compliance procedure described in condition 31.f.i, but only the limits expressed in units of g/L solids (nonvolatiles) shall be used for the compliance procedures described in conditions 31.f.ii through 31.f.iv.

ii: VOC (including exempt compounds listed as HAP) shall be used as a surrogate for VOHAP for those compliance procedures described in conditions 31.f.i through 31.f.iii.

iii: To convert from g/L to lb/gal, multiply by (3.785 L/gal)(1/453.6 lb/g) or 1/120. For compliance purposes, metric units define the standards.

iv: VOHAP limits expressed in units of mass of VOHAP per volume of solids were derived from the VOHAP limits expressed in units of mass of VOHAP per volume of coating assuming the coatings

contain no water or exempt compounds and that the volumes of all components within a coating are additive.

v: These limits apply during cold-weather time periods, as defined in 40 CFR 63.782. Cold-weather allowances are not given to coatings in categories that permit less than 40 percent volume solids (non-volatiles). Such coatings are subject to the same limits regardless of weather conditions.

30.b. The permittee shall adhere to the following work practice requirements:

30.b.i. All handling and transfer of VOHAP-containing materials to and from containers, tanks, vats, drums, and piping systems is conducted in a manner that minimizes spills.

30.b.ii. All containers, tanks, vats, drums, and piping systems are free of cracks, holes, and other defects and remain closed unless materials are being added to or removed from them.

30.c. Exemptions:

30.c.i. The VOHAP coating limits do not apply to coatings used in volumes of less than 200 liters (52.8 gallons) per year, provided the total aggregate volume of all exempt coatings does not exceed 1,000 liters per year (264 gallons per year). The container storing exempt coatings shall be clearly labeled as "low-usage exempt," and the volume of each exempt coating applied shall be maintained in the facility's records.

30.c.ii. The VOHAP coating limits do not apply to coatings applied with hand-held, non-refillable, aerosol containers or to unsaturated polyester resin (i.e., fiberglass lay-up) coatings. Coatings applied to suitably prepared fiberglass surfaces for protective or decorative purposes are not exempted.

31. MONITOR AND RECORD The permittee shall monitor compliance with condition 30 in accordance with the following procedures, as specified in 40 CFR 63.785: (see "Figure 1 to §63.785 Flow diagram of compliance procedures" for reference, Appendix-B)

31.a. For each batch of coating received, the permittee shall identify the coating category and the applicable VOHAP limit(s) specified in condition 30.a; and then certify the as-supplied VOC content of the batch of coating. The permittee may use a certification supplied by the manufacturer for the batch, although the permittee retains liability should subsequent testing reveal a violation. If the permittee performs the certification testing, only one of the containers in which the batch of coating was received is required to be tested.

31.b. In lieu of testing each batch of coating, as applied, the permittee may determine compliance with the VOHAP limits specified in condition 30.a by using any combination of the procedures described in conditions 31.f.i, 31.f.ii, 31.f.iii, and 31.f.iv. The procedure used for each coating shall be determined and documented prior to application.

31.c. For the compliance procedures described in conditions 31.f.i through 31.f.iii, VOC (including exempt compounds listed as HAP) shall be used as a surrogate for VOHAP.

31.d. The results of any compliance demonstration conducted by the permittee or DEQ/EPA using Method 24 shall take precedence over the results using the procedures in conditions 31.f.i, 31.f.ii, or 31.f.iii.

31.e. The results of any compliance demonstration conducted by the permittee or DEQ/EPA using an approved test method to determine VOHAP content shall take precedence over the results using the procedures in condition 31.f.iv.

31.f. Coating Compliance Procedures:

31.f.i. Coatings to which thinning solvent will not be added. For coatings to which thinning solvent (or any other material) will not be added under any circumstance or to which only water is added, the permittee shall comply as follows:

31.f.i.(1) Certify the as-applied VOC content of each batch of coating.

31.f.i.(2) Notify the persons responsible for applying the coating that no thinning solvent may be added to the coating by affixing a label to each container of coating in the batch or through another means described in the implementation plan per 40 CFR 63.787.

31.f.i.(3) If the certified as-applied VOC content of each batch of coating used during a calendar month is less than or equal to the applicable VOHAP limit in condition 30.a (either in terms of g/L of coating or g/L of solids), then compliance is demonstrated for that calendar month, unless a violation is revealed using Method 24.

31.f.ii. Coatings to which thinning solvent will be added--coating-by-coating compliance. For a coating to which thinning solvent is routinely or sometimes added, the permittee shall comply as follows:

31.f.ii.(1) Prior to the first application of each batch, designate a single thinner for the coating and calculate the maximum allowable thinning ratio (or ratios, if the source complies with the cold-weather limits in addition to the other limits specified in condition 30.a) for each batch as follows:

$$R = \frac{(V_s)(\text{VOHAP limit}) - m_{VOC}}{D_{th}} \quad \text{Eqn. 1}$$

Where:

R	=	Maximum allowable thinning ratio for a given batch (L thinner/L coating as supplied);
V_s	=	Volume fraction of solids in the batch as supplied (L solids/L coating as supplied);
VOHAP limit	=	Maximum allowable as-applied VOHAP content of the coating (g VOHAP/L solids);
m_{VOC}	=	VOC content of the batch as supplied [g VOC (including cure volatiles and exempt compounds on the HAP list)/L coating (including water and exempt compounds) as supplied];
D_{th}	=	Density of the thinner (g/L).

If V_s is not supplied directly by the coating manufacturer, the permittee shall determine V_s as follows:

$$V_s = 1 - \frac{m_{volatiles}}{D_{avg}} \qquad \text{Eqn. 2}$$

Where:

$m_{volatiles}$ = Total volatiles in the batch, including VOC, water, and exempt compounds (g/L coating); and

D_{avg} = Average density of volatiles in the batch (g/L).

The procedures specified in condition 50.d may be used to determine the values of variables defined in this paragraph. In addition, the permittee may choose to construct monographs, based on Equation 1, similar or identical to the one provided in appendix B of 40 CFR Part 63 Subpart II as a means of easily estimating the maximum allowable thinning ratio.

31.f.ii.(2) Prior to the first application of each batch, notify painters and other persons, as necessary, of the designated thinner and maximum allowable thinning ratio(s) for each batch of the coating by affixing a label to each container of coating or through another means described in the implementation plan per 40 CFR 63.787.

31.f.ii.(3) By the 15th day of each calendar month, determine the volume of each batch of the coating used, as supplied, during the previous month.

31.f.ii.(4) By the 15th day of each calendar month, determine the total allowable volume of thinner for the coating used during the previous month as follows:

$$V_{th} = \sum_{i=1}^{n} \left(R \times V_b \right)_i + \sum_{i=1}^{n} \left(R_{cold} \times V_{b-cold} \right)_i \qquad \text{Eqn. 3}$$

Where:

V_{th} = Total allowable volume of thinner for the previous month (L thinner);

V_b = Volume of each batch, as supplied and before being thinned, used during non-cold-weather days of the previous month (L coating as supplied);

R_{cold} = Maximum allowable thinning ratio for each batch used during cold-weather days (L thinner/L coating as supplied);

$V_{b\text{-}cold}$ = Volume of each batch, as supplied and before being thinned, used during cold-weather days of the previous month (L coating as supplied);

i = Each batch of coating; and

n = Total number of batches of the coating.

31.f.ii.(5) By the 15th day of each calendar month, determine the volume of thinner actually used with the coating during the previous month.

31.f.ii.(6) If the volume of thinner actually used with the coating [condition 31.f.ii.(5)] is less than or equal to the total allowable volume of thinner for the coating [condition 31.f.ii.(4)], then compliance is demonstrated for the coating for the previous month, unless a violation is revealed using Method 24.

31.f.iii. Coatings to which the same thinning solvent will be added--group compliance. For coatings to which the same thinning solvent (or other material) is routinely or sometimes added, the permittee shall comply as follows:

31.f.iii.(1) Designate a single thinner to be added to each coating during the month and "group" coatings according to their designated thinner.

31.f.iii.(2) Prior to the first application of each batch, calculate the maximum allowable thinning ratio (or ratios, if the source complies with the cold-weather limits in addition to the other limits specified in condition 30.a) for each batch of coating in the group using the equations in condition 31.f.ii.

31.f.iii.(3) Prior to the first application of each "batch," notify painters and other persons, as necessary, of the designated thinner and maximum allowable thinning ratio(s) for each batch in the group by affixing a label to each container of coating or through another means described in the implementation plan per 40 CFR 63.787.

31.f.iii.(4) By the 15th day of each calendar month, determine the volume of each batch of the group used, as supplied, during the previous month.

31.f.iii.(5) By the 15th day of each calendar month, determine the total allowable volume of thinner for the group for the previous month using Equation 3.

31.f.iii.(6) By the 15th day of each calendar month, determine the volume of thinner actually used with the group during the previous month.

31.f.iii.(7) If the volume of thinner actually used with the group [condition 31.f.iii.(6)] is less than or equal to the total allowable volume of thinner for the group [condition 31.f.iii.(5)], then compliance is demonstrated for the group for the previous month, unless a violation is revealed using Method 24.

31.f.iv. Demonstration of compliance through an alternative (i.e., other than Method 24) test method. The permittee shall comply as follows:

31.f.iv.(1) Certify the as-supplied VOHAP content (g VOHAP/L solids) of each batch of coating.

31.f.iv.(2) If no thinning solvent will be added to the coating, the permittee shall follow the procedure described in condition 31.f.i, except that VOHAP content shall be used in lieu of VOC content.

31.f.iv.(3) If thinning solvent will be added to the coating, the permittee shall follow the procedure described in condition 31.f.ii or 31.f.iii, except that in Equation 1: the term "m_{VOC}" shall be replaced by the term "m_{VOHAP}," defined as the VOHAP content of the coating as supplied (g VOHAP/L coating) and the term "D_{th}" shall be replaced by the term "$D_{th(VOHAP)}$" defined as the average density of the VOHAP thinner(s) (g/L).

31.g. A violation revealed through any approved test method shall result in a 1-day violation for enforcement purposes. A violation revealed through the recordkeeping procedures described in conditions 31.f.i through 31.f.iv shall result in a 30-day violation for enforcement purposes, unless the permittee provides sufficient data to demonstrate the specific days during which non-compliant coatings were applied.

32. **REQUIREMENT FOR $COAT_{MISC}$** The permittee must show that $COAT_{MISC}$ surface coating operation accounts for less than 10 percent of total surface coating activities (i.e., $COAT_{SHIP}$ and $COAT_{MISC}$) conducted at the facility. [40 CFR, Part 63.3881(e)(2)]

32.a. The permittee shall use the volume (e.g., liters or gallons) of coating solids used over compliance period (January 1 through December 31) when measuring relative surface coating activities.

32.b. The use of parameters other than coating consumption and volume solids content must be approved in writing by the Department.

32.c. Calculate the percentage of $COAT_{MISC}$ surface coating consumption relative to total coating consumption (i.e., $COAT_{SHIP}$ plus $COAT_{MISC}$) and include the result with the annual report submitted per condition 65.

33. **VOC RACT REQUIREMENT FOR $COAT_{SHIP}$** The permittee shall comply with the following source-specific RACT requirements for emissions unit $COAT_{SHIP}$: [10/04/95 ACDP 26-3224]

33.a. The VOC content of the surface coatings used for ship painting operations ($COAT_{SHIP}$) shall not exceed the following limits, expressed in pounds of VOC per gallon of coating, as applied, less water and exempt compounds:

Coating Category:	General Use Alkyds & Epoxies	Antifoulant	Prewash Primer	Zinc-Inorganic	Other Specialty
VOC content: (lbs/gal)	3.5	3.7	6.5	5.4	5.5

33.b. The coating limits of condition 33.a are based on a weekly weighted average of the applied coatings in each category. The VOC content of coatings may be averaged only within a single coating category. Excess VOC emissions in one coating category shall not be offset with lowered emissions in another coating category. The permittee shall determine compliance with the coating limit set for each coating category by dividing the total VOC content (lbs) of the coatings in a category used in one week by the total gallons of coatings, less water and exempt compounds, used in that same category during the same weekly averaging period (Monday 12:01 am through Sunday 12:00 midnight).

33.c. The permittee shall provide training and instruction for all employees who are directly involved in the application of VOC-based coatings at the shipyard. The training/instruction program shall consist of a combination of on-the-job and classroom instructions, of which at least 4 hours shall be provided on initial training, followed by 2 hours of refresher training on an annual basis thereafter. The training/instruction shall provide workers with theory and (good) management practices for efficient use (minimization) of solvents and waste prevention. Training records shall be maintained on-site and be available for inspection by the Department personnel.

33.d. The permittee shall implement and adhere to the following Best management practices for solvent use:

33.d.i. Use of closed system for cleaning and flushing paint guns and lines. Flushing systems shall have only the minimum venting required to operate. As an alternative, a non-VOC solvent cleaning system may be used.

33.d.ii. Utilize distillation or other approved recovery methods to reclaim cleaning solvents to the extent feasible.

33.d.iii. Use the closed containers only for storage and transfer of solvents to and from the bulk storage area to the work area.

33.d.iv. Solvent-laden cloths or rags shall be stored in a container with cover (lid).

34. **MONITOR AND RECORD**

34.a. The NESHAP VOHAP-Limits specified in Condition 30 applicable to $COAT_{SHIP}$ are more stringent than the RACT VOC-limits specified in Condition 33 applicable to the same emissions unit - $COAT_{SHIP}$. Additionally, compliance determination of VOC RACT Limits shares the same coating parameters and methodologies specified for calculating the plant site VOC and VOHAP emissions as specified in the PSEL monitoring condition 47.

34.b. Alternative to the methods specified in condition 47.d, compliance with the RACT coating limits specified in condition 33.a for $COAT_{SHIP}$ shall be deemed satisfied by the successful determination of compliance with the NESHAP coating limits presented in condition 30. However, in the event the NESHAP compliance monitoring conducted per Condition 31 determines violation of one or more coating limit, the permittee must determine compliance with the affected coating category (e.g., General Use, Antifoulant, Prewash, etc.) in violation separately in accordance with the methods specified in condition 47.d. The permittee shall retain all calculations and associated records used to verify compliance with the source-specific RACT standard.

34.c. The permittee shall maintain the training records of all employees who are directly involved in the application of VOC-based coatings at $COAT_{SHIP}$. The permittee shall also maintain the drawing/specifications of the solvent (paint gun) cleaning system and the types of cleaning solvents used. At minimum, the following information shall be kept:

34.c.i. Training/course materials (and all updates) used.
34.c.ii. Employee hire-dates and their training records.

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35. **VOC RACT REQUIREMENT FOR $COAT_{MISC}$** The VOC content of the surface coatings used for parts painting operations grouped under the emissions unit $COAT_{MISC}$ shall not exceed the following limits, expressed in pounds of VOC per gallon of coating, as applied, less water and exempt compounds, as measured on a weekly basis. The monitoring is specified in Condition 47. [OAR 340-232-0160]

Coating Type	Clear coating	Forced air or air dried	Extreme perf./ High perf. Architectural	All other (oven dried, powder)
VOC content (lbs/gal)	4.3	3.5	3.5	3.0

Table-III. Emission Limits and Standards applicable to Insignificant Activities

Applicable Requirements		Pollutant/ Parameter	Limit/Standard
Oregon Administrative Rule	Condition No.		
340-208-0600	36	opacity	20%
340-228-0210(1)(b)	37	PM/PM_{10}	0.1 gr/dscf
340-226-0210(1)(b)	38	PM/PM_{10}	0.1 gr/dscf
340-232-0180	39	VOC	Equipment specifications
340-242-0730	40	VOC	Coating specifications
340-208-0506	41	VOC	Submersible filling.

36. REQUIREMENT The permittee shall not cause or allow the emissions of any air contaminant into the atmosphere for a period or periods aggregating more than thirty seconds in any one-hour that is equal to or greater than 20% opacity, excluding uncombined water, from any insignificant source. Opacity shall be measured in accordance with condition 51. [OAR 340-208-0600] [State-only enforceable]

37. REQUIREMENT The permittee shall not cause or allow the emissions of particulate matter in excess of 0.1 grain per standard cubic foot, corrected to 12% CO_2 or 50% excess air, from any fuel-burning insignificant source. Particulate matter emissions shall be measured in accordance with condition 51. [OAR 340-228-0210(1)(b)]

38. REQUIREMENT The permittee shall not cause or allow the emissions of particulate matter in excess of 0.1 grain per standard cubic foot, from any non-fuel-burning insignificant source. Particulate matter emissions shall be measured in accordance with condition 51. [OAR 340-228-0210(1)(b)]

39. REQUIREMENT The permittee shall operate the parts/tools cleaning equipment and dip tanks at the permitted facility in accordance with OAR 340-232-0180.

40. REQUIREMENT The permittee shall not knowingly use or contract for the use of any non-complying spray paint or architectural coating manufactured after July 1, 1996; [OAR 340-242-0730]

41. REQUIREMENT All gasoline storage tanks with a capacity of 500 gallons or more, installed after January 1, 1970, shall be equipped with submersible filling devices or other vapor emission control systems. All gasoline storage tanks at the PSY are exclusively used for fueling the fleet vehicles. [OAR 340-208-0506] [State-only enforceable]

42. MONITOR, RECORD, & REPORT No monitoring, recordkeeping, or reporting is required for Insignificant Activities.

43. TEST No testing is required for Insignificant Activities. However, if testing is conducted for the purpose of demonstrating compliance, or verifying emission factors, the permittee shall use the test methods referenced in table of condition 51.

PLANT SITE EMISSION LIMITS

44. **REQUIREMENT** The annual plant site emissions based on 12-month rolling average shall not exceed the amount (tons/year) specified in this condition: [OAR 340-222-0020 and 340-222-0040 & 0041]:

Emissions Unit	PM_{10}	PM	SO_2	NO_x	CO	VOC
Plant-wide Basis	124	256	39	39	99	464

44.a. The annual plant site emissions limits apply to any 12-consecutive calendar month period; meaning the annual emissions for the previous 12-month period must be calculated at the end of each calendar month, for a total of 12 times during the calendar year.

44.b. The PSEL monitoring is specified in Conditions 45 through 48.

45. **MONITOR AND RECORD** The permittee shall determine compliance with the Plant Site Emissions Limits specified in condition 44, and the coating RACT limits specified in conditions 33 and 35, by conducting monitoring in accordance with the procedures, test methods, and frequencies identified in conditions 45 through 48: [OAR 340-218-0050(3)(a)]

45.a. The permittee shall monitor and maintain monthly and annual records of the following operating parameters:

EMISSIONS UNIT	OPERATING PARAMETER	UNIT	METHOD
SBO	Abrasive materials (steel shot/slag) used.	lbs	Estimate (Recordkeeping) the amount (lbs) of blast grits used at each outdoor job site (dry dock & elsewhere), and record dates associated with each job, and types of controls (i.e., curtains, screens, etc.) utilized.
SBI	Abrasive materials (steel shot/ slag) used.	lbs	Estimate (Recordkeeping) the amount (lbs) of abrasive materials used from the daily schedule of abrasive-blasting jobs conducted inside.
WLD	welding rods usage	lbs	obtained from job/purchase records.
CUB (Boilers)	NG burned	10^6 ft^3	From meter reading and/or purchase records
	residual oil burned	gallons	
	distillate oil burned	gallons	
	used oil burned	gallons	
VDU	Hours Operated	hrs	Recordkeeping/meter reading
OVEN	NG burned	10^6 ft^3	Recordkeeping/meter reading
PIR	vehicle miles traveled (VMT)	VMT - miles	maintain log of estimated vehicles miles traveled and background calculations/assumptions used.
BWT	oil slop throughput	gallons	Recordkeeping
ROT	oil slop throughput	gallons	Recordkeeping
ROL	reclaimed oil	gallons	Recordkeeping

46. **CALCULATE EMISSIONS** At the end of each month, the permittee shall determine the annual emissions (i.e., emissions during the previous 12-month period) from the emissions units identified, by using the operating parameters obtained in condition 45 and applying to the formula and the emissions factors listed below:

$$E_j = \sum (P_i\ EF_{ij}) = (P_1\ EF_{1j}) + (P_2\ EF_{2j}) + ... + (P_n\ EF_{nj})$$

where: E_j = pollutant emissions; lbs/day, lbs/month, or lbs/year.
P_i = operating parameters identified in condition 45.
EF_{ij} = emission factor for each emissions unit and pollutant identified in this condition.

46.a. EF_{ij} for Process (PM/PM_{10}) emissions units

Emissions Unit	Operating Parameter	PM	PM_{10}	UNIT
SBO **	abrasive materials used	6.3×10^{-2} (1 - EFF_i)	2.2×10^{-2} (1 - EFF_i)	lbs/lbs abrasive
SBI	abrasive materials used	6.3×10^{-5}	2.2×10^{-5}	lbs/lbs abrasive
WLD	welding rods used	--	3.65×10^{-2}	lbs/lbs wld. rod
PIR	VMT, paved road	1.7×10^{-1}	1.36×10^{-1}	lbs/VMT, paved

** Set the control efficiency (EFF_i) used to calculate the SBO PM/PM_{10} emissions to **0.05** (i.e., 5% control) when curtains and/or screens are utilized.

46.b. EF_{ij} for Combustion emissions units

EU ID	FUEL	PM_{10} [1]	SO_2 [1]	NOx	CO	VOC	UNIT
CUB (Boilers)	residual oil	9.19(%S)+3.22	157(%S)	55	5	0.28	lbs/1000 gal
	distillate oil	2	142(%S)	20	5	0.2	lbs/1000 gal
	used oil	51	147(%S)	19	5	0.3	lbs/1000 gal
	natural gas	2.5 [2]	2.6	140	35	2.8	lbs/10^6 ft^3
OVEN	natural gas	--	--	100	--	--	lbs/10^6 ft^3
VDU	(Hrs operated)	--	--	1.13	2.25	0.63	lbs/hr

[1] The PM_{10} and SO_2 EFs are a function of sulfur content (%S) when distillate or residual oil is burned. The sulfur % in oil is obtained per monitoring condition 7.

47. **MONITOR AND RECORD COATING USAGE** The permittee shall determine the annual VOC emissions from emissions units $COAT_{SHIP}$ and $COAT_{MISC}$; the HAP emissions from emissions unit $COAT_{MISC}$; and the compliance status with respect to the coating RACT limits established in conditions 33 and 35, in accordance with the following procedures and frequencies:

47.a. The permittee shall monitor the following COAT operating parameters:

Operating parameters	Description of COAT Operating parameters	Monitoring Frequency
i	List the type of all coatings, thinners, and cleaning solvents used; and record the specific coating category identified in conditions 33 or 35 of which the coatings and thinners were used under. For each type of cleaning solvents used, record whether the solvents were used at $COAT_{SHIP}$ or $COAT_{MISC}$.	weekly or update as needed

VOL_i	Volume (gallons) of each coating type "i" used. (Note: VOL_i is always greater than $VOL_{w,i}$)	weekly
$VOL_{w,i}$	Volume (gallons) of water and exempt VOCs in each coating volume VOL_i used.	weekly or update as needed
$V_{th,i}$	Volume (gallons) of each type of thinner added to the coating	weekly
$V_{cl,i}$	Volume (gallons) of each type of cleaning solvent used. If separation of V_{cl} from V_{th} is difficult, V_{cl} may be reported as V_{th}, but V_{th} shall never be reported as V_{cl}	weekly
C_i	The VOC content (lbs/gal) in each coating volume VOL_i	weekly or update as needed
$D_{th,i}$	Density (lbs/gal) of each thinner $V_{th,i}$ added	weekly or update as needed
$D_{cl,i}$	Density (lbs/gal) of each cleaning solvents used	weekly or update as needed
HW_m	The amount (lbs) of hazardous and non-hazardous waste generated from the marine vessel coating operations, $COAT_{SHIP}$, that are shipped offsite.	as occurred
$\%VHW_m$	The representative VOC content (weight fraction) of each batch of marine vessel coating-waste HW_m	
m	The representative number of days "m" and dates associated with the HW_m collection during the period of m-days.	
HW_n	The amount (lbs) of hazardous and non-hazardous waste generated from the non-marine vessel coating operations, $COAT_{MISC}$, that are shipped offsite.	as occurred
$\%VHW_n$	The representative VOC content (weight fraction) of each batch of non-marine vessel coating-waste HW_n	
n	The representative number of days "n" and dates associated with the HW_n collection during the period of n-days.	

47.b. At the end of each month, the permittee shall determine the annual emissions from the emissions unit $COAT_{SHIP}$ by using the operating parameters obtained per condition 47.a and applying to the following formula:

$$E_{ANNUAL}\ (tons/yr) = \sum_{Previous\ 12\text{-}Month} [\ (VOL_i\ C_i) + (V_{th,i}\ D_{th,i}) + (V_{cl,i}\ D_{cl,i}) - (\%VHW_m\ HW_m)\ ] / 2{,}000$$

47.c. At the end of each month, the permittee shall determine annual emissions from the emissions unit $COAT_{MISC}$ by using the operating parameters obtained per condition 47.a and applying to the following formula:

$$E_{ANNUAL}\ (tons/yr) = \sum_{Previous\ 12\text{-}Month} [\ (VOL_i\ C_i) + (V_{th,i}\ D_{th,i}) + (V_{cl,i}\ D_{cl,i}) - (\%VHW_n\ HW_n)\ ] / 2{,}000$$

47.d. Except as noted in condition 34.b, for each of the $COAT_{SHIP}$ category identified in condition 33.a, the permittee shall determine the weekly compliance status of the coating RACT limits by using the operating parameters obtained per condition 47.a and applying to the following formula:

$$E_{SHIP,WEEK}\ (lbs/gal,\ less\ H_2O\ \&\ exempt\ VOC) = \sum_{week} [(VOL_i\ C_i + V_{th,i}\ D_{th,i}) / (VOL_i + V_{th,i} - VOL_{w,i})]$$

47.e. For each of the $COAT_{MISC}$ category identified in condition 35, the permittee shall determine the weekly compliance status of the categorical RACT limits by using the operating parameters obtained per condition 47.a and applying to the following formula:

$E_{MISC,WEEK}$ (lbs/gal. less H_2O & exempt VOC) = $\sum_{week}$ [$(VOL_i\ C_i + V_{th,i}\ D_{th,i}) / (VOL_i + V_{th,i} - VOL_{w,i})$]

48. MONITOR AND RECORD PROCESS EMISSIONS Except as provided in condition 48.c, the permittee shall calculate the VOC emissions from emissions units BWT, ROT, and ROL using the appropriate production throughput obtained per condition 45 and the AP42 algorithms and emissions factors provided:

48.a. VOC emissions from each fixed roof storage tank grouped under emissions unit BWT shall be calculated based on the following AP42 algorithms:

L_{BWT} = Total loss = $L_B + L_W$ (lbs/yr)

L_B = fixed roof breathing loss = $2.26x10^2\ M_V\ [P/(P_A - P)]^{0.68}\ D^{1.73}\ H^{0.51}\ \Delta T^{0.5}\ F_P\ C\ K_C$
L_W = fixed roof working loss = $2.4x10^5\ M_V\ P\ V\ N\ K_N\ K_C$

Annual emission from BWT is the sum of emissions from individual fixed roof storage tanks:

$$E_{BWT,\ ANNUAL} = \Sigma\ L_{BWT} / 2000 \quad \text{(tons/year)}$$

where: M_V = average vapor molecular weight
P = average monthly stock true vapor pressure, in psia (see equation below)
P_A = average atmospheric pressure at tank location, psia; default = 14.7 psi
D = tank diameter, feet
H = average vapor space height - if not available, assume H equals 1/2 the tank height.
ΔT = average ambient diurnal temperature change, °F; default = 15°F (assumption)
F_P = paint factor; see TABLE-A
C = adjustment factor for small tanks with D < 30 feet
= 0.0771 (D) - 0.0013 (D^2) - 0.1334; otherwise C = 1 for D ≥ 30.
K_C = product factor; for crude oil, K_C = 0.65. For all other organic liquids, K_C = 1.0.
V = tank capacity, gallons
N = number of turnovers per year = Annual throughput (gal) divided by tank capacity, V
K_N = turnover factor; for N > 36, K_N = (180 + N)/6N. For N ≤ 36, K_N = 1

$$P = \exp\{[0.7553 - 413 \div (T_{MA}+459.6)]S^{0.5}\log_{10}(RVP) - [1.854 - 1042 \div (T_{MA}+459.6)]\ S^{0.5} + [2416 \div (T_{MA}+459.6) - 2.013]\log_{10}(RVP) - [8742 \div (T_{MA}+459.6)] + 15.64\}$$

Where: T_{MA} = Average monthly stock temp. (°F) = $0.44T_{AA} + 0.56T_B + 0.0079\alpha I$
RVP = Reid vapor pressure, psi
S = Slope of the ASTM distillation curve at 10% evaporated, °F
T_{AA} = Monthly average ambient temperature, °F
T_B = Liquid bulk temp. (°F) = $T_{MA} + 6\alpha - 1$
α = Tank paint absorptance factor, dimensionless, see TABLE-B
I = Solar insolation factor, Btu/ft²d, see TABLE-C

TABLE-A. Paint Factors for Fixed Roof Tanks

TANK COLOR		PAINT FACTOR (F_P) Paint Condition	
Roof	Shell	Good	Poor
White	White	1.00	1.15
Aluminum (specular)	White	1.04	1.18
White	Aluminum (specular)	1.16	1.24
Aluminum (specular)	Aluminum (specular)	1.20	1.29
White	Aluminum (diffuse)	1.30	1.38
Aluminum (diffuse)	Aluminum (diffuse)	1.39	1.46
White	Gray	1.30	1.38
Light gray	Light gray	1.33	1.44[a]

Medium gray	Medium gray	1.40	1.58[a]

[a] Estimated from the ratios of the seven preceding paint factors.

TABLE-B. Paint solar absorptance for Fixed Roof Tanks

		PAINT FACTOR (∝) Paint Condition	
Paint color*	Paint shade or type	Good	Poor
Aluminum	Specular	0.39	0.49
Aluminum	Diffuse	0.60	0.68
Gray	Light	0.54	0.63
Gray	Medium	0.68	0.74
Red	Primer	0.89	0.91
White	NA	0.17	0.34

[a] If the tank roof and shell are painted a different color, use the average value of ∝

TABLE-C. Solar insolation factor (I), Btu/ft^2 d

Month	I	Month	I
January	310	July	2037
February	554	August	1674
March	895	September	1217
April	1308	October	724
May	1663	November	388
June	1773	December	250

For annual average, use I = 1067.

48.b. At the end of each month, the permittee shall determine the annual emissions from emissions units ROT and ROL, by using the operating parameters obtained per condition 45 and applying to the following formula and the emissions factors listed:

$$E = \Sigma (P_i\ EF_i) = (P_1\ EF_1) + (P_2\ EF_2)$$

where: E = VOC emissions
Pi = operating parameters identified in condition 45.a
EF_i = VOC emission factor for ROT and ROL identified below:

VOC EF_i for emissions units ROT & ROL

Emissions Unit	P_i	VOC EF_i	UNIT
ROT	oil slop throughput, gallons	7.76×10^{-3}	lbs/gal
ROL	reclaimed oil, gallons	2×10^{-3}	lbs/gal

48.c. For emission calculations for storage tanks BWT and ROT, the permittee may use the EPA Tank 2.0 program (software), which is based on the same AP42 algorithms/factors identified in this condition to calculate the VOC emissions. The permittee may also use a later version of the EPA Tank program, if approved in writing by the Department.

TEST METHODS AND PROCEDURES [OAR 340-218-0050(1)]

49. Unless otherwise specified in this permit, all testing shall be conducted in accordance with the Department's Source Sampling Manual. [OAR 340-212-0120]

50. NESHAP Test methods and procedures: [40 CFR 63.786] .

50.a. For the compliance procedures described in conditions 31.f.i through 31.f.iii, Method 24 of 40 CFR Part 60, appendix A, is the definitive method for determining the VOC content of coatings, as supplied or as applied. When a coating or thinner contains exempt compounds that are volatile HAP or VOHAP, the permittee shall ensure, when determining the VOC content of a coating, that the mass of these exempt compounds is included.

50.b. For the compliance procedure described in condition 31.f.iv, the Department must approve the test method for determining the VOHAP content of coatings and thinners. As part of the approval, the test method must meet the specified accuracy limits indicated below for sensitivity, duplicates, repeatability, and reproducibility coefficient of variation each determined at the 95 percent confidence limit. Each percentage value below is the corresponding coefficient of variation multiplied by 2.8 as in the ASTM Method E180-93: Standard Practice for Determining the Precision of ASTM Methods for Analysis and Testing of Industrial Chemicals (incorporation by reference--see 40 CFR 63.14).

50.b.i. Sensitivity: The overall sensitivity must be sufficient to identify and calculate at least one mass percent of the compounds of interest based on the original sample. The sensitivity is defined as ten times the noise level as specified in ASTM Method D3257-93: Standard Test Methods for Aromatics in Mineral Spirits by Gas Chromatography (incorporation by reference--see 40 CFR 63.14). In determining the sensitivity, the level of sample dilution must be factored in.

50.b.ii. Repeatability: First, at the 0.1-5 percent analyte range the results would be suspect if duplicates vary by more than 6 percent relative and/or day-to-day variation of mean duplicates by the same analyst exceeds 10 percent relative. Second, at greater than 5 percent analyte range the results would be suspect if duplicates vary by more than 5 percent relative and/or day-to-day variation of duplicates by the same analyst exceeds 5 percent relative.

50.b.iii. Reproducibility: First, at the 0.1-5 percent analyte range the results would be suspect if lab-to-lab variation exceeds 60 percent relative. Second, at greater than 5 percent range the results would be suspect if lab-to-lab variation exceeds 20 percent relative.

50.b.iv. Any test method should include information on the apparatus, reagents and materials, analytical procedure, procedure for identification and confirmation of the volatile species in the mixture being analyzed, precision and bias, and other details to be reported. The reporting should also include information on quality assurance (QA) auditing.

50.b.v. Multiple and different analytical techniques must be used for positive identification if the components in a mixture under analysis are not known. In such cases, a single column gas chromatograph (GC) may not be adequate. A combination of equipment may be need such as a GC/mass spectrometer or GC/infrared system. (If a GC method is used, the operator must use practices in ASTM Method E260-91: Standard Practice for Gas Chromatography [incorporation by reference--see 40 CFR 63.14].)

50.c. A coating manufacturer or the permittee may use batch formulation data as a test method in lieu of Method 24 to certify the as-supplied VOC content of a coating if the manufacturer or the permittee has determined that batch formulation data have a consistent and quantitatively known relationship to Method 24 results. This determination shall consider the role of cure volatiles, which may cause

emissions to exceed an amount based solely upon coating formulation data. Notwithstanding such determination, in the event of conflicting results, Method 24 shall take precedence.

50.d. The permittee shall use or ensure that the manufacturer uses the form and procedures mentioned in appendix A to determine values for the thinner and coating parameters used in Equations 1 and 2 of condition 31. The permittee shall ensure that the coating/thinner manufacturer (or supplier) provides information on the VOC and VOHAP contents of the coatings/thinners and the procedure(s) used to determine these values.

51. Although source testing is not required by this permit for the permit conditions listed below, if source testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods and averaging times to measure the pollutant emissions:

Permit Condition	Test Method	Averaging Time	Special Conditions
16, 19, 37, and 38	ODEQ Methods 5, 7, or 8	average of three one-hour test runs	ODEQ Method 8 is for sources with exhaust gases at essentially ambient conditions (e.g. material handling cyclones); ODEQ Method 7 is for direct contact combustion sources (e.g., particle and veneer dryers); ODEQ Method 5 is for indirect contact fuel burning equipment (e.g., boilers) and any other source.
18 and 36	Modified EPA Method 9 in accordance with the Department's Source Sampling Manual	aggregate of three minutes in any 60 minute period	Each Method 9 observation shall represent a period of 15 seconds for the purpose of determining the aggregate amount of time in 60-minute period that the visible emissions are greater than the opacity limit. The test duration may be less than 60 minutes if a violation of the standard is documented before the full 60-minute observation period is completed.

RECORDKEEPING REQUIREMENTS [OAR 340-218-0050(3)(b)]

52. The permittee shall maintain the following general records of monitoring required by this permit:

- 52.a. the date, place as defined in the permit, and time of sampling or measurements;
- 52.b. the date(s) analyses were performed;
- 52.c. the company or entity that performed the analyses;
- 52.d. the analytical techniques or methods used;
- 52.e. the results of such analyses;
- 52.f. the operating conditions as existing at the time of sampling or measurement; and
- 52.g. the records of all physical and operating parameters used in this permit.

53. The permittee shall maintain the following specific records of required monitoring information:

- 53.a. fugitive dust inspection and maintenance activities records kept per condition 5;
- 53.b. fuel oil sulfur analyses certificates kept per condition 5;
- 53.c. recordkeeping per condition 9 of any actions taken during an applicable air pollution episode;
- 53.d. complaint log and investigation reports per condition 12, if any;
- 53.e. employee certification records and training records kept per conditions 14 and 34.c;
- 53.f. visible emissions observation reports per conditions 17 and 20;
- 53.g. records of inspection and maintenance procedures kept per conditions 22, 24, and 27;
- 53.h. the coating VOC and VOHAP usage data kept per conditions 29, 31, 32, 34, 47.a; and
- 53.i. weekly, monthly, and/or annual records of production, fuel usage, and/or other relevant emissions data specified in conditions 45 through 48.

54. NESHAP RECORDKEEPING: The permittee shall maintain the following specific records related to ship coating operations conducted under emissions unit $COAT_{SHIP}$ in accordance with 40 CFR 63.788:

54.a. The permittee shall maintain relevant records for such source of:

- 54.a.i. Any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements, if the permittee has been granted a waiver under 40 CFR 63.10(f);
- 54.a.ii. All documentation supporting the initial notification submitted under 40 CFR 63.787.

54.b. The permittee shall record the total volume of each of the exempt coatings applied to marine vessel and vessel parts at the source. Such records shall be compiled monthly, and the previous 12-month usage of exempt coatings shall be compared to the limits specified in condition 30.c.i.

54.c. The permittee shall compile records on a monthly basis. At a minimum, these records shall include:

- 54.c.i. All documentation supporting initial notification;
- 54.c.ii. A copy of the source's implementation plan;
- 54.c.iii. The volume of each low-usage-exempt coating applied;
- 54.c.iv. Identification of the coatings used, their appropriate coating categories, and the applicable VOHAP limit;
- 54.c.v. Certification of the as-supplied VOC content of each batch of coating;
- 54.c.vi. A determination of whether containers meet the standards as described in condition 30.b.ii; and
- 54.c.vii. The results of any Method 24 or approved VOHAP measurement test conducted on individual containers of coating, as applied.

54.d. The records required by condition 54.c shall include additional information, as determined by the compliance procedure(s) described in condition 31.f that the source followed:

54.d.i. Coatings to which thinning solvent will not be added. The records maintained if demonstrating compliance using the procedure described in condition 31.f.i shall contain the following information:

54.d.i.(1) Certification of the as-applied VOC content of each batch of coating; and

54.d.i.(2) The volume of each coating applied.

54.d.ii. Coatings to which thinning solvent will be added--coating-by-coating compliance. The records maintained by facilities demonstrating compliance using the procedure described in condition 31.f.ii shall contain the following information:

54.d.ii.(1) The density and mass fraction of water and exempt compounds of each thinner and the volume fraction of solids (non-volatiles) in each batch, including any calculations;

54.d.ii.(2) The maximum allowable thinning ratio (or ratios, if the source complies with the cold-weather limits in addition to the other limits specified in condition 30.a for each batch of coating, including calculations;

54.d.ii.(3) If the source chooses to comply with the cold-weather limits, the dates and times during which the ambient temperature at the affected source was below 4.5°C (40°F) at the time the coating was applied and the volume used of each batch of the coating, as supplied, during these dates;

54.d.ii.(4) The volume used of each batch of the coating, as supplied;

54.d.ii.(5) The total allowable volume of thinner for each coating, including calculations; and

54.d.ii.(6) The actual volume of thinner used for each coating.

54.d.iii. Coatings to which the same thinning solvent will be added--group compliance. The records maintained by facilities demonstrating compliance using the procedure described in condition 31.f.iii shall contain the following information:

54.d.iii.(1) The density and mass fraction of water and exempt compounds of each thinner and the volume fraction of solids in each batch, including any calculations;

54.d.iii.(2) The maximum allowable thinning ratio (or ratios, if the affected source complies with the cold-weather limits in addition to the other limits specified in condition 30.a) for each batch of coating, including calculations;

54.d.iii.(3) If the source chooses to comply with the cold-weather limits, the dates and times during which the ambient temperature at the affected source was below 4.5°C (40°F) at the time the coating was applied and the volume used of each batch in the group, as supplied, during these dates;

54.d.iii.(4) Identification of each group of coatings and their designated thinners;

54.d.iii.(5) The volume used of each batch of coating in the group, as supplied;

54.d.iii.(6) The total allowable volume of thinner for the group, including calculations; and

54.d.iii.(7) The actual volume of thinner used for the group.

54.d.iv. Demonstration of compliance through an alternative (i.e., non-Method 24) test method. The records maintained by facilities demonstrating compliance using the procedure described in condition 31.f.iv shall contain the following information:

54.d.iv.(1) Identification of the Administrator-approved VOHAP test method or certification procedure;

54.d.iv.(2) For coatings to which the source does not add thinning solvents, the source shall record the certification of the as-supplied and as-applied VOHAP content of each batch and the volume of each coating applied;

54.d.iv.(3) For coatings to which the source adds thinning solvent on a coating-by-coating basis, the source shall record all of the information required to be recorded by condition 54.d.ii; and

54.d.iv.(4) For coatings to which the source adds thinning solvent on a group basis, the source shall record all of the information required to be recorded by condition 54.d.iii.

54.e. If the permittee detects a violation of the standards specified in condition 28, the permittee shall, for the remainder of the reporting period during which the violation(s) occurred, include the following information in his or her records:

54.e.i. A summary of the number and duration of deviations during the reporting period, classified by reason, including known causes for which a Federally approved or promulgated exemption from an emission limitation or standard may apply.

54.e.ii. Identification of the data availability achieved during the reporting period, including a summary of the number and total duration of incidents that the monitoring protocol failed to perform in accordance with the design of the protocol or produced data that did not meet minimum data accuracy and precision requirements, classified by reason.

54.e.iii. Identification of the compliance status as of the last day of the reporting period and whether compliance was continuous or intermittent during the reporting period.

54.e.iv. If, pursuant to condition 54.e.iv, the permittee identifies any deviation as resulting from a known cause for which no Federally-approved or promulgated exemption from an emission limitation or standard applies, the monitoring report shall also include all records that the source is required to maintain that pertain to the periods during which such deviation occurred and:

54.e.iv.(1) The magnitude of each deviation;

54.e.iv.(2) The reason for each deviation;

54.e.iv.(3) A description of the corrective action taken for each deviation, including action taken to minimize each deviation and action taken to prevent recurrence; and

54.e.iv.(4) All quality assurance activities performed on any element of the monitoring protocol.

54.f. For the NESHAP records required by condition 54, the permittee shall retain at least the most recent 2 years of data on site; and the remaining 3 years of NESHAP records may be retained off site.

54.g. The NESHAP data may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

55. Unless otherwise specified by permit condition, the permittee shall make every effort to maintain 100 percent of the records required by the permit. If information is not obtained or recorded for legitimate reasons (e.g., the monitor or data acquisition system malfunctions due to a power outage), the missing record(s) shall not be considered a permit deviation provided the amount of data lost does not exceed 10% of the averaging periods in a reporting period or 10% of the total operating hours in a reporting period, if no averaging time is specified. Upon discovering that a required record is missing, the permittee shall document the reason for the missing record. In addition, any missing record that can be recovered from other available information shall not be considered a missing record. [OAR 340-214-0110, 340-212-0160, and 340-218-0050(3)(b)]

56. Unless otherwise specified, the permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

REPORTING REQUIREMENTS [OAR 340-218-0050(3)(c)]

GENERAL REPORTING REQUIREMENTS

57. Excess Emissions Reporting The permittee must report all excess emissions as follows: [OAR 340-214-0300 through 340-214-0360]

57.a. Within 1-hour of the event if feasible, but no later than the next working day, notify the Department of an excess emission event by phone, e-mail, or facsimile; and

57.b. Within 15 days of the excess emissions event, submit a written report that contains the following information: [OAR 340-214-0340(1)]

57.b.i. The date and time of the beginning of the excess emissions event and the duration or best estimate of the time until return to normal operation;

57.b.ii. The date and time the owner or operator notified the Department of the event;

57.b.iii. The equipment involved;

57.b.iv. Whether the event occurred during planned startup, planned shutdown, scheduled maintenance, or as a result of a breakdown, malfunction, or emergency;

57.b.v. Steps taken to mitigate emissions and corrective action taken, including whether the approved procedures for a planned startup, shutdown, or maintenance activity were followed;

57.b.vi. The magnitude and duration of each occurrence of excess emissions during the course of an event and the increase over normal rates or concentrations as determined by continuous monitoring or best estimate (supported by operating data and calculations);

57.b.vii. The final resolution of the cause of the excess emissions; and

57.b.viii. Where applicable, evidence supporting any claim that emissions in excess of technology-based limits were due to any emergency pursuant to OAR 340-214-0360.

57.c. In the event of any excess emissions which are of a nature that could endanger public health and occur during non-business hours, weekends, or holidays, the permittee must immediately notify the Department by calling the Oregon Accident Response System (OARs). The current number is 1-800-452-0311.

57.d. If startups, shutdowns, or scheduled maintenance may result in excess emissions, the permittee must submit startup, shutdown, or scheduled maintenance procedures used to minimize excess emissions to the Department for prior authorization, as required in OAR 340-214-0310 and 340-214-0320. New or modified procedures must be received by the Department in writing at least 72

hours prior to the first occurrence of the excess emission event. The permittee must abide by the approved procedures and have a copy available at all times.

57.e. The permittee must notify the Department of planned startup/shutdown or scheduled maintenance events.

57.f. The permittee must continue to maintain a log of all excess emissions in accordance with OAR 340-214-0340(3). However, the permittee is not required to submit the detailed log with the semi-annual and annual monitoring reports. The permittee is only required to submit a brief summary listing the date, time, and the affected emissions units for each excess emission that occurred during the reporting period. [OAR 340-218-0050(3)(c)]

58. Permit Deviations Reporting: The permittee must promptly report deviations from permit requirements that do not cause excess emissions, including those attributable to upset conditions, as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. "Prompt" means within 15 days of the deviation. Deviations that cause excess emissions, as specified in OAR 340-214-0300 through 340-214-0360 must be reported in accordance with Condition 57.

59. The permittee shall submit the following additional reports and/or information to the DEQ - Northwest Region as required by specific conditions within the permit:

59.a. source test plans/notifications prior to conducting actual test/measurements;
59.b. source test results within 45 days after the source test was done; and
59.c. when requested by the Department, submit all relevant records, data, and support information maintained at the plant site per recordkeeping requirements of this permit.

60. All required reports shall be certified by a responsible official consistent with OAR 340-218-0040(5); OAR [OAR 340-218-0050(3)(c)(D)]

61. Reporting requirements shall commence on the date of permit issuance unless otherwise specified in the permit. [OAR 340-218-0050(3)(c)(E)]

62. Addresses of regulatory agencies are the following, unless otherwise instructed:

DEQ - Northwest Region	DEQ - Air Quality Division	EPA - Region X
2020 S.W. 4th Avenue, #400 Portland, OR 97201-5884	811 SW Sixth Avenue Portland, OR 97204	Mail Stop OAQ-107 1200 Sixth Avenue Seattle, WA 98101
(503) 229-5554	(503) 229-5359	--

Semi-annual and Annual Reports

63. NESHAP (SUBPART II) REPORTING REQUIREMENTS: The permittee shall submit a report to the EPA Region X office and the Department by July 31 and February 15, unless otherwise approved in writing by the Department. The July report shall cover the period from December 15 to June 14, and the December report shall cover the period from June 15 to December 14. Each report shall include all of the information that must be retained pursuant to conditions 54.c and 054.d, except for that information specified in conditions 54.c.i, 54.c.ii, 54.c.v, 54.d.i.(1), 54.d.ii.(1), and 54.d.iii.(1). If a violation is detected, the source shall also report the information specified in condition 54.e for the reporting period during which the violation(s) occurred. To the extent possible, the report shall be organized according to the compliance procedure(s) followed each month by the source.

64. SEMI-ANNUAL REPORTING REQUIREMENTS: The permittee shall submit three (3) copies of the semi-annual monitoring report by July 31, unless otherwise approved in writing by the Department. The semi-annual monitoring report shall include the following information:

64.a. The first semi-annual compliance certification for the period January 1 through June 30 [OAR 340-218-0080] and the information specified in forms R1002 and R1003 for the same period. All instances of deviations from permit requirements shall be clearly identified in such report.

64.b. The permittee may use forms supplied by the Department or equivalent forms approved by the Department.

64.c. One copy of the semi-annual report shall be submitted to the EPA and two copies to the DEQ Northwest regional office.

65. ANNUAL REPORTING REQUIREMENTS: The permittee shall submit three (3) copies of the annual monitoring report by February 15, unless otherwise approved in writing by the Department. The annual monitoring report shall include the following information:

65.a. The second semi-annual compliance certification for the period July 1 through December 31 [OAR 340-218-0080] and the information specified in forms R1002 and R1003 for the same period. All instances of deviations from permit requirements shall be clearly identified in such reports.

65.b. The emission fee report [OAR 340-220-0100]

65.c. The emission statement, if applicable [OAR 340-214-0220]

65.d. The excess emissions upset log, if applicable [OAR 340-214-0340]

65.e. The annual certification that the risk management plans is being properly implemented, if triggered; OAR 340-244-0230. [OAR 340-218-0080(7)]

65.f. Other source-specific annual reporting requirements as specified elsewhere throughout the permit, including the following:

65.f.i. Annual VOC emissions from each of the emissions units $COAT_{SHIP}$, $COAT_{MISC}$, BWT, ROL, and ROT; and associated material usage and/or annual throughputs (gal) of corresponding emissions unit.

65.f.ii. Annual PM and PM_{10} emissions from SBO, SBI, and WLD and associated amount of abrasive materials used for the inside and outside jobs, and the amount of welding rods used.

CITY OF PORTLAND
ENVIRONMENTAL SERVICES

Water Pollution Control Laboratory
6543 N. Burlington Ave., Portland, Oregon 97203-5452
(503) 823-5600

WASTEWATER DISCHARGE PERMIT

ISSUED TO:	Cascade General
SIC CODE:	3731
PLANT TYPE:	Centralized Waste Treatment; Ship Repair
EPA CATEGORY:	40 CFR 437
LOCATION:	5555 N. Channel Ave Portland, Oregon 97217
MAILING ADDRESS:	5555 N. Channel Ave. Portland, Oregon 97217
RESPONSIBLE OFFICIAL:	Frank Foti
PHONE NUMBER:	503-247-1470
FAX NUMBER:	503-247-1686

EXPIRATION DATE: 12/31/07

INDUSTRIAL SOURCE CONTROL MANAGER: Gerald W. Baumgartner — Effective Date: 1-30-03

PREPARED BY: Derik Vowels
CHECKED BY : Miguel Santana

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INTRODUCTION

PERMITTED ACTIVITIES

The permittee is authorized to discharge industrial wastewater to the City of Portland's sewer system in compliance with Chapter 17.34 of the City Code, the Bureau of Environmental Services Administrative Rules and any applicable provisions of federal or state laws or regulations and in accordance with discharge point(s), effluent limitations, monitoring requirements, and all other conditions set forth herein.

It is the permittee's duty to comply with all conditions of this permit. Any noncompliance with permit requirements constitutes a violation of Chapter 17.34 of Portland's City Code and, as such, subjects the permittee to enforcement action(s).

Local Limits

Schedule A
WASTEWATER DISCHARGE LIMITATIONS

I. Non-categorical Wastestream

Listed below are the waste discharge limitations not to be exceeded after **the permit effective date.** Applicable regulations include Chapters 17.34 and 17.36 of the Code of the City of Portland and 40 CFR 403. The point of compliance with the discharge limitations shall be the **main gate flume - sample location 1A.**

POC (*)	Pollutant Name	Local Limit Daily Max (mg/L)	Categorical Limit (mg/L) Daily	Monthly
	METALS			
	Arsenic	0.2		
	Cadmium	0.7		
	Chromium	5.0		
*	Copper	3.7		
*	Lead	0.7		
	Mercury	0.010		
	Molybdenum	1.4		
	Nickel	2.8		
	Selenium	0.6		
	Silver	0.4		
*	Zinc	3.7		
	NON-METALS (INORGANICS)			
	Cyanide	1.2		
*	pH	5.0-11.5 su		
	Sulfide	4.0		
	NON-METALS (ORGANICS)			
	1,2-Dichloroethane	0.50		
	2,4-Dinitrotoluene	0.13		
	Acrylonitrile	1.00		
	Chlordane	0.03		
	Chlorobenzene	0.20		
	Chloroform	0.20		
	Nitrobenzene	2.00		
	Pentachlorophenol	0.04		
	Trichloroethylene	0.20		
*	Non-polar Oil & Grease	110		

Schedule A
WASTEWATER DISCHARGE LIMITATIONS

II. Centralized Waste Treatment (CWT) - Subcategory B - Oils

Listed below are the waste discharge limitations not to be exceeded after **the permit effective date.** Applicable regulations include Chapters 17.34 and 17.36 of the Code of the City of Portland and 40 CFR 437.25. The point of compliance with the discharge limitations shall be **sample location - 2A,** which contains discharge exclusively from the Ballast Water Treatment Plant.

POC (*)	Pollutant Name	Local Limit Daily Max (mg/L)	Categorical Limit (mg/L) Daily	Monthly
	METALS			
*	Antimony (T)		0.237**	0.141**
	Arsenic (T)	0.2		
*	Barium (T)		0.427**	0.281**
	Cadmium (T)	0.7		
*	Chromium (T)	5.0	0.947**	0.487**
*	Cobalt (T)		56.4**	18.8**
*	Copper (T)	3.7	0.405**	0.301**
*	Lead (T)	0.7	0.222**	0.172**
	Mercury (T)	0.010		
*	Molybdenum (T)	1.4	3.50**	2.09**
	Nickel (T)	2.8		
	Selenium (T)	0.6		
	Silver (T)	0.4		
*	Tin (T)		0.249**	0.146**
*	Zinc (T)	3.7	6.95**	4.46**
	NON-METALS (INORGANICS)			
	Cyanide	1.2		
	pH	5.0-11.5 su		
	Sulfide	4.0		
	NON-METALS (ORGANICS)			
	1,2-Dichloroethane	0.50		
	2,4-Dinitrotoluene	0.13		
	Acrylonitrile	1.00		
*	Bis (2-ethylhexhyl) phthalate		0.267**	0.158**
*	Carbazole		0.392**	0.233**
	Chlordane	0.03		
	Chlorobenzene	0.20		
	Chloroform	0.20		
*	n-Decane		5.79**	3.31**
*	Fluoranthene		0.787**	0.393**
	Nitrobenzene	2.00		
*	n-Octadecane		1.22**	0.925**
	Pentachlorophenol	0.04		
	Trichloroethylene	0.20		
	Non-polar Oil & Grease	110		

Dissolved

Total Pcbs

Schedule A
WASTEWATER DISCHARGE LIMITATIONS

III. CWT - Subcategory A - Metals

Listed below are the waste discharge limitations not to be exceeded after **the permit effective date.** Applicable regulations include Chapters 17.34 and 17.36 of the Code of the City of Portland and 40 CFR 437.15. The point of compliance with the discharge limitations shall be **sample location - 3A.**

POC (*)	Pollutant Name	Local Limit Daily Max (mg/L)	Categorical Limit (mg/L) Daily	Monthly
	METALS			
*	Antimony (T)		**0.249****	**0.206****
*	Arsenic (T)	0.2	**0.162****	**0.104****
*	Cadmium (T)	0.7	**0.474****	**0.0962****
*	Chromium (T)	5.0	15.5**	3.07**
*	Cobalt (T)		**0.192****	**0.124****
*	Copper (T)	3.7	4.14**	1.06**
*	Lead (T)	0.7	1.32**	**0.283****
*	Mercury (T)	0.010	**0.00234****	**0.000739****
*	Molybdenum (T)	1.4	3.50**	2.09**
*	Nickel (T)	2.8	3.95**	1.45**
*	Selenium (T)	0.6	1.64**	0.408**
*	Silver (T)	0.4	**0.120****	**0.0351****
*	Tin (T)		**0.409****	**0.120****
*	Titanium (T)		**0.0947****	**0.0618****
*	Vanadium (T)		**0.218****	**0.0662****
*	Zinc (T)	3.7	2.87**	0.641**
	NON-METALS (INORGANICS)			
*	Cyanide	1.2	500**	178**
	pH	5.0-11.5 su		
Dissolved	Sulfide	4.0		
	NON-METALS (ORGANICS)			
	1,2-Dichloroethane	0.50		
	2,4-Dinitrotoluene	0.13		
	Acrylonitrile	1.00		
	Chlordane	0.03		
	Chlorobenzene	0.20		
	Chloroform	0.20		
	Nitrobenzene	2.00		
	Pentachlorophenol	0.04		
	Trichloroethylene	0.20		
total	Non-polar Oil & Grease	110		

Notes:

1. This schedule may be revised upon written notification by the City to accommodate process changes by the permittee or as determined by the Director of Environmental Services.

2. In addition to the limits stated in Schedule A, the permittee shall comply with all other applicable City, State and Federal regulations.

3. The pollutant parameters marked with an asterisk (*) are the pollutants of concern. At a minimum, the permittee is required to monitor for pollutants of concern. All limits are applicable at the point of compliance.

4. The permittee is required to meet the MOST stringent limitation listed, denoted in bold type in the above table, when comparing the *Local Limit* column with the *Categorical Limit* column.

5. The City has Pollutant Prohibitions for certain individual organic compounds that are not amenable to biological treatment or that have a screening value or local limit that is less than the practical method detection level (MDL). Discharges containing concentrations of a prohibited pollutant above the MDL, as listed in Appendix 5, is a violation of City Code and this permit.

6. The limits marked with a double asterisk (**) are permit specific limits until **December 22, 2003**. After this date, the limits will be categorical limits under 40 CFR 437 (Centralized Waste Treatment).

Schedule B
MONITORING AND REPORTING REQUIREMENTS

I. Final Compliance report - (CWT -Subcategory B - Oils) :

Samples for analysis to be taken within the first 90 days of operation after the issuance of this permit

(Sample Location - 2A)

Parameter	Sample Type	First Batch Discharge	Second Batch Discharge	Third Batch Discharge
Metals				
Antimony (total)	**Composite**	✓	✓	✓
Arsenic (total)		✓	✓	✓
Barium (total)		✓	✓	✓
Cadmium (total)		✓	✓	✓
Chromium (total)		✓	✓	✓
Cobalt (total)		✓	✓	✓
Copper (total)		✓	✓	✓
Lead (total)		✓	✓	✓
Mercury (total)		✓	✓	✓
Molybdenum (total)		✓	✓	✓
Nickel (total)		✓	✓	✓
Selenium (total)		✓	✓	✓
Tin (total)		✓	✓	✓
Zinc (total)		✓	✓	✓
Non Metals				
pH	**Grab**	✓	✓	✓
Oil and Grease (non-polar)		✓	✓	✓
Bis-2-ethylhexylphthalate		✓	✓	✓
Carbazole		✓	✓	✓
Fluoranthane		✓	✓	✓
n-Decane		✓	✓	✓
n-Octadecane		✓	✓	✓
Polychlorinated Biphenyls		✓	✓	✓
Batch Analytical Shall be Submitted to City Prior to Each Batch Discharge				

II. Final Compliance report - (CWT Subcategory A - Metals) :

Samples for analysis to be taken within the first 90 days of operation after the issuance of this permit

(Sample Location - 3A)

Parameter Metals	Sample Type	First Batch Discharge	Second Batch Discharge	Third Batch Discharge
Antimony (total)	**Composite**	✓	✓	✓
Arsenic (total)		✓	✓	✓
Cadmium (total)		✓	✓	✓
Chromium (total)		✓	✓	✓
Cobalt (total)		✓	✓	✓
Copper (total)		✓	✓	✓
Lead (total)		✓	✓	✓
Mercury (total)		✓	✓	✓
Molybdenum (total)		✓	✓	✓
Nickel (total)		✓	✓	✓
Selenium (total)		✓	✓	✓
Silver (total)		✓	✓	✓
Tin (total)		✓	✓	✓
Titanium (total)		✓	✓	✓
Vanadium (total)		✓	✓	✓
Zinc (total)		✓	✓	✓
Non Metals	**Grab**			
Cyanide (total)		✓	✓	✓
pH		✓	✓	✓
Oil and Grease (non-polar)		✓	✓	✓
Batch Analytical Shall be Submitted to City Prior to Each Batch Discharge				

won't see in next permit

Schedule B
MONITORING AND
REPORTING REQUIREMENTS

I. Final Compliance Report, Notes:

1. Final Compliance Reports (FCR) as per Section 17.34.060 (a)(4)(c)(b) shall be submitted to the Industrial Source Control Division by the 15th of the month following the conclusion of the monitoring period. Sampling, analysis, and reporting will be according to the preceding table.

2. At the end of the Final Compliance monitoring period, the industrial discharger shall submit to the Industrial Source Control Division a report indicating whether the applicable pretreatment standards or requirements are being met on a consistent basis. A certification statement is included on the last FCR of the Final Compliance period. If the pretreatment standards are not being met, a supplemental report must be submitted describing any additional operation, maintenance and pretreatment necessary to bring the industry into compliance.

3. All official sampling shall be taken at the approved Sampling Location (see Appendix 2). ✓

4. The permittee shall analyze samples for all listed parameters plus any other which might be expected to be present in significant quantities.

5. FCRs shall include signed and completed Chain of Custody forms for all laboratory analyses.

6. The permittee should instruct its laboratory that, if the oil and grease (total) concentration exceeds 110 mg/L, the laboratory should determine the concentrations of the polar and non-polar oil and grease fractions.

Schedule B
MONITORING AND REPORTING REQUIREMENTS

I. Periodic Compliance Self-Monitoring Report

(Main Gate Flume - Sample Location - 1A)

Parameter	Sample Type	First Quarter			Second Quarter			Third Quarter			Fourth Quarter		
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Metals													
Copper (total)	**Composite**		✓			✓			✓			✓	
Lead (total)	**Composite**		✓			✓			✓			✓	
Zinc (total)	**Composite**		✓			✓			✓			✓	
Non-Metals													
pH	**Grab**		✓			✓			✓			✓	
Oil and Grease (Non-Polar)	**Grab**		✓			✓			✓			✓	
Volatile Organic Compounds	**Grab**		✓						✓				
Due Dates		Feb 15	Mar 15	Apr 15	May 15	Jun 15	Jul 15	Aug 15	Sept 15	Oct 15	Nov 15	Dec 15	Jan 15

Qrtly Reports Due

II. Periodic Compliance Self-Monitoring Report - (CWT - Subcategory B - Oils)

(Sample Location - 2A)

Parameter	Sample Type	Every Batch Discharge
Metals		
Antimony (total)	**Composite**	✓
Barium (total)		✓
Chromium (total)		✓
Cobalt (total)		✓
Copper (total)		✓
Lead (total)		✓
Molybdenum (total)		✓
Tin (total)		✓
Zinc (total)		✓
Non Metals		
pH	**Grab**	✓
Oil and Grease (non-polar)		✓
Bis-2-ethylhexylphthalate		✓
Carbazole		✓
Fluoranthane		✓
n-Decane		✓
n-Octadecane		✓
Polychlorinated Biphenyls		✓
Batch Analytical Shall be Submitted to City Prior to Each Batch Discharge		

III. Periodic Compliance Self-Monitoring Report - (CWT - Subcategory A - Metals)

(Sample Location - 3A)

possibly change to grey reg. Chris will conduct risk assessment

Parameter	Sample Type	Every Batch Discharge
Metals		
Antimony (total)	**Composite**	✓
Arsenic (total)		✓
Cadmium (total)		✓
Chromium (total)		✓
Cobalt (total)		✓
Copper (total)		✓
Lead (total)		✓
Mercury (total)		✓
Molybdenum (total)		✓
Nickel (total)		✓
Selenium (total)		✓
Silver (total)		✓
Tin (total)		✓
Titanium (total)		✓
Vanadium (total)		✓
Zinc (total)		✓
Non Metals	**Grab**	
Cyanide (total)		✓
pH		✓
Oil and Grease (non-polar)		✓
Batch Analytical Shall be Submitted to City Prior to Each Batch Discharge		

I. Periodic Compliance Self-Monitoring Report, Notes:

1. Periodic Compliance Reports are to be submitted to the Industrial Source Control Division by the 15th of the month following the conclusion of the reporting period. Sampling, analysis, and reporting will follow the schedule above.

2. All official sampling shall be taken at the approved sampling location. (See Appendix 2: sampling location map.)

3. The permittee shall analyze samples for all listed parameters plus any other which might be expected to be present in significant quantities.

4. The permittee shall submit all self-monitoring results to the Industrial Source Control Division as part of their monitoring and reporting requirements.

5. All monitoring results are to be mailed to:

Industrial Source Control Division
Bureau of Environmental Services
City of Portland
6543 N. Burlington Ave.
Portland, OR 97203

6. Periodic Compliance Reports are to be submitted by the 15th of each month following the report period for each sampling location. The reports shall consist of:

   a. Statement of compliance/noncompliance, signed by the officially designated contact person (statement is found on bottom of the self-monitoring report form).

   b. Sample analysis results recorded on the appropriate self-monitoring report form and chain of custody for sample collected.

   c. Originals of all laboratory analysis sheets showing who analyzed sample, date and time sample was analyzed, analytical methods used, method detection limit, test result, and quality assurance/quality control.

   d. Any other reports that may be required.

7. The permittee should instruct its laboratory that, if the oil and grease (total) concentration exceeds 110 mg/L, the laboratory should determine the concentrations of the polar and non-polar oil and grease fractions.

8. The City may reduce or increase the frequency of sampling, based on the analytical results submitted.

9. As per 40 CFR 403.12(g)(5), if an industrial user subject to the reporting requirements of Schedule B monitors any parameter from the official sampling location more frequently than required, using procedures specified in Schedule E14(c), the results of their monitoring must be submitted in the required report.

Instructions

Centralized Waste Treatment (CWT) facilities are required to submit an initial certification, at start-up, and periodic certifications, annually. The Treatment Certification is a written submission that includes the following information:

The subcategories of wastes accepted for treatment at the facility. *Determined at start-up for new facilities, or from waste receipt logs for existing CWT facilities*

The treatment systems in place at the facility. *Existing or planned on-site waste treatment.*

The conditions under which the treatment systems are operated for each subcategory. *Batch versus continuous, volumes, flow rates, etc.*

All supporting data confirming equivalent treatment. *Attach manufacturer's data for treatment equipment, treatablity testing data, monitoring data.*

Procedures to ensure proper operations and maintenance of the treatment systems. *What do you do to maintain consistent treatment results (e.g. training, waste screening, process control monitoring, etc.).*

The effluent limitations for CWT, 40CFR Part 437, facilities are based upon specific treatment methods established by the EPA as Best Practicable Control Technology (BPT). The treatment technologies for each subcategory are as follows:

Subcategory A, Metals-cyanide treatment, batch precipitation, liquid-solid separation, secondary precipitation, clarification, and sand filtration. Cyanide, if present, must be removed through alkaline chlorination (or equivalent) in a two step process.

Subcategory B, Oils-emulsion breaking, gravity separation, secondary gravity separation, and dissolved air flotation.

Subcategory C, Organics-equalization followed by biological treatment.

The EPA is not requiring CWT facilities to use the exact treatment methods listed above. However, the CWT facility must certify that the systems they use provide "equivalent treatment" for each subcategory. Equivalency could be demonstrated using published information on the treatment equipment, treatability tests, or self-monitoring data. The facility will be required to submit an initial certification statement that will be reviewed annually during compliance inspections. If a facility modifies its pretreatment system, in any way, it must submit a revised certification. **The Treatment Certification Statement must be signed by the responsible corporate officer, as defined in 40 CFR 403.12(l) or 40 CFR 122.22.**

"...a responsible corporate officer means (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operation facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures."

Centralized Waste Treatment
Equivalent Treatment Certification

☐ *Initial Certification* ☐ *Periodic Certification*

Facility Name
Facility Address

Responsible Corporate Officer
Phone #

Wastewater Source Description

☐ *Subpart A: Metals*
☐ *Subpart B: Oils*
☐ *Subpart C: Organics*
☐ *Subpart D: Multiple*

Description of Treatment System

Operating Conditions / Quality Assurance

Supporting Data Confirming Equivalent Treatment (Attachments)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____ Date: _____

Schedule C
COMPLIANCE SCHEDULE

1. A Baseline Monitoring Report and Certification shall be submitted **30 days prior** to discharging Centralized Waste Treatment (CWT) wastewater to the City sanitary sewer

2. Cascade General shall submit an initial Treatment Certification **prior to discharging CWT wastewater** to the City Sanitary Sewer. The Treatment Certification is a written submission that includes the following information:

   a) The subcategories of wastes accepted for treatment
   b) The treatment systems in place at the facility
   c) The conditions under which the treatment systems are operated for each subcategory
   d) All supporting data confirming equivalent treatment
   e) Procedures to ensure proper operations and maintenance of the treatment systems

3. Cascade General shall submit an updated Accidental Spill Prevention Plan by **March 31, 2003.**

one to chris - city sanitary
one to stormwater

Schedule D
SPECIAL CONDITIONS

I. CENTRALIZED WASTE TREATMENT (CWT)

Cascade General's Permit #437.003 contains pretreatment standards for CWT wastewater identified in 40 CFR Part 437 - Subcategory A (Metals) and B (Oils), which become effective December 22, 2003. Prior to this date, the discharge of CWT wastewater from Subcategory A and B shall meet the permit specific limits identified in Schedule A.

Wastewater classified as Subcategory C (Organics), shall not be treated or discharged without prior written approval from the Industrial Source Control Division. Approval is granted after submission of a Batch Discharge Request.

II. CONTINUOUS DISCHARGE

Cascade General is permitted to continuously discharge the following wastestreams: dry dock treatment plant effluent (non-categorical), septage from vessels, boiler blow-down, and on-site domestic sewage.

III. BATCH DISCHARGE REQUIRED

All wastewater not permitted for continuous discharge must be batch discharged at the approval of the City's Industrial Source Control Division. Batch discharges include, but are not limited to, all ballast water treatment plant effluent, wastewater regulated by 40 CFR 437, and process water generated from vessels.

A. CWT BATCH PROCEDURES

1. Sample treated CWT effluent for analytes identified in Schedule B, as wastewater collects in post treatment tank.

2. Submit completed Self-Monitoring Report to City for approval to discharge.

B. NON CWT - BATCH PROCEDURES

1. A batch discharge request shall be made to the Industrial Source Control Division (ISCD) for all wastewater not permitted for continuous discharge. The written request may be faxed, mailed, or e-mailed to the ISCD and shall contain the following:

   a) The name and facility address of the waste generator

   b) A description, including regulatory status (RCRA codes, federal category, etc.) and source (petroleum contaminated wastewater, groundwater, etc.), of the wastewater to be discharged.

c) The volume of the discharge

d) The proposed method of treatment

e) Anticipated discharge duration (hours)

2. Upon receipt of the written request, the ISCD will identify sampling and flow requirements.

3. Discharges that exceed the BOD and TSS concentrations defined in Section 17.36.060 (a) of the City code, may be subject to extra-strength charges and administrative fees.

4. After permission is obtained, Cascade General shall maintain a written log of all batch discharges to the sewer system. At a minimum, the log shall record the date, time, volume, and pH for each batch discharge to the City sewer. In addition, all sample analysis data shall be recorded and maintained with the log. These records shall be available for review by City personnel upon request.

The ISCD may, at its discretion, disallow discharge at any time when violations of Chapter 17.34 of the Code of the City of Portland are observed.

IV. FLOW RESTRICTIONS

The maximum flow rate at the main gate flume shall not exceed **180 gpm.**

V. WASTE RECIPT LOG

Cascade General shall maintain a wastewater receipt log, detailing all wastewater generated off-site received for treatment at the facility. The wastewater receipt log must contain the following information:

Hauler - Name of company delivering wastewater and vehicle number or license plate number.

Source Location - Site that generated the waste; City of Portland, Acme Co., etc. (unique, traceable, identifying number may be used). If load is co-mingled, containing waste from multiple generators, list all generators (or identifying numbers).

Wastewater Description - Process generating waste (catch basin clean-out, machine tool coolant, UST removal, wastewater from paint washes, etc). If the load is co-mingled, containing waste from multiple sources, list all sources. If the process generating the wastewater is the same for all sources in a co-mingled load, list the process followed by *multiple sources*.

CWT Subcategory - 40 CFR Part 437, Table XIII.A-1; Oils, Metals, Organics, Non-CWT (Waste classified as Non-CWT must include supporting information detailing constituents.

Volume - Waste Volume, as received at the treatment facility. If the load is co-mingled, containing waste from multiple sources with multiple processes, list each generator's volume contribution.

VI. Cascade General shall provide an updated *equivalent treatment certification* annually. The Treatment Certification is a written submission that includes the following information:

a) The subcategories of wastes accepted for treatment
b) The treatment systems in place at the facility
c) The conditions under which the treatment systems are operated for each subcategory
d) All supporting data confirming equivalent treatment
e) Procedures to ensure proper operations and maintenance of the treatment systems

Schedule E
GENERAL CONDITIONS

1. Accidental Spill Prevention Plan

To comply with Section 17.34.090 of the City Code, the permittee shall submit a new or revised Accidental Spill Prevention Plan (ASPP) to the Industrial Wastewater Management Section 90 days after the effective date of this permit. The plans shall include the following elements.

a. A description of the hazardous substances handled and their potential points of entry into the City sewer system or storm runoff

b. A description of the measures to be taken to prevent entry at the described points before a spill occurs

c. Measures to be taken to contain a spill if one occurs

d. A description of employee training in the prevention and control of spills HMM...

e. A posted notice informing employees of the requirement to notify the Bureau of Environmental Services in case of spills or uncontrolled discharges.

2. Appeal

Upon receipt of a final industrial wastewater discharge permit, a permittee may appeal any of its terms or conditions to the Code Hearings Officer in accordance with procedures set out at Chapter 22.10 of the Portland City Code; provided that such an appeal shall include a copy of the permit that is the subject of the appeal, shall state the basis for the appeal, and shall be filed with the Code Hearings Officer and the Bureau of Environmental Services.

3. Authorized Discharge

All discharge and activities authorized herein shall be consistent with the terms and conditions of this permit, Chapter 17.34 of the City Code and the Administrative rules. The discharge of any pollutant in excess of these limits shall constitute a violation of the terms and conditions of this permit.

4. Bypass or Diversion

The diversion or bypass (the intentional diversion of wastestreams from any portion of a permittee's treatment facility) of any discharge, from facilities used by the permittee, to maintain

compliance with the terms and conditions of this permit is prohibited except:

a. When unavoidable to prevent loss of life or severe property damage.

b. When excessive storm drainage or runoff would damage facilities necessary for compliance with the terms and conditions of this permit.

4. Bypass or Diversion (continued)

The permittee shall immediately notify the City in writing of each such diversion or bypass, in accordance with the procedure specified in condition No. 23.

5. Certification

Legible copies of all applications, reports, and information submitted to the City shall be signed and certified as follows in accordance with 40 CFR 403.12.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

6. Chemical Storage

Chemicals shall be stored in a manner that will prevent the entry of these substances into the sanitary, combined sewer, or storm sewer system, or waters of the state.

7. Continuous Compliance

Compliance with Schedule E, No. 23 shall not relieve the permittee from responsibility to maintain continuous compliance with the conditions of this permit.

8. Dilution Prohibition

It is unlawful for a discharger to use dilution as a partial or complete substitute for adequate treatment to achieve compliance with the standards and limitations set forth in this permit. The Director may impose mass limitations on dischargers who are using dilution to meet the applicable pretreatment standards or the requirement set forth in this permit.

9. Enforcement Provision

A violation of any conditions, standards or requirements of this permit constitutes a violation of Chapter 17.34 of the City Code and any rules promulgated thereunder. Therefore, the City may seek any or all of the remedies or penalties provided for in Section 17.34.110 of the City Code, including recovery of costs incurred by the City, in response to the following:

a. Any violation by the permittee of the provisions in this Industrial Wastewater Discharge Permit.

b. Any violation by the permittee of the provisions of the City Code.

9. Enforcement Provision (continued)

c. Any violation by the permittee of an Enforcement Action requirement with respect to provisions set forth in this Industrial Wastewater Discharge Permit and the City Code and Administrative Rules.

The range or severity of enforcement actions taken by the City against the permittee will be determined by, but not limited to, the nature, magnitude, duration, and frequency of the violation as provided by City Code and Administrative Rules.

10. Extra-Strength Sewer Charge (ESSC)

Discharges exceeding 300 mg/L for the 5-day biochemical oxygen demand (BOD) or 350 mg/L total suspended solids (TSS) concentrations (as defined in Section 17.36.060(1) of the City Code) shall be subject to the extra-strength sewer charge (ESSC) established in Section 17.36.060(1).

11. Hazardous Waste Notification

The industrial user shall notify the Industrial Source Control Division Section, the POTW, the EPA Regional Waste Management Division Director, and State hazardous waste authorities in writing of any discharge into the POTW of a substance, which, if otherwise disposed of, would be a hazardous waste under 40 CFR Part 261. Such notification must include the name of the hazardous waste as set forth in 40 CFR Part 261, the EPA hazardous waste number, and the type of discharge (continuous, batch, or other). If the industrial user discharges more than 100 kilograms of such waste per calendar month to the POTW, the notification shall also contain the following information to the extent such information is known and readily available to the industrial user: an identification of the hazardous constituents contained in the wastes, an estimation of the mass and concentration of such constituents in the wastestream discharged during that calendar month, and an estimation of the mass of constituents in the wastestream expected to be discharged during the following 12 months.

12. Inspection and Entry

The permittee shall, at all reasonable times, allow authorized representatives of the City:

a. To enter the permittee's premises where an effluent source or disposal system is located or where any records associated with this permit are kept.

b. To have access to any required records and permission to copy these records. At no time can wastewater effluent data be claimed or held as confidential information.

c. To inspect and evaluate any monitoring equipment or monitoring methods required by this permit.

d. To sample any discharge to the sewer system.

13. Liability

The City of Portland, its officers, agents or employees shall not sustain any liability due to the issuance of this permit or the construction or maintenance of facilities resulting from this permit.

14. Monitoring

a. The permittee shall record the following information:

* The exact date, time, and place of sampling
* Name of person who collected the sample(s)
* Type of sample(s) collected
* The dates analyses were performed
* Who performed the analyses
* The analytical techniques or methods used
* The results of all required analyses
* Whether quality assurance and quality control laboratory procedures are followed

b. Samples and measurements, taken to meet the requirements of the above condition, shall be representative of the effluent. Grab samples must be collected for pH, cyanide, phenol, sulfide, volatile organic compounds and oil and grease monitoring.

c. All sampling and analytical methods used to meet the monitoring requirements specified in this permit shall, unless otherwise approved in writing by the City, conform to the Guidelines Establishing Test Procedures for the Analysis of

Pollutants as specified in 40 CFR, Part 136. Laboratory quality assurance and quality control programs should be documented. EPA QA/QC programs should be followed.

d. The permittee is required to document proper installation, and maintenance of flow monitoring and sampling equipment.

e. If the results of the permittee's wastewater analysis indicate that a noncompliance has occurred, the permittee must notify the City's Industrial Source Control Division Section within 24 hours of becoming aware of the noncompliance. The permittee must also repeat the sampling within 24 hours of the effluent noncompliance or next process day and submit the analysis to the City within 30 days after becoming aware of the noncompliance.

14. Monitoring (continued)

f. The permittee shall take all reasonable steps to minimize or correct any adverse impact to the POTW or the environment resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

g. If requested, the permittee shall provide or split discharge samples with the City of Portland Water Pollution Control Laboratory.

15. Permit Modification

This permit may be modified with 30 days prior written notification, in whole or in part, for causes including but not limited to the following:

a. A change in the City's NPDES permit or any other condition that requires either a temporary or permanent elimination of any authorized discharge.

b. To incorporate new or revised federal, state, or local pretreatment standards or requirements.

c. Information indicating that the permitted discharge poses a threat to the City's collection and treatment system, POTW personnel, or the receiving waters and sludge.

d. To correct typographical or other errors in the permit.

e. Any significant change in the volume of a permitted discharge.

16. Permit Renewal

This permit is issued to a specific entity and cannot be transferred by the industrial user and must be renewed pursuant to Section 17.34.070 of the Code of the City of Portland and Permit Applications must be received 90 days prior to:

a. Expiration date of current permit.

b. In the event the permittee plans to cease operations at the present location, and plans to relocate within the City of Portland's jurisdiction and continue the same permitted activities.

c. The permitted industrial process being significantly altered or changed so that pollutants not specifically mentioned in the current permit are present in the permittee's discharge.

17. Permit Suspension or Termination

a. Violation of any terms or conditions of this permit or any applicable rule, standard, or order of the director of the Bureau of Environmental Services.

17. Permit Suspension or Termination (continued)

b. Obtaining this permit by misrepresentation or failure to fully disclose all relevant facts.

c. Falsifying self-monitoring reports.

d. Tampering with monitoring equipment.

e. Refusing to allow prompt access to the facility premises and records.

f. Failure to meet effluent limitations.

g. Failure to pay fines.

h. Failure to meet compliance schedules.

18. Plant Closure

In the event the permittee plans to cease operations at the present business location, and not to relocate within the City of Portland's jurisdiction, the permittee shall inform this office, in writing, 60 days prior to plant closure.

19. Property Rights or Privileges

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges; it does not authorize any injury to private property or any invasion of personal rights; and it does not authorize any infringements or federal, state, or local laws or regulations.

20. Records Retention

All records of monitoring activities and results, including all original strip chart recordings for continuous monitoring instrumentation (and calibration and maintenance records), shall be retained by the permittee for a minimum of three years. This retention period shall be extended during the course of any unresolved litigation pertaining to the discharge of pollutants by the permittee, or whenever it is requested by the City, the Approval Authority (DEQ), the Regional Administrator (EPA).

21. Reporting Requirements

a. Accidental or Slug Loading

If accidental or slug loading to the sanitary sewer occurs, the permittee shall notify the City Permit Manager immediately, if no response then call the City Duty Officer at 503-823-7180 (M-F 8:00am - 4:30pm) or 503-323-3398 (after 4:30pm and weekends). A formal written report, discussing circumstances and remedies, shall be submitted to the City within 5 days of the occurrence

21. Reporting Requirements (continued)

b. Changes in Wastewater Characteristics

The permittee shall give notice to the Industrial Source Control Division Section 90 days before any facility expansion, production increase, or process modifications that result in new or substantially increased discharges or a change in the nature of the discharge.

c. Change in representative

If the responsible corporate official changes, notify the City within 10 days, as per 40 CFR 403.12 (1) (4).

22. Severability

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to the other circumstances and the remainder of this permit shall not be affected.

23. Slug Load Notification

If the permittee is unable to comply with all the conditions of this permit due to a breakdown of equipment or facilities, an accident caused by human error or negligence, or any other cause such as an act of nature, or should any condition cause the release of any slug load, the permittee shall:

a. Immediately take action to stop, contain, clean up the unauthorized discharges, and correct the problem.

b. Immediately call the City Permit Manager, if no response then call the City Duty Officer at 503-823-7180 (M-F 8:00am - 4:30pm) or 503-323-3398 (after 4:30pm and weekends).

c. Within five (5) days submit a detailed written initial report to the City Permit Manager describing the breakdown, the actual quantity of resultant waste discharges, the corrective action taken, the steps taken to prevent recurrence, and any other pertinent information.

Samples shall be taken immediately upon discovery of the Slug load. Within 15 days, a follow-up report shall be submitted. The report shall contain analysis of samples taken during such discharge and samples taken after normal conditions have been restored. The samples, at a minimum, shall be analyzed for the parameters required in Schedule B. Sampling shall be continued until all parameters are within discharge limits.

24. Upset

a. Definition:

For the purposes of this section, upset means an exceptional incident in which there is unintentional and temporary noncompliance with applicable pretreatment standards, because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. Effect of an Upset:

An upset will constitute an affirmative defense to an action brought for noncompliance with applicable pretreatment standards, if the requirements of paragraph c are met.

c. Conditions Necessary for a Demonstration of an Upset:

A permittee who wishes to establish the affirmative defense of an upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An upset occurred and the permittee can identify the specific cause(s) of the upset.

(2) The facility was, at the time, being operated prudently, efficiently, and in compliance with applicable operation and maintenance procedures.

(3) The permittee has submitted the following information to the Industrial Source Control Division within 24 hours of becoming aware of the upset (if this information is provided orally, a written submission must be provided within 5 days).

* A description of the indirect discharge and cause of noncompliance

* The period of noncompliance, including exact dates and times or, if not corrected, the anticipated duration of noncompliance

* Steps planned or now being taken to reduce, eliminate, and prevent recurrence of the noncompliance

d. Burden of Proof

In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset shall have the burden of proof.

e. Permittee Responsibility in Case of an Upset.

24. Upset (continued)

If reduction, loss, or failure of its treatment facility occurs, the permittee shall control production of all discharges in order to maintain compliance with applicable pretreatment standards until the facility is restored or an alternative method of treatment is provided. This requirement especially applies if the primary source of the treatment facility power is reduced, lost, or failed.

Appendix 1
DEFINITIONS

Abbreviations

BOD_5	Five-day biochemical oxygen demand
mg/L	Milligrams per liter
k	Kilograms
m^3/d	Cubic meters per day
ppm	Parts per million (assumed equal to milligrams per liter)
POTW	Publicly owned treatment works
WPCL	Water Pollution Control Laboratory

Averages for BOD, TSS, and chemical parameters are based on arithmetic mean of samples taken.

Definitions

Bypass

The intentional diversion of wastestreams from any portion of a permittee's treatment facility..

Compatible Pollutant

Biochemical oxygen demand, suspended solids, pH and fecal coliform bacteria, and additional pollutants that the City treatment works is designed to treat.

Conventional Pollutants

Classification of industrial pollutants, which includes BOD (biochemical oxygen demand), suspended solids, fecal coliform, pH (acidity/alkalinity), and other pollutants so designated by EPA, as defined by Section 304(a)(4) of the Clean Water Act.

Director of Environmental Services

The Director of Environmental Services of the City of Portland, Oregon, or that person's duly authorized representative or agent.

City, or City of Portland

The municipality of Portland, Oregon, a municipal corporation of the State of Oregon, acting through the City Council or any board, committee, body, official, or person to whom the Council shall have lawfully delegated the power to act on behalf of the City. Unless a particular board, committee, official, or person is specifically designated in these rules and regulations, wherever action by the City is explicitly required or implied herein, it shall be understood to mean action by the Director of Environmental Services of Portland, Oregon, or that person's duly authorized representative or agent.

Effective Date of this Permit

The date this permit is signed by the Director of the Bureau of Environmental Services.

Expiration Date

From 1 to 5 years beyond the effective date of this permit.

Hazardous or toxic substances

Hazardous or toxic substances are those substances referred to in section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (42 U.S. Code 9601 et seq.), section 502(13) of the Clean Water Act, and any other substances so designated by the Director of Environmental Services and contained in rules adopted pursuant to this Chapter.

Industrial Waste

Any liquid, solid, or gaseous substance (or combination thereof) resulting from any process of industry, manufacturing, commercial food processing, business, agriculture, trade, or research, including but not limited to the development, recovery, or processing of natural resources and leachate from landfills or other disposal sites.

Industrial Wastewater Discharge Permit

A permit to discharge industrial wastewater into the City sewer system issued under the authority of the City Code, which prescribes certain discharge requirements and limitation.

Interference

Interference means a discharge which, alone or in conjunction with a discharge or discharges from other sources, inhibits or disrupts the normal operation of the City sewer system, or which causes a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or any increase in the cost of treatment of sewage or in the cost of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations); Section 405 of the Clean Water Act, the Solid Waste Disposal Act (including Title II, more commonly referred to as the Resource Conservation and Recovery Act), and including State regulations contained in any State sludge management plan prepared pursuant to Subtitle D of RCRA, the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

Maximum Daily Discharge Limitation

The highest allowable daily discharge.

Nonconventional Pollutants

All pollutants that are not specifically designated as either conventional or toxic.

Oil and Grease

Fats, Oils and Grease. Fats, oils and grease are those substances which are measured by USEPA Method 1664: N-Hexane Extractable Method (HEM) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM).

(a) Non-polar fats, oils and grease are that portion of fats, oils and grease which is measured as non-polar (from petroleum sources) by USEPA Method 1664.

(b) Polar fats, oils and grease are that portion of fats, oils and grease which is determined to be polar (of animal or vegetable origin) by USEPA Method 1664.

Pass Through

Pass through means a discharge which exits the POTW into waters of the United States in Quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

POTW

POTW means Publicly Owned Treatment Works, which includes any devices and systems, owned by a State or municipality, used in the collection, transportation, storage, treatment, recycling and reclamation of wastewater.

Pretreatment

The reduction of the amount of pollutants, the elimination of pollutants, or the alternation of the nature of pollutant properties in wastewater to a non-harmful state, prior to or in lieu of discharge of such pollutants into the City sewer system.

Sampling

a. The "monthly average" other than pH is the arithmetic mean of samples collected curing a calendar month.

b. The "daily maximum" is defined as the greatest allowable value for any calendar day.

c. A "24-hour composite" sample shall mean a flow-proportioned mixture of not less than eight discrete aliquots. Each aliquot shall be a grab sample of not less than 100 ml and shall be collected and preserved in accordance with 40 CFR part 136 and amendments.

d. A "Grab" sample is an individual sample collected in less than 15 minutes, without regard for flow or time.

e. A "Grab-Composite" is a minimum of four grab samples collected and preserved over a 24-hour period and combined to provide a representative sample of effluent being discharged.

Schedule of Compliance

A schedule of remedial measures, including an enforceable sequence of actions or operations leading to compliance with an effluent limitation or other limitation, prohibition, or standard.

Severe Property Damage

Substantial physical damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

Slugload

A slugload is any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge.

Solid Waste

Any garbage, refuse, or sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to permits.

Solid Waste Disposal

The final placement of refuse that cannot be salvaged or recycled.

Solvent Management Plan

A plan that specifies the toxic organic compounds used, the method of disposal used (instead of dumping into wastestreams), and procedures for ensuring that toxic organics do not spill or leak into wastewater discharged to the City sewer system.

Total Dissolved Solids

The total dissolved (filterable) solids as determined by use of the method specified in the list of approved test procedures.

Total Organic Active Ingredients

The sum of all organic active ingredients covered by the organic pesticide chemicals manufacturing subcategory, which are manufactured at a facility subject to the effluent guidelines for pesticides chemicals manufacturing.

Total Solids

The sum of dissolved and undissolved constituents in water or wastewater, usually expressed as milligrams per liter.

Total Suspended Solids

Total suspended matter that either floats on the surface or is in suspension in water or wastewater and that are removable by laboratory filtering (as described in *Standard Methods for the Examination of Water and Wastewaters,* current edition) or Guidelines Establishing Test Procedures for the analysis of Pollutants, contained in 40 CFR 136, as published in the *Federal Register.*(Bureau of Environmental Services Administrative Rules I[22])

Upset

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with applicable pretreatment standards, because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

Waste

Unwanted materials left over from manufacturing processes, or refuse from places of human or animal habitation.

Wastewater

Industrial waste, sewage, or any other waste, including that which may be combined with any groundwater, surface water, or stormwater that may be discharged to the city sewer system.

Water Pollution

The addition of enough harmful or objectionable material to damage water quality.

Appendix 3
RESERVED: ACCIDENTAL SPILL PREVENTION PLAN

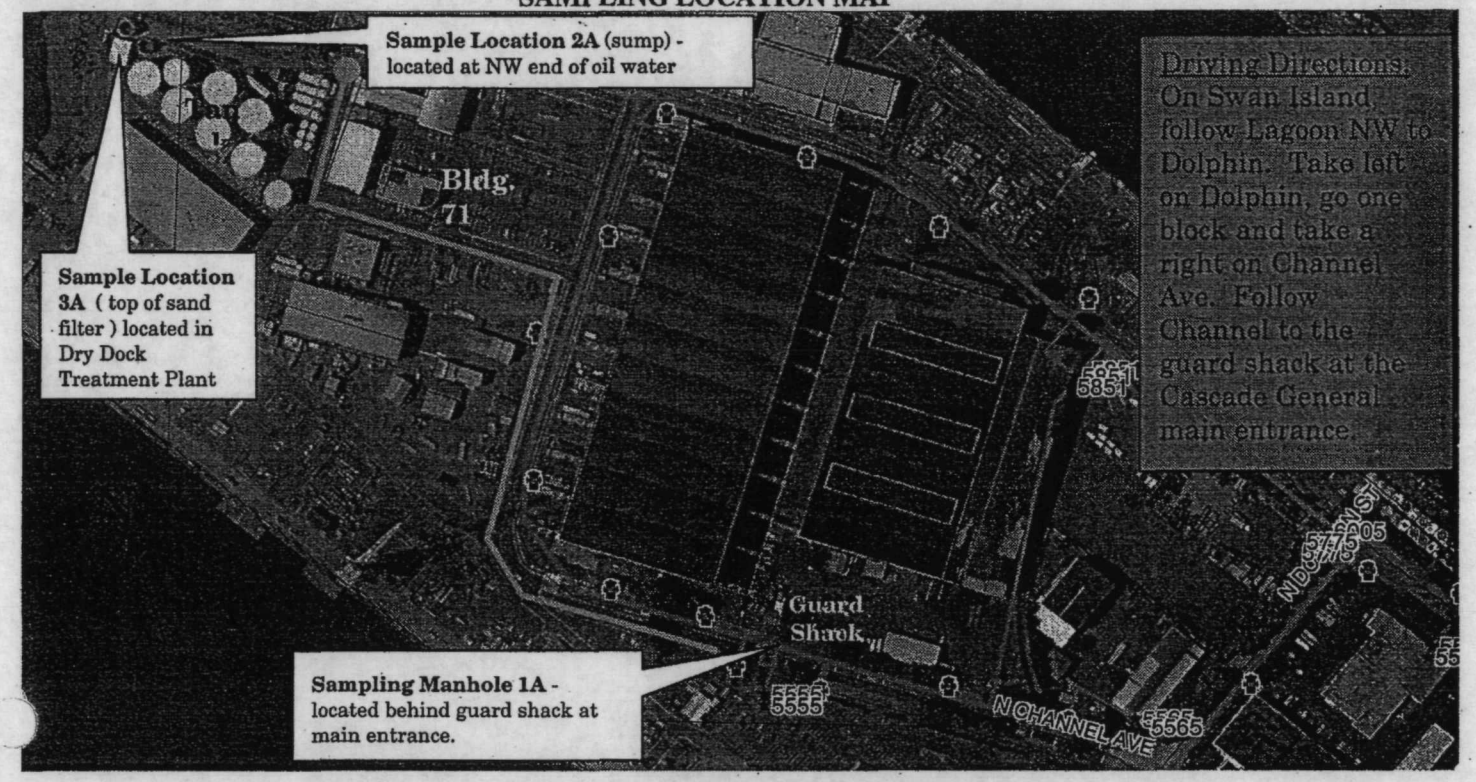
Prepared by the permittee and approved by the City.

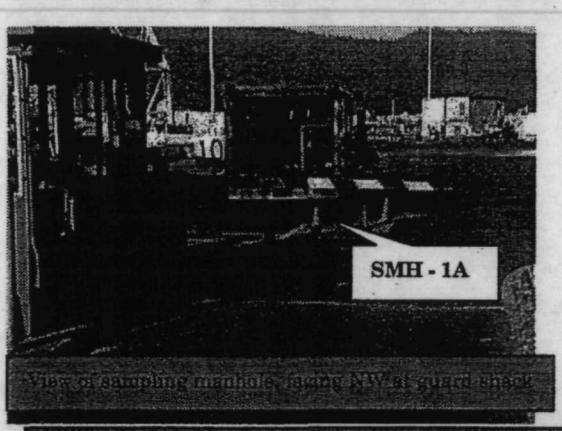
Appendix 4
Individual Organic Compounds - Pollutant Prohibitions

POLLUTANT PROHIBITIONS	*ENFORCEABLE LIMIT(mg/L)*
Volatiles	
Bromodichloromethane	0.010
Bromoform	0.010
Bromomethane	0.010
1,1,1,2-Tetrachloroethane	0.010
Chloromethane	0.010
Dibromochloromethane	0.010
Vinyl Chloride	0.050
Base/Neutral extractables	
1,2-Diphenylhydrazine	0.010
1,3-Dichlorobenzene	0.010
2,6-Dinitrotoluene	0.010
4-Bromophenyl-Phenyl Ether	0.010
Bis (2-Chloroethoxy)methane	0.010
Bis (2-Chloroisopropyl)ether	0.010
Hexachlorobenzene	0.010
Hexachlorobutadiene	0.010
Hexachlorocyclopentadiene	0.010
N-Nitroso-Di-N-Propylamine	0.010
Pesticides	
4,4-DDD (p,p-TDE)	0.001
4,4-DDE (p,p-DEX)	0.001
4,4-DDT	0.001
a-BHC (alpha)	0.001
b-BHC (beta)	0.001
d-BHC (delta)	0.001
Dieldrin	0.001
Endosulfan II (beta)	0.001
Endosulfan Sulfate	0.001
Endosulfan-I (alpha)	0.001
Endrin	0.001
Endrin Aldehyde	0.001
g-BHC (gamma) (Lindane)	0.001
Heptachlor	0.001

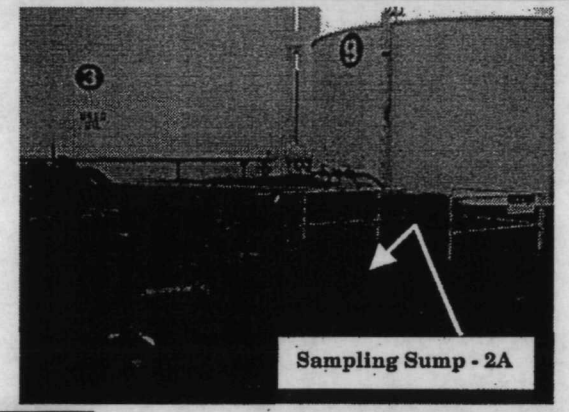
Heptachlor Epoxide	0.001
Toxaphene	0.001
Polychlorinated biphenyls (PCBs)	
PCB 1016	0.001
PCB 1221	0.001
PCB 1232	0.001
PCB 1242	0.001
PCB 1248	0.001
PCB 1254	0.001
PCB 1260	0.001

Appendix 2
SAMPLING LOCATION MAP





View of sampling manhole, facing NW at guard shack



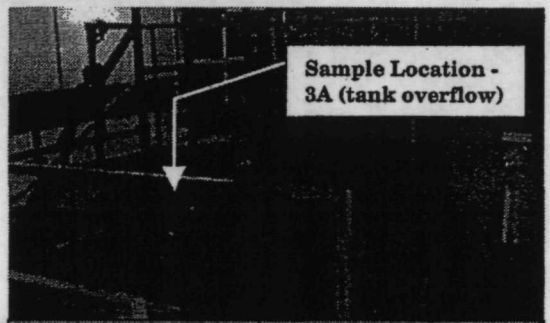
2A - Sample Directions: Collect grab samples directly from sump at beginning of batch. Set sampler for 24 hr composite and leave sampler on wood

Scheduling Sampling:
SMH 1A is continuous and should be scheduled as normal.
Sample locations 2A and 3A are batches and sampling will be initiated by EO.

Do not sample 1A during a batch discharge from 2A or 3A

Sampling Procedures:
1A - EO may collect sample without an escort (as usual)

2A & 3A - EO should arrange for escort to sample locations prior to arriving on-site by contacting Alan Sprott (503-247-1672).
Follow yellow line on map above to meet Alan at his office (Bldg. 71) or at end of line near tank farm.



3A - Sampling Directions - Very tank is overflowing and collect grab directly from trap, set sampler for

Permit Amendments

CITY OF PORTLAND - INDUSTRIAL SOURCE CONTROL DIVISION
INDUSTRY FACT SHEET - INDUSTRIAL USER INFORMATION

Company Name:	Cascade General		
Nature of Business:	Ship Repair Yard		
Site Address:	5555 N. Channel Ave. Portland, OR 97217	**Mailing Address:**	5555 N. Channel Ave. Portland, OR 97217
Signatory Auth.:	Alan Sprott	**Alternate Contact:**	
Telephone #:	(503) 247-1672	**Telephone #:**	
Facsimile #:	(503) 247-6050	**Facsimile #:**	
Permit #:	# 437.003	**SIC Code:**	3731
Permit Manager:	Derik Vowels	**Prev. Permit Mgrs:**	CFGH, SDR, MFB
Expiration Date:	12/31/07	**Last Permit Rev.:**	12/31/02
Water Account #:	See permit	**Water Usage (GPD):**	
Discharge (GPD):	24,000 gpd (to 6/02)	**# of employees:**	475 but varies
Hours of Prod.:	24 Hours / Day M - F	**# of Shifts:**	3 Shifts
Total Area:	4,147,200 sq. ft.	**Area to Storm**	4,082,400 sq. ft. (Ballast water plant surface)
Storm. Permit #:	1200-Z	**Permit Manager:**	Aaron Weiting
Main Pump Station	NA		
Other Environmental Permits:	NPDES Permit # 101393 (expired 6/30/01 - new permit being developed) Air Discharge Permit # 26-3224 (expires 1/1/03)		
USEPA Category:	437 - Centralized Waste Treatment		
CoP Classification:	**P-1**		
Point of Compliance:	**1A** - Main Gate (Non-Categorical); **2A** - BWTP (CWT B); **3A** - DDTP (CWT A)		
Emergency Contact	Alan Sprott	503-703-0875	
Safety Considerations:	Heavy equipment/industrial processes - Steel toed shoes, Hard Hat, Safety Glasses		

1. BUSINESS DESCRIPTION:

Cascade General has maintained and operated the Swan Island shipyard since January 1, 1996. Cascade provides a wide variety of ship repair activities including sand blasting ship hulls and holding tanks, pressure washing and painting vessel interiors and exteriors, custom metal and wood fabrication, and electrical and electronic services.

In early 2002, after the sale of their large dry dock, Cascade began to express an interest in treating oily wastewater generated off-site and discharging to the sanitary sewer. The City sent a letter to Cascade on 2/11/02 specifying that a change to treat wastewater generated off-site will make Cascade General a categorical industrial user under 40 CFR 437 - Centralized Waste Treatment. With the guidance of EPA (see 1/14/02 e-mail from Jan Matuszko, EPA Headquarters), Cascade is classified as an existing facility for Subcategory A and B since their treatment facilities were in existence prior to the categorical date. The Ballast Water Treatment Plant began operation in 1979 and the Dry Dock Treatment Plant became operational in February 1997. The CWT compliance date for existing industries is December 22nd 2003, however Cascade has requested to operate under the CWT limits immediately in lieu of the City's previous policy of segregated categorical wastewater generated off-site and meeting individual categorical limits. With the guidance of Chuck Hopkins, DEQ, the CWT limits will be enforced as permit specific limit until the December 22, 2003 compliance date.

In addition, Cascade has 17 tenants (updated list in red file) most performing tasks related to ship repair. However, Cascade plans to add Specialty Finishes as a tenant in December 2002. Specialty Finishes is a powder coating facility with a phosphating rinsewater discharge regulated under 40 CFR 433 - Metal Finishing.

2. DESCRIPTION OF PROCESSES GENERATING WASTEWATER:

Centralized Waste Treatment (CWT):
Cascade has begun accepting wastewater generated off-site to be treated on-site and discharged to the City sanitary sewer. The City has required Cascade to submit a CWT Baseline Monitoring Report prior to discharge.

SUBCATEGORY B - OILS:
As of 12/02, all CWT wastewater has been stored in Tank 5 but none has been processed. Thus far, only wastewater meeting the definition of Subcategory B - Oils has been collected. Cascade plans to batch treat oily wastewater through cookers and separators, separate from marine generated oily wastewater. Prior to treatment, wastewater will be screened to determine if CWT metals are present. If present, wastewater will be sent through cookers/separators then through the Dry Dock Treatment Plant and staged in Tank 8 for analytical approval to discharge. If CWT metals are not present in screening, the wastewater will be sent directly to Tank 7 or 8 after cookers/separator for analytical approval.

- TOSCO OIL - Since 4/02, Cascade has been collecting industrial oil with out of spec moisture concentration (~8%). The oil is initially heated in torpedo tanks T-12 - T-15; resulting water is decanted from bottom of the tank into T-5. When moisture content drops below 2%, oil is sent back to Tosco for re-use or re-sale. As of 12/02, 600,000 gallons of oily wastewater have been collected awaiting treatment in the BWTP.

SUBCATEGORY A - METALS

As of 12/02, no CWT wastewater from the metals subcategory has been collected. In the future, Cascade plans to accept metals wastewater to be treated in the DDTP. The raw wastestream would be stored in either Tank 4 or Tank 6. Cascade is required to submit analytical to the City from treated effluent for approval to batch discharge.

Oily Ballast Water:

All marine generated oil wastewater from ship repair is either directly piped or transported via vactor trucks to Tank 3 in the tank farm. The oily wastewater is then batch treated, to remove non-polar oils, through the ballast water treatment plant (BWTP). Prior to accepting CWT wastewater, treated marine-generated oily wastewater was stored in either Tank 8 or Tank 7, tested and batch discharged under an NPDES permit to the Willamette River.

During the 2002 permit renewal, Cascade expressed interest in discharging all CWT effluent from the BWTP to the City and while continuing to discharge non-categorical marine generated wastewater to the river under their NPDES permit. Since CWT Subcategory B wastewater and non-categorical marine generated oily wastewater will be treated in the same BWTP, a change in categorical wastestream will be defined by flushing the BWTP with three hydraulic volumes of the entire BWTP. Thus, if a non-categorical marine-generated wastewater is treated directly after CWT wastewater, the first three hydraulic volumes of non-categorical marine generated wastewater will be considered CWT wastewater and the remaining non-categorical batch may be handled as marine-generated wastewater and discharged to the river (if approved by DEQ).

Dry Dock Treatment Plant:

Wastewater generated from dry dock wash down and resulting from activities on the dry dock is captured and processed through Cascade's Dry Dock Treatment Plant (DDTP). The dry dock is used to perform work on the hull of a vessel, such as sand blasting, painting, and locker flushing. All storm water and deck wash down water collected on the dry dock is pumped into Tank 1. From Tank 1, wastewater is batch treated in the DDTP and discharged directly to the Willamette River under a NPDES permit.

During the 2002 permit renewal, Cascade expressed interest in ceasing discharge to the River and discharging all DDTP directly to the City, in anticipation of changes to their NPDES permit. Upon reviewing historical analytical from the dry dock treated effluent, Cascade's new permit no. 437.003 authorizes the discharge of DDTP effluent continuously to the sanitary sewer.

As with the BWTP, both CWT and non-categorical wastewater are treated in discrete batches through the DDTP. Therefore, the same definition of three hydraulic flushes will be used to differentiate between CWT and non-categorical batches.

Tank Farm Stormwater:

The entire tank farm and ballast water treatment plant area is bermed off and all stormwater is collected and pumped into Tank 9. The stormwater is then batch treated in the BWTP.

Oily Water:

Cascade has contracted with Tosco to dehydrate oily water and sell back to Tosco. The oily water is stored in one of four insulated torpedo tanks, ~86,000 gallons each.

Miscellaneous Batches:
All wastewater generated from ship maintenance other than septage requires City authorization prior to discharge. Some previous batch requests include: Anti Fire Fighting Foam (AFFF), rinse water from ship hull, engine jacket flush, boiler wash water. A complete list of batch discharges can be found in separate batch log file..

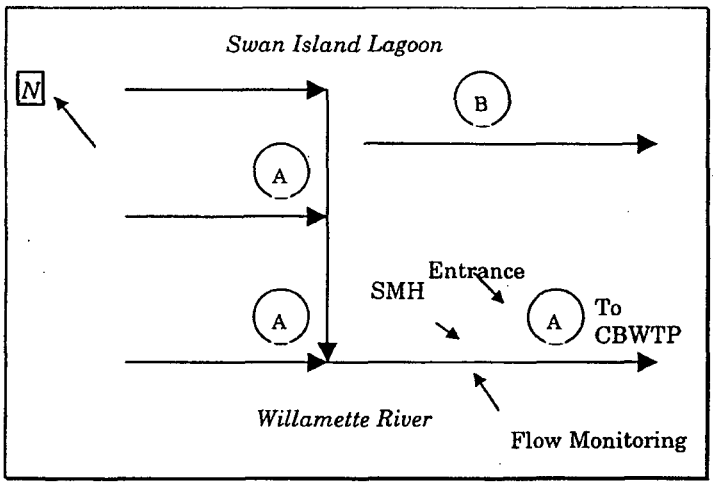
- Cascade has requested but chose not to discharge ballast seawater. City TDS limit of 1,721 lbs/day restricted flow to less than 10,000 gal/day because of high TDS concentration in salt water.

Tenants:
Cascade has proposed to add a tenant operating a categorical process in late December 2002. The proposed tenant is Specialty Finishes and is operating under Wastewater Discharge Permit No. 433.026 @ 3805 N. Mississippi Avenue in Portland. Cascade indicated they will be part owners in the company and expect Specialty Finishes to move operations on-site in February 2003. At that time, Cascade Generals permit will be modified to reflect the addition of a categorical process to the site.

There are two areas where parts are cleaned in a caustic solution and rinsed with a pressure washer, 1) adjacent to building 60 - Machine Shop and 2) adjacent to Building 50 - Marine Propeller, a Cascade Tenant. The wastewater flows to catch basins and discharges to the sanitary sewer system. Both catch basins have a gooseneck overflow pipe for solids and oil retention in the sump. During the inspections, the sumps appeared to be satisfactorily maintained. Proper maintenance minimizes oil and dirt in the wastewater.

Inspections of the remaining tenants show no process water discharge to the sanitary sewer. One facility previously discharging hose pressure test water to the sewer has moved to a closed re-circulation system.

SEWER FLOW



The sewer lines labeled "A" handle approximately 95% of the flow from on-site processes. Section "B" handles the remaining 5%. Inspection of the sewer lines revealed intermittent flow in the B section. Most water in the B section is from building 10 and batch discharges from Berths 303, 304, and 305.

Batch Discharge Required

- treated water from ballast water treatment plant
- on-ship process water to any part of Cascade's sewer system
- process batch discharges to "B" sewer lines
- all CWT wastewater regulated under 40 CFR 437

Continuous Discharge Approved

- on-site process waste water from Cascade and its tenants
- sanitary discharge (septage) from vessels
- ballast tank pressure test water discharged to the "A" sewer lines - discharge must not contain free product as characterized by a visible sheen
- non-CWT effluent from DDTP

Cascade must contact the City for monitoring parameters and discharge authorization for any batches that do not meet the conditions above. Cascade shall maintain a log of all batch discharges and the log shall be made available to the City for inspection upon request.

3. RAW WASTEWATER DESCRIPTION:

Considering the age of vessels serviced by Cascade and variety of overseas ports the vessels visit, wastewater contained in the vessels or generated during repair may contain compounds considered hazardous in the United States. Any process wastewater generated at Cascade has a high potential to contain non-polar oils and greases. Lubricants and ship fuels can contain other materials such as metals and organic compounds.

Many corrosion resistant paints used in the marine industry contain heavy metals. Cleaners used in the hydro-blasting processes leach metals from ship surfaces. For example, zinc concentrations exceeding the City's pollutant level of concern (PLOC) has been observed in Cascade's wastewater. Recent monitoring has not detected organic compounds at levels of concern from the hydro-blasting operations. There is also a potential for pH swings from discharge of cleaning compounds.

On several occasions Cascade has requested to discharge both concentrated and dilute anti-fire fighting foam, resulting from the flushing of fire suppression lines. This discharge is of special concern. If the discharge rate and concentration are not carefully controlled, excessive foaming could result in the sewers or pump station causing a bypass.

If RCRA waste is detected it is handled by Romic Environmental. The PCB's wastes are brokered out and the rest is handled by Chem-Waste and taken to East Palo Alto or Chandler Arizona for disposal.

As a result of the variety of potential pollutants Cascade and the City shall perform the following monitoring:

- **Volatile organic compounds (VOC's)** - Organic discharged by Cascade would most likely be volatile compounds. An appropriate and approved analytical method for analyzing these compounds is EPA 624. This monitoring will be performed quarterly.
- **Polychlorinated biphenyl's (PCBs)** - Fuels formulated in the US can contain limited quantities of blended PCBs. The formulation of fuels overseas may not be regulated with respect to the presence of PCBs, so the potential for these compounds to be present in wastewater is real. PCBs will be monitored at least twice per year.
- **Metals** - Cadmium, copper, lead, and zinc have appeared in the wastewater at levels above the PLOC's. Although chromium did not appear above the PLOC to date, it will be included in self and City monitoring. Certain paints may contain chromium, and monitoring to date may not have covered all possible activities taking place at Cascade. Many processes are intermittent. Molybdenum and selenium

are included in the analysis to gain background data in anticipation of proposed local limits implementation. Metals will be monitored quarterly.

- **Oil and Grease** - Cascade's activities are oily in nature. Many activities consist of overhauling equipment or cleaning oily areas of the vessel. Monitoring for oil and grease will be monthly.
- **pH** - Many of the cleaning solutions and left over cargo included in the discharge could cause pH swings. As result, pH will be monitored monthly.

4. PRETREATMENT :

BALLAST WATER TREATMENT PLANT: (see attached diagram)

1) *PRIMARY SEPARARTION* - Oily wastewater staged in either Tank 3 (Ballast Water) or Tank 5 (CWT), each tank is heated and ~1 million gallons in volume. As wastewater collects the heated oil separates oil from the wastewater. When tanks are approximately half full, the wastewater is pumped to the cookers from the bottom of the tank. The surface oil from the tank is pumped into Tank 2 for resale.

2) *COOKERS* - From the staging tanks, wastewater is pumped to a series of cascading cookers designed to further separate oil from the oily waster by heating. Reclaimed oil is pumped to Tank 2 and remaining wastewater is pumped to a series of oil/water separators

3) *OIL/WATER SEPARATORS* - The oily water is gravity fed through a series of oil/water separators equipped with baffles and skimmers to further remove oil. Reclaimed oil is pumped to Tank 2 and final effluent is pumped into Tank 7 or 8 for monitoring prior to discharge. Cascade is authorized to discharge treated ballast waster to the Willamette under an NPDES permit as well as to the sanitary sewer on a batch approval basis with the City.

DRY DOCK TREATMENT PLANT: (see attached diagram) update

Wastewater is staged in Tank 1 and processed through the Dry Dock Treatment Plant on a batch basis and discharged directly to the Willamette River under an NPDES permit. Treatment Process is as follows:

1) *GRIT SEPARATOR* - Larger solids removed by screens

2) *CLARIFIER* - One of three flocculents (DTC Chemical, Bentonite Clay, Polymer) mixed with wastewater to drop out solids. Solids sent to a filter press and remaining liquid pumped to a backwash tank.

3) *SAND FILTER* - From backwash tank water fed to sand filter for further solids removal.

4) *ACTIVATED CARBON (Proposed)* - As of 12/02 AC tank not installed but Cascade plans to add AC if they begin to accept CWT-Organic wastewater.

* After the sand filter, Cascade has the capability of directly discharging to the Willamette River, to one of the large storage tanks in the tank far, or directly to the City sanitary sewer.

5. PRETREATMENT SYSTEM DIAGRAM: (see attached)

6. POLLUTANTS OF CONCERN

A. APPLICABLE LIMITS:

Sample Location 1A - Main Gate (non-categorical)

POC (*)	Pollutant Name	Local Limit Daily Max (mg/L)	Categorical Limit (mg/L) Daily	Monthly
	METALS			
*	Copper	**3.7**		
*	Lead	**0.7**		
*	Zinc	**3.7**		
	NON-METALS (INORGANICS)			
*	pH	**5.0-11.5 su**		
	NON-METALS (ORGANICS)			
*	Non-polar Oil & Grease	**110**		

Sample Location 2A - CWT B (oils)

POC (*)	Pollutant Name	Local Limit Daily Max (mg/L)	Categorical Limit (mg/L) Daily	Monthly
	METALS			
*	Antimony (T)		**0.237****	**0.141****
*	Barium (T)		**0.427****	**0.281****
*	Chromium (T)	5.0	**0.947****	**0.487****
*	Cobalt (T)		**56.4****	**18.8****
*	Copper (T)	3.7	**0.405****	**0.301****
*	Lead (T)	0.7	**0.222****	**0.172****
*	Molybdenum (T)	**1.4**	3.50**	2.09**
*	Tin (T)		**0.249****	**0.146****
*	Zinc (T)	**3.7**	6.95**	4.46**
	NON-METALS (INORGANICS)			
	pH	**5.0-11.5 su**		
	NON-METALS (ORGANICS)			
*	Bis (2-ethylhexhyl) phthalate		**0.267****	**0.158****
*	Carbazole		**0.392****	**0.233****
*	n-Decane		**5.79****	**3.31****
*	Fluoranthene		**0.787****	**0.393****
*	n-Octadecane		**1.22****	**0.925****
	Non-polar Oil & Grease	**110**		

Sample Location 3A - CWT A (metals)

POC (*)	Pollutant Name	Local Limit Daily Max (mg/L)	Categorical Limit (mg/L) Daily	Monthly
	METALS			
*	Antimony (T)		**0.249****	**0.206****
*	Arsenic (T)	0.2	**0.162****	**0.104****
*	Cadmium (T)	0.7	**0.474****	**0.0962****
*	Chromium (T)	5.0	**15.5****	**3.07****
*	Cobalt (T)		**0.192****	**0.124****
*	Copper (T)	3.7	**4.14****	**1.06****
*	Lead (T)	0.7	**1.32****	**0.283****
*	Mercury (T)	0.010	**0.00234****	**0.000739****
*	Molybdenum (T)	1.4	**3.50****	**2.09****
*	Nickel (T)	2.8	**3.95****	**1.45****
*	Selenium (T)	0.6	**1.64****	**0.408****
*	Silver (T)	0.4	**0.120****	**0.0351****
*	Tin (T)		**0.409****	**0.120****
*	Titanium (T)		**0.0947****	**0.0618****
*	Vanadium (T)		**0.218****	**0.0662****
*	Zinc (T)	3.7	**2.87****	**0.641****
	NON-METALS (INORGANICS)			
*	Cyanide	1.2	500**	178**
	pH	5.0-11.5 su		

Bolded Values - applicable limits in Schedule A of the Permit.

The limits marked with a double asterisk (**) are permit specific limits until **December 22, 2003**, per the guidance of Chuck Hopkins, DEQ Pretreatment Coordinator, in a phone conversation on 1/8/03. After this date, the limits will be categorical limits under 40 CFR 437 (Centralized Waste Treatment).

7. ADDITIONAL MONITORED POLLUTANTS:

1A: VOCs - based on the detection of 1,4 - DCB
2A: Oil and Grease, pH & PCBs - until background analytical has been established
3A: Oil and Grease, pH - until background analytical has been established

8. SUMMARY OF COMPLIANCE HISTORY:

CTM-1998-079 Late Report <30 days

LOV-2000-20 Zinc Violation

WN-2000-21 Zinc Violation

CTM-2000-88 Improper Sampling Technique

CTM-2001-(06,07,08,09) Prohibited Discharge of 1,4 and 1,3-dichlorobenzene
Cascade conducted an internal investigation per CTM requirement and was unable to determine source of 1,3 or 1,4, but they were able to identify a section of their private sanitary sewer line with elevated levels. As a result, Cascade proposed to flush the contaminated section, contain the wastewater and treat for 1,3 and 1,4. 1,4 DCB still present after line flush.

CO-2001-004 *IU pinpointed toilet sanitizer biscuits as source and removed all biscuits from facility. On 8/02, the City updated local limits; reclassifying 1,4-DCB as a screening level pollutant at 3.5 mg/l. Subsequently, Cascade submitted final compliance report on 10/30/02 and has been in full compliance w/ new screening value.*

WN-2001-03 Zinc Violation

CTM-2002-11,12 *incomplete report (no COC) and incorrect analytical methods*

LOV-2002-005 *1,4-DCB exceedance during CO-2001-004 extension*

CTM-2002-019 *incomplete report-no COC*

8. ANALYSIS OF DISCHARGE DATA (1/1/98 to 7/1/02) for Sample Location 1A

Pollutants of Concern # Violations / # Samples		Company Data			
		Average Value	Maximum Value	Local Limit	Pollutant Level of Concern
Arsenic	0/3	0.0025	0.0053	0.2	
Cadmium	0/32	0.0064	0.0150	0.7	0.07
Chromium	0/33	0.0251	0.166	5.0	0.5
Copper	**0/31**	**0.487**	**3.7**	**3.7**	**0.37**
Lead	**0/24**	**0.044**	**0.1850**	**0.7**	**0.07**
Mercury	0/1	<0.005	<0.005	0.01	0.001
Molybdenum	0/29	0.030	0.1	1.4	.14
Nickel	**0/31**	**0.049**	**0.379**	**2.8**	**0.28**
Selenium	0/29	0.02	0.2	0.6	.06
Silver	0/5	0.0011	0.005	0.4	0.04
Zinc	**3/41**	**1.47**	**25.2**	**3.7**	**0.37**
Cyanide-T	0/0	Not sampled	Not sampled	1.2	0.12
Oil/Grease (non-polar)		**<5**	**91.2**	**110 (NP)**	**11**
pH	0/75	7.3	6.0-9.1	5.0 - 11.5	

Bolded values represent analyses (either maximum or average) at the pollutant level of concern

- **There is no background analytical for sample locations 2A and 3A as of 1/16/03.**

10. MONITORING AND REPORTING ANALYSIS: (Refer to Discharge Risk Analysis Score Table)

Parameter		Points
Q_{flow}	25, 000 - 50,000 gpd	5
$N_{pollutants}$	5-6	3
$BOD_{average}$	N/A	0
$TSS_{average}$	N/A	0
$pH_{potential}$	<5.5 and >11.5	4
$C_{hemical}$ S_{torage}	High	3
$P_{retreated\ pollutants}$	5+	6
TOTAL:		21

Discussion -

Q - Cascade's discharge monitoring data for 2002 indicate ~15,000 gpd of discharge. Discharge is metered by capacitance probe and flume and does not include Ballast Water Treatment Plant (BWTP) or Dry Dock Treatment Plant (DDTP) effluent. The addition of DDTP or BWTP effluent will most likely double daily discharge volume to 30,000gpd.

Np - Pollutants considered under this parameter were - organics, copper, lead, zinc, oil and grease, pH. These parameters represent those above the PLOC. Due to the varied nature of Cascade's discharge, PCBs will also be monitored, but not factored into the DRA.

BOD - No relevant data has been collected on this parameter.

TSS - No relevant data has been collected on this parameter.

pH - pH swings can take place due to the use of cleaning solutions and discharge of residual cargo

Chemical Storage - Cascade has significant storage of chemicals (organic's) from vessel painting operations. There is some outside storage of these materials, posing the potential for spills to the sewer.

P_N - The ballast water treatment plant treats for oil and grease. The dry dock treatment plant neutralizes pH and removes metals and solids.

Analysis	Monitoring Frequency	
	Sampling	Inspection
Minimum Requirement	2	1
DRA Results	6	1
Recommended	4	1

- Historical analytical from SMH 1A and dry dock treatment plant indicate quarterly monitoring sufficient.
- Analytical identified for 2A and 3A will be monitored each batch until analytical background developed

11. PERIODIC SELF MONITORING FREQUENCY

Self-Monitoring Frequency			
Sample Location	1A	2A	3A
DRA:	21 points	21 points	21 points
Every Batch:		CWT metals, CWT organics, pH, O/G, PCBs	CWT metals, pH, O/G
Quarterly:	Copper, Lead, Zinc, pH, O/G		
Semi-Annually:	VOC		

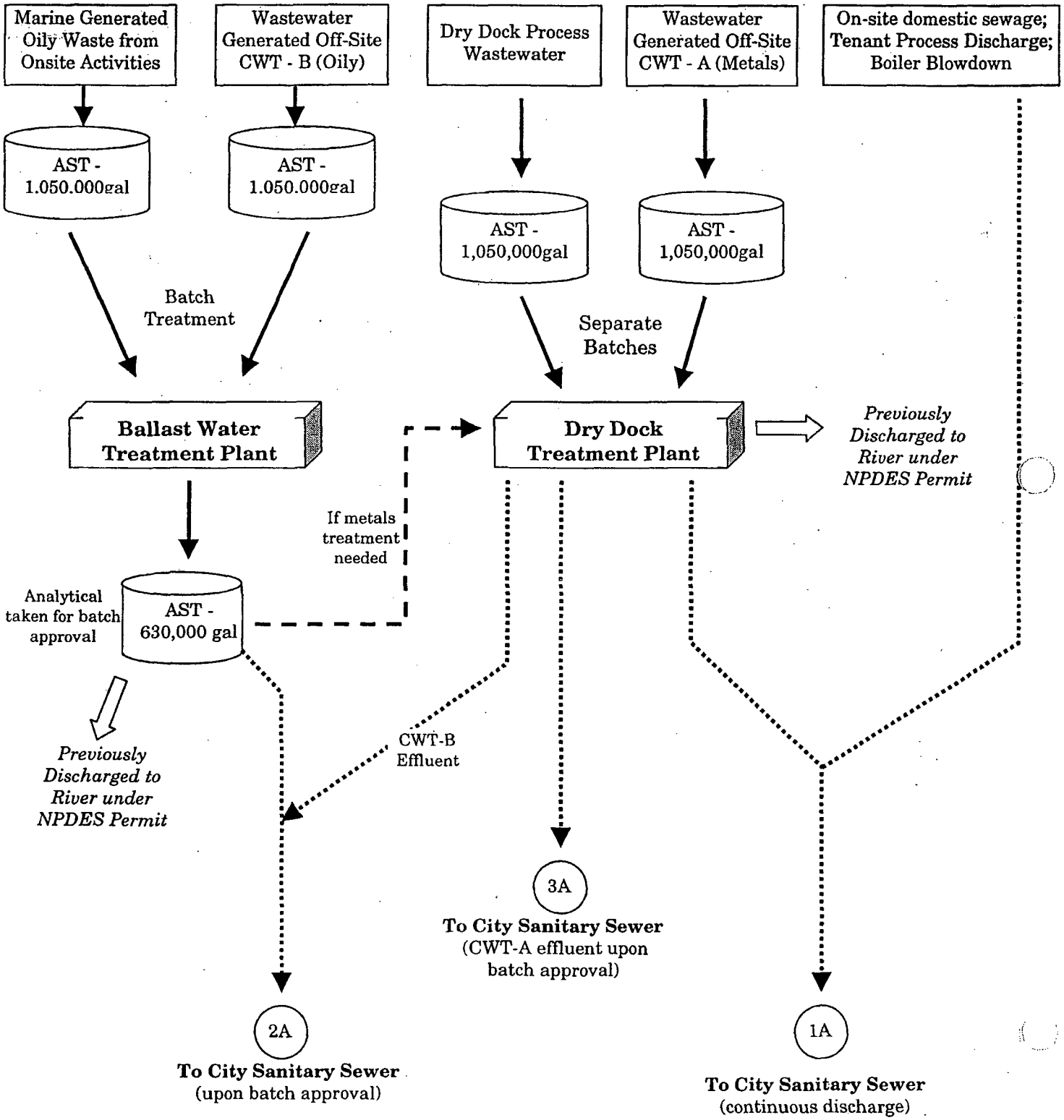
12. SPECIAL CONDITIONS:

Cascade is permitted to discharge septage from vessels, water from ballast water tanks, and hydro-blasting operations without requesting permission from the City. These activities are permitted as long as there is no visible sheen in the material to be discharged. Any other proposed process batch discharges require authorization from Industrial Source Control. Cascade is to have their discharge meter calibrated yearly and will report total volume discharged monthly.

13. MISCELLANEOUS INFORMATION: N/A

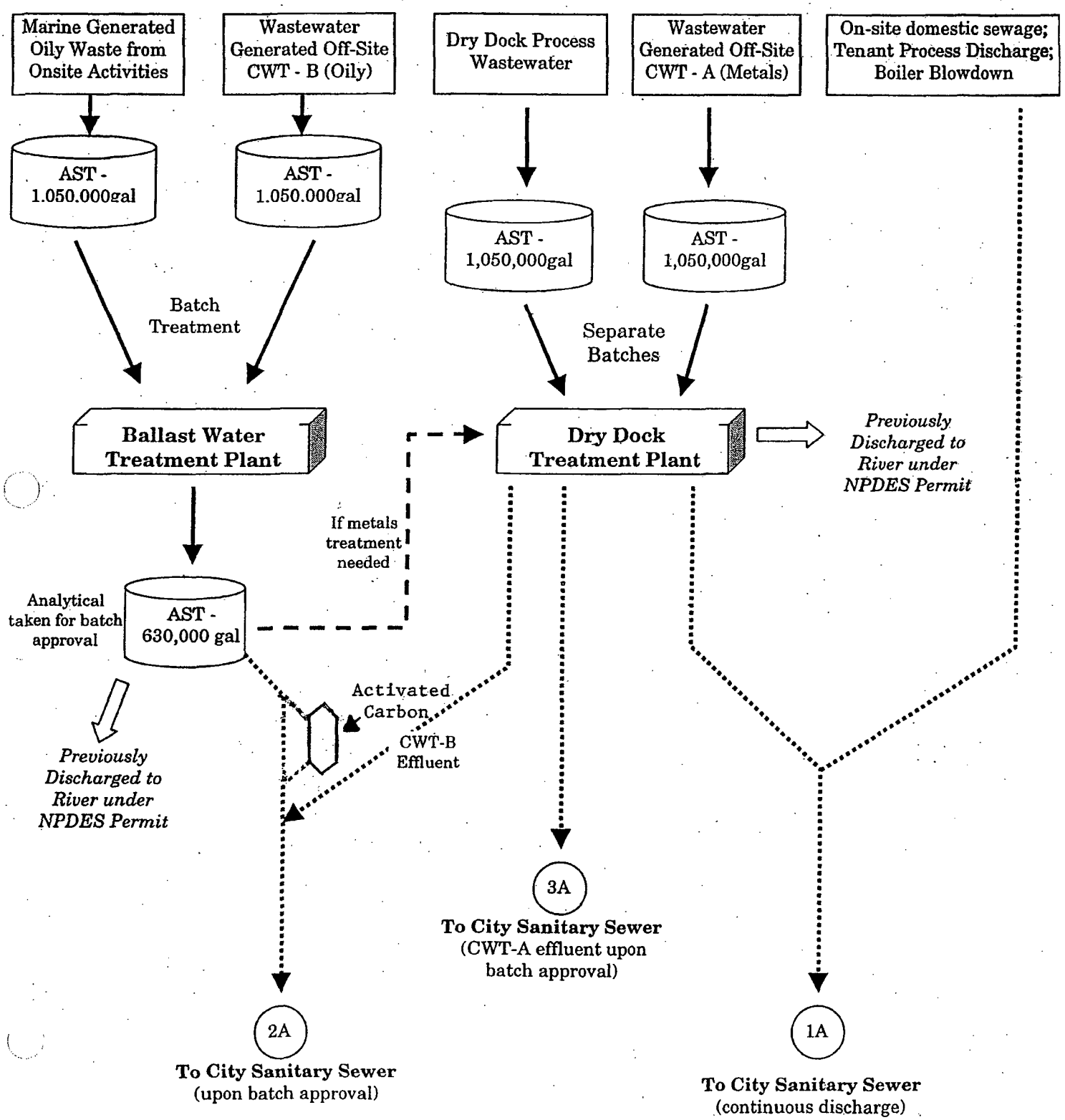
14. ATTACHMENTS:

A: PROCESS DIAGRAM



14. ATTACHMENTS:

A: PROCESS DIAGRAM (Revised 2/25/2008)



C: DIAGRAM OF SAMPLE LOCATIONS: see attached

D: PRODUCTION DATA : N/A

Attachment C.

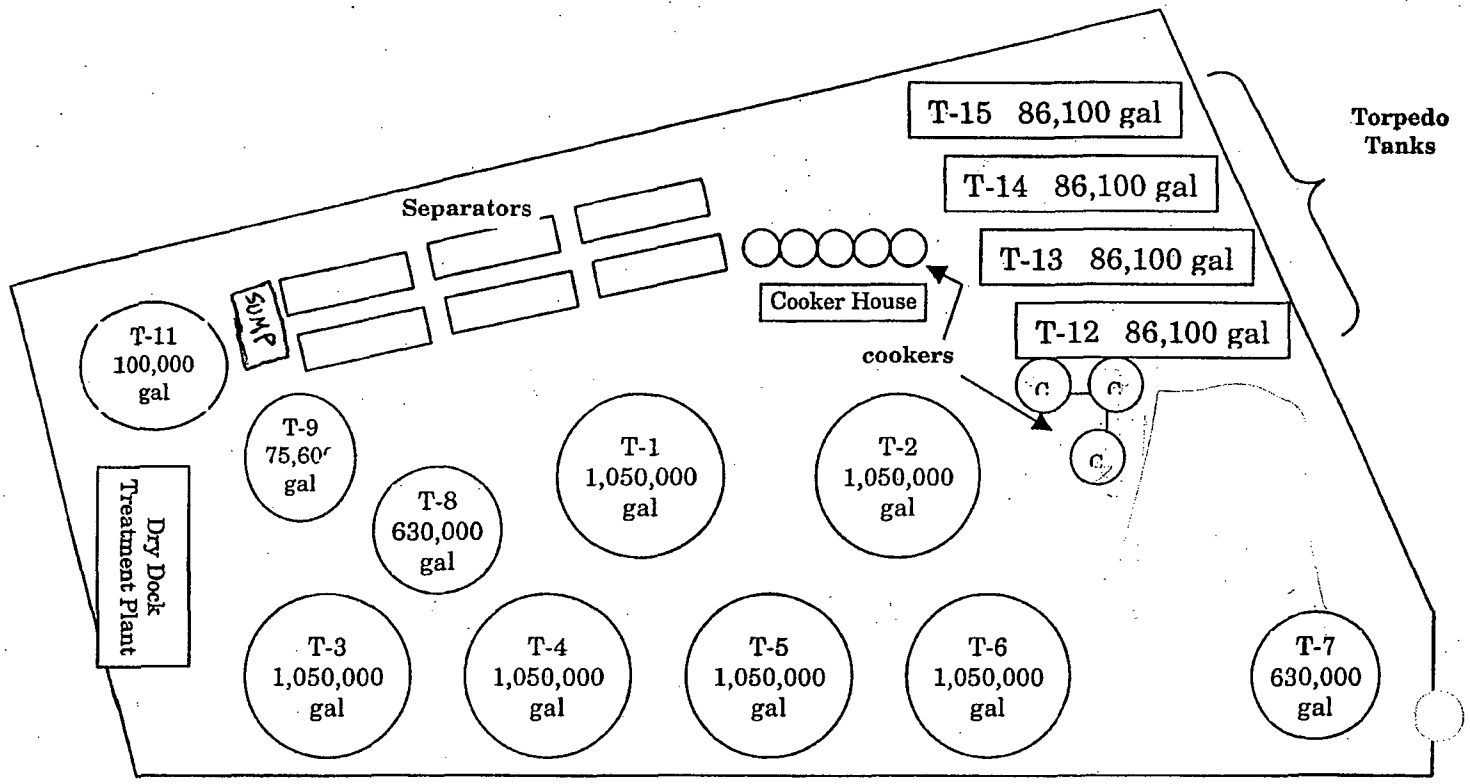
INDUSTRIAL USER CLASSIFICATION EVALUATION SHEET

Applicable Classification is denoted by bold typeface.

	DESCRIPTION	CLASS
1.	**Categorical regulated IU with regulated process discharge**	**P-1**
2.	Categorical regulated IU with no regulated process discharge	P-4
3.	Non-categorical IU with process discharge >25,000 gpd	P-1
4.	Non-categorical IU with process discharge >10,000 but <25,000 gpd and/or ESSC	P-2
5.	Non-categorical IU with process discharge <25,000 gpd and is required to pretreat wastewater (excludes O/WS)	P-2
6.	Non-categorical IU with process discharge >10,000 but <25,000 gpd with a POC above PLOC in discharge	P-2
7.	Non-categorical IU with a process waste mass discharge of a POC ≥ 10,000 gpd LL_{EQ} mass discharge	P-2
8.	Non-categorical IU with process discharge >6,000 but <10,000 gpd with a POC above PLOC in discharge	P-3
9.	Non-categorical IU with a process waste mass discharge of a POC ≥6,000 <10,000 gpd LL_{EQ} mass discharge	P-3
10.	Non-categorical IU with a process discharge <6,000 gpd and a POC greater than a PLOC or requires a O/WS or ASPP	NP-1
11.	Non-categorical IU with process discharge <6,000 gpd with no POC's in wastewater or need for an ASPP or POC level is less than PLOC	NP-2
12.	Non-categorical IU with no process waste discharge but is a division D manufacturer and/or has potential for spills of hazardous substances	NP-3
13.	Non-categorical IU with no process waste discharge, no manufacturing and no potential for spills of hazardous substances (office, shoe store, steel brokerage office)	NP-4

Company Name: Cascade General
Address: 5555 N Channel Ave.
City: Portland **Zip Code:** 97208
Classified By: SDR
Date Classified 12/23/97
TL Approval: **Date:**
SCM Approval: **Date:**
Comments:

B. BALLAST WATER TREATMENT PLANT & TANK FARM



Tank Constituents

(subject to change)

T-1 DDTP Wastewater Prior to Treatment
T-2 Reclaimed Oil
T-3 BWTP Wastewater Prior to Treatment
T-4 Open
T-5 Oil CWT Wastewater Prior to Treatment
T-6 Open
T-7 Treated BWTP Effluent
T-8 Treated DDTP Effluent
T-9 Tank Farm Stormwater Prior to Treatment

T-12 Reclaimed Tosco oil
T-13 Reclaimed Tosco oil
T-14 Tosco oil dehydration tank
T-15 Tosco oil dehydration tank

Log of Fact Sheet Changes

Date	Changes
7/10/98	Fact sheet edited, updated with final compliance monitoring data.
11 / 25 / 1998	Fact sheet edited, and both annual inspections completed.
6/29/99	Fact sheet up-dated, annual inspection complete.
05/09/2000	Fact sheet edited, Inspection with storm water.
5/25/01	Updated compliance summary and discharge data analysis as a follow-up to inspection.
12/9/02	Updated info from permit application; specifically change in operation to include CWT wastewater; specialty finishes added as tenant; created process diagram and map of tank farm

Prepared by: Derik Vowels Date: 12/9/02

TL Approval: _____ Date: 1/21/2003

For New/Renewed Permits:

ISCD Approval: _____ Date: _____

CITY OF PORTLAND
INDUSTRIAL WASTEWATER DISCHARGE
1st FINAL COMPLIANCE REPORT

INDUSTRY NAME: Cascade General

PERMIT NUMBER: 437.003

REPORT DUE DATE: Prior to Batch Approval

SAMPLING PERIOD:

For Industrial Source Control Division Use Only

Date Postmarked/Received

Date Entered

Entered By:

Comments:

Dry Dock Treatment Plant (CWT - A)

SAMPLE DATE	POINT OF COMPLIANCE	SAMPLE TYPE
	3A - top of sand filter	COMPOSITE

PARAMETER	ANALYSIS METHOD	REPORTED CONCENTRATION	MDL	LIMITS DAILY	LIMITS MONTHLY	COMMENTS
Antimony		mg/L		0.249 mg/L	0.206 mg/L	
Arsenic (Total)		mg/L		0.162 mg/L	0.104 mg/L	
Cadmium (Total)		mg/L		0.474 mg/L	0.0962 mg/L	
Chromium (Total)		mg/L		5.0 mg/L	3.07 mg/L	
Cobalt (Total)		mg/L		0.192 mg/L	0.124 mg/L	
Copper (Total)		mg/L		3.7 mg/L	1.06 mg/L	
Lead (Total)		mg/L		0.7 mg/L	0.283 mg/L	
Mercury (Total)		mg/L		0.00234 mg/L	0.000739 mg/L	
Molybdenum (Total)		mg/L		1.4 mg/L	2.09 mg/L	
Nickel (Total)		mg/L		2.8 mg/L	1.45 mg/L	
Selenium (Total)		mg/L		0.6 mg/L	0.408 mg/L	
Silver (Total)		mg/L		0.120 mg/L	0.0351 mg/L	
Tin (Total)		mg/L		0.409 mg/L	0.120 mg/L	
Titanium (Total)		mg/L		0.0947 mg/L	0.0618 mg/L	
Vanadium (Total)		mg/L		0.218 mg/L	0.0662 mg/L	
Zinc (Total)		mg/L		2.87 mg/L	0.641 mg/L	

SAMPLE DATE	POINT OF COMPLIANCE	SAMPLE TYPE
	3A - top of sand filter	GRAB

PARAMETER	ANALYSIS METHOD	REPORTED CONCENTRATION	MDL	LIMITS DAILY	LIMITS MONTHLY	COMMENTS
HEM Oil & Grease (Total) [1]		mg/L		N/A	N/A	
HEM Oil and Grease (Non-Polar)		mg/L		110 mg/L	N/A	Local Limit
Cyanide (Total)		mg/L		1.2 mg/L	178 mg/L	
pH		SU		5.0 - 11.5	N/A	Local Limit

1. If the value of HEM Oil and Grease Total is greater than 110 mg/L, then the Permittee shall analyze the sample for the HEM Oil and Grease Non-Polar constituent

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____ Date: _____

CITY OF PORTLAND
INDUSTRIAL WASTEWATER DISCHARGE
2nd FINAL COMPLIANCE REPORT

INDUSTRY NAME: Cascade General

PERMIT NUMBER: 437.003

REPORT DUE DATE: Prior to Batch Approval

SAMPLING PERIOD:

For Industrial Source Control Division Use Only

Date Postmarked/Received Date Entered

Entered By:

Comments:

Dry Dock Treatment Plant (CWT - A)

SAMPLE DATE	POINT OF COMPLIANCE	SAMPLE TYPE
	3A - top of sand filter	COMPOSITE

PARAMETER	ANALYSIS METHOD	REPORTED CONCENTRATION	MDL	LIMITS DAILY	LIMITS MONTHLY	COMMENTS
Antimony		mg/L		0.249 mg/L	0.206 mg/L	
Arsenic (Total)		mg/L		0.162 mg/L	0.104 mg/L	
Cadmium (Total)		mg/L		0.474 mg/L	0.0962 mg/L	
Chromium (Total)		mg/L		5.0 mg/L	3.07 mg/L	
Cobalt (Total)		mg/L		0.192 mg/L	0.124 mg/L	
Copper (Total)		mg/L		3.7 mg/L	1.06 mg/L	
Lead (Total)		mg/L		0.7 mg/L	0.283 mg/L	
Mercury (Total)		mg/L		0.00234 mg/L	0.000739 mg/L	
Molybdenum (Total)		mg/L		1.4 mg/L	2.09 mg/L	
Nickel (Total)		mg/L		2.8 mg/L	1.45 mg/L	
Selenium (Total)		mg/L		0.6 mg/L	0.408 mg/L	
Silver (Total)		mg/L		0.120 mg/L	0.0351 mg/L	
Tin (Total)		mg/L		0.409 mg/L	0.120 mg/L	
Titanium (Total)		mg/L		0.0947 mg/L	0.0618 mg/L	
Vanadium (Total)		mg/L		0.218 mg/L	0.0662 mg/L	
Zinc (Total)		mg/L		2.87 mg/L	0.641 mg/L	

SAMPLE DATE	POINT OF COMPLIANCE	SAMPLE TYPE
	3A - top of sand filter	GRAB

PARAMETER	ANALYSIS METHOD	REPORTED CONCENTRATION	MDL	LIMITS DAILY	LIMITS MONTHLY	COMMENTS
HEM Oil & Grease (Total) [1]		mg/L		N/A	N/A	
HEM Oil and Grease (Non-Polar)		mg/L		110 mg/L	N/A	Local Limit
Cyanide (Total)		mg/L		1.2 mg/L	178 mg/L	
pH		SU		5.0 - 11.5	N/A	Local Limit

1. If the value of HEM Oil and Grease Total is greater than 110 mg/L, then the Permittee shall analyze the sample for the HEM Oil and Grease Non-Polar constituent

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____ Date: _____

CITY OF PORTLAND
INDUSTRIAL WASTEWATER DISCHARGE
3rd FINAL COMPLIANCE REPORT

INDUSTRY NAME: Cascade General

PERMIT NUMBER: 437.003

REPORT DUE DATE: Prior to Batch Approval

SAMPLING PERIOD:

For Industrial Source Control Division Use Only

Date Postmarked/Received Date Entered

Entered By:

Comments:

Dry Dock Treatment Plant (CWT - A)

SAMPLE DATE	POINT OF COMPLIANCE	SAMPLE TYPE
	3A - top of sand filter	COMPOSITE

PARAMETER	ANALYSIS METHOD	REPORTED CONCENTRATION	MDL	LIMITS DAILY	LIMITS MONTHLY	COMMENTS
Antimony		mg/L		0.249 mg/L	0.206 mg/L	
Arsenic (Total)		mg/L		0.162 mg/L	0.104 mg/L	
Cadmium (Total)		mg/L		0.474 mg/L	0.0962 mg/L	
Chromium (Total)		mg/L		5.0 mg/L	3.07 mg/L	
Cobalt (Total)		mg/L		0.192 mg/L	0.124 mg/L	
Copper (Total)		mg/L		3.7 mg/L	1.06 mg/L	
Lead (Total)		mg/L		0.7 mg/L	0.283 mg/L	
Mercury (Total)		mg/L		0.00234 mg/L	0.000739 mg/L	
Molybdenum (Total)		mg/L		1.4 mg/L	2.09 mg/L	
Nickel (Total)		mg/L		2.8 mg/L	1.45 mg/L	
Selenium (Total)		mg/L		0.6 mg/L	0.408 mg/L	
Silver (Total)		mg/L		0.120 mg/L	0.0351 mg/L	
Tin (Total)		mg/L		0.409 mg/L	0.120 mg/L	
Titanium (Total)		mg/L		0.0947 mg/L	0.0618 mg/L	
Vanadium (Total)		mg/L		0.218 mg/L	0.0662 mg/L	
Zinc (Total)		mg/L		2.87 mg/L	0.641 mg/L	

SAMPLE DATE	POINT OF COMPLIANCE	SAMPLE TYPE
	3A - top of sand filter	GRAB

PARAMETER	ANALYSIS METHOD	REPORTED CONCENTRATION	MDL	LIMITS DAILY	LIMITS MONTHLY	COMMENTS
HEM Oil & Grease (Total) [1]		mg/L		N/A	N/A	
HEM Oil and Grease (Non-Polar)		mg/L		110 mg/L	N/A	Local Limit
Cyanide (Total)		mg/L		1.2 mg/L	178 mg/L	
pH		SU		5.0 - 11.5	N/A	Local Limit

1. If the value of HEM Oil and Grease Total is greater than 110 mg/L, then the Permittee shall analyze the sample for the HEM Oil and Grease Non-Polar constituent

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____ Date: _____

CITY OF PORTLAND
ENVIRONMENTAL SERVICES

Water Pollution Control Laboratory
6543 N. Burlington Ave., Portland, Oregon 97203-5452
(503) 823-5600

FINAL COMPLIANCE REPORT

I certify that **Cascade General:**

☐ is able to demonstrate compliance with the discharge limits of Permit No. 437.003

☐ is **NOT** able to demonstrate compliance with the discharge limits of Permit No. 437.003

If Cascade General is not able to demonstrate compliance, a plan for coming into compliance must be submitted to Source Control no later than **the third batch discharge from 3A**.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____ Date: _____

CITY OF PORTLAND
INDUSTRIAL WASTEWATER DISCHARGE
SECOND FINAL COMPLIANCE REPORT

INDUSTRY NAME: Cascade General

PERMIT NUMBER: 437.003

REPORT DUE DATE: Prior to Batch Approval

SAMPLING PERIOD:

For Industrial Source Control Division Use Only	
Date Postmarked/Received	Date Entered
	Entered By:
Comments:	

Ballast Water Treatment Plant Effluent CUT-B

SAMPLE DATE	POINT OF COMPLIANCE	SAMPLE TYPE
	2A - sump	GRAB

PARAMETER	ANALYSIS METHOD	REPORTED CONCENTRATION	MDL	LIMITS DAILY	LIMITS MONTHLY	COMMENTS
HEM Oil & Grease (Total) [1]		mg/L		N/A	N/A	
HEM Oil and Grease (Non-Polar)		mg/L		110 mg/L	N/A	Local Limit
pH		SU		5.0 - 11.5	N/A	Local Limit
Bis-2-ethyhexylphthalate		mg/L		0.267	0.158	
Carbazole		mg/L		0.392	0.233	
Fluoranthane		mg/L		0.787	0.393	
n-Decane		mg/L		5.79	3.31	
n-Octadecane		mg/L		1.22	0.925	
Polychlorinated biphenyls		mg/L	.001			Prohibited above MDL

1. If the value of HEM Oil and Grease Total is greater than 110 mg/L, then the Permittee shall analyze the sample for the HEM Oil and Grease Non-Polar constituent.

SAMPLE DATE	POINT OF COMPLIANCE	SAMPLE TYPE
	2A - sump	COMPOSITE

PARAMETER	ANALYSIS METHOD	REPORTED CONCENTRATION	MDL	LIMITS DAILY	LIMITS MONTHLY	COMMENTS
Antimony		mg/L		0.237	0.141	
Arsenic (Total)		mg/L		0.2 mg/L	N/A	Local Limit
Barium (Total)		mg/L		0.427 mg/L	0.281 mg/L	
Cadmium (Total)		mg/L		0.7 mg/L	N/A	Local Limit
Chromium (Total)		mg/L		0.947 mg/L	0.487 mg/L	
Cobalt (Total)		mg/L		56.4 mg/L	18.8 mg/L	
Copper (Total)		mg/L		0.405 mg/L	0.301 mg/L	
Lead (Total)		mg/L		0.222 mg/L	0.172 mg/L	
Mercury (Total)		mg/L		0.010 mg/L	N/A	Local Limit
Molybdenum (Total)		mg/L		1.4 mg/L	2.09 mg/L	
Selenium (Total)		mg/L		0.6 mg/L	N/A	Local Limit
Nickel (Total)		mg/L		2.8 mg/L	N/A	Local Limit
Tin (Total)		mg/L		0.249 mg/L	0.146 mg/L	
Zinc (Total)		mg/L		3.7 mg/L	4.46 mg/L	

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____ Date: _____

Schedule B
MONITORING AND REPORTING REQUIREMENTS

I. Final Compliance report - (CWT -Subcategory B - Oils) :

Samples for analysis to be taken within the first 90 days of operation after the issuance of this permit

(Sample Location - 2A)

Parameter	Sample Type	First Batch Discharge	Second Batch Discharge	Third Batch Discharge
Metals				
Antimony (total)	**Composite**	✓	✓	✓
Arsenic (total)		✓	✓	✓
Barium (total)		✓	✓	✓
Cadmium (total)		✓	✓	✓
Chromium (total)		✓	✓	✓
Cobalt (total)		✓	✓	✓
Copper (total)		✓	✓	✓
Lead (total)		✓	✓	✓
Mercury (total)		✓	✓	✓
Molybdenum (total)		✓	✓	✓
Nickel (total)		✓	✓	✓
Selenium (total)		✓	✓	✓
Tin (total)		✓	✓	✓
Zinc (total)		✓	✓	✓
Non Metals				
pH	**Grab**	✓	✓	✓
Oil and Grease (non-polar)		✓	✓	✓
Bis-2-ethylhexyl phthalate		✓	✓	✓
Carbazole		✓	✓	✓
Fluoranthane		✓	✓	✓
n-Decane		✓	✓	✓
n-Octadecane		✓	✓	✓
Polychlorinated Biphenyls		✓	✓	✓
Batch Analytical Shall be Submitted to City Prior to Each Batch Discharge				

CITY OF PORTLAND
INDUSTRIAL WASTEWATER DISCHARGE
FIRST FINAL COMPLIANCE REPORT

INDUSTRY NAME: Cascade General

PERMIT NUMBER: 437.003

REPORT DUE DATE: Prior to Batch Approval

SAMPLING PERIOD:

For Industrial Source Control Division Use Only	
Date Postmarked/Received	Date Entered
	Entered By
Comments	

Ballast Water Treatment Plant Effluent - Cut B

SAMPLE DATE	POINT OF COMPLIANCE	SAMPLE TYPE
	2A - sump	GRAB

PARAMETER	ANALYSIS METHOD	REPORTED CONCENTRATION	MDL	LIMITS DAILY	LIMITS MONTHLY	COMMENTS
HEM Oil & Grease (Total) [1]		mg/L		N/A	N/A	
HEM Oil and Grease (Non-Polar)		mg/L		110 mg/L	N/A	Local Limit
pH		SU		5.0 - 11.5	N/A	Local Limit
Bis-2-ethyhexylphthalate		mg/L		0.267	0.158	
Carbazole		mg/L		0.392	0.233	
Fluoranthane		mg/L		0.787	0.393	
n-Decane		mg/L		5.79	3.31	
n-Octadecane		mg/L		1.22	0.925	
Polychlorinated biphenyls		mg/L	.001			Prohibited above MDL

1. If the value of HEM Oil and Grease Total is greater than 110 mg/L, then the Permittee shall analyze the sample for the HEM Oil and Grease Non-Polar constituent.

SAMPLE DATE	POINT OF COMPLIANCE	SAMPLE TYPE
	2A - sump	COMPOSITE

PARAMETER	ANALYSIS METHOD	REPORTED CONCENTRATION	MDL	LIMITS DAILY	LIMITS MONTHLY	COMMENTS
Antimony		mg/L		0.237	0.141	
Arsenic (Total)		mg/L		0.2 mg/L	N/A	Local Limit
Barium (Total)		mg/L		0.427 mg/L	0.281 mg/L	
Cadmium (Total)		mg/L		0.7 mg/L	N/A	Local Limit
Chromium (Total)		mg/L		0.947 mg/L	0.487 mg/L	
Cobalt (Total)		mg/L		56.4 mg/L	18.8 mg/L	
Copper (Total)		mg/L		0.405 mg/L	0.301 mg/L	
Lead (Total)		mg/L		0.222 mg/L	0.172 mg/L	
Mercury (Total)		mg/L		0.010 mg/L	N/A	Local Limit
Molybdenum (Total)		mg/L		1.4 mg/L	2.09 mg/L	
Selenium (Total)		mg/L		0.6 mg/L	N/A	Local Limit
Nickel (Total)		mg/L		2.8 mg/L	N/A	Local Limit
Tin (Total)		mg/L		0.249 mg/L	0.146 mg/L	
Zinc (Total)		mg/L		3.7 mg/L	4.46 mg/L	

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____ Date: _____

CITY OF PORTLAND
INDUSTRIAL WASTEWATER DISCHARGE
THIRD FINAL COMPLIANCE REPORT

INDUSTRY NAME: Cascade General

PERMIT NUMBER: 437.003

REPORT DUE DATE: Prior to Batch Approval

SAMPLING PERIOD:

For Industrial Source Control Division Use Only	
Date Postmarked/Received	Date Entered
Comments	Entered By

Ballast Water Treatment Plant Effluent Cut-B

SAMPLE DATE	POINT OF COMPLIANCE	SAMPLE TYPE
	2A - sump	GRAB

PARAMETER	ANALYSIS METHOD	REPORTED CONCENTRATION	MDL	LIMITS DAILY	LIMITS MONTHLY	COMMENTS
HEM Oil & Grease (Total)		mg/L		N/A	N/A	
HEM Oil and Grease (Non-Polar)		mg/L		110 mg/L	N/A	Local Limit
pH		SU		5.0 - 11.5	N/A	Local Limit
Bis-2-ethyhexylphthalate		mg/L		0.267	0.158	
Carbazole		mg/L		0.392	0.233	
Fluoranthane		mg/L		0.787	0.393	
n-Decane		mg/L		5.79	3.31	
n-Octadecane		mg/L		1.22	0.925	
Polychlorinated biphenyls		mg/L	.001			Prohibited above MDL

1. If the value of HEM Oil and Grease Total is greater than 110 mg/L, then the Permittee shall analyze the sample for the HEM Oil and Grease Non-Polar constituent.

SAMPLE DATE	POINT OF COMPLIANCE	SAMPLE TYPE
	2A - sump	COMPOSITE

PARAMETER	ANALYSIS METHOD	REPORTED CONCENTRATION		MDL	LIMITS DAILY	LIMITS MONTHLY	COMMENTS
Antimony			mg/L		0.237	0.141	
Arsenic (Total)			mg/L		0.2 mg/L	N/A	Local Limit
Barium (Total)			mg/L		0.427 mg/L	0.281 mg/L	
Cadmium (Total)			mg/L		0.7 mg/L	N/A	Local Limit
Chromium (Total)			mg/L		0.947 mg/L	0.487 mg/L	
Cobalt (Total)			mg/L		56.4 mg/L	18.8 mg/L	
Copper (Total)			mg/L		0.405 mg/L	0.301 mg/L	
Lead (Total)			mg/L		0.222 mg/L	0.172 mg/L	
Mercury (Total)			mg/L		0.010 mg/L	N/A	Local Limit
Molybdenum (Total)			mg/L		1.4 mg/L	2.09 mg/L	
Selenium (Total)			mg/L		0.6 mg/L	N/A	Local Limit
Nickel (Total)			mg/L		2.8 mg/L	N/A	Local Limit
Tin (Total)			mg/L		0.249 mg/L	0.146 mg/L	
Zinc (Total)			mg/L		3.7 mg/L	4.46 mg/L	

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____ Date: _____

CITY OF PORTLAND
ENVIRONMENTAL SERVICES

Water Pollution Control Laboratory
6543 N. Burlington Ave., Portland, Oregon 97203-5452
(503) 823-5600

FINAL COMPLIANCE REPORT

I certify that **Cascade General:**

☐ is able to demonstrate compliance with the discharge limits of Permit No. 437.003

☐ is **NOT** able to demonstrate compliance with the discharge limits of Permit No. 437.003

If Cascade General is not able to demonstrate compliance, a plan for coming into compliance must be submitted to Source Control no later than **the third batch discharge from 2A**.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____ Date: _____

II. Final Compliance report - (CWT Subcategory A - Metals) :

Samples for analysis to be taken within the first 90 days of operation after the issuance of this permit

(Sample Location - 3A)

Parameter	Sample Type	First Batch Discharge	Second Batch Discharge	Third Batch Discharge
Metals				
Antimony (total)	Composite	✓	✓	✓
Arsenic (total)		✓	✓	✓
Cadmium (total)		✓	✓	✓
Chromium (total)		✓	✓	✓
Cobalt (total)		✓	✓	✓
Copper (total)		✓	✓	✓
Lead (total)		✓	✓	✓
Mercury (total)		✓	✓	✓
Molybdenum (total)		✓	✓	✓
Nickel (total)		✓	✓	✓
Selenium (total)		✓	✓	✓
Silver (total)		✓	✓	✓
Tin (total)		✓	✓	✓
Titanium (total)		✓	✓	✓
Vanadium (total)		✓	✓	✓
Zinc (total)		✓	✓	✓
Non Metals	Grab			
Cyanide (total)		✓	✓	✓
pH		✓	✓	✓
Oil and Grease (non-polar)		✓	✓	✓
Batch Analytical Shall be Submitted to City Prior to Each Batch Discharge				

City of Portland
Industrial Wastewater Discharge
Centralized Waste Treatment Baseline Monitoring Report

Company Name: _____ **SIC Code(s):** _____ _____

Address: _____ **Telephone #:** _____ _____

Sampling Location: _____

Process Description: _____

Estimated Flow: **Regulated Process Flow** _____ **Other Discharge Flows** _____

In accordance with 40CFR Part 403.12, existing industries that discharge categorical process wastewater to a Publicly Owned Treatment Works (POTW) must submit a baseline report and certification within 180 days after the effective date of the Pretreatment Standards. In the case of Centralized Waste Treatment (CWT), 40 CFR 437, the effective date was January 22, 2001. The signed certification indicates whether or not the categorical Pretreatment Standards are being met on a consistent basis. If an industry is not able to meet the Pretreatment Standards, a compliance schedule will be developed. Use of existing monitoring data is allowed.

Sampling and analysis must be representative of normal work cycles and expected pollutant discharges. Indicate your facility's compliance status for each parameter listed below in the appropriate Subpart(s).

Return this form to the City no less than 30 days prior to discharging CWT wastewater to the POTW.

SUBPART A - METALS

Pollutant Parameter	*Local Limit*	*Categorical Limit*		*Sample*	*Sample*	*Compliance*	
	(mg/L)	*Daily*	*Monthly*	*Date*	*Result*	*YES*	*NO*
Antimony		**0.249**	0.206				
Arsenic	0.2	**0.162**	0.104				
Cadmium	0.7	**0.474**	0.0962				
Chromium	**5.0**	15.5	3.07				
Cobalt		**0.192**	0.124				
Copper	**3.7**	4.414	1.06				
Lead	**0.7**	1.32	0.283				
Mercury	0.010	**0.00234**	0.000739				
Nickel	**2.8**	3.95	1.45				
Selenium	**0.6**	1.64	0.408				
Silver	0.4	**0.12**	0.0351				
Tin		**0.409**	0.120				
Titanium		**0.0947**	0.0618				
Vanadium		**0.218**	0.0662				
Zinc	3.7	**2.87**	0.641				
Cyanide	**1.2**	500	178				

SUBPART B - OILY WASTE

Pollutant Parameter	*Local Limit*	*Categorical Limit*		*Sample*	*Sample*	*Compliance*	
	(mg/L)	*Daily*	*Monthly*	*Date*	*Result*	*YES*	*NO*
Antimony		**0.237**	0.141				
Barium		**0.427**	0.281				
Chromium	5.0	**0.947**	0.487				
Cobalt		**56.4**	18.8				
Copper	3.7	**0.405**	0.301				
Lead	0.7	**0.222**	0.172				
Molybdenum	**1.4**	3.50	2.09				
Tin		**0.249**	0.146				
Zinc	**3.7**	6.95	4.46				
Bis (2-ethylhexyl) phthalate		**0.267**	0.158				
Carbazole		**0.392**	0.233				
n-Decane		**5.79**	3.31				
Fluoranthene		**0.787**	0.393				
n-Octadecane		**1.22**	0.925				

SUBPART C - ORGANICS

Pollutant Parameter	*Local Limit*	*Categorical Limit*		*Sample*	*Sample*	*Compliance*	
	(mg/L)	*Daily*	*Monthly*	*Date*	*Result*	*YES*	*NO*
Molybdenum	1.4	**1.1**	0.965				
o-Cresol		**1.92**	0.561				
p-Cresol		**0.698**	0.205				
2,3-Dichloroaniline		**0.0731**	00361				
2,4,6-Trichlorophenol		**0.155**	0.106				

Note: The daily limit listed in bold is the applicable limit whether it is the categorical or the local limit.

For subpart D facilities: Sample for all the above parameters that you intend to treat, the applicable limit will be the most restrictive limit listed in the tables above.

Compare the sample results against the Categorical Standards listed in the Table above.

1. Is the facility meeting applicable pretreatment standards on a consistent basis? Yes [ ] No [ ]

2. If no, do you require:

   a) Additional operation and maintenance (O&M) to achieve compliance? Yes [ ] No [ ]

   b) New or additional pretreatment facilities to achieve compliance? Yes [ ] No [ ]

3. If additional O&M or additional pretreatment will be required to meet pretreatment standards on a consistent basis, submit your proposed plan. The plan must include progress report dates for commencement and completion of major events leading to compliance with the new standard.

   a) I have provided a compliance schedule. Yes [ ] No [ ]

4. Describe the compliance schedule of events on a separate sheet. Detail what the proposed work entails and the proposed due dates for each of the tasks involved. The proposed compliance schedule is subject to prior approval by the City.

Authorized Representative Statement: {40 CFR 403.6(a)(2)(ii)}
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief is true accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Name (print)	Title	
Signature	Date	Telephone No.
Company Name	Permit Number	

Profile # _____ Tank _____
Category: _____

CASCADE GENERAL, INC.

GENERATOR'S PROFILE SHEET

1. GENERATOR INFORMATION

Generator Name: _____ Phone #: _____
Generator Address: _____ City, State, Zip: _____
Generator Zip Code: _____ Generator EPA ID #: _____
Technical Contact: _____ Contact Phone #: _____
Contact E-mail: _____ Billing Address Same as Generator Address: ☐
Billing Name: _____ Billing City & State: _____
Billing Zip Code: _____ Billing Contact: _____

2. WASTE STREAM INFORMATION

a. Describe Material: _____

b. Source and Process Generating Material: _____

_____

c. Layers: ☐Single ☐Multi-layer
d. pH: _____ to _____
e. Type of petroleum: ☐ Lube Oil ☐ Bunker/Crude Oil ☐ Mineral Oil ☐ Diesel ☐ Gasoline
☐Animal Fats ☐ Vegetable Oil ☐ Transformer Oil

f. Flash Point ☐ < 100F ☐ 100- 140 F ☐ > 140 - 200F ☐ > 200
g. % Water _____ h. % Oils _____ i. % Solids _____ j. % Sludge _____ k. % Gasoline _____
l. % Glycols/Coolants _____ m. % Debris _____ n. ppm PCBs _____ o. % Sulfur _____

p. Constituents: _____ % _____ _____ % _____
_____ % _____ _____ % _____
_____ % _____ _____ % _____
_____ % _____ _____ % _____

Method used for determining chemical and physical properties.
☐ Process Knowledge ☐ Laboratory Analysis (attach) ☐ MSDS (attach)

Does this material contain detergents, surfactants or emulsifiers? ☐ Yes ☐ No
Does this material contain halogenated solvents? ☐ Yes ☐ No
If yes, list source and concentration: _____
Has this material been mixed with any hazardous wastes regulated under 40 CFR 261? ☐ Yes ☐ No
Does this material meet the definition of used oil under 40 CFR 279? ☐ Yes ☐ No
Is this material or does it contain a commercial chemical product under 40 CFR 261.2(c)(2)(ii) ☐ Yes ☐ No
Does this material contain detectable concentrations (>2 ppm) of PCBs? ☐ Yes ☐ No
Is this material a State regulated waste? ☐ Yes ☐ No
If yes, list state and state waste codes: _____
Is this material regulated as a categorical waste under 40 CFR 405 to 486 ☐ Yes ☐ No
If yes, list the category or CFR section _____

3. GENERATOR CERTIFICATION

Generator warrants and agrees that: 1. All information above and provided pursuant hereto is true, correct, and all known or suspected hazards have been disclosed. 2. All analytical results submitted are accurate and representative of the material. 3. The material is not a hazardous waste as defined by the USEPA or applicable state, provincial or other authority, and does not contain PCBs regulated under TSCA (40 CFR 761). 4. Generator shall immediately give written notice to Cascade General, Inc. of a new or newly discovered material property, characteristic or condition pertaining to the material not provided herein.

NAME: _____ SIGNATURE: _____
TITLE: _____ DATE: _____

STATE WASTE
MEET universal waste Standard.

Profile #_____

GENERATOR'S WASTE PROFILE SHEET
TERMS AND CONDITIONS

1. **ACCEPTABLE WASTE.** Customer shall deliver and Cascade General, Inc. shall accept for disposal or other management purpose only Approved Waste. As used herein, "Customer" shall mean both Customer and Generator listed on Page 1, the Generator's Profile Sheet. Approved Waste means and includes only such waste as is described on the Generator's Profile Sheet, and which is approved and issued a Profile Number by Cascade General, Inc., and shall not include any Nonconforming Waste. As used herein, Nonconforming Waste means waste that: (a) is not in conformance with the description and/or estimated quantity of the waste set forth on the reverse; (b) is or contains any infectious waste or hazardous waste, or radioactive, volatile, corrosive, highly flammable, explosive, biomedical, biohazardous material or hazardous, dangerous, or toxic substances, as defined pursuant to or listed or regulated under applicable federal, state or local law, except as stated on the reverse; (c) is not a used oil as described by 40 CFR Part 279 or an oily waste as defined by 40 CFR 437.2(p); (d) is prohibited from being received, managed or disposed of at Cascade General, Inc.'s Facility by federal, state or local law, regulation, rule, code, ordinance, order, permit or permit condition; or (e) has not been issued a Profile Number by Cascade General, Inc.

2. **REPRESENTATIONS & WARRANTIES.** Customer represents and warrants that: (a) the description of the waste set forth on Page 1 of this form, the Generator's Profile Sheet, is true and correct in all material respects; (b) all waste delivered to Cascade General, Inc.'s Facility by Customer shall be Approved Waste as defined herein and shall not be or contain Nonconforming Waste as defined herein; (c) Customer shall, and shall cause any carrier with which it contracts, to handle and transport the waste in a safe and workmanlike manner in full compliance with all applicable federal, state and local laws, ordinances, decisions, orders, rules or regulations; and (d) Customer has advised all waste transporters, contractors and employees who may handle or transport wastes subject to this Agreement of Company's prohibition on delivery of Nonconforming Waste, of the definitions and listing of hazardous waste and hazardous substances under applicable federal and state law and regulations and of the definition of Approved Waste herein. Cascade General, Inc. represents and warrants that it shall manage the Approved Waste in a safe and workmanlike manner in full compliance with all applicable federal, state and local laws, ordinances, decisions, orders, rules or regulations.

3. **WASTE REJECTION.** Cascade General, Inc. may inspect, analyze or test any waste delivered by Customer and/or may reject, refuse or revoke acceptance of any waste if, in the opinion of Cascade General, Inc., the waste or tender of delivery fails to conform to or Customer fails to comply with the terms of this Agreement, including by delivery of Nonconforming Waste. Cascade General, Inc. also shall have the right to reject any Approved Waste in the event of Customer's failure to pay fees owed by Customer hereunder. In the event Cascade General, Inc. rejects waste hereunder, Customer shall, at its sole cost, immediately remove or arrange to have the rejected waste removed from Cascade General, Inc.'s control or property. Customer shall pay and/or reimburse Cascade General, Inc. for any and all costs, damages and/or fines incurred as a result of or relating to Customers tender or delivery of Nonconforming Waste or other failure to comply or conform to this Agreement, including costs of inspection, testing and analysis.

4. **INDEMNITY.** Customer (the "Indemnitor") hereby agrees at its sole cost and expense, to indemnify, protect, defend (in any administrative, judicial, or other proceeding, before trial, at trial and appellate levels with attorneys, consultants and experts reasonably acceptable to Cascade General, Inc.), and hold harmless Cascade General, Inc., its owners, officers, directors, employees and agents (collectively, the "Indemnitees"), from and against any and all of the following (hereinafter, the "Indemnified Claims"): liens, losses (including, without limitation, costs of investigation, monitoring, removal and remedial actions, restoration, or otherwise), liabilities, penalties, fines, forfeitures, fees, demands, claims, causes of action, suits, judgments and costs and expenses incidental thereto, including, without limitation, attorneys', consultants' and experts' fees incurred in investigating, defending against, settling or prosecuting any Indemnified Claims and any attorneys' fees incurred to enforce this Agreement, which may be made against any or all of the Indemnitees, or which the Indemnitees may hereafter suffer, incur, be responsible for or pay out, including for personal injuries, property damage, or contamination of or adverse effects on the environment, to the extent caused by, arising out of or related to any inaccuracy (whether innocent, negligent or intentional) of any representations or warranties of the Indemnitor set forth in this Agreement, or any actions or omissions of the Indemnitor, its employees, officers, owners, directors or agents, including without limitation any transportation contractors of Indemnitor, or the violation of any law, ordinance or regulation, including, without limitation, the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9601 et seq., as amended. Cascade General, Inc. hereby agrees, at its sole cost and expense, to indemnify, protect, defend (in any administrative, judicial or other proceeding, before trial, at trial and appellate levels with attorneys, consultants and experts reasonably acceptable to Customer), and hold harmless Customer, its owners, officers, directors, employees and agents for any and all Indemnified Claims caused solely by Cascade General, Inc.'s violation of applicable law regulating the handling, treatment and disposal of Customer's waste under this Agreement. Such Indemnity from Cascade General, Inc. shall exclude Damages to the extent they arise as a result of any negligent actions or omissions or willful misconduct of the Indemnitors or their employees, officers, owners, directors or agents.

5. **UNCONTROLLABLE CIRCUMSTANCES; TERMINATION.** Except for the obligation to pay fees and Customer's compliance with all terms and conditions hereunder, the performance of this Agreement may be discontinued or temporarily suspended by either party, and neither party shall be deemed to be in breach of this Agreement, in the event performance is prevented by a cause or causes beyond the reasonable control of the affected party. Such causes shall include, but not be limited to, acts of God, acts of war, riot, fire, explosion, accident, flood or sabotage, governmental laws (including nuisance), permit conditions, regulations, restrictions (including land use), condition of the waste, injunction or actions or omissions of third party transporters or other contractors, suppliers or vendors. Cascade General, Inc. may immediately terminate management services hereunder upon written notice to Customer in the event Customer breaches any term, provision or obligation under this Agreement, in which case, Customer shall be liable for and shall pay to Cascade General, Inc. all costs and losses incurred by Cascade General, Inc. as a result of or relating to any such termination.

6. **INSURANCE.** Customer shall carry and require its transportation contractor entering Cascade General, Inc.'s Facility to carry statutory worker's compensation coverage, and $1,000,000 each occurrence, combined single limit coverage for employer's liability, general liability, and automobile liability. Automobile liability shall cover all hired, owned, and non-owned automobiles or vehicles. All pertinent policies shall waive subrogation in favor of Cascade General, Inc. All policies except worker's compensation shall name Cascade General, Inc. as an additional insured. Customer shall provide and require its transportation contractor to provide Certificates of Insurance and Endorsements evidencing the coverage as set forth in this Agreement and requiring not less than 30 days advance written notice shall be given to Cascade General, Inc. prior to cancellation, termination or any material alteration of such policies.

7. **PAYMENT TERMS.** Unless otherwise agreed, invoices will be payable C.O.D. Unpaid balances will be subject to interest at the rate of one and one-half percent (1.5%) starting 30 days from the invoice date. Customer agrees to pay attorney's fees and all other collection costs incurred by Cascade General, Inc. in collecting past due invoice amounts or otherwise incurred in enforcing this Agreement.

8. **MISCELLANEOUS.** This Agreement shall be governed by the laws of the State of Oregon. The terms and provisions of this Agreement are severable and shall continue in perpetuity and survive termination, conclusion, breach or satisfaction of this Agreement except as provided herein. This Agreement represents the entire understanding and Agreement between the parties relating to the management of waste. No representations, statements or Agreements, unless agreed to by the parties in writing, shall modify, change, amend or otherwise affect the obligations undertaken in this Agreement. Any failure of either party to enforce, at any time or for any period of time, any terms and conditions or other provisions of this Agreement shall not be construed as a waiver of such provisions or the right of such party thereafter to enforce such provisions. Customer may not assign this Agreement without the prior written consent of Cascade General, Inc. This Agreement shall be binding upon and shall inure to the benefit of the parties' successors and assigns. This Agreement may be delivered through a facsimile machine or other electronic transmission and, if delivered in such manner, shall be binding upon the parties as if such Agreement were delivered in person.

THIS IS A LEGALLY BINDING CONTRACT. EACH UNDERSIGNED INDIVIDUAL ACKNOWLEDGES THAT HE/SHE HAS READ AND UNDERSTANDS THE TERMS AND CONDITIONS OF THIS AGREEMENT SET FORTH ABOVE AND ON THE REVERSE HEREOF AND THAT HE/SHE HAS THE AUTHORITY TO SIGN ON BEHALF OF CUSTOMER. BY SIGNING BELOW, CUSTOMER INDICATES A FIRST HAND KNOWLEDGE OF THE WASTE'S CHARACTERISTICS AND CERTIFIES THE TRUTH OF THE INFORMATION ON THE GENERATOR'S PROFILE SHEET. AGREED TO AS OF THE DATES BELOW.

CUSTOMER:_____ **CASCADE GENERAL, INC.:**_____

(NAME, TITLE) (NAME, TITLE)

Date:_____ Date:_____

340-101-0033

Additional Hazardous Wastes

(1)(a) This section applies to residues that have been determined not to be hazardous waste under 40 CFR 261, Subparts C and D.

(b) This section does not apply to residues that have been identified as hazardous waste under 40 CFR 261, Subparts C and D.

(2) Except as provided in section (4) of this rule, the residues identified in subsections (2)(a) and (2)(b) of this rule are hazardous wastes and are added to and made a part of the list of hazardous wastes in 40 CFR 261.33.

(a) Any residue, including but not limited to manufacturing process wastes and unused chemicals that has either:

(A) A 3 percent or greater concentration of any substance or mixture of substances listed in 40 CFR 261.33(e);

(B) A 10 percent or greater concentration of any substance or mixture of substances listed in 40 CFR 261.33(f); or

(b) Any residue or contaminated soil, water or other debris resulting from the cleanup of a spill into or on any land or water, of either:

(A) A residue identified in subsection (2)(a)(A) of this rule; or

(B) A residue identified in subsection (2)(a)(B) of this rule.

(3) A residue identified as a hazardous waste in subsections (2)(a) or (2)(b) of this rule, and not excluded under section (4) of this rule, has the hazardous waste letters "OR" followed by the corresponding hazardous waste number(s) in 40 CFR 261.33(e) and (f).

(4) The following residues are not additional hazardous wastes under section (2) of this rule:

(a) Mixtures of pesticides identified in section (2) of this rule that are listed in 40 CFR 261.33(e) and (f);

(b) Those substances or mixtures of substances with individual constituents only listed in both 40 CFR 261.24, Table 1, and 40 CFR 261.33(e) and (f); and

(c) U075 (Dichlorodifluoro-methane) and U121 (Trichloromonofluoromethane) when they are intended to be recycled.

NOTE: Pesticide mixtures excluded in Section (4)(a) of this rule are regulated as pesticide residue in Section (6) of this rule.

(5) The wastes identified in subsections (2)(a)(A) and 2 (b)(A) of this rule are identified as acutely hazardous wastes (H) and are subject to the small quantity exclusion defined in 40 CFR 261.5(e).

(6) Any pesticide residue, except residue listed in Table 1 of 40 CFR 261.24 and which passes the evaluation requirement of 40 CFR 261.24(a), is a hazardous waste and is added to and made a part of the list of hazardous waste in 40 CFR 261.31 until it is first managed in accordance with the standards in OAR 340-109-0010(2)(a).

Note: 340-101-0033(7) and 340-101-0033(8) have been moved to 340-102-0011(c).

(7) Except as otherwise specified in OAR 340-109-0010(4)(b) hazardous waste identified in this rule is not subject to 40 CFR Part 268.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]

Stat. Auth.: ORS 466.020 & ORS 466.180
Stats. Implemented: ORS 466..015 & ORS 466.195
Hist.: DEQ 7-1984, f. & ef. 4-26-84; DEQ 17-1984, f. & ef. 8-22-84; Superseded by DEQ 8-1985; DEQ 8-1985, f. & ef. 7-25-85; DEQ 12-1989, f. & cert. ef. 6-12-89; DEQ 4-1991, f. & cert. ef. 3-15-91 (and corrected 6-20-91); DEQ 11-1992, f. & cert. ef. 6-9-92; DEQ 6-1994, f. & cert. ef. 3-22-94; DEQ 12-1996, f. & cert. ef. 7-31-96; DEQ 10-2000, f. & cert. ef. 7-21-00

340-101-0040

Wastes Requiring Special Management

(1) Abrasive Blast Waste Containing Pesticides. Abrasive blast waste which contains pesticides that do not meet the criteria specified in 40 CFR Part 261, Subpart C, is not a federal hazardous waste for any other reason, and fails the "Department of Environmental Quality Aquatic Toxicity Test," whereby a representative sample of a pesticide residue exhibits a 96-hour aquatic toxicity LC50 equal to or less than 250 mg/l, are not subject to OAR 340, divisions 100 to 106, 109 and 142 provided:

(a) The waste is prevented from entering the environment; and:

[NOTE: The practices described in Appendix 1, "Best Pollution Prevention Practices for Abrasive Blast Media Waste from Shipyard Repair Facilities," provide guidance. The guidance in Appendix 1 or equivalent Best Pollution Prevention Practices should be used.]

(b) The waste is not stored for more than six months unless the generator demonstrates that a longer storage time is necessary to meet the management standards in OAR 340-101-0040(1)(c); and,

(c) The waste is recycled, disposed of according to OAR 340-093-0190(1)(f), or disposed of at a hazardous waste facility or other facility authorized to receive such waste.

(2) Pesticide Treated Wood. Spent treated wood that is used or reused for a purpose for which the material would be treated is exempt from OAR 340-101-0040(2). Waste resulting from the use of newly pesticide-treated wood (including scrap lumber, shavings and sawdust; waste resulting from shaping pesticide-treated wood, such as sawdust, shavings and chips; and treated wood removed from service) that does not meet the criteria specified in 40 CFR Part 261, Subpart C; and is not a federal hazardous waste for any other reason; and is not otherwise excluded by 40 CFR 261.4(b)(9), and is not pesticide residue as defined in OAR 340-100-0010(3)(j) is not subject to Divisions 100 to 106, 109 and 142 provided:

(a) The waste is not stored for more than six months unless the generator demonstrates that a longer storage time is necessary to meet the management standards in OAR 340-101-0040(2)(b); and

(b) The waste is recycled or disposed of according to OAR 340-093-0190(1)(g) or is managed at a facility authorized to receive such waste.

[ED. NOTE: Appendices referenced in this rule are available from the agency.]

[Publications: Publications referenced are available from the agency.]

Stat. Auth.: ORS 183.325-337, 465.009, 466.020, 466.090 & 468.020
Stats. Implemented: ORS 466.020, 466.025, 466.075 & 466.100
Hist.: DEQ 6-1994, f. & cert. ef. 3-22-94; DEQ 11-1995, f. & cert. ef. 5-19-95; DEQ 12-1996, f. & cert. ef. 7-31-96; DEQ 13-2003, f. & cert. ef. 10-24-03

340-101-0050

Standards for Materials Being Recycled

Reserved

Stat. Auth.: ORS 183.337, 465.009, 466.020, 468.020
Stats. Implemented: ORS 466.015, 466.075, 466.086
Hist.: DEQ 4-1999, f. & cert. ef. 3-19-99; DEQ 13-2003, f. & cert. ef. 10-24-03
The official copy of an Oregon Administrative Rule is contained in the Administrative Order filed at the Archives Division, 800 Summer St. NE, Salem, Oregon 97310. Any discrepancies with the published version are satisfied in favor of the Administrative

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CITY OF PORTLAND
ENVIRONMENTAL SERVICES

Water Pollution Control Laboratory
6543 N. Burlington Ave., Portland, Oregon 97203-5452
(503) 823-5600

02/11/02

Mr. Alan Sprott
Cascade General
5555 N. Channel Ave.
Portland, OR 97217

Dear Alan:

This letter is to inform you that the *Final Effluent Limitations Guidelines and Standards for the Centralized Waste Treatment Industry (CWT)*, published in that Federal Register December 22, 2000 (Volume 65, Number 247, 40CFR Part 437), became effective **January 22nd, 2001**. This regulation establishes effluent limitation standards for wastewater discharges associated with the operation of new and existing facilities, which accept industrial wastes, wastewater, and/or used material from off-site for treatment of the waste, or recovery of materials from the waste.

After seeking EPA guidance, the City has determined that Cascade General will be considered an *existing indirect discharging facility,* for Subcategory B - Oils, based on the existence of their ballast water treatment plant. As an existing facility, Cascade General, must comply with the published pretreatment standards for existing sources no later than **December 22, 2003.**

CWT CATEGORICAL REQUIREMENTS

There are discharge standards for four waste subcategories under this rule.

Subcategory A, Metals- Includes but is not limited to spent metal finishing wastes, air pollution control waste, metal cleaning or surface preparation waste, and alkaline cleaning solutions.

Subcategory B, Oils- Includes but is not limited to used oils, coolants, emulsions, interceptor waste, petroleum spills and groundwater cleanups, and non-contact used glycols.

Subcategory C, Organics- Includes but is not limited to solvent bearing waste, off spec organic product, organic manufacturing by-products, wastewater from paint washes, wastewater from epoxy and/or adhesives formulation, and tank clean-outs and/or groundwater cleanups from organic, non-petroleum sources

Subcategory D, Multiple Wastestreams - Facilities in this category, managing waste from a combination of Subcategories A, B, and C must comply with this rule by either:

a.) electing to comply with the discharge standards for each subcategory directly following treatment (before commingling with different subcategory wastewater).

or

b.) certifying equivalent treatment and complying with one of four sets of discharge standards for the Multiple Wastestream Subcategory.

A CWT facility subject to this rule must make an initial determination as to which subcategories are applicable. EPA decided that the subcategory determination could be made based on examination of their waste receipts, provided their waste acceptance plan is adequate. Additional source information and/or additional monitoring may be required.

DISCHARGE LIMITATIONS

The following effluent limitations apply after treatment and before mixing with waste from any other subpart. **Note:** *If the City of Portland Local Limits are more stringent than the categorical limits for any parameter, the local for that parameter will apply at the permit point-of-compliance.*

Subpart A - Metals Treatment and Recovery, existing sources

Regulated Parameters	Maximum Daily Limit	Maximum Monthly Limit	Portland Local Limits
Total Antimony	0.249 mg/L	0.206 mg/L	NA
Total Arsenic	0.162 mg/L	0.104 mg/L	0.2 mg/L
Total Cadmium	0.474 mg/L	0.0962 mg/L	0.7 mg/L
Total Chromium	15.5 mg/L	3.07 mg/L	5.0 mg/L
Total Cobalt	0.192 mg/L	0.124 mg/L	NA
Total Copper	4.14 mg/L	1.06 mg/L	3.7 mg/L
Total Lead	1.32 mg/L	0.283 mg/L	0.7 mg/L
Total Mercury	0.00234 mg/L	0.000739 mg/L	0.010 mg/L
Total Nickel	3.95 mg/L	0.408 mg/L	2.8 mg/L
Total Selenium	1.64 mg/L	0.408 mg/L	0.6 mg/L
Total Silver	0.120 mg/L	0.0351 mg/L	0.4 mg/L
Total Tin	0.409 mg/L	0.120 mg/L	NA
Total Titanium	0.0947 mg/L	0.0618 mg/L	NA
Total Vanadium	0.218 mg/L	0.0662 mg/L	NA
Total Zinc	2.87 mg/L	0.641 mg/L	3.7 mg/L
Cyanide	500 mg/L	178 mg/L mg/L	1.2 mg/L

Subpart B - Oils Treatment and Recovery, existing sources

Regulated Parameters	Maximum Daily Limit	Maximum Monthly Limit	Portland Local Limits
Total Antimony	0.237 mg/L	0.141 mg/L	NA
Total Barium	0.427 mg/L	0.281 mg/L	NA
Total Chromium	0.947 mg/L	0.487 mg/L	5.0 mg/L
Total Cobalt	56.4 mg/L	18.8 mg/L	NA
Total Copper	0.405 mg/L	.301 mg/L	3.7 mg/L
Total Lead	0.222 mg/L	0.172 mg/L	0.7 mg/L
Total Molybdenum	3.50 mg/L	2.09 mg/L	1.4 mg/L
Total Tin	0.249 mg/L	0.146 mg/L	NA
Total Zinc	6.95 mg/L	4.46 mg/L	3.7 mg/L
Bis (2-ethylhexyl) phthalate	0.267 mg/L	0.158 mg/L	NA
Carbazole	0.392 mg/L	0.233 mg/L	NA
n-Decane	5.79 mg/L	3.31 mg/L	NA
Fluoranthene	0.787 mg/L	0.393 mg/L	NA
n-Octadecane	1.22 mg/L	0.925 mg/L	NA

Subpart C - Organics Treatment and Recovery, existing sources

Regulated Parameters	Maximum Daily Limit	Maximum Monthly Limit	Portland Local Limits
Total Molybdenum	1.01 mg/L	0.965 mg/L	1.4 mg/L
o-Cresol	1.92 mg/L	0.561 mg/L	NA
p-Cresol	0.698 mg/L	0.205 mg/L	NA
2,3-Dichloroaniline	0.0731 mg/L	0.0361 mg/L	NA
2,4,6-Trichlorophenol	0.155 mg/L	0.106 mg/L	NA

Again, a facility that treats wastes subject to more than one of the previous Subparts must comply with the applicable effluent limitations of each Subpart, *prior to commingling the wastestreams.*

A facility treating wastewater from more than one Subpart may opt to mix the waste, in any combination of treated or untreated waste, and comply with the applicable effluent limitations in Subpart D. Under this option, a facility must establish and certify that it provides *equivalent treatment*, as defined in 40 CFR 437.2(b).

Subpart D - Multiple Wastestreams, existing sources

1. ***Facilities that combine treated or untreated waste from <u>Subparts A, B, and C</u> are subject to the following effluent limitations.***

Regulated Parameters	Maximum Daily Limit	Maximum Monthly Limit	Portland Local Limits
Total Antimony	0.237 mg/L	0.141 mg/L	NA
Total Arsenic	0.162 mg/L	0.104 mg/L	0.2 mg/L
Total Barium	0.427 mg/L	0.281 mg/L	NA
Total Cadmium	0.474 mg/L	0.0962 mg/L	0.7 mg/L
Total Chromium	0.947 mg/L	0.487 mg/L	5.0 mg/L
Total Cobalt	0.192 mg/L	0.124 mg/L	NA
Total Copper	0.405 mg/L	0.301 mg/L	3.7 mg/L
Total Lead	0.222 mg/L	0.172 mg/L	0.7 mg/L
Total Mercury	0.00234 mg/L	0.000739 mg/L	0.010 mg/L
Total Nickel	3.95 mg/L	1.45 mg/L	2.8 mg/L
Total Selenium	1.64 mg/L	0.408 mg/L	0.6 mg/L
Total Silver	0.120 mg/L	0.0351 mg/L	0.4 mg/L
Total Tin	0.409 mg/L	0.120 mg/L	NA
Total Titanium	0.0947 mg/L	0.0618 mg/L	NA
Total Vanadium	0.218 mg/L	0.0662 mg/L	NA
Total Zinc	2.87 mg/L	0.641 mg/L	3.7 mg/L
Bis(2-ethylhexyl) phthalate	0.267 mg/L	0.158 mg/L	NA
Carbazole	0.392 mg/L	0.233 mg/L	NA
o-Cresol	1.92 mg/L	0.561 mg/L	NA
p-Cresol	0.698 mg/L	0.205 mg/L	NA
2,3-Dichloroaniline	0.0731 mg/L	0.0361 mg/L	NA
Fluoranthene	0.787 mg/L	0.393 mg/L	NA
n-Octadecane	1.22 mg/L	0.925 mg/L	NA
2,4,6-Trichlorophenol	0.155 mg/L	0.106 mg/L	NA

2. ***Facilities that combine treated or untreated waste from <u>Subparts A and B</u> are subject to the following effluent limitations***

Regulated Parameters	Maximum Daily Limit	Maximum Monthly Limit	Portland Local Limits
Total Antimony	0.237 mg/L	0.141 mg/L	NA
Total Arsenic	0.162 mg/L	0.104 mg/L	0.2 mg/L
Total Barium	0.427 mg/L	0.281 mg/L	NA
Total Cadmium	0.474 mg/L	0.0962 mg/L	0.7 mg/L
Total Chromium	0.947 mg/L	0.487 mg/L	5.0 mg/L
Total Cobalt	0.192 mg/L	0.124 mg/L	NA
Total Copper	0.405 mg/L	0.301 mg/L	3.7 mg/L
Total Lead	0.222 mg/L	0.172 mg/L	0.7 mg/L

Regulated Parameters	Maximum Daily Limit	Maximum Monthly Limit	Portland Local Limits
Total Mercury	0.00234 mg/L	0.000739 mg/L	0.010 mg/L
Total Molybdenum	3.50 mg/L	2.09 mg/L	1.4 mg/L
Total Nickel	3.95 mg/L	1.45 mg/L	2.8 mg/L
Total Selenium	1.64 mg/L	0.408 mg/L	0.6 mg/L
Total Silver	0.120 mg/L	0.0351 mg/L	0.4 mg/L
Total Tin	0.409 mg/L	0.120 mg/L	NA
Total Titanium	0.0947 mg/L	0.0618 mg/L	NA
Total Vanadium	0.218 mg/L	0.0662 mg/L	NA
Total Zinc	2.87 mg/L	0.641 mg/L	3.7 mg/L
Bis(2-ethylhexyl) phthalate	0.267 mg/L	0.158 mg/L	NA
Carbazole	0.392 mg/L	0.233 mg/L	NA
n-Decane	5.79 mg/L	3.31 mg/L	NA
Fluoranthene	0.787 mg/L	0.393 mg/L	NA
n-Octadecane	1.22 mg/L	0.925 mg/L	NA
Cyanide	500 mg/L	178 mg/L	1.2 mg/L

3. ***Facilities that combine treated or untreated waste from Subparts A and C are subject to the following effluent limitations.***

Regulated Parameters	Maximum Daily Limit	Maximum Monthly Limit	Portland Local Limits
Total Antimony	0.249 mg/L	0.206 mg/L	NA
Total Arsenic	0.162 mg/L	0.104 mg/L	0.2 mg/L
Total Cadmium	0.474 mg/L	0.0962 mg/L	0.7 mg/L
Total Chromium	15.5 mg/L	3.07 mg/L	5.0 mg/L
Total Cobalt	0.192 mg/L	0.124 mg/L	NA
Total Copper	4.14 mg/L	1.06 mg/L	3.7 mg/L
Total Lead	1.32 mg/L	0.283 mg/L	0.7 mg/L
Total Mercury	0.00234 mg/L	0.000739 mg/L	0.010 mg/L
Total Molybdenum	1.01 mg/L	0.965 mg/L	1.4 mg/L
Total Nickel	3.95 mg/L	1.45 mg/L	2.8 mg/L
Total Selenium	1.64 mg/L	0.408 mg/L	0.6 mg/L
Total Silver	0.120 mg/L	0.0351 mg/L	0.4 mg/L
Total Tin	0.409 mg/L	0.120 mg/L	NA
Total Titanium	0.0947 mg/L	0.0618 mg/L	NA
Total Vanadium	0.218 mg/L	0.0662 mg/L	NA
Total Zinc	2.87 mg/L	0.641 mg/L	3.7 mg/L
o-Cresol	1.92 mg/L	0.561 mg/L	NA
p-Cresol	0.698 mg/L	0.205 mg/L	NA
2,3-Dichloroaniline	0.0731 mg/L	0.0361 mg/L	NA
2,4,6-Trichlorophenol	0.155 mg/L	0.106 mg/L	NA
Cyanide	500 mg/L	178 mg/L	1.2 mg/L

4. ***Facilities that combine treated or untreated waste from <u>Subparts B and C</u> are subject to the following effluent limitations.***

Regulated Parameters	**Maximum Daily Limit**	**Maximum Monthly Limit**	
Total Antimony	0.237 mg/L	0.141 mg/L	
Total Barium	0.427 mg/L	0.281 mg/L	
Total Chromium	0.947 mg/L	0.487 mg/L	
Total Cobalt	56.4 mg/L	18.8 mg/L	
Total Copper	0.405 mg/L	.301 mg/L	
Total Lead	0.222 mg/L	0.172 mg/L	
Total Molybdenum	1.01 mg/L	0.965 mg/L	
Total Tin	0.249 mg/L	0.146 mg/L	
Total Zinc	6.95 mg/L	4.46 mg/L	
Bis (2-ethylhexyl) phthalate	0.267 mg/L	0.158 mg/L	
Carbazole	0.392 mg/L	0.233 mg/L	
o-Cresol	1.92 mg/L	0.561 mg/L	
p-Cresol	0.698 mg/L	0.205 mg/L	
n-Decane	5.79 mg/L	3.31 mg/L	
2,3-Dichloroaniline	0.0731 mg/L	0.0361 mg/L	
Fluoranthene	0.787 mg/L	0.393 mg/L	
n-Octadecane	1.22 mg/L	0.925 mg/L	
2,4,6-Trichlorophenol	0.155 mg/L	0.106 mg/L	

Note: *Effluent limitations for <u>new</u> sources subject to Subpart D, Multiple Wastes, may be different than the limitations for existing sources.*

<u>SUBCATEGORY DETERMINATIONS</u>

The EPA recommends that an existing CWT facility review its data on incoming wastes for a period of one year, classifying waste receipts into one of the three subcategories (metals, oils, or organics). The following hierarchy is recommended for characterization:

If the waste contains > 100 mg/L petroleum-based oil & grease, it should be classified in the oils subcategory.

If the waste contains < 100 mg/L petroleum-based oil & grease, and has any of the metals below greater than the listed concentrations, the waste should be classified in the metals subcategory.

Cadmium	0.2 mg/L
Chromium	8.9 mg/L
Copper	4.9 mg/L
Nickel	37.5 mg/L

If the waste contains < 100mg/L petroleum-based oil & grease, and does not have cadmium, chromium, copper, or nickel above the previously listed concentrations, the waste should be classified in the organics subcategory.

The classification is performed: at the start of the permit; when incoming wastestreams/treatment methods change; or when the permit is being renewed.

REQUIRED CERTIFICATIONS

The effluent limitations for CWT facilities are based upon specific treatment methods established by the EPA as Best Practicable Control Technology (BPT). The treatment technologies for each subcategory are as follows:

Subcategory A, Metals-primary precipitation, liquid-solid separation, clarification, and sand filtration. Cyanide, if present, must be removed through alkaline chlorination (or equivalent).

Subcategory B, Oils-emulsion breaking/gravity separation, secondary gravity separation, and dissolved air flotation.

Subcategory C, Organics-equalization followed by biological treatment.

The EPA is not requiring CWT facilities to use the exact treatment methods listed above. However, the CWT facility must certify that the systems they use provide "equivalent treatment" for each subcategory. Equivalency could be demonstrated using published information on the treatment equipment, treatability tests, or self-monitoring data. The facility will be required to submit an initial certification statement that will be reviewed annually during compliance inspections. If a facility modifies its pretreatment system, in any way, it must submit a revised certification. The Treatment Certification is a written submission that includes the following information:

- subcategories of wastes accepted for treatment at the facility.
- treatment systems in place at the facility.
- conditions under which the treatment systems are operated for each subcategory.
- supporting data confirming equivalent treatment.
- procedures to ensure proper operations and maintenance of the treatment systems.

The Treatment Certification statement must be signed by the responsible corporate officer, as defined in 40 CFR 403.12(l) or 40 CFR 122.22.

EFFECTIVE DATES

Again, Cascade General must comply with the published pretreatment standards for existing sources no later than **December 22, 2003**.

In accordance with 40CFR Part403.12, existing industries that discharge CWT wastewater to a POTW must submit a baseline report and certification within 180 days after the effective date of the Pretreatment Standards (in this case, January 22nd 2001). *Since Cascade General is currently not discharging to the POTW, the baseline report shall be submitted to the City at least 30 days prior to discharging CWT wastewater to the POTW.*

The signed certification indicates whether or not the categorical Pretreatment Standards are being met on a consistent basis. If an industry is not able to meet the CWT Pretreatment Standards, a compliance schedule will be developed.

After your facility has completed an initial wastestream classification and an appropriate Subcategory effluent limitation has been determined, the applicable certification must be completed and returned to:

Derik Vowels
Industrial Source Control Division
Water Pollution Control Laboratory
6543 N. Burlington Ave.
Portland, Oregon 97203

If you need assistance in classifying your wastewater or preparing certifications, please contact the undersigned at 503-823-5556.

Respectfully,

Derik Vowels

Derik Vowels
Pretreatment Permit manager

Centralized Waste Treatment
Equivalent Treatment Certification

☐ *Initial Certification* ☐ *Periodic Certification*

Facility Name _____
Facility Address _____

Responsible Corporate Officer _____
Phone # _____

Wastewater Source Description

☐ *Subpart A: Metals*
☐ *Subpart B: Oils*
☐ *Subpart C: Organics*
☐ *Subpart D: Multiple*

_____

Description of Treatment System

_____

Operating Conditions / Quality Assurance

_____

Supporting Data Confirming Equivalent Treatment (Attachments)

_____

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____ Date: _____

Instructions

Centralized Waste Treatment (CWT) facilities are required to submit an initial certification, at start-up, and periodic certifications, annually. The Treatment Certification is a written submission that includes the following information:

The subcategories of wastes accepted for treatment at the facility. *Determined at start-up for new facilities, or from waste receipt logs for existing CWT facilities*

The treatment systems in place at the facility. *Existing or planned on-site waste treatment.*

The conditions under which the treatment systems are operated for each subcategory. *Batch versus continuous, volumes, flow rates, etc.*

All supporting data confirming equivalent treatment. *Attach manufacturer's data for treatment equipment, treatablity testing data, monitoring data.*

Procedures to ensure proper operations and maintenance of the treatment systems. *What do you do to maintain consistent treatment results (e.g. training, waste screening, process control monitoring, etc.).*

The effluent limitations for CWT, 40CFR Part 437, facilities are based upon specific treatment methods established by the EPA as Best Practicable Control Technology (BPT). The treatment technologies for each subcategory are as follows:

Subcategory A, Metals-cyanide treatment, batch precipitation, liquid-solid separation, secondary precipitation, clarification, and sand filtration. Cyanide, if present, must be removed through alkaline chlorination (or equivalent) in a two step process.

Subcategory B, Oils-emulsion breaking, gravity separation, secondary gravity separation, and dissolved air flotation.

Subcategory C, Organics-equalization followed by biological treatment.

The EPA is not requiring CWT facilities to use the exact treatment methods listed above. However, the CWT facility must certify that the systems they use provide "equivalent treatment" for each subcategory. Equivalency could be demonstrated using published information on the treatment equipment, treatability tests, or self-monitoring data. The facility will be required to submit an initial certification statement that will be reviewed annually during compliance inspections. If a facility modifies its pretreatment system, in any way, it must submit a revised certification. **The Treatment Certification Statement must be signed by the responsible corporate officer, as defined in 40 CFR 403.12(l) or 40 CFR 122.22.**

"...a responsible corporate officer means (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operation facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures."

$LBS = \left(\frac{\#\ GAL/DAY}{1,000,000}\right)\left(\frac{MG}{L}\right)\left(\frac{8.34\ lbs}{GAL}\right)$ 1,000,000

Extra Strength Sewage Charge (ESSC) Why me??

What is the ESSC program, and Why is my company being charged?

Extra-Strength Sewage Charge (ESSC) is a surcharge added to a company's sewer bill for having process discharge exceeding allowable concentrations of Biochemical Oxygen Demand (BOD) and/or Total Suspended Solids (TSS).

The ESSC program recovers operating costs of treating high-strength BOD and/or TSS waste. Increased costs include energy use, maintenance, sludge disposal and transportation, along with potential capital expansion.

What is considered Extra-Strength waste?

BOD concentrations greater than 300 mg/L and/or TSS concentrations greater than 350 mg/L are the residential allowances used to determine if a company will be part of the ESSC program.

BOD is a measure of the amount of oxygen consumed by microorganisms present in wastewater, while they work to decompose the organic matter.

Treatment plants use microorganisms to breakdown organic matter in the wastewater, but high levels of BOD deplete the oxygen supply in the wastewater at a much faster rate. The result is essential "bugs" die off from lack of oxygen, so there is less biological treatment of the wastewater. With less microbial activity, wastewater treatment requires additional aeration, along with more chemical and mechanical operations.

TSS is the floatable or suspended matter present in water or wastewater that is removable by filtration. Increased levels of suspended solids affect treatment plant digesters and increase the quantity of bio-solids (sludge) produced.

How can I reduce my ESSC rate? Use Best Management Practices

Sewer RATE
4.859/748 gal
.658/gal

1. Improve housekeeping practices by keeping organic matter out of the sewer.
2. Ensure accurate discharge volume data (flow data):
   - Discharge meter(s)
   - Product meter(s) – report water consumed in product
   - Evaporative losses – report water lost due to evaporation
3. Practice water conservation and recycling techniques where applicable. **
   **(Note that your company's water and sewer use portions of the bill may decrease; however, the ESSC rate may increase. Net savings will result.)

How are ESSC rates determined?

The ESSC portion of the water bill is determined by multiplying the total composite rate ($/ccf) by the net volume (ccf) of wastewater discharged to the sewer.

$\$ ESSC = Total composite rate (\$/ccf) \times Volume (ccf)$

Total composite rate ($/ccf) = BOD_5 rate + TSS rate

ccf = 100 cubic feet
ccf = 748 gallons

Rate Calculations

The rolling average is based on the average of the ten most recent valid monitoring events. **Samples taken within the same month will be averaged and considered to be one monitoring event.**

R_{BOD}	=	$0.388	Current rate for BOD_5 in dollars/pound
R_{TSS}	=	$0.467	Current rate for TSS in dollars/pound
f	=	0.006243	Conversion factor from mg/L to pounds/ccf

Rates revised annually. Current rates are for 07/01/00 – 06/30/01.

BOD_5 rate calculation ($/ccf) = Average BOD_5 - Allowable BOD_5 x R_{BOD} x f

TSS rate calculation ($/ccf) = Average TSS – Allowable TSS x R_{TSS} x f

Rate calculation examples:

Average (Δ) BOD_5 = 5,000 mg/L	**BOD_5 rate ($/ccf) = (Δ BOD_5 – Allowable BOD_5) x R_{BOD} x f**
Allowable BOD = 300 mg/L	BOD_5 rate ($/ccf) = BOD_5 x 0.388 x 0.006243
	BOD_5 rate ($/ccf) = (5,000 – 300) x 0.388 x 0.006243
	BOD_5 rate ($/ccf) = 11.385
Average (Δ) TSS = 450 mg/L	**TSS rate ($/ccf) = (ΔTSS – Allowable TSS) x R_{TSS} x f**
Allowable TSS = 350 mg/L	TSS rate ($/ccf) = TSS x 0.467 x 0.006243
	TSS rate ($/ccf) = (450 – 350) x 0.467 x 0.006243
	TSS rate ($/ccf) = 0.292
Total composite rate ($/ccf)	BOD_5 rate + TSS rate = 11.385 + 0.292 = 11.677 ($/ccf)

Total composite rate ($/ccf) x Net volume (ccf) = $ ESSC

.97¢/gal

Water use = 100 ccf / month 11.677 $/ccf x 100 ccf/month = $1,167.70 per month

** **Note:** The dollar amount shown on a water bill may not agree with the rate shown on the ESSC rate calculation sheet. The ESSC portion of the water bill and the rate calculation may not be synchronized due to billing cycles, monitoring and reporting dates, etc. In other words, the bill received for this month may be based on the rate calculation for the previous month.

How often is ESSC monitored?

To begin ESSC calculations, the average concentration of daily samples taken over a 5-day period is utilized (except when the Director of Environmental Services specifies another period). Representative wastewater samples are taken at an approved point of compliance or other appropriate location, as authorized by the Director.

Rolling averages are calculated by using the 10 most recent valid monitoring events. Samples collected during the same month will be averaged and represent one monitoring event. Industries may be allowed to submit self-monitoring results for representative extra-strength samples.

The frequency of ESSC sampling is based on the industry's discharge volume and the strength concentration of the wastewater. Contact your permit manager if you have questions regarding monitoring frequency.

Can I request additional ESSC monitoring?

Any industry subject to rolling-average monitoring may request the City to resample their wastewater. Submit a written request, along with full payment for the additional sample to your permit manager. The current fees for an additional ESSC sample is $200. Sample results will be figured into the rolling average rate.

What happens if my process discharge changes?

Contact your permit manager!! Contact your permit manager prior to changes in discharge, either from production practices or due to new equipment. The ESSC rate may be re-evaluated if changes result in a permanent reduction in ESSC pollutant concentrations, and sampling will be performed to calculate a new rolling average.

CITY OF PORTLAND
BUREAU OF ENVIRONMENTAL SERVICES
Water Pollution Control Laboratory
6543 N. Burlington Ave.
Portland, OR 97203-5452
(503)823-5600
FAX (503)823-5559

FACSIMILE TRANSMISSION

TO: Alan Sprott FROM: DERIK VOWELS

_____ Phone: _____

_____ Date: _____

WE ARE SENDING YOU A FAX FROM (503)823-5559 TO FAX (503) 247-6050

# SHEETS	DESCRIPTION
1	Cover Sheet
2	Extra Strength Surcharge Calc. Sheet
3	Total Sheets

COPY TO: _____

S:\BUNNY\FORMS\FAX5559.FRM

CITY OF PORTLAND
BUREAU OF ENVIRONMENTAL SERVICES
Water Pollution Control Laboratory
6543 N. Burlington Ave.
Portland, OR 97203-5452
(503)823-5600
FAX (503)823-5559

FACSIMILE TRANSMISSION

TO: ALAN SPROTT FROM: DERIK VOWELS

Phone:

Date: 9/29/03

WE ARE SENDING YOU A FAX FROM (503)823-5559 TO FAX (503) 247-6050

# SHEETS	DESCRIPTION
1	Cover Sheet
7	Alan,
	Here's the analytical results
	from your 1ST CWT batch
	—DERIK
8	Total Sheets

COPY TO:

S:\BUNNY\FORMS\FAX5559.FRM

City of Portland
Water Pollution Control Laboratory
Laboratory Analysis Report

Sample Date/Time 08/20/03 9:42 **System ID** AH07487 **Sample ID** **IND031228**

		Page No.:	1
Proj./Company Name:	CASCADE GENERAL	**Date Received:**	08/20/03
Address/Location:	5555 N CHANNEL AVE PORTLAND OR	**Sample Status:**	COMPLETE AND VALIDATED
Proj Subcategory:	INDUSTRIAL WASTEWATER SAMPLING	**Sample Type:**	GRAB
Sample Point Code:	CWT2B	**Sample Matrix:**	INDUSWTR
IMS File #:	3020.001	**Collected By:**	MKS/WCR

Comments:

Test Parameter	Result	Units	MRL	Method
FIELD				
pH (FIELD)	6.5	pH Units	0.1	SM 4500-H B
GENERAL				
TOTAL OIL & GREASE (Ave.)	46.0	mg/L	5	EPA 1664

End of Report for Sample ID: IND031228

6543 N. Burlington Ave. / Portland OR 97203 (503) 823-5600 fax (503) 823-5656

Report Date: 09/17/03

Validated By:

City of Portland
Water Pollution Control Laboratory
Laboratory Analysis Report

Sample Date/Time 08/18/03 10:43 **System ID** AH07486 **Sample ID** **IND031211**

		Page No.:	1
Proj./Company Name:	CASCADE GENERAL	**Date Received:**	08/18/03
Address/Location:	5555 N CHANNEL AVE PORTLAND OR	**Sample Status:**	COMPLETE AND VALIDATED
Proj Subcategory:	INDUSTRIAL WASTEWATER SAMPLING	**Sample Type:**	GRAB
Sample Point Code:	CWT2B	**Sample Matrix:**	INDUSWTR
IMS File #:	3020.001	**Collected By:**	WCR/MJS

Comments: LAB: THE SAMPLE REQUIRED DILUTION BY A FACTOR OF 2 FOR SEMI-VOLATILE ORGANICS ANALYSIS AND BY A FACTOR OF 10 FOR VOLATILE ORGANICS. IN ADDITION TO THE TARGET ANALYTES REPORTED, THE METHYLPHENOLS WERE DETECTED AT NEAR PPM CONCENTRATIONS, MULTIPLE SHORT-CHAIN ORGANIC ACIDS WERE DETECTED AT HIGH PPM CONCENTRATIONS, AND SEVERAL VOLATILE COMPONENTS WERE DETECTED INCLUDING THE XYLENES, CARBON DISULFIDE, AND SOME OXYGENATED HYDROCARBONS.

Test Parameter	Result	Units	MRL	Method
FIELD				
pH (FIELD)	5.9	pH Units	0.1	SM 4500-H B
GENERAL				
NON-POLAR OIL & GREASE (Ave.)	12	mg/L	5	EPA 1664
SULFIDE, DISSOLVED	<0.20	mg/L	0.2	SM 4500-S BD
TOTAL OIL & GREASE (Ave.)	36.2	mg/L	5	EPA 1664
SEMI-VOLATILE ORGANICS				
1,2,4-Trichlorobenzene	<0.010	mg/L	0.010	EPA 625
1,2-Dichlorobenzene	<0.010	mg/L	0.010	EPA 625
1,3-Dichlorobenzene	<0.010	mg/L	0.010	EPA 625
1,4-Dichlorobenzene	<0.010	mg/L	0.010	EPA 625
2,4,6-Trichlorophenol	<0.010	mg/L	0.010	EPA 625
2,4-Dichlorophenol	<0.010	mg/L	0.010	EPA 625
2,4-Dimethylphenol	<0.020	mg/L	0.020	EPA 625
2,4-Dinitrophenol	<0.040	mg/L	0.040	EPA 625
2,4-Dinitrotoluene	<0.010	mg/L	0.010	EPA 625
2,6-Dinitrotoluene	<0.010	mg/L	0.010	EPA 625
2-Chloronaphthalene	<0.010	mg/L	0.010	EPA 625
2-Chlorophenol	<0.010	mg/L	0.010	EPA 625
2-Nitrophenol	<0.010	mg/L	0.010	EPA 625
3,3'-Dichlorobenzidine	<0.010	mg/L	0.010	EPA 625
4,6-Dinitro-2-methylphenol	<0.020	mg/L	0.020	EPA 625
4-Bromophenylphenyl ether	<0.010	mg/L	0.010	EPA 625
4-Chloro-3-methylphenol	<0.010	mg/L	0.010	EPA 625
4-Chlorophenylphenyl ether	<0.010	mg/L	0.010	EPA 625
4-Nitrophenol	<0.040	mg/L	0.040	EPA 625
Acenaphthene	<0.010	mg/L	0.010	EPA 625
Acenaphthylene	<0.010	mg/L	0.010	EPA 625
Anthracene	<0.010	mg/L	0.010	EPA 625

Report Date: 09/17/03

Validated By:

City of Portland
Water Pollution Control Laboratory
Laboratory Analysis Report

Sample Date/Time 08/18/03 10:43 **System ID** AH07486 **Sample ID** **IND031211**

		Page No.:	2
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Comments: LAB: THE SAMPLE REQUIRED DILUTION BY A FACTOR OF 2 FOR SEMI-VOLATILE ORGANICS ANALYSIS AND BY A FACTOR OF 10 FOR VOLATILE ORGANICS. IN ADDITION TO THE TARGET ANALYTES REPORTED, THE METHYLPHENOLS WERE DETECTED AT NEAR PPM CONCENTRATIONS, MULTIPLE SHORT-CHAIN ORGANIC ACIDS WERE DETECTED AT HIGH PPM CONCENTRATIONS, AND SEVERAL VOLATILE COMPONENTS WERE DETECTED INCLUDING THE XYLENES, CARBON DISULFIDE, AND SOME OXYGENATED HYDROCARBONS.

Test Parameter	Result	Units	MRL	Method
Azobenzene	<0.010	mg/L	0.010	EPA 625
Benzidine	<0.100	mg/L	0.100	EPA 625
Benzo(a)anthracene	<0.010	mg/L	0.010	EPA 625
Benzo(a)pyrene	<0.010	mg/L	0.010	EPA 625
Benzo(b)fluoranthene	<0.010	mg/L	0.010	EPA 625
Benzo(g,h,i)perylene	<0.010	mg/L	0.010	EPA 625
Benzo(k)fluoranthene	<0.010	mg/L	0.010	EPA 625
Benzyl butyl phthalate	<0.020	mg/L	0.020	EPA 625
Bis(2-chloroethoxy) methane	<0.020	mg/L	0.020	EPA 625
Bis(2-chloroethyl) ether	<0.010	mg/L	0.010	EPA 625
Bis(2-chloroisopropyl) ether	<0.020	mg/L	0.020	EPA 625
Bis(2-ethylhexyl) phthalate	<0.020	mg/L	0.020	EPA 625
Carbazole	<0.010	mg/L	0.010	EPA 625
Chrysene	<0.010	mg/L	0.010	EPA 625
Di-n-butyl phthalate	<0.020	mg/L	0.020	EPA 625
Di-n-octyl phthalate	<0.010	mg/L	0.010	EPA 625
Dibenzo(a,h)anthracene	<0.010	mg/L	0.010	EPA 625
Diethyl phthalate	0.0287	mg/L	0.010	EPA 625
Dimethyl phthalate	<0.010	mg/L	0.010	EPA 625
Fluoranthene	<0.010	mg/L	0.010	EPA 625
Fluorene	<0.010	mg/L	0.010	EPA 625
Hexachlorobenzene	<0.010	mg/L	0.010	EPA 625
Hexachlorobutadiene	<0.020	mg/L	0.020	EPA 625
Hexachlorocyclopentadiene	<0.020	mg/L	0.020	EPA 625
Hexachloroethane	<0.020	mg/L	0.020	EPA 625
Indeno(1,2,3-cd) pyrene	<0.010	mg/L	0.010	EPA 625
Isophorone	<0.010	mg/L	0.010	EPA 625
n-Decane	<0.010	mg/L	0.010	EPA 625
N-Nitroso-di-n-propylamine	<0.020	mg/L	0.020	EPA 625
N-Nitrosodimethylamine	<0.010	mg/L	0.010	EPA 625

6543 N. Burlington Ave. / Portland OR 97203 (503) 823-5600 fax (503) 823-5656

Report Date: 09/17/03

Validated By:

City of Portland
Water Pollution Control Laboratory
Laboratory Analysis Report

Sample Date/Time	08/18/03 10:43	System ID	AH07486	Sample ID	IND031211

		Page No.:	3
Proj./Company Name:	CASCADE GENERAL	Date Received:	08/18/03
Address/Location:	5555 N CHANNEL AVE PORTLAND OR	Sample Status:	COMPLETE AND VALIDATED
Proj Subcategory:	INDUSTRIAL WASTEWATER SAMPLING	Sample Type:	GRAB
Sample Point Code:	CWT2B	Sample Matrix:	INDUSWTR
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Test Parameter	Result	Units	MRL	Method
N-Nitrosodiphenylamine	<0.010	mg/L	0.010	EPA 625
n-Octadecane	<0.010	mg/L	0.010	EPA 625
Naphthalene	<0.010	mg/L	0.010	EPA 625
Nitrobenzene	<0.010	mg/L	0.010	EPA 625
Pentachlorophenol	<0.020	mg/L	0.020	EPA 625
Phenanthrene	<0.010	mg/L	0.010	EPA 625
Phenol	1.67	mg/L	0.010	EPA 625
Pyrene	<0.010	mg/L	0.010	EPA 625
VOLATILE ORGANIC COMPOUNDS				
1,1,1,2-Tetrachloroethane	<0.020	mg/L	0.020	EPA 624
1,1,1-Trichloroethane	<0.020	mg/L	0.020	EPA 624
1,1,2,2-Tetrachloroethane SL = .40 mg/L	0.0373	mg/L	0.030	EPA 624
1,1,2-Trichloroethane	<0.020	mg/L	0.020	EPA 624
1,1-Dichloroethane	<0.020	mg/L	0.020	EPA 624
1,1-Dichloroethene	<0.050	mg/L	0.050	EPA 624
1,2-Dichlorobenzene SL = 1.90 mg/L	0.115	mg/L	0.020	EPA 624
1,2-Dichloroethane	<0.020	mg/L	0.020	EPA 624
1,2-Dichloropropane	<0.020	mg/L	0.020	EPA 624
1,3-Dichlorobenzene	0.103	mg/L	0.020	EPA 624
1,4-Dichlorobenzene SL = 3.50 mg/L	0.104	mg/L	0.020	EPA 624
2-Chloroethylvinyl ether	<0.250	mg/L	0.250	EPA 624
Acrolein	<0.100	mg/L	0.100	EPA 624
Acrylonitrile	<0.100	mg/L	0.100	EPA 624
Benzene SL = 0.14 mg/L	0.0445	mg/L	0.030	EPA 624
Bromodichloromethane	<0.020	mg/L	0.020	EPA 624
Bromoform	<0.020	mg/L	0.020	EPA 624
Bromomethane	<0.050	mg/L	0.050	EPA 624
Carbon tetrachloride	<0.030	mg/L	0.030	EPA 624
Chlorobenzene	<0.020	mg/L	0.020	EPA 624
Chloroethane	<0.050	mg/L	0.050	EPA 624

Report Date: 09/17/03

Validated By:

City of Portland
Water Pollution Control Laboratory
Laboratory Analysis Report

Sample Date/Time 08/18/03 10:43 **System ID** AH07486 **Sample ID** **IND031211**

		Page No.:	4
Proj./Company Name:	CASCADE GENERAL	**Date Received:**	08/18/03
Address/Location:	5555 N CHANNEL AVE PORTLAND OR	**Sample Status:**	COMPLETE AND VALIDATED
Proj Subcategory:	INDUSTRIAL WASTEWATER SAMPLING	**Sample Type:**	GRAB
Sample Point Code:	CWT2B	**Sample Matrix:**	INDUSWTR
IMS File #:	3020.001	**Collected By:**	WCR/MJS

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Test Parameter	Result	Units	MRL	Method
Chloroform	<0.020	mg/L	0.020	EPA 624
Chloromethane	<0.050	mg/L	0.050	EPA 624
cis-1,3-Dichloropropene	<0.030	mg/L	0.030	EPA 624
Dibromochloromethane	<0.020	mg/L	0.020	EPA 624
Ethylbenzene SL = 1.60 mg/L	0.0454	mg/L	0.020	EPA 624
Methylene chloride	<0.030	mg/L	0.030	EPA 624
Tetrachloroethene	<0.020	mg/L	0.020	EPA 624
Toluene SL = 1.40 mg/L	0.0262	mg/L	0.020	EPA 624
trans-1,2-Dichloroethene	<0.030	mg/L	0.030	EPA 624
trans-1,3-Dichloropropene	<0.030	mg/L	0.030	EPA 624
Trichloroethene	<0.030	mg/L	0.030	EPA 624
Trichlorofluoromethane	<0.050	mg/L	0.050	EPA 624
Vinyl chloride	<0.100	mg/L	0.100	EPA 624
POLYCHLORINATED BIPHENYLS (PCB)				
PCB 1016	<0.500	µg/L	0.500	EPA 8082
PCB 1221	<1.00	µg/L	1.00	EPA 8082
PCB 1232	<0.500	µg/L	0.500	EPA 8082
PCB 1242	<0.500	µg/L	0.500	EPA 8082
PCB 1248	<0.500	µg/L	0.500	EPA 8082
PCB 1254	<0.500	µg/L	0.500	EPA 8082
PCB 1260	<0.500	µg/L	0.500	EPA 8082

End of Report for Sample ID: IND031211

Report Date: 09/17/03

Validated By:

City of Portland
Water Pollution Control Laboratory
Laboratory Analysis Report

Sample Date/Time 08/18/03 10:44 **System ID** AH07488 **Sample ID** IND031229

		Page No.:	1
Proj./Company Name:	CASCADE GENERAL	**Date Received:**	08/20/03
Address/Location:	5555 N CHANNEL AVE PORTLAND OR	**Sample Status:**	COMPLETE AND VALIDATED
Proj Subcategory:	INDUSTRIAL WASTEWATER SAMPLING	**Sample Type:**	COMPOSITE
Sample Point Code:	CWT2B	**Sample Matrix:**	INDUSWTR
IMS File #:	3020.001	**Collected By:**	MKS/WCR

Comments: NOTE: THE SAMPLE IS A 2-DAY COMPOSITE, COLLECTED FROM 8/18/03 TO 8/20/03. ANALYSIS FOR BOD WAS STARTED THE FOLLOWING DAY (8/21/03).

Test Parameter		Result	Units	MRL	Method
GENERAL	Avg				
BOD5	3390	3350	mg/L	2	SM 5210 B
TOTAL SUSPENDED SOLIDS	78	93	mg/L	2	SM 2540 D
METALS					
ANTIMONY	.0297	0.0321	mg/L	0.001	EPA 200.8
ARSENIC	.0148	0.0177	mg/L	0.001	EPA 200.8
BARIUM	.023	0.020	mg/L	0.01	EPA 200.7
CADMIUM	—	<0.030	mg/L	0.03	EPA 200.7
CHROMIUM	—	<0.050	mg/L	0.05	EPA 200.7
COBALT	.011	0.00992	mg/L	0.002	EPA 200.8
COPPER	—	<0.050	mg/L	0.05	EPA 200.7
LEAD	.006	0.00515	mg/L	0.0010	EPA 200.8
MERCURY	.0006	0.00106	mg/L	0.000050	EPA 200.8
MOLYBDENUM	—	<0.200	mg/L	0.20	EPA 200.7
NICKEL	.585	0.619	mg/L	0.10	EPA 200.7
SELENIUM	—	0.0518	mg/L	0.01	EPA 200.8
TIN	—	<0.0010	mg/L	0.0010	EPA 200.8
ZINC	.190	0.150	mg/L	0.05	EPA 200.7

End of Report for Sample ID: IND031229

Report Date: 09/17/03

Validated By:

City of Portland
Water Pollution Control Laboratory
Laboratory Analysis Report

Sample Date/Time 08/20/03 9:46 **System ID** AH07489 **Sample ID** **IND031245**

Page No.: 1

Proj./Company Name: CASCADE GENERAL
Address/Location: 5555 N CHANNEL AVE
PORTLAND OR

Date Received: 08/22/03
Sample Status: COMPLETE AND VALIDATED

Proj Subcategory: INDUSTRIAL WASTEWATER SAMPLING
Sample Point Code: CWT2B
IMS File #: 3020.001

Sample Type: COMPOSITE
Sample Matrix: INDUSWTR
Collected By: JJM/MKS

Comments: NOTE: THE SAMPLE IS A 2-DAY COMPOSITE, COLLECTED FROM 8/20/03 TO 8/22/03. ANALYSIS FOR BOD WAS STARTED ON 8/22/03.

Test Parameter	Result	Units	MRL	Method
GENERAL				
BOD5	3430	mg/L	2	SM 5210 B
TOTAL SUSPENDED SOLIDS	63	mg/L	2	SM 2540 D
METALS				
ANTIMONY	0.0273	mg/L	0.001	EPA 200.8
ARSENIC	0.0119	mg/L	0.001	EPA 200.8
BARIUM	0.026	mg/L	0.01	EPA 200.7
CADMIUM	<0.030	mg/L	0.03	EPA 200.7
CHROMIUM	<0.050	mg/L	0.05	EPA 200.7
COBALT	0.0114	mg/L	0.002	EPA 200.8
COPPER	0.051	mg/L	0.05	EPA 200.7
LEAD	0.0064	mg/L	0.0010	EPA 200.8
MERCURY	0.0000500	mg/L	0.000050	EPA 200.8
MOLYBDENUM	0.250	mg/L	0.20	EPA 200.7
NICKEL	0.550	mg/L	0.10	EPA 200.7
SELENIUM	<0.010	mg/L	0.01	EPA 200.8
TIN	<0.0010	mg/L	0.0010	EPA 200.8
ZINC	0.229	mg/L	0.05	EPA 200.7

End of Report for Sample ID: IND031245

6543 N. Burlington Ave. / Portland OR 97203 (503) 823-5600 fax (503) 823-5656

Report Date: 09/17/03
Validated By:

ACCIDENTAL SPILL PREVENTION PLAN (ASPP) WORKSHEET

Industry name_____ ORG ID_____

PLAN REQUIREMENTS

Title page

	YES	NO
Name of Site		
Name of Site Operator		
Revision date (Day, Month, Year)		

	YES	NO
Contact Persons Name & Phone #		
Site Physical Address		
Mailing Address (if Different)		

Facility Map

	YES	NO	N/A
Property Boundaries			
Entrances and Exits			
Industrial Activity Areas			
Haz. Materials Process & Storage areas			
Waste Handling & Storage Areas			

	YES	NO	N/A
Material Loading/Unloading Area			
Location of Spill Kits			
Sample Points			
Treatment Facilities			

	YES	NO
Is a general location map included in the plan?		

Potential Pollutants

	YES	NO
Have Potential Pollutants been identified that may impact the sanitary sewer?		

Spill Prevention Equipment & Procedures

	YES	NO
Are Spill Prevention and Response Procedures described in the plan?		
Are Communication & Alarms in place?		
Are Emergency Notification Procedures detailed in the plan?		
Are Spill Assessment, Containment, Control and Cleanup Procedures detailed in the plan?		
Is a Facility Evacuation Plan included?		
Are Annual Cleaning, Maintenance & Repair of all materials handling/Storage area and spill containment control measures, structures, and treatment facilities specified?		
Has an Employee Orientation and Education program been developed and included in the plan?		

Record Keeping and Reporting Procedures

	YES	NO
Has a procedure (log, checklist, etc) been developed to record Inspection, maintenance, repair and education activities been developed and included in the ASPP?		
Has a procedure (log, checklist, etc) been developed to record spills, overfills, or leaks?		
Are ASPP review requirements discussed in the plan?		
Are Spill reporting requirements discussed in the plan, Spill Phone #, written report w/in 5 days, etc.?		

Plan Certification

	YES	NO
Has an authorized representative of the facility signed the plan? [See Permit for appropriate signature based on type of business (i.e. Corporation, partnership, etc.)]		

NOTES

_____

_____

_____

_____

For BES use only
Date Received **Reviewed by** **Plan Accepted** **Y / N**

CWT Wastewater Receipt Log

Date	Hauler	Source	Volume (gals)	Process	CWT Category			
					A	B	C	NR

CWT Wastewater Receipt Log

Date	Hauler	Source	Volume (gals)	Process	CWT Category			
					A	B	C	NR

CITY OF PORTLAND
ENVIRONMENTAL SERVICES

Water Pollution Control Laboratory
6543 N. Burlington Ave., Portland, Oregon 97203-5452
(503) 823-5600

March 20, 1998

Alan Sprott
Director of Environmental Services
Cascade General
5555 North Channel Ave.
Portland, OR 97217

Dear Mr. Sprott:

Enclosed is a revised copy of Cascade General's Industrial Wastewater Discharge Permit. Please note that the Responsible Corporate Officer has been changed to Wayne Cozad per our discussion. I have also modified the permit to correct the omissions of sample type for periodic monitoring in Schedule B. In regards to your comments regarding defining periodic monitoring and final compliance report, please see City Code 17.34.060 (enclosed) as sited in Schedule B of the permit. Your issues regarding modifying the permit to include language about Cascade's audit privileges and spill notification have been forwarded to our attorney for comment.

Enclosed you will find Signatory Authorization forms granting authorization for yourself or any other designee to sign on behalf of the Responsible Corporate Official in manners concerning the permit. Please have these completed and enclosed with the submission of Cascade's first self-monitoring event data.

I have also enclosed the Compliance Telephone Memorandum (CTM) detailing the violation for late report and failure to sample during monitoring period. The CTM is the first level of enforcement for violation of conditions of the permit (17.34.110 (a)(1)) in the City's DEQ approved pretreatment program and associated enforcement response plan. If you have any additional questions regarding the requirements and authority of a pretreatment program please see 40 CFR 403.8 Pretreatment Program Requirements : Development and Implementation by POTW and/or City Code 17.34.

Respectfully

Stephen Rosenberger
Permit Manager

enclosures: (3)

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CITY OF PORTLAND
ENVIRONMENTAL SERVICES

Water Pollution Control Laboratory
6543 N. Burlington Ave., Portland, Oregon 97203-5452
(503) 823-5600

MUNICIPAL PRETREATMENT PROGRAM

INDUSTRIAL USER

COMPANY OFFICIAL SIGNATORY AUTHORIZATION

The undersigned person has been designated by Cascade General Portland, Oregon as the duly authorized representative with the assigned responsibility for environmental matters and compliance with the firm's City of Portland Waste Water Discharge Permit (#400.124)and the Code of the City of Portland.

This authorization is made pursuant to 40 CFR 403.12(l)(1-3).

DESIGNEE: _____
name

_____
position/title

RESPONSIBLE CORPORATE OFFICIAL: _____
print name here

_____
signature here

40 CFR 403.12(l)(4)

If an authorization under paragraph (l)(3) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, or overall responsibility for environmental matters for the company, a new authorization satisfying the requirement of paragraph (l)(3) of this section must be submitted to the Control Authority prior to or together with any reports to be signed by an authorized representative.

CITY OF PORTLAND ENVIRONMENTAL SERVICES

Water Pollution Control Laboratory
6543 N. Burlington Ave., Portland, Oregon 97203-5452
(503) 823-5600

Expiration Date : 12/31/02
Permit Number: 400.124
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WASTEWATER DISCHARGE PERMIT

ISSUED TO:	Cascade General
SIC CODE:	3731
PLANT TYPE:	Ship Repair Yard
EPA CATEGORY:	400 General
LOCATION:	5555 N.Channel Ave. Portland, Oregon 97217
MAILING ADDRESS:	5555 N. Channel Ave. Portland, Oregon 97217
RESPONSIBLE OFFICIAL:	Wayne Cozad
PHONE NUMBER:	(503) 285-1111
FAX NUMBER:	
APPLICATION FEE RECEIVED:	11/96
EXPIRATION DATE:	12/31/02

INDUSTRIAL SOURCE CONTROL MANAGER — Gerald W. Baumgartner — 12-23-97 Effective Date

PREPARED BY: SDR
CHECKED BY : MAS

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INTRODUCTION

PERMITTED ACTIVITIES

The permittee is authorized to discharge industrial wastewater to the City of Portland's sewer system in compliance with Chapter 17.34 of the City Code, the Bureau of Environmental Services Administrative Rules and any applicable provisions of federal or state laws or regulations and in accordance with discharge point(s), effluent limitations, monitoring requirements, and all other conditions set forth herein.

It is the permittee's duty to comply with all conditions of this permit. Any noncompliance with permit requirements constitutes a violation of Chapter 17.34 of Portland's City Code and, as such, subjects the permittee to enforcement action(s).

Expiration Date:	12/31/02
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Schedule A
WASTEWATER DISCHARGE LIMITATIONS

Listed below are the waste discharge limitations not to be exceeded after **the permit effective date.** Applicable regulations include Chapters 17.34 and 17.36 of the Code of the City of Portland. The point of compliance with the discharge limitations shall be 1A (manhole near guard shack at facility entrance)

	Pollutant	Daily Maximum Concentration (mg/l)	Monthly Average Concentration mg/L
	Metals		
	Arsenic (total)	0.3	
*	**Cadmium (total)**	**0.7**	
*	**Chromium (total)**	**3.8**	
*	**Copper (total)**	**2.3**	
	Cyanide (total)	1.2	
*	**Lead (total)**	**0.7**	
	Mercury (total)	0.014	
*	**Nickel (total)**	**3.0**	
	Silver (total)	0.4	
*	Zinc (total)	4.0	
	Non-Metals		
	Ammonia	50	
*	**Chlorinated Hydrocarbons**	**0.5**	
*	**Fats Oil and Grease**		
	(non-polar)	**100.0**	
	(polar)	**500.0**	
*	**pH (range)**	**5.5 - 11.5 S.U.**	
	Phenolics	1.0	
	Sulfate	500.0	
	Sulfide	50.0	
	Closed Cup Flash Point	Discharges <140 F prohibited	

Notes:

1. This schedule may be revised upon written notification by the City to accommodate process changes by the permittee or as determined by the Director of Environmental Services.

2. In addition to the limits stated in Schedule A, the permittee shall comply with all other applicable City, State and Federal regulations.

3. The pollutant parameters marked with an asterisk (*) are the pollutants of concern. At a minimum, the permittee is required to monitor for pollutants of concern. All limits are applicable at the point of compliance.

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Revised : March 19, 1998

Schedule B
MONITORING AND REPORTING REQUIREMENTS

I. Final Compliance report (samples for analysis to be taken within the first 90 days of operation after the issuance of this permit):

Parameter	Sample Type	First Quarter: Jan	Feb	Mar	Second Quarter: Apr	May	Jun	Third Quarter: Jul	Aug	Sept	Fourth Quarter: Oct	Nov	Dec
	Composite		✓	✓	✓								
	Composite		✓	✓	✓								
	Composite		✓	✓	✓								
	Composite		✓	✓	✓								
	Composite		✓	✓	✓								
	Composite		✓	✓	✓								
	Composite		✓	✓	✓								
	Composite		✓	✓	✓								
	Composite		✓	✓	✓								
	Grab		✓	✓	✓								
	Grab		✓	✓	✓								
	Grab		✓	✓	✓								
	Grab												
	Grab		✓	✓	✓								
	Grab		✓	✓	✓								
		Feb 15	Mar 15	Apr 15	May 15	Jun 15	Jul 15	Aug 15	Sept 15	Oct 15	Nov 15	Dec 15	Jan 15

I. Final Compliance Report, Notes:

1. A Final Compliance Report (FCR) as per Section 17.34.060 (a)(4)(c)(b) is to be submitted the 15 of the month following the FCR.

2. Any industrial discharger subject to final Compliance Report requirements shall submit to the Industrial Source Control Division a report indicating the nature and concentration of all prohibited or regulated substances contained in its discharge and average and maximum daily flow in gallons. The report shall state whether the applicable pretreatment standards or requirements are being met on a consistent basis and, if not, what additional operation, maintenance and pretreatment is necessary to bring the discharges into compliance.

3. All official sampling shall be taken at the approved Sampling Location (see Appendix 2)

Schedule B
MONITORING AND
REPORTING REQUIREMENTS

4. The permittee shall analyze samples for all listed parameters plus any other which might be expected to be present in significant quantities.

5. The permittee shall submit all self-monitoring results to the Industrial Source Control Division (see page B3) on form 13-1A as part of their monitoring and reporting requirements.

6. Self monitoring reports shall include signed and completed Chain of Custody forms.

7. The permittee should instruct its laboratory that, if the oil and grease (total) concentration exceeds 100 mg/L, the laboratory should determine the concentrations of the polar and non-polar oil and grease fractions.

8. The percent LEL shall be measured in the airspace immediately above the discharge point on every sampling.

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Schedule B
MONITORING AND
REPORTING REQUIREMENTS

II. Periodic Compliance Self-Monitoring Report

Parameter	Sample Type	First Quarter Jan	Feb	Mar	Second Quarter Apr	May	Jun	Third Quarter Jul	Aug	Sept	Fourth Quarter Oct	Nov	Dec
	Composite	✓			✓			✓			✓		
	Composite	✓			✓			✓			✓		
	Composite	✓			✓			✓			✓		
	Composite	✓			✓			✓			✓		
	Composite	✓			✓			✓			✓		
	Composite	✓			✓			✓			✓		
	Composite	✓			✓			✓			✓		
	Composite	✓			✓			✓			✓		
	Grab	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Grab	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Grab	✓						✓					
	Grab	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Grab	✓			✓			✓			✓		
		Feb 15	Mar 15	Apr 15	May 15	Jun 15	Jul 15	Aug 15	Sept 15	Oct 15	Nov 15	Dec 15	Jan 15

II. Periodic Compliance Self-Monitoring Report, Notes:

1. Periodic Compliance Reports are to be submitted to the Industrial Source Control Division by the 15th of the month following the conclusion of the reporting period. Sampling, analysis, and reporting will follow the schedule above.

2. All official sampling shall be taken at the approved sampling location. (See Appendix 2: sampling location map.)

3. The permittee shall analyze samples for all listed parameters plus any other which might be expected to be present in significant quantities.

4. The permittee shall submit all self-monitoring results to the Industrial Source Control Division as part of their monitoring and reporting requirements.

Schedule B
MONITORING AND REPORTING REQUIREMENTS

5. All monitoring results are to be mailed to:

   Industrial Source Control Division
   Bureau of Environmental Services
   City of Portland
   6543 N. Burlington Ave.
   Portland, OR 97203

6. Periodic Compliance Reports are to be submitted by the 15th of each month following the report period for each sampling location. The reports shall consist of:

   a. Statement of compliance/noncompliance, signed by the officially designated contact person (statement is found on bottom of the self-monitoring report form).

   b. Sample analysis results recorded on the appropriate self-monitoring report form and chain of custody for sample collected.

   c. Originals of all laboratory analysis sheets showing who analyzed sample, date and time sample was analyzed, analytical methods used, method detection limit, test result, and quality assurance/quality control.

   d. Copies of pH charts (if any) showing violations (if any).

   e. Any other reports that may be required.

   f. Calculations of monthly average, if appropriate.

7. The permittee should instruct its laboratory that, if the oil and grease (total) concentration exceeds 100 mg/L, the laboratory should determine the concentrations of the polar and non-polar oil and grease fractions.

8. The City may reduce or increase the frequency of sampling, based on the analytical results submitted.

9. As per 40 CFR 403.12(g)(5), if an industrial user subject to the reporting requirements of Schedule B monitors any parameter from the official sampling location more frequently than required, using procedures specified in Schedule E14(c), the results of their monitoring must be submitted in the required report.

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Schedule C
COMPLIANCE SCHEDULE

1) Cascade General shall submit documentation certifying calibration of the discharge meter located in the sampling manhole near the facilities entrance. This documentation shall be submitted by April 30 1998

2) Cascade General is to submit an Accidental Spill Prevention Plan ASPP) by April 30, 1998

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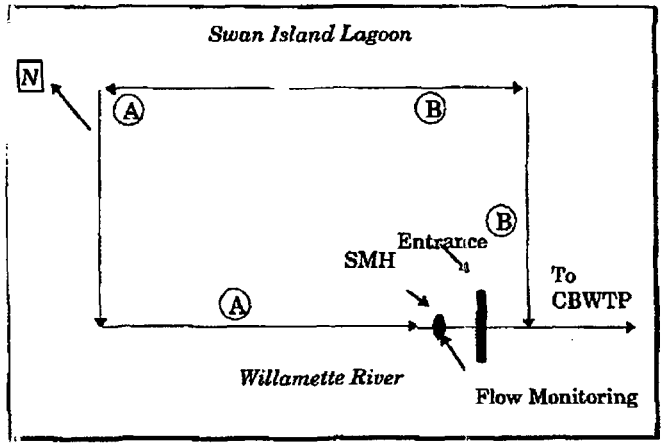
Schedule D
SPECIAL CONDITIONS

1) Cascade General is permitted to discharge septage from vessels to the section of Cascade's sanitary sewer labeled A and B without prior authorization from the Industrial Source Control Division (ISCD)



2) Cascade General is permitted to discharge tank hydrotest water under the condition that the water contains no free product as characterized by the presence of a visible sheen. This water is authorized to be discharged to the to the section of the sewer labeled A without prior authorization from the ISCD.

3) Any other on ship process water that is to be discharged to any portion of Cascade's sewer system must first receive authorization from the ISCD. These discharges will be treated as batch discharge requests and may require separate monitoring as perscribed by ISCD

4) Proposed discharges from Cascade's ballast water treatment plant must first receive authorization and monitoring parameters from the ISCD.

Schedule E
GENERAL CONDITIONS

1. Accidental Spill Prevention Plan

To comply with Section 17.34.090 of the City Code, the permittee shall submit a new or revised Accidental Spill Prevention Plan (ASPP) to the Industrial Wastewater Management Section 90 days after the effective date of this permit. The plans shall include the following elements.

a. A description of the hazardous substances handled and their potential points of entry into the City sewer system or storm runoff

b. A description of the measures to be taken to prevent entry at the described points before a spill occurs

c. Measures to be taken to contain a spill if one occurs

d. A description of employee training in the prevention and control of spills

e. A posted notice informing employees of the requirement to notify the Bureau of Environmental Services in case of spills or uncontrolled discharges.

2. Appeal

Upon receipt of a final industrial wastewater discharge permit, a permittee may appeal any of its terms or conditions to the Code Hearings Officer in accordance with procedures set out at Chapter 22.10 of the Portland City Code; provided that such an appeal shall include a copy of the permit that is the subject of the appeal, shall state the basis for the appeal, and shall be filed with the Code Hearings Officer and the Bureau of Environmental Services.

3. Authorized Discharge

All discharge and activities authorized herein shall be consistent with the terms and conditions of this permit, Chapter 17.34 of the City Code and the Administrative rules. The discharge of any pollutant in excess of these limits shall constitute a violation of the terms and conditions of this permit.

4. Bypass or Diversion

The diversion or bypass (the intentional diversion of wastestreams from any portion of a permittee's treatment facility) of any discharge, from facilities used by the permittee, to maintain

compliance with the terms and conditions of this permit is prohibited except:

a. When unavoidable to prevent loss of life or severe property damage.

b. When excessive storm drainage or runoff would damage facilities necessary for compliance with the terms and conditions of this permit.

4. Bypass or Diversion (continued)

The permittee shall immediately notify the City in writing of each such diversion or bypass, in accordance with the procedure specified in condition No. 23.

5. Certification

Legible copies of all applications, reports, and information submitted to the City shall be signed and certified as follows in accordance with 40 CFR 403.12.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

6. Chemical Storage

Chemicals shall be stored in a manner that will prevent the entry of these substances into the sanitary, combined sewer, or storm sewer system, or waters of the state.

7. Continuous Compliance

Compliance with Schedule E, No. 23 shall not relieve the permittee from responsibility to maintain continuous compliance with the conditions of this permit.

8. Dilution Prohibition

It is unlawful for a discharger to use dilution as a partial or complete substitute for adequate treatment to achieve compliance with the standards and limitations set forth in this permit. The Director may impose mass limitations on dischargers who are using dilution to meet the applicable pretreatment standards or the requirement set forth in this permit.

9. Enforcement Provision

A violation of any conditions, standards or requirements of this permit constitutes a violation of Chapter 17.34 of the City Code and any rules promulgated thereunder. Therefore, the City may seek any or all of the remedies or penalties provided for in Section 17.34.110 of the City Code, including recovery of costs incurred by the City, in response to the following:

a. Any violation by the permittee of the provisions in this Industrial Wastewater Discharge Permit.

b. Any violation by the permittee of the provisions of the City Code.

9. Enforcement Provision (continued)

c. Any violation by the permittee of an Enforcement Action requirement with respect to provisions set forth in this Industrial Wastewater Discharge Permit and the City Code and Administrative Rules.

The range or severity of enforcement actions taken by the City against the permittee will be determined by, but not limited to, the nature, magnitude, duration, and frequency of the violation as provided by City Code and Administrative Rules.

10. Extra-Strength Sewer Charge (ESSC)

Discharges exceeding 300 mg/L for the 5-day biochemical oxygen demand (BOD) or 350 mg/L total suspended solids (TSS) concentrations (as defined in Section 17.36.060(1) of the City Code) shall be subject to the extra-strength sewer charge (ESSC) established in Section 17.36.060(1).

11. Hazardous Waste Notification

The industrial user shall notify the Industrial Source Control Division Section, the POTW, the EPA Regional Waste Management Division Director, and State hazardous waste authorities in writing of any discharge into the POTW of a substance, which, if otherwise disposed of, would be a hazardous waste under 40 CFR Part 261. Such notification must include the name of the hazardous waste as set forth in 40 CFR Part 261, the EPA hazardous waste number, and the type of discharge (continuous, batch, or other). If the industrial user discharges more than 100 kilograms of such waste per calendar month to the POTW, the notification shall also contain the following information to the extent such information is known and readily available to the industrial user: an identification of the hazardous constituents contained in the wastes, an estimation of the mass and concentration of such constituents in the wastestream discharged during that calendar month, and an estimation of the mass of constituents in the wastestream expected to be discharged during the following 12 months.

12. Inspection and Entry

The permittee shall, at all reasonable times, allow authorized representatives of the City:

a. To enter the permittee's premises where an effluent source or disposal system is located or where any records associated with this permit are kept.

b. To have access to any required records and permission to copy these records. At no time can wastewater effluent data be claimed or held as confidential information.

c. To inspect and evaluate any monitoring equipment or monitoring methods required by this permit.

d. To sample any discharge to the sewer system.

13. **Liability**

The City of Portland, its officers, agents or employees shall not sustain any liability due to the issuance of this permit or the construction or maintenance of facilities resulting from this permit.

14. **Monitoring**

a. The permittee shall record the following information:

* The exact date, time, and place of sampling
* Name of person who collected the sample(s)
* Type of sample(s) collected
* The dates analyses were performed
* Who performed the analyses
* The analytical techniques or methods used
* The results of all required analyses
* Whether quality assurance and quality control laboratory procedures are followed

b. Samples and measurements, taken to meet the requirements of the above condition, shall be representative of the effluent. Grab samples must be collected for pH, cyanide, phenol, sulfide, volatile organic compounds and oil and grease monitoring.

c. All sampling and analytical methods used to meet the monitoring requirements specified in this permit shall, unless otherwise approved in writing by the City, conform to the Guidelines Establishing Test Procedures for the Analysis of

Pollutants as specified in 40 CFR, Part 136. Laboratory quality assurance and quality control programs should be documented. EPA QA/QC programs should be followed.

d. The permittee is required to document proper installation, and maintenance of flow monitoring and sampling equipment.

e. If the results of the permittee's wastewater analysis indicate that a noncompliance has occurred, the permittee must notify the City's Industrial Source Control Division Section within 24 hours of becoming aware of the noncompliance. The permittee must also repeat the sampling within 24 hours of the effluent noncompliance or next process day and submit the analysis to the City within 30 days after becoming aware of the noncompliance.

14. Monitoring (continued)

f. The permittee shall take all reasonable steps to minimize or correct any adverse impact to the POTW or the environment resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

g. If requested, the permittee shall provide or split discharge samples with the City of Portland Water Pollution Control Laboratory.

15. Permit Modification

This permit may be modified with 30 days prior written notification, in whole or in part, for causes including but not limited to the following:

a. A change in the City's NPDES permit or any other condition that requires either a temporary or permanent elimination of any authorized discharge.

b. To incorporate new or revised federal, state, or local pretreatment standards or requirements.

c. Information indicating that the permitted discharge poses a threat to the City's collection and treatment system, POTW personnel, or the receiving waters and sludge.

d. To correct typographical or other errors in the permit.

e. Any significant change in the volume of a permitted discharge.

16. Permit Renewal

This permit is issued to a specific entity and cannot be transferred by the industrial user and must be renewed pursuant to Section 17.34.070 of the Code of the City of Portland and Permit Applications must be received 90 days prior to:

a. Expiration date of current permit.

b. In the event the permittee plans to cease operations at the present location, and plans to relocate within the City of Portland's jurisdiction and continue the same permitted activities.

c. The permitted industrial process being significantly altered or changed so that pollutants not specifically mentioned in the current permit are present in the permittee's discharge.

17. Permit Suspension or Termination

a. Violation of any terms or conditions of this permit or any applicable rule, standard, or order of the director of the Bureau of Environmental Services.

17. **Permit Suspension or Termination (continued)**

b. Obtaining this permit by misrepresentation or failure to fully disclose all relevant facts.

c. Falsifying self-monitoring reports.

d. Tampering with monitoring equipment.

e. Refusing to allow prompt access to the facility premises and records.

f. Failure to meet effluent limitations.

g. Failure to pay fines.

h. Failure to meet compliance schedules.

18. **Plant Closure**

In the event the permittee plans to cease operations at the present business location, and not to relocate within the City of Portland's jurisdiction, the permittee shall inform this office, in writing, 60 days prior to plant closure.

19. **Property Rights or Privileges**

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges; it does not authorize any injury to private property or any invasion of personal rights; and it does not authorize any infringements or federal, state, or local laws or regulations.

20. **Records Retention**

All records of monitoring activities and results, including all original strip chart recordings for continuous monitoring instrumentation (and calibration and maintenance records), shall be retained by the permittee for a minimum of three years. This retention period shall be extended during the course of any unresolved litigation pertaining to the discharge of pollutants by the permittee, or whenever it is requested by the City, the Approval Authority (DEQ), the Regional Administrator (EPA).

21. **Reporting Requirements**

a. Accidental or Slug Loading

The permittee shall notify the City immediately, either in person or by telephone (Duty Officer Pager # 323-3398 and Lead Operator CBWTP # 823-2530), if accidental or slug loading to the sanitary sewer occurs. A formal written report, discussing circumstances and remedies, shall be submitted to the City within 5 days of the occurrence.

21. Reporting Requirements (continued)

b. Changes in Wastewater Characteristics

The permittee shall give notice to the Industrial Source Control Division Section 90 days before any facility expansion, production increase, or process modifications that result in new or substantially increased discharges or a change in the nature of the discharge.

c. Change in representative

If the responsible corporate official changes, notify the City within 10 days, as per 40 CFR 403.12 (1) (4).

22. Severability

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to the other circumstances and the remainder of this permit shall not be affected.

23. Slug Load Notification

If the permittee is unable to comply with all the conditions of this permit due to a breakdown of equipment or facilities, an accident caused by human error or negligence, or any other cause such as an act of nature, or should any condition cause the release of any slug load, the permittee shall:

a. Immediately take action to stop, contain, clean up the unauthorized discharges, and correct the problem.

b. Immediately call the Lead operator of the Columbia Boulevard Wastewater Treatment Plant (823-2530) so that plant personnel can evaluate the impact of the discharge and take corrective action. Notify Industrial Source Control by calling the Duty Officer, pager # 323-3398.

c. Within five (5) days submit a detailed written initial report to the City describing the breakdown, the actual quantity of resultant waste discharges, the corrective action taken, the steps taken to prevent recurrence, and any other pertinent information.

Samples shall be taken immediately upon discovery of the Slug load. Within 15 days, a follow-up report shall be submitted. The report shall contain analysis of samples taken during such discharge and samples taken after normal conditions have been restored. The samples, at a minimum, shall be analyzed for the parameters required in Schedule B. Sampling shall be continued until all parameters are within discharge limits.

24 **Upset**

a. Definition:

For the purposes of this section, upset means an exceptional incident in which there is unintentional and temporary noncompliance with applicable pretreatment standards, because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. Effect of an Upset:

An upset will constitute an affirmative defense to an action brought for noncompliance with applicable pretreatment standards, if the requirements of paragraph c are met.

c. Conditions Necessary for a Demonstration of an Upset:

A permittee who wishes to establish the affirmative defense of an upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An upset occurred and the permittee can identify the specific cause(s) of the upset.

(2) The facility was, at the time, being operated prudently, efficiently, and in compliance with applicable operation and maintenance procedures.

(3) The permittee has submitted the following information to the Industrial Source Control Division within 24 hours of becoming aware of the upset (if this information is provided orally, a written submission must be provided within 5 days).

* A description of the indirect discharge and cause of noncompliance

* The period of noncompliance, including exact dates and times or, if not corrected, the anticipated duration of noncompliance

* Steps planned or now being taken to reduce, eliminate, and prevent recurrence of the noncompliance

d. Burden of Proof

In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset shall have the burden of proof.

e. Permittee Responsibility in Case of an Upset.

24. Upset (continued)

If reduction, loss, or failure of its treatment facility occurs, the permittee shall control production of all discharges in order to maintain compliance with applicable pretreatment standards until the facility is restored or an alternative method of treatment is provided. This requirement especially applies if the primary source of the treatment facility power is reduced, lost, or failed.

Appendix 1
DEFINITIONS

Abbreviations

BOD_5	Five-day biochemical oxygen demand
mg/L	Milligrams per liter
kg	Kilograms
m^3/d	Cubic meters per day
ppm	Parts per million (assumed equal to milligrams per liter)
POTW	Publicly owned treatment works
WPCL	Water Pollution Control Laboratory

Averages for BOD, TSS, and chemical parameters are based on arithmetic mean of samples taken.

Definitions

Bypass

The intentional diversion of wastestreams from any portion of a permittee's treatment facility..

Compatible Pollutant

Biochemical oxygen demand, suspended solids, pH and fecal coliform bacteria, and additional pollutants that the City treatment works is designed to treat.

Conventional Pollutants

Classification of industrial pollutants, which includes BOD (biochemical oxygen demand), suspended solids, fecal coliform, pH (acidity/alkalinity), and other pollutants so designated by EPA, as defined by Section 304(a)(4) of the Clean Water Act.

Director of Environmental Services

The Director of Environmental Services of the City of Portland, Oregon, or that person's duly authorized representative or agent.

City, or City of Portland

The municipality of Portland, Oregon, a municipal corporation of the State of Oregon, acting through the City Council or any board, committee, body, official, or person to whom the Council shall have lawfully delegated the power to act on behalf of the City. Unless a particular board, committee, official, or person is specifically designated in these rules and regulations, wherever action by the City is explicitly required or implied herein, it shall be understood to mean action by the Director of Environmental Services of Portland, Oregon, or that person's duly authorized representative or agent.

Effective Date of this Permit

The date this permit is signed by the Director of the Bureau of Environmental Services.

Expiration Date

From 1 to 5 years beyond the effective date of this permit.

Hazardous or toxic substances

Hazardous or toxic substances are those substances referred to in section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (42 U.S. Code 9601 et seq.), section 502(13) of the Clean Water Act, and any other substances so designated by the Director of Environmental Services and contained in rules adopted pursuant to this Chapter.

Industrial Waste

Any liquid, solid, or gaseous substance (or combination thereof) resulting from any process of industry, manufacturing, commercial food processing, business, agriculture, trade, or research, including but not limited to the development, recovery, or processing of natural resources and leachate from landfills or other disposal sites.

Industrial Wastewater Discharge Permit

A permit to discharge industrial wastewater into the City sewer system issued under the authority of the City Code, which prescribes certain discharge requirements and limitation.

Interference

Interference means a discharge which, alone or in conjunction with a discharge or discharges from other sources, inhibits or disrupts the normal operation of the City sewer system, or which causes a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or any increase in the cost of treatment of sewage or in the cost of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations); Section 405 of the Clean Water Act, the Solid Waste Disposal Act (including Title II, more commonly referred to as the Resource Conservation and Recovery Act), and including State regulations contained in any State sludge management plan prepared pursuant to Subtitle D of RCRA, the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

Maximum Daily Discharge Limitation

The highest allowable daily discharge.

Non conventional Pollutants

All pollutants that are not specifically designated as either conventional or toxic.

Oil and Grease

Fats, Oils and Grease. Fats, oils and grease are those substances which are measured by USEPA Method 1664: N-Hexane Extractable Method (HEM) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM).

(a) Non-polar fats, oils and grease are that portion of fats, oils and grease which is measured as non-polar (from petroleum sources) by USEPA Method 1664.

(b) Polar fats, oils and grease are that portion of fats, oils and grease which is determined to be polar (of animal or vegetable origin) by USEPA Method 1664.

Pass Through

Pass through means a discharge which exits the POTW into waters of the United States in Quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

Phenolics

Phenol and cresol compounds identified in Method #625, "Manual for Methods for Chemical Analysis of Water and Wastes," U.S. Environmental Protection Agency, or equivalent method from other references cited in 40 CFR 136, "Guidelines Establishing Test Procedures for Analysis of Pollutants."

POTW

POTW means Publicly Owned Treatment Works, which includes any devices and systems, owned by a State or municipality, used in the collection, transportation, storage, treatment, recycling and reclamation of wastewater.

Pretreatment

The reduction of the amount of pollutants, the elimination of pollutants, or the alternation of the nature of pollutant properties in wastewater to a non-harmful state, prior to or in lieu of discharge of such pollutants into the City sewer system.

Sampling

a. The "monthly average" other than pH is the arithmetic mean of samples collected curing a calendar month.

b. The "daily maximum" is defined as the greatest allowable value for any calendar day.

c. A "24-hour composite" sample shall mean a flow-proportioned mixture of not less than eight discrete aliquots. Each aliquot shall be a grab sample of not less than 100 ml and shall be collected and preserved in accordance with 40 CFR part 136 and amendments.

d. A "Grab" sample is an individual sample collected in less than 15 minutes, without regard for flow or time.

e. A "Grab-Composite" is a minimum of four grab samples collected and preserved over a 24-hour period and combined to provide a representative sample of effluent being discharged.

Schedule of Compliance

A schedule of remedial measures, including an enforceable sequence of actions or operations leading to compliance with an effluent limitation or other limitation, prohibition, or standard.

Severe Property Damage

Substantial physical damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

Slugload

A slugload is any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge.

Solid Waste

Any garbage, refuse, or sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to permits.

Solid Waste Disposal

The final placement of refuse that cannot be salvaged or recycled.

Solvent Management Plan

A plan that specifies the toxic organic compounds used, the method of disposal used (instead of dumping into wastestreams), and procedures for ensuring that toxic organics do not spill or leak into wastewater discharged to the City sewer system.

CITY OF PORTLAND
ENVIRONMENTAL SERVICES

Water Pollution Control Laboratory
6543 N. Burlington Ave., Portland, Oregon 97203-5452
(503) 823-5600

WASTEWATER DISCHARGE PERMIT

ISSUED TO:	Vigor Industrial, LLC
SIC CODE:	3731
PLANT TYPE:	Centralized Waste Treatment, Shipyard
EPA CATEGORY:	40 CFR 437
LOCATION:	5555 N. Channel Avenue Portland, Oregon 97217
MAILING ADDRESS:	5555 N. Channel Avenue Portland, Oregon 97217
RESPONSIBLE OFFICIAL:	Mr. T. Alan Sprott
PHONE NUMBER:	(503) 247-1672
FAX NUMBER:	(503) 247-6050
EXPIRATION DATE:	12/28/12

INDUSTRIAL SOURCE CONTROL MANAGER

for Gerald W. Baumgartner — 5/13/08 Effective Date

PREPARED BY: WCM
CHECKED BY: MAS

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INTRODUCTION

PERMITTED ACTIVITIES

The permittee is authorized to discharge industrial wastewater to the City of Portland's sewer system in compliance with Chapter 17.34 of the City Code, the Bureau of Environmental Services Administrative Rules and any applicable provisions of federal or state laws or regulations and in accordance with discharge point(s), effluent limitations, monitoring requirements, and all other conditions set forth herein.

It is the permittee's duty to comply with all conditions of this permit. Any noncompliance with permit requirements constitutes a violation of Chapter 17.34 of Portland's City Code and, as such, subjects the permittee to enforcement action(s).

Schedule A
WASTEWATER DISCHARGE LIMITATIONS

Listed below are the waste discharge limitations not to be exceeded after **the permit effective date.** Applicable regulations include Chapters 17.34 (Schedule F of this permit lists the General Discharge Prohibitions) and 17.36 of the Code of the City of Portland and 40 CFR 403. The point of compliance with the discharge limitations shall be **main gate flume - sample location 1A..**

POC (*)	Pollutant Name	Local Limit Daily Max (mg/L)	Categorical Limit (mg/L mg/L lb / off lb) Daily	Monthly
	METALS			
	Arsenic	0.2		
	Cadmium	0.7		
	Chromium	5.0		
*	Copper	3.7		
*	Lead	0.7		
	Mercury	0.010		
	Molybdenum	1.4		
	Nickel	2.8		
	Selenium	0.6		
	Silver	0.4		
*	Zinc	3.7		
	NON-METALS (INORGANICS)			
	Cyanide	1.2		
*	pH	5.0-11.5 su		
	NON-METALS (ORGANICS)			
	1,2-Dichloroethane	0.50		
	2,4-Dinitrotoluene	0.13		
	Acrylonitrile	1.00		
	Chlordane	0.03		
	Chlorobenzene	0.20		
	Chloroform	0.20		
	Nitrobenzene	2.00		
	Pentachlorophenol	0.04		
	Trichloroethylene	0.20		
*	Non-polar Oil & Grease	110		
	Total Toxic Organics	see note 7		

Schedule A
WASTEWATER DISCHARGE LIMITATIONS

II. *Centralized Waste Treatment (CWT) - Subcategory B - Oils*

Listed below are the waste discharge limitations not to be exceeded after **the permit effective date.** Applicable regulations include Chapters 17.34 and 17.36 of the Code of the City of Portland and 40 CFR 437.25. The point of compliance with the discharge limitations shall be **sample location - CWT2B.**

POC (*)	Pollutant Name	Local Limit Daily Max (mg/L)	Categorical Limits (mg/L) Daily	Monthly
	METALS			
*	Antimony (T)		0.237	0.141
	Arsenic (T)	0.2		
*	Barium (T)		0.427	0.281
	Cadmium (T)	0.7		
*	Chromium (T)	5.0	0.947	0.487
*	Cobalt (T)		56.4	18.8
*	Copper (T)	3.7	0.405	0.301
*	Lead (T)	0.7	0.222	0.172
*	Mercury (T)	0.010		
*	Molybdenum (T)	1.4		
*	Nickel (T)	2.8		
	Selenium (T)	0.6		
*	Silver (T)	0.4		
*	Tin (T)		0.249	0.146
*	Zinc (T)	3.7	6.95	4.46
	NON-METALS (INORGANICS)			
*	Cyanide	1.2		
*	pH	5.0-11.5 su		
	NON-METALS (ORGANICS)			
*	1,2-Dichloroethane	0.50		
	2,4-Dinitrotoluene	0.13		
*	Acrylonitrile	1.00		
*	Bis (2-ethylhexhyl) phthalate		0.267	0.158
*	Carbazole		0.392	0.233
	Chlordane	0.03		
*	Chlorobenzene	0.20		
	Chloroform	0.20		
*	n-Decane		5.79	3.31
*	Fluoranthene		0.787	0.393
*	Nitrobenzene	2.00		
*	n-Octadecane		1.22	0.925
*	Pentachlorophenol	0.04		
	Trichloroethylene	0.20		
*	Non-polar Oil & Grease	110		

Schedule A
WASTEWATER DISCHARGE LIMITATIONS

III. CWT - Subcategory A - Metals

Listed below are the waste discharge limitations not to be exceeded after **the permit effective date.** Applicable regulations include Chapters 17.34 and 17.36 of the Code of the City of Portland and 40 CFR 437.15. The point of compliance with the discharge limitations shall be **sample location - CWT2A.**

POC (*)	Pollutant Name	Local Limit Daily Max (mg/L)	Categorical Limit (mg/L) Daily	Monthly
	METALS			
*	Antimony (T)		**0.249**	**0.206**
*	Arsenic (T)	0.2	0.162	0.104
*	Cadmium (T)	0.7	**0.474**	**0.0962**
*	Chromium (T)	5.0	15.5	3.07
*	Cobalt (T)		**0.192**	**0.124**
*	Copper (T)	3.7	4.14	1.06
*	Lead (T)	**0.7**	1.32	**0.283**
*	Mercury (T)	0.010	0.00234	0.000739
*	Molybdenum (T)	**1.4**		
*	Nickel (T)	2.8	3.95	1.45
*	Selenium (T)	**0.6**	1.64	**0.408**
*	Silver (T)	0.9	0.320	0.0351
*	Tin (T)		**0.409**	**0.120**
*	Titanium (T)		0.0947	0.0618
*	Vanadium (T)		**0.218**	**0.0662**
*	Zinc (T)	3.7	2.87	0.643
	NON-METALS (INORGANICS)			
*	Cyanide	1.2	500	178
*	pH	**5.0-11.5 su**		
	NON-METALS (ORGANICS)			
	1,2-Dichloroethane	0.50		
	2,4-Dinitrotoluene	**0.13**		
	Acrylonitrile	1.00		
	Chlordane	**0.03**		
	Chlorobenzene	0.20		
	Chloroform	**0.20**		
	Nitrobenzene	2.00		
	Pentachlorophenol	**0.04**		
	Trichloroethylene	0.20		
*	Non-polar Oil & Grease	**110**		

Schedule A
WASTEWATER DISCHARGE LIMITATIONS

IV. Specialty Finishes - Metal Finishing

Listed below are the waste discharge limitations not to be exceeded after **the permit effective date.** Applicable regulations include Chapters 17.34 and 17.36 of the Code of the City of Portland and 40 CFR 433.17. The point of compliance with the discharge limitations shall sample location - **3A.**

POC (*)	Pollutant Name	Local Limit Daily Max (mg/l)	Categorical Limit (mg/l) Daily	Monthly
	METALS			
	Arsenic	0.2		
*	**Cadmium**	0.7	**0.11**	**0.07**
*	**Chromium**	5.0	2.77	1.71
*	**Copper**	3.7	**3.38**	**2.07**
*	**Lead**	0.7	0.69	0.43
	Mercury	0.010		
	Molybdenum	1.4		
*	**Nickel**	**2.8**	3.98	**2.38**
	Selenium	0.6		
*	Silver	0.4	0.43	0.24
*	Zinc	3.7	2.61	1.48
	NON-METALS (INORGANICS)			
*	Cyanide	1.2	1.2	0.65
*	pH	5.0-11.5 SU		
	NON-METALS (ORGANICS)			
	1,2-Dichloroethane	0.50		
	2,4-Dinitrotoluene	0.13		
	Acrylonitrile	1.00		
	Chlordane	0.03		
	Chlorobenzene	0.20		
	Chloroform	0.20		
	Nitrobenzene	2.00		
	Pentachlorophenol	0.04		
	Trichloroethylene	0.20		
	Non-polar Oil & Grease	110		
*	Total Toxic Organics	see notes 6 & 7	2.13	

Notes:

1. This schedule may be revised upon written notification by the City to accommodate process changes by the permittee or as determined by the Director of Environmental Services.

2. In addition to the limits stated in Schedule A, the permittee shall comply with all other applicable City, State and Federal regulations.

3. The pollutant parameters marked with an asterisk (*) are the pollutants of concern. At a minimum, the permittee is required to monitor for pollutants of concern. All limits are applicable at the point of compliance.

4. The permittee is required to meet the MOST stringent limitation listed, denoted in bold type in the above table, when comparing the *Local Limit* column with the *Categorical Limit* column.

5. The City has Pollutant Prohibitions for certain individual organic compounds that are not amenable to biological treatment or that have a screening value or local limit that is less than the practical method detection level (MDL). Discharges containing concentrations of a prohibited pollutant above the MDL, as listed in Appendix 5, is a violation of City Code and this permit.

6. The permittee may request that no self-monitoring for TTO be required, provided that the permittee submits a Toxic Organics Management Plan (TOMP) and certifies, at a minimum of twice per year that: "Based on my inquiry of the person or persons directly responsible for managing compliance with the pretreatment standard for total toxic organics (TTO), I certify that to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewater has occurred since filing the last discharge monitoring report. I further certify that this facility is implementing the toxic organics management plan submitted to the control authority."

7. The TTOs regulated by this limit are the sum of all quantifiable measurable values greater than or equal to 0.01 mg/L (10 ppb) for the pollutants listed in Appendix 4. The organic compounds regulated for your federal category appear underlined in the list. If the compounds are also pollutant prohibitions, under Chapter 17.34 of City Code, discharges containing concentrations above the MDL, as noted in parentheses in Appendix 4, is a violation of City Code and this permit.

Schedule B
MONITORING AND
REPORTING REQUIREMENTS

I. Periodic Compliance Self-Monitoring Report

(Main Gate Flume - Sample Location - 1A:

Parameter	Sample Type	First Quarter			Second Quarter			Third Quarter			Fourth Quarter		
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Metals													
Copper (total)	Composite		✓			✓			✓			✓	
Lead (total)	"		✓			✓			✓			✓	
Zinc (total)	"		✓			✓			✓			✓	
Non-Metals													
pH	Grab		✓			✓			✓			✓	
Oil and Grease (Non-Polar)	"		✓			✓			✓			✓	
Volatile Organic Compounds	"		✓			✓			✓			✓	
Due Dates		Feb 15	Mar 15	Apr 15	May 15	Jun 15	Jul 15	Aug 15	Sept 15	Oct 15	Nov 15	Dec 15	Jan 15

II. Periodic Compliance Self-Monitoring Report - (CWT - Subcategory B - Oils)

(Sample Location - CWT2B)

Parameter	Sample Type	Every Batch Discharge
Metals		
Antimony (total)	**Composite**	✓
Barium (total)	"	✓
Chromium (total)	"	✓
Cobalt (total)	"	✓
Copper (total)	"	✓
Lead (total)	"	✓
Molybdenum (total)	"	✓
Tin (total)	"	✓
Zinc (total)	"	✓
Non-Metals		
pH	**Grab**	✓
Oil and Grease (non-polar)	"	✓
Bis-2-ethylhexylphthalate	"	✓
Carbazole	"	✓
Fluoranthene	"	✓
Pentachlorophenol	"	✓
n-Decane	"	✓
n-Octadecane	"	✓
Batch Analytical Shall be Submitted to City Prior to Each Batch Discharge		

III. Periodic Compliance Self-Monitoring Report - (CWT - Subcategory A - Metals)

(Sample Location - CWT2A)

Parameter	Sample Type	Every Batch Discharge
Metals		
Antimony (total)	**Composite**	✓
Arsenic (total)	"	✓
Cadmium (total)	"	✓
Chromium (total)	"	✓
Cobalt (total)	"	✓
Copper (total)	"	✓
Lead (total)	"	✓
Mercury (total)	"	✓
Molybdenum (total)	"	✓
Nickel (total)	"	✓
Selenium (total)	"	✓
Silver (total)	"	✓
Tin (total)	"	✓
Titanium (total)	"	✓
Vanadium (total)	"	✓
Zinc (total)	"	✓
Non Metals		
Cyanide (total)	**Grab**	✓
pH	"	✓
Oil and Grease (non-polar)	"	✓
Batch Analytical Shall be Submitted to City Prior to Each Batch Discharge		

IV. Periodic Compliance Self-Monitoring Report (Specialty Finishes - Metal Finishing)

(Sample Location 3A)

Parameter	Sample Type	First Quarter			Second Quarter			Third Quarter			Fourth Quarter		
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Metals													
Cadmium (total)	**Composite**		✓			✓			✓			✓	
Chromium (total)	"		✓			✓			✓			✓	
Copper (total)	"		✓			✓			✓			✓	
Lead (total)	"		✓			✓			✓			✓	
Nickel (total)	"		✓			✓			✓			✓	
Silver (total)	"		✓			✓			✓			✓	
Zinc (total)	"		✓			✓			✓			✓	
Non-Metals													
pH	**Grab**		✓			✓			✓			✓	
Cyanide (total)	"		✓			✓			✓			✓	
Total Toxic Organics (TTO)	**Certification**		✓						✓				
Due Dates		**Feb 15**	**Mar 15**	**Apr 15**	**May 15**	**Jun 15**	**Jul 15**	**Aug 15**	**Sept 15**	**Oct 15**	**Nov 15**	**Dec 15**	**Jan 15**

Schedule B
MONITORING AND
REPORTING REQUIREMENTS

V. Periodic Compliance Self-Monitoring Report, Notes:

1. Periodic Compliance Reports are to be submitted to the Industrial Source Control Division by the 15th of the month following the conclusion of the reporting period. Sampling, analysis, and reporting will follow the schedule above.

2. All official sampling shall be taken at the approved sampling location. (See Appendix 2: sampling location map.)

3. The permittee shall analyze samples for all listed parameters plus any other which might be expected to be present in significant quantities.

4. The permittee shall submit all self-monitoring results to the Industrial Source Control Division as part of their monitoring and reporting requirements.

5. All monitoring results are to be mailed to:

   Industrial Source Control Division
   Bureau of Environmental Services
   City of Portland
   6543 N. Burlington Ave.
   Portland, OR 97203

6. Periodic Compliance Reports are to be submitted by the 15th of each month following the report period for each sampling location. The reports shall consist of:

   a. Statement of compliance/noncompliance, signed by the officially designated contact person (statement is found on bottom of the self-monitoring report form).

   b. Sample analysis results recorded on the appropriate self-monitoring report form and chain of custody for sample collected.

   c. Originals of all laboratory analysis sheets showing who analyzed sample, date and time sample was analyzed, analytical methods used, method detection limit, test result, and quality assurance/quality control.

   d. Copies of pH charts (if any) showing violations (if any).

   e. Any other reports that may be required.

   f. Calculations of monthly average, if appropriate.

Schedule B
MONITORING AND
REPORTING REQUIREMENTS

II. **Periodic Compliance Self-Monitoring Report** (Notes continued):

7. The permittee should instruct its laboratory that, if the oil and grease (total) concentration exceeds 110 mg/L, the laboratory should determine the concentrations of the polar and non-polar oil and grease fractions.

8. The City may reduce or increase the frequency of sampling, based on the analytical results submitted.

9. As per 40 CFR 403.12(g)(5), if an industrial user subject to the reporting requirements of Schedule B monitors any parameter from the official sampling location more frequently than required, using procedures specified in Schedule E14(c), the results of their monitoring must be submitted in the required report.

10. The permittee may either monitor for TTOs or submit a Toxic Organics Management Plan (TOMP) and certify that TTOs have not been discharged in the permittees wastewater and have been disposed of in accordance with the TOMP. **This certification only applies to Point of Compliance (POC) 3A.**

Schedule C
COMPLIANCE SCHEDULE

Not Applicable (optional)

Schedule D
SPECIAL CONDITIONS

I. CENTRALIZED WASTE TREATMENT (CWT)

Cascade General's Permit #437.003 contains pretreatment standards for CWT wastewater identified in 40 CFR Part 437 - Subcategory A (Metals) and B (Oils), which become effective December 22, 2003. Prior to this date, the discharge of CWT wastewater from Subcategory A and B shall meet the permit specific limits identified in Schedule A.

II. CONTINUOUS DISCHARGE

Cascade General is permitted to continuously discharge the following wastestreams: phosphating effluent from Specialty Finishes, dry dock treatment plant effluent (non-categorical), septage from vessels, boiler blow-down, and on-site domestic sewage.

III. BATCH DISCHARGE REQUIRED

All wastewater not permitted for continuous discharge must be batch discharged at the approval of the City's Industrial Source Control Division. Batch discharges include, but are not limited to, all ballast water treatment plant effluent, wastewater regulated by 40 CFR 437, and process water generated from vessels.

A. CWT BATCH PROCEDURES

1. Sample treated CWT effluent for analytes identified in Schedule B, as wastewater collects in post treatment tank.

2. Submit completed Self-Monitoring Report to City for approval to discharge.

B. NON CWT - BATCH PROCEDURES

1. A batch discharge request shall be made to the Industrial Source Control Division (ISCD) for all wastewater not permitted for continuous discharge. The written request may be faxed, mailed, or e-mailed to the ISCD and shall contain the following:

   a) The name and facility address of the waste generator

   b) A description, including regulatory status (RCRA codes, federal category, etc.) and source (petroleum contaminated wastewater, groundwater, etc.), of the wastewater to be discharged.

   c) The volume of the discharge

   d) The proposed method of treatment

e) Anticipated discharge duration (hours)

2. Upon receipt of the written request, the ISCD will identify sampling and flow requirements.

3. Discharges that exceed the BOD and TSS concentrations defined in Section 17.36.060 (a) of the City code, may be subject to extra-strength charges and administrative fees.

4. After permission is obtained, Cascade General shall maintain a written log of all batch discharges to the sewer system. At a minimum, the log shall record the date, time, volume, and pH for each batch discharge to the City sewer. In addition, all sample analysis data shall be recorded and maintained with the log. These records shall be available for review by City personnel upon request.

The ISCD may, at its discretion, disallow discharge at any time when violations of Chapter 17.34 of the Code of the City of Portland are observed.

IV. FLOW RESTRICTIONS

The maximum flow rate at the main gate flume shall not exceed **180 gpm**.

V. WASTE RECIPT LOG

Cascade General shall maintain a wastewater receipt log, detailing all wastewater generated off-site received for treatment at the facility. The wastewater receipt log must contain the following information:

Hauler - Name of company delivering wastewater and vehicle number or license plate number.

Source Location - Site that generated the waste; City of Portland, Acme Co., etc. (unique, traceable, identifying number may be used). If load is co-mingled, containing waste from multiple generators, list all generators (or identifying numbers).

Wastewater Description - Process generating waste (catch basin clean-out, machine tool coolant, UST removal, wastewater from paint washes, etc). If the load is co-mingled, containing waste from multiple sources, list all sources. If the process generating the wastewater is the same for all sources in a co-mingled load, list the process followed by *multiple sources*.

CWT Subcategory - 40 CFR Part 437, Table XIII.A-1; Oils, Metals, Non-CWT (Waste classified as Non-CWT must include supporting information detailing constituents.

Volume - Waste Volume, as received at the treatment facility. If the load is co-mingled, containing waste from multiple sources with multiple processes, list each generator's volume contribution.

VI. Cascade General shall provide an updated *equivalent treatment certification* annually. The Treatment Certification is a written submission that includes the following information:

a) The subcategories of wastes accepted for treatment
b) The treatment systems in place at the facility
c) The conditions under which the treatment systems are operated for each subcategory
d) All supporting data confirming equivalent treatment
e) Procedures to ensure proper operations and maintenance of the treatment systems

Schedule E
GENERAL CONDITIONS

1. Accidental Spill Prevention Plan

To comply with Section 17.34.090 of the City Code, the permittee shall submit a new or revised Accidental Spill Prevention Plan (ASPP) to the Industrial Wastewater Management Section 90 days after the effective date of this permit. The plans shall include the following elements.

a. A description of the hazardous substances handled and their potential points of entry into the City sewer system or storm runoff

b. A description of the measures to be taken to prevent entry at the described points before a spill occurs

c. Measures to be taken to contain a spill if one occurs

d. A description of employee training in the prevention and control of spills

e. A posted notice informing employees of the requirement to notify the Bureau of Environmental Services in case of spills or uncontrolled discharges.

2. Appeal

Upon receipt of a final industrial wastewater discharge permit, a permittee may appeal any of its terms or conditions to the Code Hearings Officer in accordance with procedures set out at Chapter 22.10 of the Portland City Code; provided that such an appeal shall include a copy of the permit that is the subject of the appeal, shall state the basis for the appeal, and shall be filed with the Code Hearings Officer and the Bureau of Environmental Services.

3. Authorized Discharge

All discharge and activities authorized herein shall be consistent with the terms and conditions of this permit, Chapter 17.34 of the City Code and the Administrative rules. The discharge of any pollutant in excess of these limits shall constitute a violation of the terms and conditions of this permit.

4. Bypass or Diversion

The diversion or bypass (the intentional diversion of wastestreams from any portion of a permittee's treatment facility) of any discharge, from facilities used by the permittee, to maintain compliance with the terms and conditions of this permit is prohibited except:

a. When unavoidable to prevent loss of life or severe property damage.

b. When excessive storm drainage or runoff would damage facilities necessary for compliance with the terms and conditions of this permit.

4. Bypass or Diversion (continued)

The permittee shall immediately notify the City in writing of each such diversion or bypass, in accordance with the procedure specified in condition No. 23.

5. Certification

Legible copies of all applications, reports, and information submitted to the City shall be signed and certified as follows in accordance with 40 CFR 403.12.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

6. Chemical Storage

Chemicals shall be stored in a manner that will prevent the entry of these substances into the sanitary, combined sewer, or storm sewer system, or waters of the state.

7. Continuous Compliance

Compliance with Schedule E, No. 23 shall not relieve the permittee from responsibility to maintain continuous compliance with the conditions of this permit.

8. Dilution Prohibition

It is unlawful for a discharger to use dilution as a partial or complete substitute for adequate treatment to achieve compliance with the standards and limitations set forth in this permit. The Director may impose mass limitations on dischargers who are using dilution to meet the applicable pretreatment standards or the requirement set forth in this permit.

9. Enforcement Provision

A violation of any conditions, standards or requirements of this permit constitutes a violation of Chapter 17.34 of the City Code and any rules promulgated thereunder. Therefore, the City may seek any or all of the remedies or penalties provided for in Section 17.34.110 of the City Code, including recovery of costs incurred by the City, in response to the following:

a. Any violation by the permittee of the provisions in this Industrial Wastewater Discharge Permit.

b. Any violation by the permittee of the provisions of the City Code.

9. Enforcement Provision (continued)

c. Any violation by the permittee of an Enforcement Action requirement with respect to provisions set forth in this Industrial Wastewater Discharge Permit and the City Code and Administrative Rules.

The range or severity of enforcement actions taken by the City against the permittee will be determined by, but not limited to, the nature, magnitude, duration, and frequency of the violation as provided by City Code and Administrative Rules.

10. Extra-Strength Sewer Charge (ESSC)

Discharges exceeding 300 mg/L for the 5-day biochemical oxygen demand (BOD) or 350 mg/L total suspended solids (TSS) concentrations (as defined in Section 17.36.060(1) of the City Code) shall be subject to the extra-strength sewer charge (ESSC) established in Section 17.36.060(1).

11. Hazardous Waste Notification

The industrial user shall notify the Industrial Source Control Division Section, the POTW, the EPA Regional Waste Management Division Director, and State hazardous waste authorities in writing of any discharge into the POTW of a substance, which, if otherwise disposed of, would be a hazardous waste under 40 CFR Part 261. Such notification must include the name of the hazardous waste as set forth in 40 CFR Part 261, the EPA hazardous waste number, and the type of discharge (continuous, batch, or other). If the industrial user discharges more than 100 kilograms of such waste per calendar month to the POTW, the notification shall also contain the following information to the extent such information is known and readily available to the industrial user: an identification of the hazardous constituents contained in the wastes, an estimation of the mass and concentration of such constituents in the wastestream discharged during that calendar month, and an estimation of the mass of constituents in the wastestream expected to be discharged during the following 12 months.

12. Inspection and Entry

The permittee shall, at all reasonable times, allow authorized representatives of the City:

a. To enter the permittee's premises where an effluent source or disposal system is located or where any records associated with this permit are kept.

b. To have access to any required records and permission to copy these records. At no time can wastewater effluent data be claimed or held as confidential information.

c. To inspect and evaluate any monitoring equipment or monitoring methods required by this permit.

d. To sample any discharge to the sewer system.

13. Liability

The City of Portland, its officers, agents or employees shall not sustain any liability due to the issuance of this permit or the construction or maintenance of facilities resulting from this permit.

14. Monitoring

a. The permittee shall record the following information:

* The exact date, time, and place of sampling
* Name of person who collected the sample(s)
* Type of sample(s) collected
* The dates analyses were performed
* Who performed the analyses
* The analytical techniques or methods used
* The results of all required analyses
* Whether quality assurance and quality control laboratory procedures are followed

b. Samples and measurements, taken to meet the requirements of the above condition, shall be representative of the effluent. Grab samples must be collected for pH, cyanide, phenol, sulfide, volatile organic compounds and oil and grease monitoring.

c. All sampling and analytical methods used to meet the monitoring requirements specified in this permit shall, unless otherwise approved in writing by the City, conform to the Guidelines Establishing Test Procedures for the Analysis of Pollutants as specified in 40 CFR, Part 136. Laboratory quality assurance and quality control programs should be documented. EPA QA/QC programs should be followed.

d. The permittee is required to document proper installation, and maintenance of flow monitoring and sampling equipment.

e. If the results of the permittee's wastewater analysis indicate that a noncompliance has occurred, the permittee must notify the City's Industrial Source Control Division Section within 24 hours of becoming aware of the noncompliance. The permittee must also repeat the sampling within 24 hours of the effluent noncompliance or next process day and submit the analysis to the City within 30 days after becoming aware of the noncompliance.

f. The permittee shall take all reasonable steps to minimize or correct any adverse impact to the POTW or the environment resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge.

14. Monitoring (continued)

g. If requested, the permittee shall provide or split discharge samples with the City of Portland Water Pollution Control Laboratory.

15. Permit Modification

This permit may be modified with 30 days prior written notification, in whole or in part, for causes including but not limited to the following:

a. A change in the City's NPDES permit or any other condition that requires either a temporary or permanent elimination of any authorized discharge.

b. To incorporate new or revised federal, state, or local pretreatment standards or requirements.

c. Information indicating that the permitted discharge poses a threat to the City's collection and treatment system, POTW personnel, or the receiving waters and sludge.

d. To correct typographical or other errors in the permit.

e. Any significant change in the volume of a permitted discharge.

16. Permit Renewal

This permit is issued to a specific entity and cannot be transferred by the industrial user and must be renewed pursuant to Section 17.34.070 of the Code of the City of Portland and Permit Applications must be received 90 days prior to:

a. Expiration date of current permit.

b. In the event the permittee plans to cease operations at the present location, and plans to relocate within the City of Portland's jurisdiction and continue the same permitted activities.

c. The permitted industrial process being significantly altered or changed so that pollutants not specifically mentioned in the current permit are present in the permittee's discharge.

17. Permit Suspension or Termination

a. Violation of any terms or conditions of this permit or any applicable rule, standard, or order of the director of the Bureau of Environmental Services.

b. Obtaining this permit by misrepresentation or failure to fully disclose all relevant facts.

c. Falsifying self-monitoring reports.

d. Tampering with monitoring equipment.

17. Permit Suspension or Termination (continued)

e. Refusing to allow prompt access to the facility premises and records.

f. Failure to meet effluent limitations.

g. Failure to pay fines.

h. Failure to meet compliance schedules.

18. Plant Closure

In the event the permittee plans to cease operations at the present business location, and not to relocate within the City of Portland's jurisdiction, the permittee shall inform this office, in writing, 60 days prior to plant closure.

19. Property Rights or Privileges

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges; it does not authorize any injury to private property or any invasion of personal rights; and it does not authorize any infringements or federal, state, or local laws or regulations.

20. Records Retention

All records of monitoring activities and results, including all original strip chart recordings for continuous monitoring instrumentation (and calibration and maintenance records), shall be retained by the permittee for a minimum of three years. This retention period shall be extended during the course of any unresolved litigation pertaining to the discharge of pollutants by the permittee, or whenever it is requested by the City, the Approval Authority (DEQ), the Regional Administrator (EPA).

21. Reporting Requirements

a. Accidental or Slug Loading

If accidental or slug loading to the sanitary sewer occurs, the permittee shall notify the City Permit Manager immediately, if no response then call the City Duty Officer at 503-823-7180 (M-F 8:00am - 4:30pm) or 503-323-3398 (after 4:30pm and weekends). A formal written report, discussing circumstances and remedies, shall be submitted to the City within 5 days of the occurrence

b. Changes in Wastewater Characteristics

The permittee shall give notice to the Industrial Source Control Division Section 90 days before any facility expansion, production increase, or process modifications that result in new or substantially increased discharges or a change in the nature of the discharge.

c. Change in representative

21. Reporting Requirements (continued)

If the responsible corporate official changes, notify the City within 10 days, as per 40 CFR 403.12 (1) (4).

22. Severability

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to the other circumstances and the remainder of this permit shall not be affected.

23. Slug Load Notification

If the permittee is unable to comply with all the conditions of this permit due to a breakdown of equipment or facilities, an accident caused by human error or negligence, or any other cause such as an act of nature, or should any condition cause the release of any slug load, the permittee shall:

a. Immediately take action to stop, contain, clean up the unauthorized discharges, and correct the problem.

b. Immediately call the City Permit Manager, if no response then call the City Duty Officer at 503-823-7180 (M-F 8:00am - 4:30pm) or 503-323-3398 (after 4:30pm and weekends).

c. Within five (5) days submit a detailed written initial report to the City Permit Manager describing the breakdown, the actual quantity of resultant waste discharges, the corrective action taken, the steps taken to prevent recurrence, and any other pertinent information.

d. Samples shall be taken immediately upon discovery of the Slug load. Within 15 days, a follow-up report shall be submitted. The report shall contain analysis of samples taken during such discharge and samples taken after normal conditions have been restored. The samples, at a minimum, shall be analyzed for the parameters required in Schedule B. *Sampling shall be continued until all parameters are within discharge limits.*

24. Upset

a. *Definition:*

For the purposes of this section, upset means an exceptional incident in which there is unintentional and temporary noncompliance with applicable pretreatment standards, because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. *Effect of an Upset:*

An upset will constitute an affirmative defense to an action brought for noncompliance with applicable pretreatment standards, if the requirements of paragraph c are met.

24. Upset (continued)

c. Conditions Necessary for a Demonstration of an Upset:

A permittee who wishes to establish the affirmative defense of an upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An upset occurred and the permittee can identify the specific cause(s) of the upset.

(2) The facility was, at the time, being operated prudently, efficiently, and in compliance with applicable operation and maintenance procedures.

(3) The permittee has submitted the following information to the Industrial Source Control Division within 24 hours of becoming aware of the upset (if this information is provided orally, a written submission must be provided within 5 days).

* A description of the indirect discharge and cause of noncompliance

* The period of noncompliance, including exact dates and times or, if not corrected, the anticipated duration of noncompliance

* Steps planned or now being taken to reduce, eliminate, and prevent recurrence of the noncompliance

d. Burden of Proof

In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset shall have the burden of proof.

e. Permittee Responsibility in Case of an Upset.

If reduction, loss, or failure of its treatment facility occurs, the permittee shall control production of all discharges in order to maintain compliance with applicable pretreatment standards until the facility is restored or an alternative method of treatment is provided. This requirement especially applies if the primary source of the treatment facility power is reduced, lost, or failed.

Schedule F
GENERAL DISCHARGE PROHIBITIONS

The permittee shall not discharge, cause to discharge or allow to discharge directly or indirectly into the City sewer system any of the following:

1. Wastewater containing substances in such concentrations that they inhibit or interfere with the operation or performance of the sewer system, or that are not amenable to treatment or reduction by the sewage treatment process employed, or are only partially amenable to treatment such that the sewage treatment plant effluent cannot meet the requirements of any agency having jurisdiction over its discharge to the receiving waters, or that prevent or impair the use or disposal of sewage treatment plant sludge and sludge products in accordance with applicable State and federal regulations;

2. Any liquids, solids, or gases which by reason of their nature or quantity are, or may be, sufficient either alone or by interaction to cause fire or explosion or be injurious in any other way to the operation of the sewer system, or wastestreams with a closed cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees Celsius (using test methods prescribed at 40 CFR 261.21), or discharges which cause the atmosphere in any portion of the sewer system to reach a concentration of 10% or more of the Lower Explosive Limit (LEL).

3. Any solid or viscous substances capable of obstructing wastewater which will or may cause obstruction to the flow of wastewater or other interference with the operation of the sewer system;

4. Any noxious, malodorous or toxic liquids gases, vapors or fumes, solids, or other substances which, either singly or by interaction with other wastes, may cause acute or chronic worker health and safety problems, a public nuisance, a hazard or interference with any part of the sewer system;

5. Any industrial wastewater containing a hazardous or toxic substance which, either singly or by interaction with other substances, injures or interferes with the sewer system or constitutes a hazard to humans or animals, or creates a hazard in, or adversely affects the receiving waters, or results in such substances being discharged in combined sewer overflows or sewage treatment plant effluent in any concentrations in excess of limitations imposed by any permit, law or regulation;

6. Any wastes, wastewaters or substances having a pH less than 5.0 or more than 11.5, or capable of causing damage or hazard to structures, equipment, processes or personnel of the sewer system, unless these limits are modified by permit.

7. Any liquid or vapor having a temperature higher than 65 degrees Celsius (149 degrees Fahrenheit) or containing heat in amounts which will inhibit biological activity, or result in interference at the treatment plant. In no case shall a discharge to the sewer system contain heat in such quantities that the temperature of the treatment plant influent exceeds 27 degrees Celsius (80 degrees Fahrenheit);

8. Any material trucked or hauled from a cesspool, holding or septic tank or any other nondomestic source, except such material received at designated locations under City contract or permit in accordance with any other applicable requirements of the City Code 17.34 or rules adopted hereunder;

9. Any substance which may solidify or become discernibly viscous at temperatures above 0 degrees Celsius or 32 degrees Fahrenheit;

10. Any material that has not been properly comminuted to 0.65 centimeters (1/4 inch) or less in any dimension;

11. Any slugload, as defined in City Code 17.34 or rules adopted hereunder;

12. Any substances with excessive color, as determined by the Director of Environmental Services, which are not removed in the treatment process;

13. Any batch discharges without written permission from the Director of Environmental Services. Batch discharges shall comply with all other requirements of City Code 17.34 and rules adopted hereunder;

14. Any concentrations of inert suspended or settleable solids which may interfere with the operation of the sewer system;

15. Any concentrations of dissolved solids which may interfere with the operation of the sewer system;

16. Any radioactive material, except in compliance with a current permit issued by the Oregon State Health Division or other state or federal agency having jurisdiction;

17. Any substance which may cause sewer system effluent or treatment residues, sludges, or scums, to be unsuitable for reclamation and reuse or which interferes with the reclamation process. (In no case, shall a substance discharged to the sewer system cause the City to be in noncompliance with sludge use or disposal criteria, guidelines or regulations developed under the Clean Water Act; any criteria, guidelines or regulations affecting sludge use or disposal developed pursuant to the Solid Waste Disposal Act (42 USC 6901), the Clean Air Act (42 USC 1857), the Toxic Substances Control Act (15 USC 2601), or any other federal or State statutes, regulations or standards applicable to the sludge management method being used, or any amendments thereto.)

18. Petroleum oil, nonbiodegradeable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through.

19. Noncontact cooling water (except that noncontact cooling water may be discharged to the separate storm sewer system upon approval by the Director of Environmental Services);

20. Any substance that causes the City to violate the terms of its NPDES permit.

Appendix 1
DEFINITIONS

Abbreviations

BOD_5	Five-day biochemical oxygen demand
mg/L	Milligrams per liter
k	Kilograms
m^3/d	Cubic meters per day
ppm	Parts per million (assumed equal to milligrams per liter)
POTW	Publicly owned treatment works
WPCL	Water Pollution Control Laboratory

Averages for BOD, TSS, and chemical parameters are based on arithmetic mean of samples taken.

Definitions

Bypass

The intentional diversion of wastestreams from any portion of a permittee's treatment facility.

Compatible Pollutant

Biochemical oxygen demand, suspended solids, pH and fecal coliform bacteria, and additional pollutants that the City treatment works is designed to treat.

Conventional Pollutants

Classification of industrial pollutants, which includes BOD (biochemical oxygen demand), suspended solids, fecal coliform, pH (acidity/alkalinity), and other pollutants so designated by EPA, as defined by Section 304(a)(4) of the Clean Water Act.

Director of Environmental Services

The Director of Environmental Services of the City of Portland, Oregon, or that person's duly authorized representative or agent.

City, or City of Portland

The municipality of Portland, Oregon, a municipal corporation of the State of Oregon, acting through the City Council or any board, committee, body, official, or person to whom the Council shall have lawfully delegated the power to act on behalf of the City. Unless a particular board, committee, official, or person is specifically designated in these rules and regulations, wherever action by the City is explicitly required or implied herein, it shall be understood to mean action by the Director of Environmental Services of Portland, Oregon, or that person's duly authorized representative or agent.

Effective Date of this Permit

The date this permit is signed by the Director of the Bureau of Environmental Services.

Expiration Date

From 1 to 5 years beyond the effective date of this permit.

Hazardous or toxic substances

Hazardous or toxic substances are those substances referred to in section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (42 U.S. Code 9601 et seq.), section 502(13) of the Clean Water Act, and any other substances so designated by the Director of Environmental Services and contained in rules adopted pursuant to this Chapter.

Industrial Waste

Any liquid, solid, or gaseous substance (or combination thereof) resulting from any process of industry, manufacturing, commercial food processing, business, agriculture, trade, or research, including but not limited to the development, recovery, or processing of natural resources and leachate from landfills or other disposal sites.

Industrial Wastewater Discharge Permit

A permit to discharge industrial wastewater into the City sewer system issued under the authority of the City Code, which prescribes certain discharge requirements and limitation.

Interference

Interference means a discharge which, alone or in conjunction with a discharge or discharges from other sources, inhibits or disrupts the normal operation of the City sewer system, or which causes a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or any increase in the cost of treatment of sewage or in the cost of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations); Section 405 of the Clean Water Act, the Solid Waste Disposal Act (including Title II, more commonly referred to as the Resource Conservation and Recovery Act), and including State regulations contained in any State sludge management plan prepared pursuant to Subtitle D of RCRA, the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

Maximum Daily Discharge Limitation

The highest allowable daily discharge.

Nonconventional Pollutants

All pollutants that are not specifically designated as either conventional or toxic.

Oil and Grease

Fats, Oils and Grease. Fats, oils and grease are those substances which are measured by USEPA Method 1664: N-Hexane Extractable Method (HEM) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM).

(a) Non-polar fats, oils and grease are that portion of fats, oils and grease which is measured as non-polar (from petroleum sources) by USEPA Method 1664.

(b) Polar fats, oils and grease are that portion of fats, oils and grease which is determined to be polar (of animal or vegetable origin) by USEPA Method 1664.

Pass Through

Pass through means a discharge which exits the POTW into waters of the United States in Quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

POTW

POTW means Publicly Owned Treatment Works, which includes any devices and systems, owned by a State or municipality, used in the collection, transportation, storage, treatment, recycling and reclamation of wastewater.

Pretreatment

The reduction of the amount of pollutants, the elimination of pollutants, or the alternation of the nature of pollutant properties in wastewater to a non-harmful state, prior to or in lieu of discharge of such pollutants into the City sewer system.

Sampling

a. The "monthly average" other than pH is the arithmetic mean of samples collected during a calendar month.

b. The "daily maximum" is defined as the greatest allowable value for any calendar day.

c. The "four day average" is defined as the average of four discrete sampling events for a particular pollutant, which is determined by the sampling frequency and not necessarily four consecutive calendar days.

d. A " composite sample" is a series of individual discrete samples taken at selected intervals based on either an increment of flow or time. The samples are mixed together to approximate the average composition of discharge to the City sewer system. A composite sample for one day shall consist of a pool of samples, collected over the operational period of the production day.

e. A "Grab" sample is an individual sample collected in less than 15 minutes, without regard for flow or time.

f. A "Grab-Composite" is a minimum of four grab samples collected and preserved over a 24-hour period and combined to provide a representative sample of effluent being discharged.

Schedule of Compliance

A schedule of remedial measures, including an enforceable sequence of actions or operations leading to compliance with an effluent limitation or other limitation, prohibition, or standard.

Severe Property Damage

Substantial physical damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

Slugload

A slugload is any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge.

Solid Waste

Any garbage, refuse, or sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to permits.

Solid Waste Disposal

The final placement of refuse that cannot be salvaged or recycled.

Solvent Management Plan

A plan that specifies the toxic organic compounds used, the method of disposal used (instead of dumping into wastestreams), and procedures for ensuring that toxic organics do not spill or leak into wastewater discharged to the City sewer system.

Total Dissolved Solids

The total dissolved (filterable) solids as determined by use of the method specified in the list of approved test procedures.

Total Organic Active Ingredients

The sum of all organic active ingredients covered by the organic pesticide chemicals manufacturing subcategory, which are manufactured at a facility subject to the effluent guidelines for pesticides chemicals manufacturing.

Total Solids

The sum of dissolved and undissolved constituents in water or wastewater, usually expressed as milligrams per liter.

Total Suspended Solids

Total suspended matter that either floats on the surface or is in suspension in water or wastewater and that are removable by laboratory filtering (as described in *Standard Methods for the Examination of Water and Wastewaters,* current edition) or Guidelines Establishing Test Procedures for the analysis of Pollutants, contained in 40 CFR 136, as published in the *Federal Register.*(Bureau of Environmental Services Administrative Rules I[22])

Upset

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with applicable pretreatment standards, because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

Waste

Unwanted materials left over from manufacturing processes, or refuse from places of human or animal habitation.

Wastewater

Industrial waste, sewage, or any other waste, including that which may be combined with any groundwater, surface water, or stormwater that may be discharged to the city sewer system.

Water Pollution

The addition of enough harmful or objectionable material to damage water quality.

CITY OF PORTLAND
ENVIRONMENTAL SERVICES

Water Pollution Control Laboratory
6543 North Burlington Avenue, Portland, Oregon 97203-5452 Dean Marriott, Director

April 16, 2007 CERTIFIED MAIL: 7006 0100 0006 8855 0974

Mr. Alan Sprott
Cascade General
5555 N. Channel Avenue
Portland, Oregon 97217

RE: Industrial Wastewater Discharge Permit Application and Environmental Survey II

Dear Mr. Sprott:

Your industrial wastewater discharge permit #437.003 is set to expire December 31, 2007. If discharge of industrial process wastewater from this facility to the City of Portland's (City) sanitary sewer is to continue, permit renewal will be necessary. Enclosed are copies of the City's Industrial Wastewater Discharge Permit Application and Environmental Survey II. Please complete these forms and return them to the following address:

Water Pollution Control Lab
Industrial Source Control Division
6543 N Burlington Ave
Portland, OR 97203

The application materials must be submitted to the City no later than July 3, 2007. The conditions of existing permit #437.003 will remain in effect pending the issuance of the renewed permit. If you have any questions, please contact me at (503) 823-5692.

Sincerely,

Wesley C. McDaniel
Industrial Wastewater Permit Manager
Industrial Source Control Division

Enclosures

Copy

Centralized Waste Treatment
Equivalent Treatment Certification

[X] *Initial Certification* [ ] *Periodic Certification*

Facility Name: Cascade General, Inc.
Facility Address: 5555 N Channel Ave
Portland, OR 97217

Responsible Corporate Officer: T. Alan Sprott
Phone #: 503-247-1672

[ ] *Subpart A: Metals*
[X] *Subpart B: Oils*
[ ] *Subpart C: Organics*
[ ] *Subpart D: Multiple*

Wastewater Source Description
Used oil processing, oily water processing

Description of Treatment System
Chemical emulsion breaking, steam separation, chemical clarification, metals precipitation, sand filter

Operating Conditions / Quality Assurance
Batch processing, 60-200 GPM, performance monitoring

Supporting Data Confirming Equivalent Treatment (Attachments)
See attached

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: T. Alan Sprott Date: 9/16/13

Copy

CITY OF PORTLAND
INDUSTRIAL WASTEWATER DISCHARGE
FIRST FINAL COMPLIANCE REPORT

INDUSTRY NAME: Cascade General

PERMIT NUMBER: 437.003

REPORT DUE DATE: Prior to Batch Approval

SAMPLING PERIOD:

For Industrial Source Control Division Use Only	
Date Postmarked/Received	Date Entered
Comments:	Entered By:

CWT Subcategory B - Oils

SAMPLE DATE	POINT OF COMPLIANCE	SAMPLE TYPE
	2A - sump	GRAB

PARAMETER	ANALYSIS METHOD	REPORTED CONCENTRATION	MDL	LIMITS DAILY	LIMITS MONTHLY	COMMENTS
HEM Oil & Grease (Total)[1]	1664	33.0 mg/L	5.0	N/A	N/A	
HEM Oil and Grease (Non-Polar)[1]	1664	ND mg/L	5.0	110 mg/L	N/A	Local Limit
pH	150.1	5.87 SU	—	5.0 - 11.5	N/A	Local Limit
Bis-2-ethyhexylphthalate	625	ND mg/L	0.250	0.267	0.158	
Carbazole	625	0.00 mg/L	—	0.392	0.233	
Fluoranthane	625	ND mg/L	0.250	0.787	0.393	
n-Decane	625	0.00 mg/L	—	5.79	3.31	
n-Octadecane	625	0.00 mg/L	—	1.22	0.925	
Polychlorinated biphenyls	8081A/8082	ND mg/L	.001-0.0005			Prohibited above MDL

1. If the value of HEM Oil and Grease Total is greater than 110 mg/L, then the Permittee shall analyze the sample for the HEM Oil and Grease Non-Polar constituent.

SAMPLE DATE	POINT OF COMPLIANCE	SAMPLE TYPE
	2A - sump	COMPOSITE

PARAMETER	ANALYSIS METHOD	REPORTED CONCENTRATION	MDL	LIMITS DAILY	LIMITS MONTHLY	COMMENTS
Antimony	200.8	0.030 mg/L	0.001 mg/L	0.237	0.141	
Arsenic (Total)	200.8	0.0207 mg/L	0.001 mg/L	0.2 mg/L	N/A	Local Limit
Barium (Total)	200.8	0.00327 mg/L	0.001 mg/L	0.427 mg/L	0.281 mg/L	
Cadmium (Total)	200.8	ND mg/L	0.001 mg/L	0.7 mg/L	N/A	Local Limit
Chromium (Total)	200.8	0.0267 mg/L	0.001 mg/L	0.947 mg/L	0.487 mg/L	
Cobalt (Total)	200.8	0.0229 mg/L	0.001 mg/L	56.4 mg/L	18.8 mg/L	
Copper (Total)	200.8	ND mg/L	0.002 mg/L	0.405 mg/L	0.301 mg/L	
Lead (Total)	200.8	ND mg/L	0.001 mg/L	0.222 mg/L	0.172 mg/L	
Mercury (Total)	245.1	ND mg/L	0.0016 mg/L	0.010 mg/L	N/A	Local Limit
Molybdenum (Total)	200.8	0.598 mg/L	0.005 mg/L	1.4 mg/L	2.09 mg/L	
Selenium (Total)	200.8	0.0210 mg/L	0.001 mg/L	0.6 mg/L	N/A	Local Limit
Nickel (Total)	200.8	0.290 mg/L	0.002 mg/L	2.8 mg/L	N/A	Local Limit
Tin (Total)	200.8	ND mg/L	0.02 mg/L	0.249 mg/L	0.146 mg/L	
Zinc (Total)	200.8	0.0773 mg/L	0.005 mg/L	3.7 mg/L	4.46 mg/L	

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: T. Alan Stott Date: 9/16/13

City of Portland
Environmental Services
Water Pollution Control
Laboratory

6543 N. Burlington Avenue, Portland, Oregon 97203-5452
(503) 823-5600 FAX: (503) 823-5559

Environmental Survey
Part II

INDUSTRIAL SOURCE CONTROL DIVISION

CITY OF PORTLAND
ENVIRONMENTAL SERVICES

Water Pollution Control Laboratory
6543 North Burlington Avenue, Portland, Oregon 97203-5452 Dean Marriott, Director

INDUSTRIAL AND COMMERCIAL ENVIRONMENTAL SURVEY

Part II

The federally mandated Pretreatment Program requires the City of Portland (the City) (40 CFR 403.8(f)(2)), to develop and implement procedures that:

(1) Identify and locate all possible Industrial and Commercial Users which might be subject to the Publicly Owned Treatment Works (POTW) Pretreatment Program requirements.

(2) Characterize the type and volume of pollutants contributed to the POTW by the Industrial and Commercial Users as identified under (1) above.

By completing the *Industrial and Commercial Environmental Survey*, Part II, you are helping the City complete its requirements.

Confidential Information

As outlined in 40 CFR 403.14 (a)-(c) and ORS 192.430, any information submitted to the City under the Pretreatment Program requirements may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission in the manner prescribed on the application form or instructions, or, in the case of other submissions, by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, the City may make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with the procedures in 40 CFR part 2 (Public Information) and ORS 192.440(2).

Information and data provided to the City under these requirements that is effluent data shall be available to the public without restriction.

All other information, which is submitted to the State or POTW, shall be available to the public at least to the extent provided by 40 CFR 2.302 and ORS 192.440(2).

If, at any time, there is insufficient space to complete an answer, continue your response on a separate piece of paper. Indicate the section and question number next to your response.

INSTRUCTIONS: SECTION A. GENERAL INFORMATION

1. Enter the name of the company, *i.e.*, the name of the company legally responsible for this facility.

2. Enter the name of the facility, such as the name used on letterhead and/or correspondence or advertising.

3. Enter the street address where the facility is located.

4. Enter the *mailing* address of the facility, if different from the facility street address above.

5. Enter the name, title, telephone number, and fax number of the person who is most familiar with the facts reported on this form and who can be contacted by City staff. Generally, this person is the facility's maintenance supervisor or engineer.

INDUSTRIAL AND COMMERCIAL ENVIRONMENTAL SURVEY

Part II

For Industrial Source Control Division Use Only

Date Postmarked/Received **Date Entered**

Entered By:

Comments:

SECTION A. GENERAL INFORMATION

Confidential Information - Indicate those sections of this questionnaire that you wish to remain confidential and your basis for requiring confidentiality. (Wastewater characteristics cannot be confidential.)

1. Vigor Industrial, LLC
(Company Name)

2. Shipyard Commerce Center
(Facility Name)

3. 5555 N. Channel Ave.
(Facility Address, Street)

Portland (City) OR (State) 97217 (Zip Code)

4. Same
(Mailing Address, Street/PO. Box)

(City) (State) (Zip Code)

5. Provide the name of the person to contact on information contained in this questionnaire:

T. Alan Sprott (Name) 503-247-1672 (Phone)

Vice President/General Manager (Title) 502-247-6050 (Fax)

INSTRUCTIONS: SECTION C. FACILITY OPERATIONS AND WATER USE INFORMATION

1. Supply the requested information for all commercial activity done at the facility.

2. Check the appropriate box(es). If the manufacturing or service activities of your facility are not included in the table, mark other and indicate the activity (or activities) in the space provided. The heading "CFR" is an acronym for the Code of Federal Regulations, the codification of the general and permanent rules published in the *Federal Register* by the Executive departments and agencies of the Federal Government. The numbers below this heading indicate the part within Title 40 (Protection of the Environment) covering this activity. **An asterisk (*) indicates that EPA has proposed regulations concerning those activities.**

INSTRUCTIONS: SECTION C. FACILITY OPERATIONS AND WATER USE INFORMATION

1. List all business activities performed on-site. Attach additional sheets as needed.

Business Activity	SIC Code
Ship Repair	3731
Oil Recovery	3731
Barge Construction	3731
Painting	2851

2. Check all applicable manufacturing or service activities performed at this facility:

	Manufacturing or Service Activities	CFR
[ ]	Aluminum Forming	467
[ ]	Asbestos Manufacturing	427
[ ]	Battery Manufacturing	461
[ ]	Builders' Paper and Board Mills	431
[ ]	Carbon Black Manufacturing	458
[ ]	Cement Manufacturing	411
[x]	**Centralized Waste Treatment**	**437**
[ ]	Coal Mining	434
[ ]	Coil Coating (including Can making)	465
[ ]	Copper Forming	468
[ ]	Dairy Products Processing	405
[ ]	Electrical and Electronic Components	469
[ ]	Electroplating	413
[ ]	Explosives Manufacturing	457
[ ]	Feedlots	412
[ ]	Ferroalloy Manufacturing	424
[ ]	Fertilizer Manufacturing	418
[ ]	Fruits and Vegetables Processing	407
[ ]	Glass Manufacturing	426
[ ]	Grain Mills	406
[ ]	Gum and Wood Chemicals	454
[ ]	Hospitals	460
[ ]	Ink Formulating	447
[ ]	Inorganic Chemicals Manufacturing	415
[ ]	Iron and Steel Manufacturing	420
[ ]	Landfills and Incinerators	
[ ]	Laundry, Industrial	
[ ]	Laundry, Linen	
[ ]	Leather Tanning and Finishing	425

	Manufacturing or Service Activities	CFR
[ ]	Meat Products	432
[ ]	Metal Molding and Casting (Foundries)	464
[x]	**Metal Products and Machinery**	**438***
[x]	**Metal Finishing**	**433**
[ ]	Mineral Mining and Processing	436
[ ]	Nonferrous Metals Forming/Metal Powders	471
[ ]	Nonferrous Metals Manufacturing	421
[ ]	Oil and Gas Extraction	435
[ ]	Ore Mining and Dressing	440
[ ]	Organic Chemicals, Plastics, & Synthetic Fibers	414
[ ]	Paint Formulating	446
[ ]	Paving and Roofing Materials (Tars and Asphalt)	443
[ ]	Pesticide Chemicals (Formulating & Packaging)	455
[ ]	Petroleum Refining	419
[ ]	Pharmaceutical Manufacturing	439
[ ]	Phosphate Manufacturing	422
[ ]	Photographic Processing	459
[ ]	Plastics Molding and Forming	463
[ ]	Porcelain Enameling	466
[ ]	Pulp, Paper and Paperboard	430
[ ]	Rubber Processing	428
[ ]	Seafood Processing	408
[ ]	Soap and Detergent Manufacturing	417
[ ]	Steam Electric Power Generating	423
[ ]	Sugar Processing	409
[ ]	Textile Mills	410
[ ]	Timber Products Processing	429
[x]	**Transportation Equipment Cleaning**	
[x]	**Metal Products & Machinery – details or Activities: Fabrication of metal parts and machines**	

INSTRUCTIONS: SECTION C. FACILITY OPERATIONS AND WATER USE INFORMATION

1. Enter the approximate month and year that operations began, or are proposed to begin.

2. Circle the days per week that your facility conducts business.

3. Indicate the number of hours per day that your facility conducts business.

4. Indicate the *shift start time* for each work shift at your facility. Consider each shift on the basis of normal starting time with shifts possible in a 24-hour period; only periods of production or process operation, including cleanup procedures, are to be considered as shift work.

   Enter the average *number of employees* that work each shift. The number of employees per shift should include office workers, executives, watch persons, etc. whose hours coincide with the times of production shifts. Add the number of employees per shift and then add all shifts to obtain total employment.

   Enter "NA" (or Not Applicable) for each item that does not apply to your facility.

5. Indicate, by checking the appropriate box, if the production at your facility is seasonal, such as food processing facility performing canning operations during harvest time.

   If "Yes" is checked, complete as requested.

6. Specify the number of days that your facility conducted business during the last calendar year.

7. Indicate by checking the appropriate box, if scheduled shutdowns occur at your facility, such as seasonal production or shutting down a production line over a holiday for scheduled maintenance and cleaning.

   If "Yes" is checked, complete as requested.

8. Water Service : List the supplier and your account number(s). List all account numbers related to the water sources. *Example*: - Powell Valley Road Water District, #M900891234.

   Surface Water: Includes any and all water from rivers, streams, ponds, lakes, etc.

   Well Water: No explanation required.

   Other sources: Specify if water is obtained from other sources not listed above, such as water that is trucked-in.

   City of Portland water bills are in units of a hundred cubic feet (ccf) where one ccf (hundred cubic feet) = 748 gallons. Use the following equation for calculating the average gallons per day (gpd) for water supply information:

   $$\text{Average gpd} = \frac{\text{Total water usage in the last 12 months (in ccfs) X 748}}{\text{Total number of operating days in 12-month period}}$$

Note: Continued on the following page

SECTION C. FACILITY OPERATIONS AND WATER USE INFORMATION

1. Enter date production began or will begin at this facility: 1941 Ship repair, 2003 CWT

2. Circle days per week of operation: (Sun) (Mon) (Tues) (Wed) (Thurs) (Fri) (Sat)

3. Circle hours per day of operation: 8 10 12 16 (24) Other (specify): _____

4. Provide the following shift information:

Shift	Shift Start Time	No. of Employees
1st	2330	75
2nd	0730	250
3rd	1530	150
	Total No. Employees	475
Domestic Use	= 35 gallons/employee	16,625

5. Is the business or proposed activity continuous throughout the year, Yes [x] No [ ]

or seasonal? Yes [ ] No [x]

Indicate periods of maximum and minimum production:

Maximum: _____ Minimum: _____

6. List the total days of operation or production for the last calendar year: 365 days

7. Do scheduled shutdowns occur? Yes [ ] No [x] If "Yes," list time period(s):

From: _____ To: _____ From: _____ To: _____

8. Provide the applicable water supply information requested below:

List Water Supply Source(s)	Account Number	Usage (GPD)
Water Service, (#1): City of Portland	Multiple	Varies up to 300,000
Water Service, (#2):		
Water Service, (#3):		
Surface Water: Willamette River		Varies up to 500,000
Well Water:		
Other (specify):		
	Total Daily Use	Up to 800,000

INSTRUCTIONS: SECTION C. FACILITY OPERATIONS AND WATER USE INFORMATION

9. This table tracks the use of water throughout your facility and the ultimate fate of the water. Enter the total water usage calculated in Section C Question 1. Complete the table listing the amount of incoming water for each item and the amount that is discharged for each listed item.

   - Indicate what volume of water for each item is discharged to the sanitary sewer, the storm sewer, a combined sewer, or to other, such as on-site or off-site disposal.
   - Check the appropriate *Raw Water Treatment* column. This is to identify if the incoming water is chemically treated prior to use. Some manufacturing processes require treatment of raw (or incoming) water before the water can be used in the process. These include dechlorination, ion exchange, etc.
   - If the exact amount of water is not known for each item, then estimate the amount as best as possible and note how the estimation is determined.

   Enter "NA" (or "Not Applicable") for each item of water use information that does not apply to your facility.

   Domestic Use: is any wastewater generated from dwellings, office buildings or institutions including, but not limited to, wastes from bathrooms, residential laundries, showers, and normal sink usage. It is not water used in any commercial or manufacturing capacity.

   Contained in Product: is any water that is a component of the product(s) manufactured at your facility.

   Process Water Discharged: is any water used in an industrial or commercial process that, as a result of process usage, contains pollutants. These pollutants may be liquid, solid or gaseous substances or combinations. Pollutants can result from any process of industrial manufacturing, commercial food processing, commercial food preparation (restaurants), business, mobile washers, agriculture, trade or research.

   An *Air Compressor:* may include the discharge of single past cooling water from the compressor head and compressor condensate drain water.

   An *Air Pollution Control Unit:* is any device used to control air emissions. For example, a wet scrubber using a water spray to remove solid, liquid, or gaseous contaminants from a gas stream. The water spray performs this removal by dissolving, trapping or chemically reacting with the contaminant.

   Backwash Water: is water used to clean filters or ion exchange units by passing a strong flow of water counter to the direction of normal flow. This action removes solids and other small particulate contaminants.

   Boiler Feed: is the clean feed water to a boiler unit.

   Boiler Blowdown: is the water used to remove used boiler water containing concentrated solids or treatment chemicals. Feed water replaces that water sent to the drain.

Note: Continued on the following page

INSTRUCTIONS: SECTION C. FACILITY OPERATIONS AND WATER USE INFORMATION

Contact Cooling Water: is the water used to cool a process item, such as cutting water, quench tanks, rinse tanks. It is water that comes into contact with a process or a product and may be contaminated so that is cannot be reused or recycled without treatment.

Non-Contact Cooling Water: does not come in direct contact with any portion of the process or product. Mainly used in process heat exchangers.

Cooling Tower Water: is clean water fed to a cooling tower. [See also boiler feed water.]

Cooling Tower Bleed-off: is the water used to remove cooling water containing concentrated solids or treatment chemicals. Feed water replaces that water sent to the drain. [See also boiler blowdown.]

Equipment Washing: is water used in the maintenance and cleaning of production equipment at the facility.

Irrigation: is water used for landscape maintenance.

Plant Cleanup/Washing: is water that is used in the maintenance and cleaning of the facility, such as vehicle cleaning, facility washdown (inside and outside), etc.

Other: accounts for water uses not listed above.

A. If "Yes" has been checked for raw water treatment, list the process(es) in use or proposed and the chemicals to be added during treatment, in the space provided or on a separate sheet of paper.

B. If checked for on-site discharge or disposal, detail what is being discharged or disposed on-site, listing the process and the waste or regenerant involved.

C. If checked for off-site discharge or disposal, detail what is being discharged or disposed off-site, listing the process and the waste or regenerant involved, the transporter, and the destination.

SECTION C. FACILITY OPERATIONS AND WATER USE INFORMATION

9. Check all that are applicable to your facility and provide the appropriate flow information.

Water Use	Flow (gpd)	Raw Water Treatment [A]		Discharged				
		Yes	No	Sanitary Sewer	Storm Sewer	Combined Sewer	On-Site [B]	Off-Site [C]
Domestic Use	16,625		x	x				
Contained in Product	N/A							
Process Water Discharged	500,000		x				x	
Air Compressor	N/A							
Air Pollution Control Unit	N/A							
Backwash Water	N/A							
Boiler Feed/Blowdown	150,000	x		x				
Cooling Water, Contact	N/A							
Cooling Water, Non-contact	N/A							
Cooling Tower/Bleed-off	2,000		x					
Equipment Washing	500							
Irrigation	N/A							
Plant Cleanup/Washing	N/A							
Other (specify):Vessel potable water system	300,000	x	x	x				
Total (gpd)	969,125							

NOTES:

A. If raw water treatment is used, list the process(es) employed and how the treatment residuals or regenerants are disposed or discharged.

Chemical treatment of boiler water using sodium polyacrylate, cyclohexylamine, morpholine, diethylaminoethanol, sodium phosphate, sodium hydroxide, and morpholine sodium sulfite. Boiler and boiler feed tank condensate and blowdown returned to sanitary system.

B. Describe how this water is handled on-site. For example: flows to an evaporator, a drain field, etc.

Flows to treatment plant for direct discharge.

C. Describe how this water is handled off-site. For example: it is reclaimed, recycled, etc.

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INSTRUCTIONS: SECTION C. FACILITY OPERATIONS AND WATER USE INFORMATION

10. Check the appropriate box and complete as requested.

11. Complete as requested.

INSTRUCTIONS:
SECTION D. FACILITY MATERIAL STORAGE AND PROCESS INFORMATION

1. Many facilities store or produce chemicals in bulk quantities, larger than 25 gallons. These quantities pertain to chemicals that are routinely stored at this facility which are used, produced, distributed or otherwise handled. The twenty (20) most frequently reported hazardous substances are:

Acetone	Diesel fuel	Lacquer thinner	Propane
Acetylene	Gasoline	Motor oil	Solvent
Antifreeze	Hydraulic oil	Nitrogen	Sulfuric acid
Argon	Isopropyl alcohol	Oxygen	Thinner
Chlorine	Kerosene	Paint	Waste oil

The Superfund Amendments and Reauthorization Act (SARA) Title III, also known as the Emergency Planning and Community Right-to-Know Act of 1986(EPCRA), is intended to encourage and support local and state emergency planning efforts. It provides citizens and local governments with information about potential chemical hazards in their communities. SARA calls for facilities that store hazardous materials to provide officials and citizens with data on the types (flammables, corrosives, etc.) and quantities on hand. The inventories for reportable quantities of hazardous substances are filed with the Office of State Fire Marshal under the Hazardous Substance Survey program. You may attach a copy of your reportable quantities report in lieu of completing this table.

SECTION C. FACILITY OPERATION AND WATER USE INFORMATION

10. Check type(s) of meter(s) in use at your facility. Also indicate the number in use.

Credit Meter(s): _____ Yes [ ] No [x] Discharge Meter(s): Many___ Yes [x] No [ ]

11. If a discharge meter is employed, list the manufacturer and describe the method of its operation, if known:

Manufacturer: Measure-Tech Inc.

Description: Unit emits continuous ultrasonic frequency waves to determine the water level running through a 3-inch Parshall flume. The time it takes the wave to return to the meter is used, along with other parameters pre-programmed into the flow meter, to calculate flow rates.

SECTION D. FACILITY MATERIAL STORAGE AND PROCESS INFORMATION

1. Complete the table below for all chemicals greater than 25 gallons stored and used on-site. If you are required to provide a report to the Portland Fire Bureau or the State Fire Marshall's Office, per the Superfund Amendments and Re-authorization Act of 1986 (SARA Title III) requirements, you *may* submit a copy of this report in lieu of completing this table. Attach additional sheets as needed.

Chemical Name	Amount Stored	Storage [Check as appropriate] Inside	Outside	SARA Title III? (Y/N)
Example: Trichloroethene	30 gallons	√		Y
See attached.				

INSTRUCTIONS:
SECTION D. FACILITY MATERIAL STORAGE AND PROCESS INFORMATION

2. Check the appropriate box.

3. Complete the table as requested using the given example as a guide. List all raw materials used in any of the manufacturing processes. List also where the material is stored prior to use, and the daily average amount used.

4. Complete the table as requested using the given example as a guide. List all of the products manufactured at this facility.

SECTION D. FACILITY MATERIAL STORAGE AND PROCESS INFORMATION

2. Do you have floor drains in manufacturing or storage areas? Yes [ ] No [x]

3. List the raw materials utilized or stored on site. Indicate quantity using appropriate units:

Raw Materials	Stored [Check as appropriate] inside	outside	Daily Average (units)
Example: 3/4" steel tubing		√	1,500 pounds
Paint	X		500 gallons
Steel plate and pipe	X	X	1000 tons
Abrasive grit		X	50 tons

4. List each product manufactured at this facility, indicating the appropriate production units:

Products	Units/Time
Example: Bicycle handlebars	150 per day
Vessel parts and structures	varies

INSTRUCTIONS:
SECTION E. FACILITY PROCESS WASTEWATER INFORMATION

1. Check all wastewater characteristics that apply.

   High strength waste is any waste that contains organic or inorganic, dissolved or suspended particulate matter in excess of that which would be found in domestic waste water, such as food processing waste, brewery waste, restaurant waste, etc. Some of these waste streams may contain a high biochemical oxygen demand (BOD), chemical oxygen demand (COD), or high suspended solids (TSS).

2. If no pretreatment systems are used by your facility, indicate this in the space provided.

   Indicate which pretreatment system type(s) are used to treat your waste stream and indicate the design capacity for all pretreatment systems.

SECTION E. FACILITY PROCESS WASTEWATER INFORMATION

1. For each product listed in Section D, indicate the general characteristics of the wastewater generated during manufacturing process:

	Wastewater Types		**Wastewater Types, *Organic wastes***
[ ]	Acids and Acidic Wastes	[ ]	Alcohols
[ ]	Alkali and Caustic Wastes	[ ]	Aldehydes, Ketones
[ ]	Dyes, Coloring Agents	[ ]	Benzene and Benzene Derivatives
[ ]	Electroplating Wastes	[ ]	Ethers
[ ]	Fats, Grease (animal/vegetable)	[ ]	Flammable or explosive wastes
[ ]	Glues	[ ]	Halogenated Organic Compounds
[ ]	Hot Wastes (> 140° F)	[ ]	Organic Acids
[ ]	Inks, Printing Wastes	**[x]**	**Pesticides, Herbicides, Rodenticides**
[x]	**Metal Cleaning and Preparation Wastes**	[ ]	Phenol-containing Wastes
[ ]	Metal Finishing Wastes	[ ]	Resins, Monomers
[ ]	Paint, Pigment Wastes (Latex)	[ ]	Solvents, Thinners
[x]	**Paint, Pigment Wastes (Solvent-based)**	[ ]	Other Organic Chemicals:
[ ]	Petroleum-based Oily Wastes		_____
[ ]	pH level: _____ , unknown [ ]	[ ]	_____
[ ]	Photographic Wastes		Other Wastes:
[ ]	Pickling Wastes		_____
[ ]	Radioactive Wastes		_____
[ ]	Soaps, Surfactants, Detergents		_____
[ ]	Soluble Oils, Lubricants	[ ]	High Strength Waste: BOD_5, COD, TSS
[ ]	Waxes	[ ]	Toxics: Yes [ ] No [ ] Don't Know [ ]
[ ]	Solid or viscous material: Yes [ ] No [ ] Don't Know [ ]		

2. Is the facility's wastewater pretreated? **[x] Yes** [ ] No Pretreatment System.

If yes, check all that apply:

[ ] Air Flotation	[ ] Carbon Absorption	**[x] Chemical Precipitation**
[ ] Chlorination	[ ] Evaporation	[ ] Filtration
[ ] Flow Equalization	[ ] Grease Trap	**[x] Grit Removal**
[ ] Ion Exchange	**[x] Neutralization, pH Control**	**[x] Oil/Water Separation**
[ ] Reverse Osmosis	[ ] Screening/Grinder	[ ] Sedimentation
[ ] Solvent Separation		

[ ] Biological Treatment, type: _____

[ ] Other Chemical Treatment, type: _____

[ ] Rainwater Diversion or Storage: _____

[ ] Other, type: _____

Design Capacity of System: _____100,000_____ GPD

INSTRUCTIONS: SECTION F. FACILITY WASTEWATER DISCHARGE INFORMATION

1. Circle all that are appropriate.

2. Check the appropriate box.

3. Complete as requested.

   A Batch Discharge is the controlled discharge of a discrete volume of wastewater for a limited duration.

4. Check the appropriate box. If more than 100 Kilograms of any hazardous waste per calendar month is discharged to the sewer, please include the following information for each hazardous waste to the extent such information is known and readily available (attach additional sheets as necessary).

5. Complete the table as requested using the given example as a guide. Include all by-products and materials used in or generated from any and all facility processes (attach additional sheets as necessary).

6. Circle the appropriate item, more than one if applicable. Include additional information for more than one user or hauler on a separate sheet of paper:

   For off-site reuse: of by-products or wastes, complete the requested information.

   For off-site disposal: of by-products or wastes, complete the requested information.

   For off-site recycling: of by-products or wastes, complete the requested information.

SECTION F. FACILITY WASTEWATER DISCHARGE INFORMATION

1. Circle the months of the year when process wastewater discharges do occur or are planned to occur:

(Jan) (Feb) (Mar) (Apr) (May) (Jun) (Jul) (Aug) (Sept) (Oct) (Nov) (Dec)

2. Are or will the process wastewater discharges be continuous? [x] or batch? [x]

3. If batch discharges occur or will occur, indicate the following:

   a. Percent of discharge as batch: 70

   b. Percent discharge as continuous: 30

   c. Number of batch discharges .5 (# per week) at 48 (hours per discharge)

   c. Approximate volume of a batch discharge: 500,000 gallons.

4. Do you discharge any wastes to the public sewers, which, if disposed by other methods, would be regulated as a Resource Conservation and Recovery Act (RCRA) listed, or characteristic hazardous waste?

   [ ] Yes [x] No [ ] Don't Know

   If Yes, please describe the wastes discharged to the sanitary sewer:

   Type of Discharge: [ ] Continuous [ ] Batch [ ] Other

Constituent Name	Mass in Wastestream (this month)	Concentration in Wastestream (this month)	Mass in Wastestream (next 12 months)

5. List each by-product or waste, identify process source of by-product or waste, indicating the appropriate production units, and check whether the material is reused, sent off-site for disposal, or recycled:

By-products/Wastes	**Process Source**	**Daily Average** (units)	**Reused**	**Disposal**	**Recycled**
Example: Used cutting oil	Cutting & sizing	1 pint			√
Paint and thinner	Painting	100 gallons		X	
Abrasive grit	Metal blasting	10 tons			X
Used Oil/Anit-freeze	Various	1,000 gallons	X		

6. Circle the applicable disposal method and provide the required information.

For off-site reuse: (For off-site disposal:) For off-site recycling:

PSC Environmental Services — (253) 627-7568

User's Name or Hauler's Name — Phone

20245 77th Ave. South — Kent — WA — 98032

Mailing Address — City — State — Zip

DEQ permit number: WAD991281767

SECTION F. FACILITY WASTEWATER DISCHARGE INFORMATION

7. Circle the applicable disposal method and provide the required information.

For off-site reuse: For off-site disposal: (For off-site recycling)

Industrial Services, Inc.	206-232-4047		
User's Name or Hauler's Name	Phone		
3852 E. Mercer Way	Mercer Island	WA	98040
Mailing Address	City	State	Zip

DEQ permit number: _____

INSTRUCTIONS: SECTION G. OTHER WASTES INFORMATION

1. a) Check the appropriate box(es) indicating the number of each type in use on-site.

   b) Check the appropriate box(es). If "Other," provide the information as required.

   c) Complete as requested. If "Other," provide the information as required.

   d) If a mobile cleaning services are used, complete the requested information.

2. Check the appropriate box.

   If equipment or vehicles are serviced on-site describe how, where, and by whom the wastes generated are disposed.

3. If "Yes," check the appropriate box. If "Other," describe how, where, and by whom the remediated groundwater is handled for disposal.

Note: Continued on the following page

SECTION G. OTHER WASTES INFORMATION

1. Check all that apply:

   a). Equipment or vehicles used on-site. Indicate the number in use:

   Fork lifts [x] # 20 Cranes [x] # 14 Trucks [x] # 4

   Tractors [ ] #_____ Other (specify) [ ]

   b). Cleaning of equipment or vehicles:

   On-site [x] Off-site [ ] Cleaned by facility staff [x] Mobile cleaning service [ ]

   c). Washwater discharged to: Sanitary sewer [x] Storm sewer [ ] 100% recycled [ ]

   taken off-site [ ] Other (specify) [ ] _____

2. Check all that apply:

   a). Equipment or vehicles serviced on-site. Indicate the number in use:

   Fork lifts [x] # 20 Cranes [x] # 14 Trucks [x] # 4

   Tractors [ ] #_____ Other (specify) [ ]

   b). Mobile services used? Yes [x] No [x] Services done: Inside [x] Outside [x]

   c). Describe your disposal of used oil, steam cleaning wastes, anti-freeze, or other wastes:

   Used oil: reclaimed on site; Steam cleaning vehicle wash: processed on site or discharged to sanitary sewer; Antifreeze: recycled off site; Solvents: recycled off site.

3. Do you have an ongoing groundwater remediation on site? Yes [ ] No [x]

   Remediated groundwater is discharged to the:

   Sanitary sewer [ ] Storm sewer [ ] Other (specify) [ ]

INSTRUCTIONS: SECTION G. OTHER WASTES INFORMATION

4. Total facility area - includes all property at this facility.

   Roof area - includes all roofs.

   Parking lots - include paved and concreted areas, excluding graveled areas.

   Other impervious areas - includes any area not included above that prevents stormwater from percolating or absorbing into the ground.

   Indicate whether stormwater from each of the above sources is discharged to:

   - A Portland storm sewer in a *combined sewer* area where domestic wastes from toilets, etc. combine with stormwater.
   - A Portland storm sewer in a *separated sewer* area where domestic wastes from toilets, etc. do not combine with stormwater.
   - *On-site disposal* systems may include, but are not limited to, dry wells, soakage trenches, water quality ponds, etc.

   Use the following equation to calculate the average daily volume for each stormwater source. Annual rainfall is assumed to be 36 inches/year:

   Stormwater volume (average gpd) = Impervious Area (in ft^2) X 0.0615

5. Provide the information requested. If *Not Applicable* state that in the space provided.

6. Check the appropriate box.

7. Check the appropriate boxes. Complete as requested.

SECTION G. OTHER WASTES INFORMATION

4. Provide the applicable information requested below:

Stormwater Sources	Area (sq. ft.)	Discharge to: Combined Sewer	Storm Sewer	Sanitary Sewer	On-site Disposal	Average (daily gpd)
Total facility area	2.5 million		x			
Roof area	500,000					
Parking lots (paved/concrete)	450,000					
Other impervious areas	1,550,000					

5. List all Environmental control permits held for or issued to this facility:

Type of Permit	Permit Number	Date Issued	Date Expires
NPDES Permit(s)	101393	6/23/2004	3/31/2009
Air Discharge Permit	26-3224	12/27/2002	1/1/2008
RCRA/EPA Permit			
Other (specify)			

6. Does this facility have a current, written spill contingency plan? Yes [x] No [ ]

7. Are expansion plans scheduled within the next three years? Yes [x] No [ ]

If Yes, check the appropriate box(es) for your facility's expansion plans:

Add New Products [ ] Same Products, additional capacity [ ] Expand Current Facility [x]

New Facility [ ] Relocate: [ ] within Portland [ ] outside of Portland [ ]

INSTRUCTIONS: RESPONSIBLE CORPORATE OFFICIAL CERTIFICATION

This form shall be signed by a Responsible Corporate Officer, a general partner or by a duly authorized representative.

40 CFR 403.12(l):

Signatory requirements for industrial user reports. The reports required by paragraphs (b), (d), and (e) of this section shall include the certification statement as set forth in 403.6(a)(2)(ii), and shall be signed as follows:

(1) By a responsible corporate officer, if the Industrial User submitting the reports required by paragraphs (b), (d) and (e) of this section is a corporation. For the purpose of this paragraph, a responsible corporate officer means (I) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operation facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

(2) By a general partner or proprietor if the Industrial User submitting the reports required by paragraphs (b), (d) and (e) of this section is a partnership or sole proprietorship respectively.

(3) By a duly authorized representative of the individual designated in paragraph (l)(1) or (l)(2) of this section if:

(3) (I) The authorization is made in writing by the individual described in paragraph (l)(1) or (l)(2);

(3) (ii) The authorization specifies either an individual or a position having responsibility for the overall operation of the facility from which the Industrial Discharge originates, such as the position of plant manager, operator of a well, or well field superintendent, or a position of equivalent responsibility, or having overall responsibility for environmental matters for the company; and

(3) (iii) the written authorization is submitted to the Control Authority.

(4) If an authorization under paragraph (l)(3) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, or overall responsibility for environmental matters for the company, a new authorization satisfying the requirements of paragraph (l)(3) of this section must be submitted to the Control Authority prior to or together with any reports to be signed by an authorized representative.

Photocopy the completed survey form for your records and return the original survey to:

Industrial Source Control Division
City of Portland Environmental Services
Water Pollution Control Laboratory
6543 N. Burlington Avenue
Portland, OR 97203-5452

RESPONSIBLE CORPORATE OFFICIAL CERTIFICATION

You have completed the *Industrial and Commercial Environmental Survey, Part II.* **Sign and return this questionnaire to the Industrial Source Control Division.**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. [40 CFR 403.6(a)(2)(ii)]

This certification is to be signed only by the Responsible Corporate Official as per 40 CFR 403.12(l)(1) {e.g. the president, treasurer, vice-president, general partner, or sole proprietor of the facility}.

Responsible Corporate Official:

_____ _____

(Print name here) (Title)

_____ _____

(Signature) (Phone)

Date: _____

INSTRUCTIONS: SECTION F. FACILITY WASTEWATER DISCHARGE INFORMATION

1. Circle all that are appropriate.

2. Check the appropriate box.

3. Complete as requested.

   A Batch Discharge is the controlled discharge of a discrete volume of wastewater for a limited duration.

4. Check the appropriate box. If more than 100 Kilograms of any hazardous waste per calendar month is discharged to the sewer, please include the following information for each hazardous waste to the extent such information is known and readily available (attach additional sheets as necessary).

5. Complete the table as requested using the given example as a guide. Include all by-products and materials used in or generated from any and all facility processes (attach additional sheets as necessary).

6. Circle the appropriate item, more than one if applicable. Include additional information for more than one user or hauler on a separate sheet of paper:

   For off-site reuse: of by-products or wastes, complete the requested information.

   For off-site disposal: of by-products or wastes, complete the requested information.

   For off-site recycling: of by-products or wastes, complete the requested information.

CITY OF PORTLAND ENVIRONMENTAL SERVICES

Post-it® Fax Note 7671	Date	# of pages ▶ 57
To Brandy	From Steve Lowry	
Co./Dept. Cascade General	Co. BES COP	
Phone # Environmental	Phone # 823-5556	
Fax # 247-6050	Fax # 823-5597	

-5452

MAR 1 6 1998

Date : 12/31/02
mber: 400.124
i

WASTEWATER DISCHARGE PERMIT

Canceled copy

ISSUED TO:	Cascade General
SIC CODE:	3731
PLANT TYPE:	Ship Repair Yard
EPA CATEGORY:	400 General
LOCATION:	5555 N. Channel Ave. Portland, Oregon 97217
MAILING ADDRESS:	5555 N. Channel Ave. Portland, Oregon 97217
RESPONSIBLE OFFICIAL:	~~David Donaldson~~ ALAN SPROTT
PHONE NUMBER:	(503) 285-1111
FAX NUMBER:	
APPLICATION FEE RECEIVED:	11/96
EXPIRATION DATE:	12/31/02
INDUSTRIAL SOURCE CONTROL MANAGER	Gerald W. Baumgartner — 12-23-97 Effective Date

PREPARED BY: SDR
CHECKED BY : MAS

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MAR 1 0 1998

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INTRODUCTION

PERMITTED ACTIVITIES

The permittee is authorized to discharge industrial wastewater to the City of Portland's sewer system in compliance with Chapter 17.34 of the City Code, the Bureau of Environmental Services Administrative Rules and any applicable provisions of federal or state laws or regulations and in accordance with discharge point(s), effluent limitations, monitoring requirements, and all other conditions set forth herein.

It is the permittee's duty to comply with all conditions of this permit. Any noncompliance with permit requirements constitutes a violation of Chapter 17.34 of Portland's City Code and, as such, subjects the permittee to enforcement action(s).

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Schedule A
WASTEWATER DISCHARGE LIMITATIONS

Listed below are the waste discharge limitations not to be exceeded after the permit effective date. Applicable regulations include Chapters 17.34 and 17.36 of the Code of the City of Portland. The point of compliance with the discharge limitations shall be 1B (manhole near guard shack at facility entrance).

	Pollutant	Daily Maximum Concentration (mg/l)	Monthly Average Concentration mg/L
	Metals		
	Arsenic (total)	0.3	
*	**Cadmium (total)**	**0.7**	
*	**Chromium (total)**	**3.8**	
*	**Copper (total)**	**2.3**	
	Cyanide (total)	1.2	
*	**Lead (total)**	**0.7**	
	Mercury (total)	0.014	
*	**Nickel (total)**	**3.0**	
	Silver (total)	0.4	
*	Zinc (total)	4.0	
	Non-Metals		
	Ammonia	50	
*	**Chlorinated Hydrocarbons**	**0.5**	
*	**Fats Oil and Grease**		
	(non-polar)	**100.0**	
	(polar)	**500.0**	
*	**pH (range)**	**5.5 - 11.5 S.U.**	
	Phenolics	1.0	
	Sulfate	500.0	
	Sulfide	50.0	
	Closed Cup Flash Point	Discharges <140 F prohibited	

Notes:

1. This schedule may be revised upon written notification by the City to accommodate process changes by the permittee or as determined by the Director of Environmental Services.

2. In addition to the limits stated in Schedule A, the permittee shall comply with all other applicable City, State and Federal regulations.

3. The pollutant parameters marked with an asterisk (*) are the pollutants of concern. At a minimum, the permittee is required to monitor for pollutants of concern. All limits are applicable at the point of compliance.

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DEFINE AS 24 hr or GRAB

DEFINE IN APPENDIX 1

Schedule B
MONITORING AND REPORTING REQUIREMENTS

I. **Final Compliance report (samples for analysis to be taken within the first 90 days of operation after the issuance of this permit):**

Parameter	Sample Type	First Quarter Jan	Feb	Mar	Second Quarter Apr	May	Jun	Third Quarter Jul	Aug	Sept	Fourth Quarter Oct	Nov	Dec
Metals													
Cadmium (total)	Composite		✓	✓	✓								
Chromium (total)	Composite		✓	✓	✓								
Copper (total)	Composite		✓	✓	✓								
Lead (total)	Composite		✓	✓	✓								
Nickel (total)	Composite		✓	✓	✓								
Silver (total)	Composite		✓	✓	✓								
Zinc (total)	Composite		✓	✓	✓								
Non-metals													
Ammonia	Grab		✓	✓	✓								
Closed Cup Flash Point	Grab		✓	✓	✓								
PCB's	Grab		✓	✓	✓								
pH	Grab												
Oil and Grease (total)	Grab		✓	✓	✓								
Volatile Organics (EPA 62)	Composite		✓	✓	✓								
Due Dates		Feb 15	Mar 15	Apr 15	May 15	Jun 15	Jul 15	Aug 15	Sept 15	Oct 15	Nov 15	Dec 15	Jan 15

1 **Final Compliance Report, Notes:**

1. A Final Compliance Report (FCR) as per Section 17.34.060 (a)(4)(c)(b) is to be submitted the 15of the month following the FCR.

2. Any industrial discharger subject to final Compliance Report requirements shall submit to the Industrial Source Control Division a report indicating the nature and concentration of all prohibited or regulated substances contained in its discharge and average and maximum daily flow in gallons. The report shall state whether the applicable pretreatment standards or requirements are being met on a consistent basis and, if not, what additional operation, maintenance and pretreatment is necessary to bring the discharges into compliance.

3. All official sampling shall be taken at the approved Sampling Location (see Appendix 2).

4. The permittee shall analyze samples for all listed parameters plus any other which might be expected to be present in significant quantities.

MAR 16 1998

Schedule B
MONITORING AND
REPORTING REQUIREMENTS

5. The permittee shall submit all self-monitoring results to the Industrial Source Control Division (see page B3) on form 13-1A as part of their monitoring and reporting requirements.

6. Self monitoring reports shall include signed and completed Chain of Custody forms.

7. The permittee should instruct its laboratory that, if the oil and grease (total) concentration exceeds 100 mg/L, the laboratory should determine the concentrations of the polar and non-polar oil and grease fractions.

8 The percent LEL shall be measured in the airspace immediately above the discharge point on every sampling.

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Schedule B
MONITORING AND REPORTING REQUIREMENTS

II. Periodic Compliance Self-Monitoring Report

Parameter	Sample Type	First Quarter			Second Quarter			Third Quarter			Fourth Quarter		
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
		✓			✓			✓			✓		
		✓			✓			✓			✓		
		✓			✓			✓			✓		
		✓			✓			✓			✓		
		✓			✓			✓			✓		
		✓			✓			✓			✓		
		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		✓						✓					
		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		✓			✓			✓			✓		
Due		Feb 15	Mar 15	Apr 15	May 15	Jun 15	Jul 15	Aug 15	Sept 15	Oct 15	Nov 15	Dec 15	Jan 15

II. Periodic Compliance Self-Monitoring Report, Notes:

1. Periodic Compliance Reports are to be submitted to the Industrial Source Control Division by the 15th of the month following the conclusion of the reporting period. Sampling, analysis, and reporting will follow the schedule above.

2. All official sampling shall be taken at the approved sampling location. (See Appendix 2: sampling location map.)

3. The permittee shall analyze samples for all listed parameters plus any other which might be expected to be present in significant quantities.

4. The permittee shall submit all self-monitoring results to the Industrial Source Control Division as part of their monitoring and reporting requirements.

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Schedule B
MONITORING AND
REPORTING REQUIREMENTS

5. All monitoring results are to be mailed to:

   Industrial Source Control Division
   Bureau of Environmental Services
   City of Portland
   6543 N. Burlington Ave.
   Portland, OR 97203

6. Periodic Compliance Reports are to be submitted by the 15th of each month following the report period for each sampling location. The reports shall consist of:

   a. Statement of compliance/noncompliance, signed by the officially designated contact person (statement is found on bottom of the self-monitoring report form).

   b. Sample analysis results recorded on the appropriate self-monitoring report form and chain of custody for sample collected.

   c. Originals of all laboratory analysis sheets showing who analyzed sample, date and time sample was analyzed, analytical methods used, method detection limit, test result, and quality assurance/quality control.

   d. Copies of pH charts (if any) showing violations (if any).

   e. Any other reports that may be required.

   f. Calculations of monthly average, if appropriate.

7. The permittee should instruct its laboratory that, if the oil and grease (total) concentration exceeds 100 mg/L, the laboratory should determine the concentrations of the polar and non-polar oil and grease fractions.

8. The City may reduce or increase the frequency of sampling, based on the analytical results submitted.

9. As per 40 CFR 403.12(g)(5), if an industrial user subject to the reporting requirements of Schedule B monitors any parameter from the official sampling location more frequently than required, using procedures specified in Schedule E14(c), the results of their monitoring must be submitted in the required report.

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Schedule C
COMPLIANCE SCHEDULE

1) Cascade General shall submit documentation certifying calibration of the discharge meter located in the sampling manhole near the facilities entrance. This documentation shall be submitted by April 30 1998

2) Cascade General is to submit an Accidental Spill Prevention Plan ASPP) by April 30, 1998

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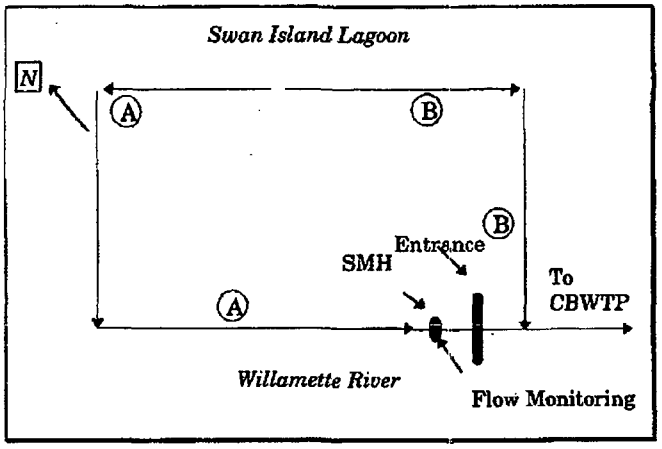
Schedule D
SPECIAL CONDITIONS

1) Cascade General is permitted to discharge septage from vessels to the section of Cascade's sanitary sewer labeled A without prior authorization from the Industrial Source Control Division (ISCD)



2) Cascade General is permitted to discharge tank hydrotest water under the condition that the water contains no free product as characterized by the presence of a visible sheen. This water is authorized to be discharged to the to the section of the sewer labeled A without prior authorization from the ISCD.

3) Any other on ship process water that is to be discharged to any portion of Cascade's sewer system must first receive authorization from the ISCD. These discharges will be treated as batch discharge requests and may require separate monitoring as perscribed by ISCD

4) Proposed discharges from Cascade's ballast water treatment plant must first receive authorization and monitoring parameters from the ISCD.

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Schedule E
GENERAL CONDITIONS

1. Accidental Spill Prevention Plan

To comply with Section 17.34.090 of the City Code, the permittee shall submit a new or revised Accidental Spill Prevention Plan (ASPP) to the Industrial Wastewater Management Section 90 days after the effective date of this permit. The plans shall include the following elements.

a. A description of the hazardous substances handled and their potential points of entry into the City sewer system or storm runoff

b. A description of the measures to be taken to prevent entry at the described points before a spill occurs

c. Measures to be taken to contain a spill if one occurs

d. A description of employee training in the prevention and control of spills

e. A posted notice informing employees of the requirement to notify the Bureau of Environmental Services in case of spills or uncontrolled discharges.

NOTE: THE ESTABLISHED FACILITY NOTIFICATION PROCEDURE IS FOR ALL SPILL INCIDENTS TO BE REPORTED TO ENVIRONMENTAL DIRECTOR, WHO MAKES THE REQUIRED NOTIFICATION.

2. Appeal

Upon receipt of a final industrial wastewater discharge permit, a permittee may appeal any of its terms or conditions to the Code Hearings Officer in accordance with procedures set out at Chapter 22.10 of the Portland City Code; provided that such an appeal shall include a copy of the permit that is the subject of the appeal, shall state the basis for the appeal, and shall be filed with the Code Hearings Officer and the Bureau of Environmental Services.

3. Authorized Discharge

All discharge and activities authorized herein shall be consistent with the terms and conditions of this permit, Chapter 17.34 of the City Code and the Administrative rules. The discharge of any pollutant in excess of these limits shall constitute a violation of the terms and conditions of this permit.

4. Bypass or Diversion

The diversion or bypass (the intentional diversion of wastestreams from any portion of a permittee's treatment facility) of any discharge, from facilities used by the permittee, to maintain

compliance with the terms and conditions of this permit is prohibited except:

a. When unavoidable to prevent loss of life or severe property damage.

b. When excessive storm drainage or runoff would damage facilities necessary for compliance with the terms and conditions of this permit.

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4. Bypass or Diversion (continued)

The permittee shall immediately notify the City in writing of each such diversion or bypass, in accordance with the procedure specified in condition No. 23.

5. Certification

Legible copies of all applications, reports, and information submitted to the City shall be signed and certified as follows in accordance with 40 CFR 403.12.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

6. Chemical Storage

Chemicals shall be stored in a manner that will prevent the entry of these substances into the sanitary, combined sewer, or storm sewer system, or waters of the state.

7. Continuous Compliance

Compliance with Schedule E, No. 23 shall not relieve the permittee from responsibility to maintain continuous compliance with the conditions of this permit.

8. Dilution Prohibition

It is unlawful for a discharger to use dilution as a partial or complete substitute for adequate treatment to achieve compliance with the standards and limitations set forth in this permit. The Director may impose mass limitations on dischargers who are using dilution to meet the applicable pretreatment standards or the requirement set forth in this permit.

9. Enforcement Provision

A violation of any conditions, standards or requirements of this permit constitutes a violation of Chapter 17.34 of the City Code and any rules promulgated thereunder. Therefore, the City may seek any or all of the remedies or penalties provided for in Section 17.34.110 of the City Code, including recovery of costs incurred by the City, in response to the following:

a. Any violation by the permittee of the provisions in this Industrial Wastewater Discharge Permit.

b. Any violation by the permittee of the provisions of the City Code.

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9. Enforcement Provision (continued)

c. Any violation by the permittee of an Enforcement Action requirement with respect to provisions set forth in this Industrial Wastewater Discharge Permit and the City Code and Administrative Rules.

The range or severity of enforcement actions taken by the City against the permittee will be determined by, but not limited to, the nature, magnitude, duration, and frequency of the violation as provided by City Code and Administrative Rules.

10. Extra-Strength Sewer Charge (ESSC)

Discharges exceeding 300 mg/L for the 5-day biochemical oxygen demand (BOD) or 350 mg/L total suspended solids (TSS) concentrations (as defined in Section 17.36.060(1) of the City Code) shall be subject to the extra-strength sewer charge (ESSC) established in Section 17.36.060(1).

11. Hazardous Waste Notification

The industrial user shall notify the Industrial Source Control Division Section, the POTW, the EPA Regional Waste Management Division Director, and State hazardous waste authorities in writing of any discharge into the POTW of a substance, which, if otherwise disposed of, would be a hazardous waste under 40 CFR Part 261. Such notification must include the name of the hazardous waste as set forth in 40 CFR Part 261, the EPA hazardous waste number, and the type of discharge (continuous, batch, or other). If the industrial user discharges more than 100 kilograms of such waste per calendar month to the POTW, the notification shall also contain the following information to the extent such information is known and readily available to the industrial user: an identification of the hazardous constituents contained in the wastes, an estimation of the mass and concentration of such constituents in the wastestream discharged during that calendar month, and an estimation of the mass of constituents in the wastestream expected to be discharged during the following 12 months.

12. Inspection and Entry

The permittee shall, at all reasonable times, allow authorized representatives of the City:

a. To enter the permittee's premises where an effluent source or disposal system is located or where any records associated with this permit are kept.

b. To have access to any required records and permission to copy these records. At no time can wastewater effluent data be claimed or held as confidential information.

c. To inspect and evaluate any monitoring equipment or monitoring methods required by this permit.

d. To sample any discharge to the sewer system.

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13. Liability

The City of Portland, its officers, agents or employees shall not sustain any liability due to the issuance of this permit or the construction or maintenance of facilities resulting from this permit.

14. Monitoring

a. The permittee shall record the following information:

* The exact date, time, and place of sampling
* Name of person who collected the sample(s)
* Type of sample(s) collected
* The dates analyses were performed
* Who performed the analyses
* The analytical techniques or methods used
* The results of all required analyses
* Whether quality assurance and quality control laboratory procedures are followed

b. Samples and measurements, taken to meet the requirements of the above condition, shall be representative of the effluent. Grab samples must be collected for pH, cyanide, phenol, sulfide, volatile organic compounds and oil and grease monitoring.

c. All sampling and analytical methods used to meet the monitoring requirements specified in this permit shall, unless otherwise approved in writing by the City, conform to the Guidelines Establishing Test Procedures for the Analysis of

Pollutants as specified in 40 CFR, Part 136. Laboratory quality assurance and quality control programs should be documented. EPA QA/QC programs should be followed.

d. The permittee is required to document proper installation, and maintenance of flow monitoring and sampling equipment.

e. If the results of the permittee's wastewater analysis indicate that a noncompliance has occurred, the permittee must notify the City's Industrial Source Control Division Section within 24 hours of becoming aware of the noncompliance. The permittee must also repeat the sampling within 24 hours of the effluent noncompliance or next process day and submit the analysis to the City within 30 days after becoming aware of the noncompliance.

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14. Monitoring (continued)

f. The permittee shall take all reasonable steps to minimize or correct any adverse impact to the POTW or the environment resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

g. If requested, the permittee shall provide or split discharge samples with the City of Portland Water Pollution Control Laboratory.

15. Permit Modification

This permit may be modified with 30 days prior written notification, in whole or in part, for causes including but not limited to the following:

a. A change in the City's NPDES permit or any other condition that requires either a temporary or permanent elimination of any authorized discharge.

b. To incorporate new or revised federal, state, or local pretreatment standards or requirements.

c. Information indicating that the permitted discharge poses a threat to the City's collection and treatment system, POTW personnel, or the receiving waters and sludge.

d. To correct typographical or other errors in the permit.

e. Any significant change in the volume of a permitted discharge.

16. Permit Renewal

This permit is issued to a specific entity and cannot be transferred by the industrial user and must be renewed pursuant to Section 17.34.070 of the Code of the City of Portland and Permit Applications must be received 90 days prior to:

a. Expiration date of current permit.

b. In the event the permittee plans to cease operations at the present location, and plans to relocate within the City of Portland's jurisdiction and continue the same permitted activities.

c. The permitted industrial process being significantly altered or changed so that pollutants not specifically mentioned in the current permit are present in the permittee's discharge.

17. Permit Suspension or Termination

a. Violation of any terms or conditions of this permit or any applicable rule, standard, or order of the director of the Bureau of Environmental Services.

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17. **Permit Suspension or Termination (continued)**

b. Obtaining this permit by misrepresentation or failure to fully disclose all relevant facts.

c. Falsifying self-monitoring reports.

d. Tampering with monitoring equipment.

e. Refusing to allow prompt access to the facility premises and records.

f. Failure to meet effluent limitations.

g. Failure to pay fines.

h. Failure to meet compliance schedules.

18. **Plant Closure**

In the event the permittee plans to cease operations at the present business location, and not to relocate within the City of Portland's jurisdiction, the permittee shall inform this office, in writing, 60 days prior to plant closure.

19. **Property Rights or Privileges**

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges; it does not authorize any injury to private property or any invasion of personal rights; and it does not authorize any infringements or federal, state, or local laws or regulations.

20. **Records Retention**

All records of monitoring activities and results, including all original strip chart recordings for continuous monitoring instrumentation (and calibration and maintenance records), shall be retained by the permittee for a minimum of three years. This retention period shall be extended during the course of any unresolved litigation pertaining to the discharge of pollutants by the permittee, or whenever it is requested by the City, the Approval Authority (DEQ), the Regional Administrator (EPA).

21. **Reporting Requirements**

a. Accidental or Slug Loading

The permittee shall notify the City immediately, either in person or by telephone (Duty Officer Pager # 323-3398 and Lead Operator CBWTP # 823-2530), if accidental or slug loading to the sanitary sewer occurs. A formal written report, discussing circumstances and remedies, shall be submitted to the City within 5 days of the occurrence.

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21. Reporting Requirements (continued)

b. Changes in Wastewater Characteristics

The permittee shall give notice to the Industrial Source Control Division Section 90 days before any facility expansion, production increase, or process modifications that result in new or substantially increased discharges or a change in the nature of the discharge.

c. Change in representative

If the responsible corporate official changes, notify the City within 10 days, as per 40 CFR 403.12 (1) (4).

22. Severability

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to the other circumstances and the remainder of this permit shall not be affected.

23. Slug Load Notification

If the permittee is unable to comply with all the conditions of this permit due to a breakdown of equipment or facilities, an accident caused by human error or negligence, or any other cause such as an act of nature, or should any condition cause the release of any slug load, the permittee shall:

a. Immediately take action to stop, contain, clean up the unauthorized discharges, and correct the problem.

b. Immediately call the Lead operator of the Columbia Boulevard Wastewater Treatment Plant (823-2530) so that plant personnel can evaluate the impact of the discharge and take corrective action. Notify Industrial Source Control by calling the Duty Officer, pager # 323-3398.

c. Within five (5) days submit a detailed written initial report to the City describing the breakdown, the actual quantity of resultant waste discharges, the corrective action taken, the steps taken to prevent recurrence, and any other pertinent information.

Samples shall be taken immediately upon discovery of the Slug load. Within 15 days, a follow-up report shall be submitted. The report shall contain analysis of samples taken during such discharge and samples taken after normal conditions have been restored. The samples, at a minimum, shall be analyzed for the parameters required in Schedule B. Sampling shall be continued until all parameters are within discharge limits.

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24. Upset

a. Definition:

For the purposes of this section, upset means an exceptional incident in which there is unintentional and temporary noncompliance with applicable pretreatment standards, because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. Effect of an Upset:

An upset will constitute an affirmative defense to an action brought for noncompliance with applicable pretreatment standards, if the requirements of paragraph c are met.

c. Conditions Necessary for a Demonstration of an Upset:

A permittee who wishes to establish the affirmative defense of an upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An upset occurred and the permittee can identify the specific cause(s) of the upset.

(2) The facility was, at the time, being operated prudently, efficiently, and in compliance with applicable operation and maintenance procedures.

(3) The permittee has submitted the following information to the Industrial Source Control Division within 24 hours of becoming aware of the upset (if this information is provided orally, a written submission must be provided within 5 days).

* A description of the indirect discharge and cause of noncompliance

* The period of noncompliance, including exact dates and times or, if not corrected, the anticipated duration of noncompliance

* Steps planned or now being taken to reduce, eliminate, and prevent recurrence of the noncompliance

d. Burden of Proof

In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset shall have the burden of proof.

e. Permittee Responsibility in Case of an Upset.

Schedule E
GENERAL CONDITIONS

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24. **Upset (continued)**

If reduction, loss, or failure of its treatment facility occurs, the permittee shall control production of all discharges in order to maintain compliance with applicable pretreatment standards until the facility is restored or an alternative method of treatment is provided. This requirement especially applies if the primary source of the treatment facility power is reduced, lost, or failed.

25. NOTHING IN THIS PERMIT WILL LIMIT, WAIVE, OR ABROGATE CASCADE GENERAL'S ENVIRONMENTAL AUDIT PRIVILEGE UNDER ORS 468.963.

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Appendix 1
DEFINITIONS

Abbreviations

BOD_5	Five-day biochemical oxygen demand
mg/L	Milligrams per liter
kg	Kilograms
m^3/d	Cubic meters per day
ppm	Parts per million (assumed equal to milligrams per liter)
POTW	Publicly owned treatment works
WPCL	Water Pollution Control Laboratory

Averages for BOD, TSS, and chemical parameters are based on arithmetic mean of samples taken.

Definitions

Bypass

The intentional diversion of wastestreams from any portion of a permittee's treatment facility..

Compatible Pollutant

Biochemical oxygen demand, suspended solids, pH and fecal coliform bacteria, and additional pollutants that the City treatment works is designed to treat.

Conventional Pollutants

Classification of industrial pollutants, which includes BOD (biochemical oxygen demand), suspended solids, fecal coliform, pH (acidity/alkalinity), and other pollutants so designated by EPA, as defined by Section 304(a)(4) of the Clean Water Act.

Director of Environmental Services

The Director of Environmental Services of the City of Portland, Oregon, or that person's duly authorized representative or agent.

City, or City of Portland

The municipality of Portland, Oregon, a municipal corporation of the State of Oregon, acting through the City Council or any board, committee, body, official, or person to whom the Council shall have lawfully delegated the power to act on behalf of the City. Unless a particular board, committee, official, or person is specifically designated in these rules and regulations, wherever action by the City is explicitly required or implied herein, it shall be understood to mean action by the Director of Environmental Services of Portland, Oregon, or that person's duly authorized representative or agent.

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Effective Date of this Permit

The date this permit is signed by the Director of the Bureau of Environmental Services.

Expiration Date

From 1 to 5 years beyond the effective date of this permit.

Hazardous or toxic substances

Hazardous or toxic substances are those substances referred to in section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (42 U.S. Code 9601 et seq.), section 501(13) of the Clean Water Act, and any other substances so designated by the Director of Environmental Services and contained in rules adopted pursuant to this Chapter.

Industrial Waste

Any liquid, solid, or gaseous substance (or combination thereof) resulting from any process of industry, manufacturing, commercial food processing, business, agriculture, trade, or research, including but not limited to the development, recovery, or processing of natural resources and leachate from landfills or other disposal sites.

Industrial Wastewater Discharge Permit

A permit to discharge industrial wastewater into the City sewer system issued under the authority of the City Code, which prescribes certain discharge requirements and limitation.

Interference

Interference means a discharge which, alone or in conjunction with a discharge or discharges from other sources, inhibits or disrupts the normal operation of the City sewer system, or which causes a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or any increase in the cost of treatment of sewage or in the cost of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations); Section 405 of the Clean Water Act, the Solid Waste Disposal Act (including Title II, more commonly referred to as the Resource Conservation and Recovery Act), and including State regulations contained in any State sludge management plan prepared pursuant to Subtitle D of RCRA, the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

Maximum Daily Discharge Limitation

The highest allowable daily discharge.

Nonconventional Pollutants

All pollutants that are not specifically designated as either conventional or toxic.

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Oil and Grease

Fats, Oils and Grease. Fats, oils and grease are those substances which are measured by USEPA Method 1664: N-Hexane Extractable Method (HEM) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM).

(a) Non-polar fats, oils and grease are that portion of fats, oils and grease which is measured as non-polar (from petroleum sources) by USEPA Method 1664.

(b) Polar fats, oils and grease are that portion of fats, oils and grease which is determined to be polar (of animal or vegetable origin) by USEPA Method 1664.

Pass Through

Pass through means a discharge which exits the POTW into waters of the United States in Quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

Phenolics

Phenol and cresol compounds identified in Method #625, "Manual for Methods for Chemical Analysis of Water and Wastes," U.S. Environmental Protection Agency, or equivalent method from other references cited in 40 CFR 136, "Guidelines Establishing Test Procedures for Analysis of Pollutants."

POTW

POTW means Publicly Owned Treatment Works, which includes any devices and systems, owned by a State or municipality, used in the collection, transportation, storage, treatment, recycling and reclamation of wastewater.

Pretreatment

The reduction of the amount of pollutants, the elimination of pollutants, or the alternation of the nature of pollutant properties in wastewater to a non-harmful state, prior to or in lieu of discharge of such pollutants into the City sewer system.

Sampling

a. The "monthly average" other than pH is the arithmetic mean of samples collected during a calendar month.

b. The "daily maximum" is defined as the greatest allowable value for any calendar day.

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c. A "24-hour composite" sample shall mean a flow-proportioned mixture of not less than eight discrete aliquots. Each aliquot shall be a grab sample of not less than 100 ml and shall be collected and preserved in accordance with 40 CFR part 136 and amendments.

d. A "Grab" sample is an individual sample collected in less than 15 minutes, without regard for flow or time.

e. A "Grab-Composite" is a minimum of four grab samples collected and preserved over a 24-hour period and combined to provide a representative sample of effluent being discharged.

Schedule of Compliance

A schedule of remedial measures, including an enforceable sequence of actions or operations leading to compliance with an effluent limitation or other limitation, prohibition, or standard.

Severe Property Damage

Substantial physical damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

Slugload

A slugload is any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge.

Solid Waste

Any garbage, refuse, or sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to permits.

Solid Waste Disposal

The final placement of refuse that cannot be salvaged or recycled.

Solvent Management Plan

A plan that specifies the toxic organic compounds used, the method of disposal used (instead of dumping into wastestreams), and procedures for ensuring that toxic organics do not spill or leak into wastewater discharged to the City sewer system.

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Total Dissolved Solids

The total dissolved (filterable) solids as determined by use of the method specified in the list of approved test procedures.

Total Organic Active Ingredients

The sum of all organic active ingredients covered by the organic pesticide chemicals manufacturing subcategory, which are manufactured at a facility subject to the effluent guidelines for pesticides chemicals manufacturing.

Total Solids

The sum of dissolved and undissolved constituents in water or wastewater, usually expressed as milligrams per liter.

Total Suspended Solids

Total suspended matter that either floats on the surface or is in suspension in water or wastewater and that are removable by laboratory filtering (as described in *Standard Methods for the Examination of Water and Wastewaters*, current edition) or Guidelines Establishing Test Procedures for the analysis of Pollutants, contained in 40 CFR 136, as published in the *Federal Register*.(Bureau of Environmental Services Administrative Rules I[22])

Upset

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with applicable pretreatment standards, because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

Waste

Unwanted materials left over from manufacturing processes, or refuse from places of human or animal habitation.

Wastewater

Industrial waste, sewage, or any other waste, including that which may be combined with any groundwater, surface water, or stormwater that may be discharged to the city sewer system.

Water Pollution

The addition of enough harmful or objectionable material to damage water quality.

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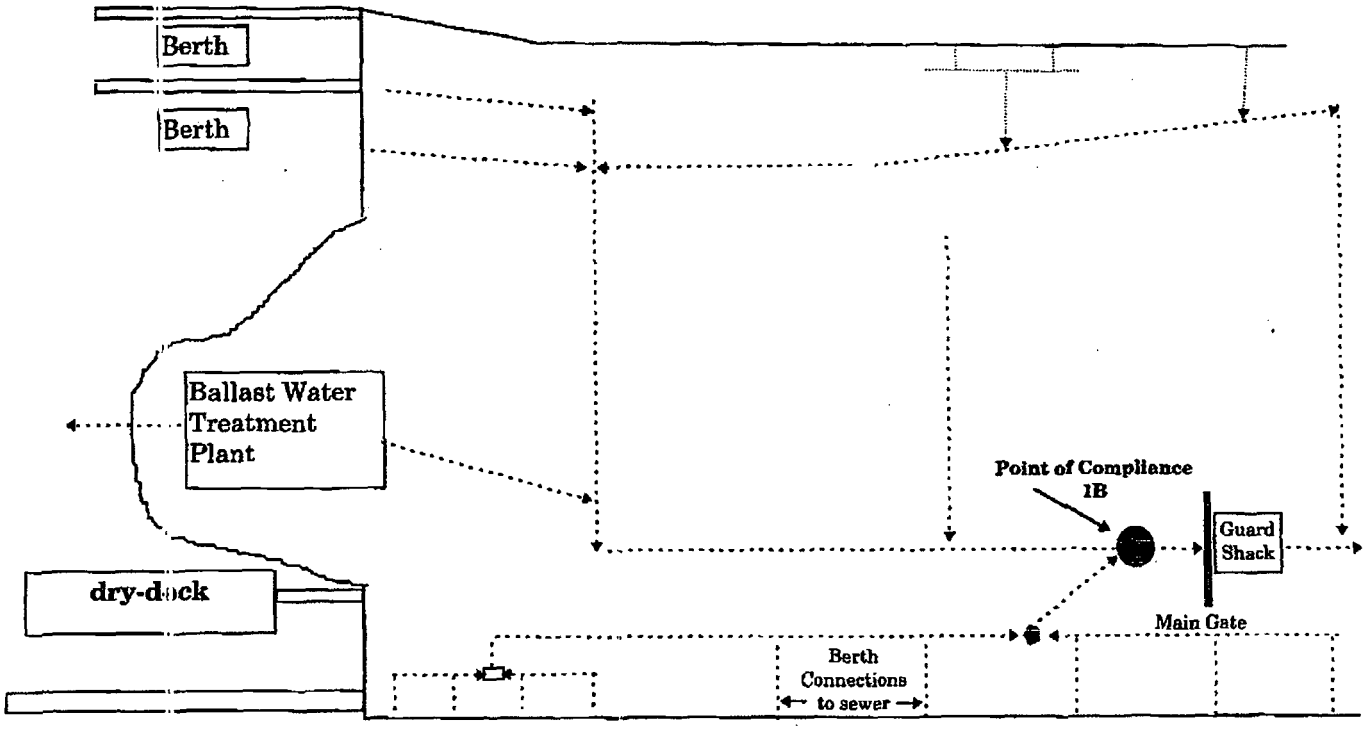
Appendix 2
SAMPLING LOCATION MAP



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Appendix 3
RESERVED: ACCIDENTAL SPILL PREVENTION PLAN

To be prepared by the permittee and approved by the City.

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Appendix 5
Chlorinated Hydrocarbons

Carbon tetrachloride (tetrachloromethane)
1,2-dichloroethane
1,1,1-trichloroethane
Hexachloroethane
1,1-dichloroethane
1,1,2-trichloroethane
1,1,2,2-tetrachloroethane
Chloroethane
Bis(2-chloroethyl)ether
2-chloroethyl vinyl ether (mixed)
Chloroform (trichloromethane)
1,1-dichloroethylene
1,2-trans-dichloroethylene
1,2-dichloropropane
1,3-dichloropropylene (1,3-dichlororpropene)
Bis(2-chloroisopropyl)ether
Bis(2-chloroethoxy)methane
Methylene chloride (dichloromethane)
Methyl chloride (chloromethane)
Methyl bromide (bromomethane)
Bromoform (tribromomethane)
Dichlorobromomethane
Chlorodibromomethane
Hexachlorobutadiene
Hexachlorocyclopentadiene
Tetrachloroethylene
Trichloroethylene
Vinyl chloride (chlorethylene)
Chlorobenzene
1,2,4-trichlorobenzene
Hexachlorobenzene
2-Chloronapthalene
1,2-dichlorobenzene
1,3-dichlorobenzene
1,4-dichlorobenzene
3,3-dichlorobenzidene
4-chlorophenyl phenyl ether
4-bromophenyl phenyl ether

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Permit Amendments

VOID

CITY OF PORTLAND
ENVIRONMENTAL SERVICES

Water Pollution Control Laboratory
6543 N. Burlington Ave., Portland, Oregon 97203-5452
(503) 823-5600

November 13, 1998

Alan Sprott
Cascade General Inc
5555 N Channel Ave.
Portland, OR 97217

RE: City of Portland new local discharge limits

Dear Alan:

On October 26, 1998, the City of Portland (City) adopted new local discharge limits that apply to all permitted users discharging industrial wastewater to the City's sewer system. This letter provides an overview of the local limit development process as well as distinct information relative to pollutant categories, including monitoring and enforcement information.

These new local limits require modification of your current industrial wastewater discharge permit. Your Permit Manager will work with you to explain the new local limits and make the necessary modifications to your facility's permit.

Local discharge limits have been changed or established for eleven metals, nine individual organic compounds, total cyanide, dissolved sulfide, non-polar oil and grease, and pH. Please refer to the table in the interim Schedule A accompanying this letter for a list of the pollutant parameters and limits. The limits listed in the interim Schedule A are **effective immediately**.

In short:

- If your industry monitors for only pH or non-polar oil and grease and none of the listed pollutants is reasonably expected to be present in your facility's wastewater discharge, the new limits will have little affect on your operation.

- If your industry monitors for listed pollutants (other than pH and non-polar oil and grease) or, if any of the listed pollutants are expected to be present in your facility's wastewater discharge, contact your Permit Manager to discuss the possible regulatory implications.

Local Limit Development Process Overview

Since 1991, a number of regulatory changes have occurred that affected the City's municipal pretreatment program. The most notable include:

1. Oregon Department of Environmental Quality's (ODEQ) guidance for local limits development;
2. ODEQ's new guidance for Annual Report submittal for municipal pretreatment programs;
3. Amendments to the Clean Air Act;
4. Changes to OSHA Confined Space Entry requirements; and,
5. Requirements under the City's National Pollutant Discharge Elimination System (NPDES) permit to evaluate the local limits at least once every five years.

As a result of these regulatory influences, the City determined that a local limits re-evaluation was necessary.

Public notices were issued and public meetings on the proposed local limits were held in June 1996 and January 1997. The proposed local limits were revised in response to comments received during the public participation periods. The primary revision was the application of local limits to all non-domestic wastewater discharges.

After discussions between the City and the ODEQ, an opinion was requested from the state Attorney General (AG) as to whether local limits could apply to all non-domestic dischargers. The AG said the City must narrow the scope of application of local limits to permitted industrial users and suggested the implementation of separate City limits to all other non-permitted users. As a result, the City amended the Administrative Rules to:

- Apply local limits to permitted industrial users only, and

- Apply City limits to non-permitted, non-domestic dischargers with the provision to implement prescribed best management practices (BMP) to achieve presumptive compliance.

After approval by the ODEQ, the revised local limits and Administrative Rules were incorporated into the City's NPDES permit October 14, 1998.

Local Limit Parameters and Summary of Revisions

PARAMETER	EFFECT	LIMIT
pH	*Range increased*	From 5.5 to 5.0 - 11.5 S.U.
Metals		
Arsenic	**Limit lowered**	From 0.3 to **0.2 mg/L.**
Cadmium	*No change in limit*	0.7 mg/L.
Chromium	*Limit increased*	From 3.8 to 5.0 mg/L.
Copper	*Limit increased*	From 2.3 to 3.7 mg/L.
Lead	*No change in limit*	0.7 mg/L.
Mercury	**Limit lowered**	From 0.014 to **0.010 mg/L.**
Molybdenum	*New local limit*	1.4 mg/L.
Nickel	**Limit lowered**	From 3.0 to **2.8 mg/L.**
Selenium	*New local limit*	0.6 mg/L.
Silver	*No change in limit*	0.4 mg/L.
Zinc	**Limit lowered**	From 4.0 to **3.7 mg/L.**
Non-Metals		
Ammonia	*Limit removed*	N/A
Chlorinated Hydrocarbons	*Limit removed*	N/A
Cyanide	*No change in limit*	1.2 mg/L.
Dissolved sulfide	**New local limit**	**4.0 mg/L.**
Non-polar oils and grease	*Limit increased*	From 100 to 110 mg/L.
Polar oils and grease	*Limit removed*	N/A
Phenolics	*Limit removed*	N/A
Sulfate	*Limit removed*	N/A
Total sulfide	*Limit removed*	N/A

There are no longer local limits for groups of organic compounds (e.g., chlorinated hydrocarbons, phenolics). However, the group sum limits for **categorical industries** are still applicable. With the institution of the new local limits, the City has adopted a technically-based, chemical-specific approach for individual organic compounds (IOC) consistent with the Clean Water Act. IOCs are evaluated according to treatability, toxicity, flammability, explosivity, fume toxicity, and Maximum Allowable Headwork's Loading (MAHL). A decision matrix was used to classify the IOC into one of the following categories:

A. Local Limit
B. Pollutant Prohibitions
C. Screening Value Limited Pollutants
D. Conditional Discharge Pollutants

Local Limit Parameters and Summary of Revisions, continued

A. *Local Limits*

IOCs that are amenable to biological treatment and have a limitation based on MAHL or the Toxic Characteristics Rule have been incorporated into the City's local limits. There are nine IOCs with numeric local limits:

PARAMETER	***LIMIT***
Individual Organic Compounds	
1,2-Dichloroethane	0.50 mg/L
2,4-Dinitrotoluene	0.13 mg/L
Acrylonitrile	1.00 mg/L
Chlordane	0.03 mg/L
Chlorobenzene	0.20 mg/L
Chloroform	0.20 mg/L
Nitrobenzene	2.00 mg/L
Pentachlorophenol	0.04 mg/L
Trichloroethene	0.20 mg/L

B. *Pollutant Prohibitions*

IOCs that are not amenable to biological treatment or those that have screening values or local limits that are less than the practical method detection limits (MDLs) are classified as *pollutant prohibitions*. An MDL is defined by the US-EPA as "the minimum concentration of a substance that can be measured and reported with 99% confidence that the value is above zero."[1] An inventory of pollutant prohibitions determined through technical evaluation will be maintained by the City. The inventory will contain the pollutant prohibitions and the MDL used to determine a violation. The new local limits contain 47 IOCs as pollutant prohibitions that apply to all permitted industrial users. In some cases, matrix interference may cause analytical results to be higher than the MDLs listed in the following table. In these instances, the permitted industrial user will be required to conduct a source investigation to determine whether the pollutant is present.

PARAMETER	***METHOD DETECTION LIMIT (MDL)*** ***mg/L***
Pollutant Prohibitions	
Volatiles	
Bromodichloromethane	0.005
Bromoform	0.005
Bromomethane	0.010

1. 40 CFR Part 136, Appendix B

Local Limit Parameters and Summary of Revisions, continued

B. *Pollutant Prohibitions, continued*

PARAMETER	***METHOD DETECTION LIMIT (MDL) mg/L***
Pollutant Prohibitions	
Volatiles, continued	
1,1,1,2-Tetrachloroethane	**0.010**
1,1,2-Trichloroethane	**0.005**
1,1-Dichloroethene	**0.005**
Chloroethane	**0.050**
Chloromethane	**0.005**
Dibromochloromethane	**0.005**
Vinyl Chloride	**0.050**
Base/Neutral extracables	
1,2,4-Trichlorobenzene	**0.005**
1,2-Dichlorobenzene	**0.005**
1,2-Diphenylhydrazine	**0.005**
1,3-Dichlorobenzene	**0.005**
1,4-Dichlorobenzene	**0.005**
2,6-Dinitrotoluene	**0.005**
4-Bromophenyl-Phenyl Ether	**0.005**
Bis (2-Chloroethoxy)methane	**0.010**
Bis (2-Chloroisopropyl)ether	**0.010**
Hexachlorobenzene	**0.005**
Hexachlorobutadiene	**0.005**
Hexachlorocyclopentadiene	**0.005**
N-Nitroso-Di-N-Propylamine	**0.005**
Pesticides	
4,4-DDD	**0.001**
4,4-DDE (p,p-DEX)	**0.001**
4,4-DDT (p,p-TDE)	**0.001**
a-BHC (alpha)	**0.001**
b-BHC (beta)	**0.001**
d-BHC (delta)	**0.001**
Dieldrin	**0.001**
Endosulfan II (beta)	**0.001**
Endosulfan Sulfate	**0.001**

B. *Pollutant Prohibitions, continued*

PARAMETER	***METHOD DETECTION LIMIT (MDL) mg/L***
Pollutant Prohibitions	
Pesticides, continued	
Endosulfan-I (alpha)	**0.001**
Endrin	**0.001**
Endrin Aldehyde	**0.001**
g-BHC (gamma) (Lindane)	**0.001**
Heptachlor	**0.001**
Heptachlor Epoxide	**0.001**
Toxaphene	**0.001**
Polychlorinated biphenyls (PCBs)	
PCB 1016	**0.001**
PCB 1221	**0.001**
PCB 1232	**0.001**
PCB 1242	**0.001**
PCB 1248	**0.001**
PCB 1254	**0.001**
PCB 1260	**0.001**

C. Screening Value Limited Pollutants

Screening values have been developed for IOCs that are amenable to biological treatment. The limiting criterion for screening values is based on worker health and safety[2]. The presence of an IOC at a concentration above its screening value, in a facility's effluent, may result in the implementation of BMPs or the establishment of industrial user specific limits.

The primary worker health and safety concern is fume toxicity in publicly owned treatment works (POTW). Because of this potential health issue in the POTW collection system, the industrial user specific limits apply to pollutant concentrations at the "end-of-pipe". This means that the point of compliance (or the nearest point of accommodation) for *screening value limited pollutants* is the point where the industry's effluent enters the POTW collection system, for this is when worker exposure becomes a potential safety concern.

2. US-EPA Guidance to Protect POTW Workers From Toxic and Reactive Gases and Vapors, EPA 812-B-92-001

Local Limit Parameters and Summary of Revisions, continued

C. Screening Value Limited Pollutants, continued

If your industry currently discharges, or has the potential to discharge, any of the following listed IOCs, contact your Permit Manager. Your Permit Manager will help you conduct an evaluation to determine whether industrial user specific limits need to be established. The new local limits include screening values for the following twenty IOCs:

PARAMETER	***SCREENING VALUE LIMIT (mg/L)***
Screening Value Limited IOCs	
Volatiles	
1,1,1-Trichloroethane	**1.60**
1,1,2,2-Tetrachloraethane	**0.40**
1,1-Dichloroethane	**2.30**
1,2-Dichloropropane	**3.60**
Acrolein	**0.10**
Benzene	**0.14**
Carbon Tetrachloride	**0.03**
Ethylbenzene	**1.60**
Methylene Chloride	**2.10**
Tetrachloroethene	**0.30**
Toluene	**1.40**
Trans 1,2-Dichloroethene	**0.30**
Trans-1,3,-Dichloropropene	**0.10**
Acid extractables	
2,4,6-Trichlorophenol	**0.60**
4,6,-Dinitro-2-Methylphenol	**3.50**
Base/Neutral extracables	
Benzo(a)pyrene	**10.0**
Chrysene	**4.70**
Hexachloroethane	**0.10**
Naphthalene	**2.70**
Pesticides	
Aldrin	**0.40**

Local Limit Parameters and Summary of Revisions, continued

D. Conditional Discharge Pollutants

IOCs that are amenable to biological treatment and that have no limiting environmental criteria have conditional discharge provisions. Industrial user specific limits may be established for IOCs classified as a *conditional discharge pollutants* if an industry has the potential to discharge the pollutant at a level which would jeopardize worker health and safety in the POTW collection system.

If your industry currently discharges, or has the potential to discharge, any of the following listed IOCs, contact your Permit Manager. Your Permit Manager will help you conduct an evaluation to determine whether industrial user specific limits need to be established.

PARAMETER	***PARAMETER***
Conditional Discharge Pollutants	**Conditional Discharge Pollutants**
2 - chloroethyl vinyl ether	**benzo (k) fluoranthene**
2 - chloronaphthalene	**bis (2 - chloroethyl) ether**
2 - chlorophenol	**bis (2 - ethylhexyl) phthalate**
2 - nitrophenol	**butyl benzyl phthalate**
2, 4 - dichlorophenol	**di - benzo (a,h) anthracene**
2, 4 - dimethylphenol	**di - n - butyl phthalate**
2,4, - dinitrophenol	**di - octyl phthalate**
3,3 - dichlorobenzidine	**diethyl phthalate**
4 - chloro - 3 - methylphenol	**dimethyl phthalate**
4 - chlorophenyl - phenyl ether	**fluoranthene**
4 - nitrophenol	**fluorene**
acenaphthene	**indeno (1,2,3 - c,d) pyrene**
acenaphthylene	**isophorone**
anthracene	**n - nitrosodimethylamine**
benzidine	**n - nitrosodiphenylamine**
benzo (a) anthracene	**phenanthrene**
benzo (b) fluoranthene	**phenol**
benzo (g,h,i) perylene	**pyrene**

Local Limit Parameters and Summary of Revisions, continued

There are no longer concentration-based local limits for ammonia, chlorinated hydrocarbons, phenolics, total sulfide, and sulfate. Permit-specific BMPs will be used as the control method for ammonia, sulfate, fluoride, and polar oils and grease.

If your facility pretreats wastewater to control the discharge level of any of the pollutants mentioned above, you are required to continue your current practices. If you would like to modify the nature or level of treatment for these pollutants, please consult with your Permit Manager. Control mechanisms may include:

- Enforcing prohibited discharge standards
- Requiring existing pretreatment to remain in place
- Controlling batch discharges
- Requiring spill prevention and containment
- Observe permit-specific, performance-based limits

Monitoring and Enforcement

In the coming weeks, your Permit Manger will be contacting you regarding modification of your wastewater discharge permit to incorporate the new local limits. Until then, an interim Schedule A containing the new local limits is included with this letter. The local limits are **effective immediately** regardless of whether your current permit includes these new limits.

First time offenses of the new or more stringent discharge local limits will be addressed with a Compliance Telephone Memorandum (CTM) with no attendant civil penalty regardless of the magnitude of the violation. Subsequent violations will be addressed with escalating enforcement action unless the industry has requested and is operating under a Compliance Order during that time.

A Compliance Certification form is also included with this letter. This form, detailing the compliance status of your facility with the new local limits, must be completed and ***returned by December 12, 1998.*** Your Permit Manager will work with you to establish a schedule for maintaining compliance.

Again, if you have any questions about how these local limit revisions affect your wastewater discharge permit, contact your Permit Manager.

Sincerely,

Gerald W. Baumgartner

Gerald W. Baumgartner
Industrial Source Control Division Manager

enc.

CITY OF PORTLAND
ENVIRONMENTAL SERVICES
1120 SW Fifth Avenue, Room 1000, Portland, Oregon 97204-1912 (503) 823-7740, FAX (503) 823-6995 Dean Marriott, Director
http://www.bes.ci.portland.or.us

December 31, 2002

Alan Sprott
Cascade General
5555 N. Channel Ave.
Portland, OR 97217

RE: Extension of Industrial Wastewater Discharge Permit No. 400.124

Dear Alan:

A draft of Cascade General's new permit has been developed and is currently under review. The existing permit is set to expire on December 31, 2002. This letter formally extends all conditions and requirements of the aforementioned permit until a new permit has been issued.

If you have any questions or concerns, don't hesitate to call the undersigned at 503-823-5556.

Sincerely,

Derik Vowels
Pretreatment Permit Manager

CITY OF PORTLAND
ENVIRONMENTAL SERVICES

Water Pollution Control Laboratory
6543 N. Burlington Ave., Portland, Oregon 97203-5452
(503) 823-5600

April 6, 1998

Alan Sprott
Director of Environmental Services
Cascade General
5555 North Channel Ave.
Portland, OR 97217

Dear Mr. Sprott:

Please find the enclosed revisions to Cascade General's Industrial Wastewater Discharge Permit. The revisions reflect changes to the Final Compliance Monitoring Schedule, shifting the schedule by one month. The change in the monitoring was in response to Cascade General's request for extension. The extension was granted because the City is in agreement with Cascade's assertion that a delivery date of January 29th 1998 and first sampling event in February, 1998, did not permit adequate time to review permit requirements and implement a sampling program for a facility of Cascade's size. As a result of this extension, Compliance Telephone Memorandums CTM-1998-019 and 020 have been rescinded. I have also included modified final compliance monitoring reports, reflecting the extension.

I would also like to use this opportunity to address batch discharges from Cascade General. I have discussed this issue with Bob Coates and propose handling batches as follows:

1. Cascade General faxes batch discharge request to Industrial Source Control Division with notification phone call.
2. Discharge request is to be submitted in a format similar to previous requests (example attached). In addition statement detailing whether water has been in contact with product will be included with each water source (batch). Any other relevant information or special conditions will be detailed in the request.
3. Water resulting from dry dock operations will be analyzed for VOC (EPA 624), Standard Metals, pH and Oils and Grease.
   Water from general ship operations that has not been in contact with product will be analyzed for Oils and Grease as well as pH.
   Water for batches with conditions other than the ones specified above will require at a minimum Oils and Grease and pH analysis. Additional monitoring may be required as necessitated by the situation (detailed in the discharge request).

4. The pre-specified analysis will be included with the discharge request.
5. Any batches with a parameter(s) in violation of local limits will not be accepted for discharge without first pretreating and re-analyzing for the offending parameter(s)
6. Upon approval and completion of the discharge, Cascade will submit information detailing date started, stopped and volume discharge for each batch.

I feel that standardizing the analysis for batch types will A) stream line the process for both Cascade and the City and B) Move us a step further towards developing batch profiles with the goal of minimizing the number of batch requests required.

If you have any questions please feel free to contact me at 823-5556

Respectfully

Stephen Rosenberger
Permit Manager

enclosures (3)

— CITY OF PORTLAND —
ENVIRONMENTAL SERVICES
Water Pollution Control Laboratory
6543 N. Burlington Avenue, Room 217, Portland, Oregon 97203 ▪ Sam Adams, Commissioner ▪ Dean Marriott, Director

August 8th 2006

Cascade General
Attn Allan Sprott
5555 North Channel Ave
Portland, OR 97217

RE: Renewal of Wastewater Discharge Permit 437.003

Mr. Sprott,

The purpose of this letter is to correct the due date for your facility's Permit Application and Environmental Survey and to clarify requirements for including the discharge from the new barge building facility to your facility's wastewater discharge permit.

Per City code 17.34.070 an industrial user must submit permit application 90 days prior to the expiration date of the current permit. Your current permit is due to expire December 31 2007. I was mistaken when I thought your facilities permit expired in 2006. Please disregard previous letter requesting that you submit permit application and environmental survey on or before June 30th, 2006.

The permit renewal application and environmental survey are due **October 2nd 2007**. Please be sure to submit the permit application on or before the due date to avoid any enforcement action for a late report.

Regarding the discharge to sanitary sewer of contaminated stormwater from Barge Building plant: if the plant will begin discharging to the POTW before the renewal of your current permit, then please submit a permit application and environmental survey 90 days prior to discharging.

You can submit any application materials early as this may reduce the amount of paperwork you will have to submit and make for an simpler renewal of the permit.

Please do not hesitate to call me if you need any assistance with completed the permit application and environmental survey.

Best Regards

Christopher Collett
Permit Manager
Industrial Source Control
City of Portland Bureau of Environmental Services

GENERAL PERMIT
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
STORM WATER DISCHARGE PERMIT
Department of Environmental Quality
811 S.W. Sixth Avenue, Portland, OR 97204
Telephone: (503) 229-5630 or 1-800-452-4011 toll free in Oregon
Issued pursuant to ORS 468B.050 and The Federal Clean Water Act

ISSUED TO: 9/25/2007 GEN 12-Z MULTNOMAH/NWR
File No: 70596 ORR200258

VIGOR INDUSTRIAL LLC
PO Box 4367
Portland, OR 97208-4367

Site: VIGOR INDUSTRIAL

SOURCES THAT ARE REQUIRED TO OBTAIN COVERAGE UNDER THIS PERMIT

Pursuant to 40 Code of Federal Regulation (CFR) § 122.26(b)(14)(i - ix, xi) and OAR 340-045-0033(5), facilities identified in *Table 1: Sources Covered* on p. 3 below that may discharge stormwater from a point source to surface waters or to conveyance systems that discharge to surface waters. These facilities must complete the application and registration procedures to obtain coverage under the permit; see *Permit Coverage and Exclusion from Coverage* on p. 5 below.

Note:
1) Facilities may apply for conditional exclusion from the requirement to register for coverage under this permit if there is no exposure of industrial activities and materials to stormwater pursuant to 40 CFR § 122.26(g); see *Permit Coverage and Exclusion from Coverage* on p. 5 below.

2) Sources meeting the description above, but that are excluded from this permit include: (i) Construction activities, asphalt mix batch plants, concrete batch plants and Standard Industrial Classification code 14, *Mining and Quarrying of Nonmetallic Minerals, Except Fuels.* These activities are regulated under separate general permits; and (ii) any source that has obtained a individual NPDES permit for the discharge.

Date: August 23, 2006

Lauri Aunan , Administrator
Water Quality Division

PERMITTED ACTIVITIES

Until this permit expires or is modified or revoked, the permit registrant is authorized to construct, install, modify, or operate stormwater treatment or control facilities, and to discharge stormwater to public waters in conformance with all the requirements, limitations, and conditions set forth in the attached schedules as follows:

DEQ-DC1

		Page
Permit Coverage and Exclusion From Coverage		5
Schedule A -	Stormwater Pollution Control Plan, Additional Requirements, Limitations, and Benchmarks	8
Schedule B -	Monitoring and Reporting Requirements	15
Schedule C -	Compliance Conditions and Schedules	18
Schedule D -	Special Conditions	20
Schedule F -	General Conditions	22

Unless specifically authorized by this permit, by regulation issued by EPA, by another NPDES or WPCF permit, or by Oregon Administrative Rule, any other direct or indirect discharge to waters of the state is prohibited, including discharges to an underground injection control system.

Schedule F contains General Conditions that are included in all general permits issued by DEQ. Should conflicts arise between Schedule F and any other schedule of the permit, the requirements in Schedule F will not apply.

TABLE 1: SOURCES COVERED Types of Industrial Sources required to obtain coverage under this permit:
Facilities with the following primary Standard Industrial Classification (SIC) codes: 10 Metal Mining 12 Coal Mining 13 Oil and Gas Extraction 20 Food and Kindred Products 21 Tobacco Products 22 Textile Mill Products 23 Apparel and Other Finished Products Made From Fabrics and Similar Material 24 Lumber and Wood Products, Except Furniture and 2491 Wood Preserving. (Activities with SIC 2411 Logging that are defined in 40 CFR §122.27 as silvicultural point source discharges are covered by this permit.) 25 Furniture and Fixtures 26 Paper and Allied Products 27 Printing, Publishing and Allied Industries 28 Chemicals and Allied Products (excluding 2874 Phosphate Fertilizer Manufacturing) 29 Petroleum Refining and Related Industries 30 Rubber and Miscellaneous Plastics Products 31 Leather and Leather Products 32 Stone, Clay, Glass, and Concrete Products 33 Primary Metal Industries 34 Fabricated Metal Products, Except Machinery and Transportation Equipment 35 Industrial and Commercial Machinery and Computer Equipment 36 Electronic and Other Electrical Equipment and Components, Except Computer Equipment 37 Transportation Equipment 3731 - Shipbuilding / Repairing 38 Measuring, Analyzing, and Controlling Instruments; Photographic, Medical and Optical Goods; Watches and Clocks 39 Miscellaneous Manufacturing Industries 4221 Farm Product Warehousing and Storage 4222 Refrigerated Warehousing and Storage 4225 General Warehousing and Storage 5015 Motor Vehicle Parts, Used 5093 Scrap and Waste Materials
Facilities with the following primary SIC codes that have vehicle maintenance shops (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, or airport deicing operations: 40 Railroad Transportation 41 Local and Suburban Transit and Interurban Highway Passenger Transportation 42 Motor Freight Transportation and Warehousing (excluding 4221 Farm Product Warehousing and Storage, 4222 Refrigerated Warehousing and Storage, and 4225 General Warehousing and Storage) 43 United States Postal Service 44 Water Transportation 45 Transportation by Air 5171 Petroleum Bulk Stations and Terminals, except as provided in Note 1 below.
Facilities storing, transferring, formulating, or packaging bulk petroleum products or vegetable oils, except as provided in Note 1 below.
Steam Electric Power Generation including coal handling sites
Landfills, land application sites and open dumps (excluding landfills regulated by 40 CFR §445 that discharge "contaminated stormwater" (as defined by 40 CFR §445.2) to waters of the U.S.)
Hazardous Waste Treatment, Storage and Disposal Facilities [excluding hazardous waste landfills regulated by 40 CFR §445 that discharge "contaminated stormwater" (as defined by 40 CFR §445.2) to waters of the U.S.]

TABLE 1: SOURCES COVERED
Types of Industrial Sources required to obtain coverage under this permit.
Treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage, recycling, and reclamation of municipal or domestic sewage (including land dedicated to the disposal of sewage sludge that are located within the confines of the facility) with the design flow capacity of 1.0 mgd or more, or required to have a pretreatment program under 40 CFR §403.

Note 1:

Permit registration is not required for a facility covered in Table 1 if discharges are only from:

a) Stormwater that contacts oil-filled electrical equipment in transformer substations that are equipped with properly functioning oil spill prevention measures such as containment areas or oil/water separators.
b) Stormwater that contacts petroleum product receiving or dispensing areas or product dispensing equipment from which product is dispensed to final users, whether or not the stormwater is treated by an oil/water separator.
c) Stormwater that collects in a secondary containment area at a petroleum product dispensing site, where the secondary containment area is associated with storage tanks from which product is dispensed only to final users, and the discharge from the containment area is treated by an oil/water separator.
d) Stormwater that collects in a secondary containment area at a bulk petroleum product storage site, where the total storage capacity at the site does not exceed 150,000 gallons, and the discharge from the containment area is treated by an oil/water separator. A site with multiple containment areas is considered a single site for determining total storage capacity.

PERMIT COVERAGE AND EXCLUSION FROM COVERAGE

1) **New Application for Permit Coverage**
   a) An owner or operator of a new facility or existing facility that is required to be covered under this permit must:
      i) *New facility* - Submit a complete application, which includes a department-approved application form; a Stormwater Pollution Control Plan (SWPCP); and applicable permit fees, to the department or agent at least 60 calendar days before the planned activity that requires permit coverage, unless otherwise approved by the department or agent (see Schedule D for description of agent). If an agent is receiving the application materials, submit two copies of the SWPCP.
      ii) *Existing facility operating without coverage under the permit* - Submit a complete application, which includes a department-approved application form; a SWPCP; and applicable permit fees, to the department or agent immediately. If an agent is receiving the application materials, submit two copies of the SWPCP.
      iii) *Existing facility operating under permit coverage that intends to change industrial processes* - Submit a complete application, which includes a department-approved application form; a SWPCP; and applicable permit fees, to the department or agent at least 60 calendar days before the planned change, unless otherwise approved by the department or agent. If an agent is receiving the application materials, submit two copies of the SWPCP.
   b) Public Review Period on new application and SWPCP*
      i) The application form and SWPCP are subject to a 14-calendar day public review period before permit registration is granted by the department.
      ii) The public review period will not begin if the application form or SWPCP are incomplete.
   c) Registration
      i) The department or agent will notify the applicant in writing if registration is approved or denied. Permit coverage does not begin until the applicant receives written notice from the department or agent that the registration is approved.
      ii) If registration is denied or the applicant does not wish to be regulated by this permit, the applicant may apply for an individual permit in accordance with OAR 340-045-0030.

2) **Renewal Application for Permit Coverage**
   a) An owner or operator of a facility registered under the 1200-Z permit that expires on June 30, 2007 must submit a complete renewal application, which includes a department-approved renewal application form; an updated SWPCP, if revisions to the SWPCP are necessary to address changed conditions or meet new permit requirements of this permit; and applicable permit fees, to the department or agent by January 30, 2007 to ensure uninterrupted permit coverage for industrial stormwater discharges. If an updated SWPCP is not submitted, the department will use the existing SWPCP for public notice purposes.
   b) Public Review Period on renewal application and SWPCP*
      i) The renewal application and SWPCP are subject to a 14-calendar day public review period before permit coverage may be renewed by the department or agent.
      ii) The public review period will not begin if the renewal application or SWPCP are incomplete.
   c) Registration
      i) The department or agent will notify the applicant in writing if registration is approved or denied.

ii) If registration is denied or the applicant does not wish to be regulated by this permit, the applicant may apply for an individual permit in accordance with OAR 340-045-0030.

* The public review period described in conditions 1.b and 2.b above do not apply to registration applications and accompanying SWPCPs for new or existing facilities that were subject to public notice and comment requirements prior to July 1, 2007.

3. **Name Change or Transfer of Permit Coverage**
   a) For a name change or transfer of permit coverage between legal entities with no industrial process changes at the site, the owner or operator must submit a complete copy of the department-approved Name Change or Permit Transfer application form; an updated SWPCP, if revisions are necessary to address changed conditions, and applicable fees to the department or agent within 30 calendar days of the name change or planned transfer. If submittal is made to the agent, two copies of the SWPCP are required.
   b) The department or agent will notify the applicant in writing if the transfer is approved or denied. The department will transfer coverage under the permit after the department approves the application.
   c) For a name change or transfer of permit coverage between legal entities that intend to change industrial processes, the owner or operator must submit a new application for coverage under this permit as required in condition 1.a.iii above.

4) **"No Exposure" Conditional Exclusion from Permit Coverage**
   a) An owner or operator that applies for a "no exposure" conditional exclusion from coverage under this permit must:
      i) Provide a storm resistant shelter to protect industrial materials and activities from exposure to rain, snow, snow melt, and runoff, except as provided in the Environmental Protection Agency (EPA) *Guidance Manual for Conditional Exclusion from Stormwater Permitting Based on "No Exposure" of Industrial Activities to Stormwater* (EPA 833-B-00-001, June 2000). Storm resistant shelters with unsealed zinc or copper roofing materials are not eligible for the "no exposure" conditional exclusion.
      ii) Ensure that contaminated soil or materials from previous operations is not exposed.
      iii) Complete and sign a certification, on a form approved by the department, that there is no stormwater exposure to industrial materials and activities from the entire facility, except as provided in 40 CFR §122.26(g)(2). The EPA *Guidance Manual* (EPA 833-B-00-001) may be used to determine whether the no exposure criteria are met.
      iv) Submit the signed certification to the department or agent once every five years. If the department or agent does not comment on the "no exposure" certification within 30 days, the "no exposure" conditional exclusion is deemed approved. The department or agent may notify the applicant in writing or by email of its approval. The owner or operator must keep a copy of the certification on site and any notification of approval on site.
      v) Allow the department or agent to inspect the facility to determine compliance with the "no exposure" conditions, and allow the department or agent to make any "no exposure" inspection reports available to the public upon request.
      vi) Submit a copy of the "no exposure" certification to the municipal separate storm sewer system (MS4) operator (i.e., local municipality, district), upon their request, if facility discharges through an MS4; and allow inspection and public reporting by the MS4 operator.
   b) Limitations for obtaining or maintaining the exclusion:
      i) This exclusion is available on a facility-wide basis only, not for individual outfalls.

ii) If industrial materials or activities become exposed to rain, snow, snow melt, or runoff, the conditions for this exclusion no longer apply. In such cases, the discharge becomes subject to enforcement for un-permitted discharge. Any conditionally exempt discharger who anticipates changes in circumstances must apply for and obtain permit coverage before the change of circumstances.

iii) The department or agent retains the authority to make a determination that the "no exposure" conditional exclusion no longer applies and require the owner or operator to obtain permit coverage.

5. **Revocation of Permit Coverage** - The department may revoke a permit registrant's coverage under the permit pursuant to OAR 340-045-033(10).

SCHEDULE A
STORMWATER POLLUTION CONTROL PLAN

1. **Preparation and Implementation of Stormwater Pollution Control Plan (SWPCP)**
   a) The permit registrant must ensure that the SWPCP contains the applicable information described in condition A.3.
   b) The SWPCP must be prepared by a person knowledgeable in stormwater management and familiar with the facility.
   c) The name of the person(s) preparing the SWPCP must be included in the plan.
   d) The SWPCP must be signed and certified in accordance with 40 CFR §122.22.
   e) The SWPCP must be implemented according to conditions A.3.c and Schedule C. Failure to implement any portion of the SWPCP constitutes a violation of the permit.
   f) The SWPCP must be kept current and updated as necessary to reflect any changes in facility operation.
   g) A copy of the SWPCP must be kept at the facility and made available upon request to government agencies responsible for stormwater management in the permit registrant's area.

2. **SWPCP Revisions and Actions Plans**
   a) After the permit registration is approved, if the permit registrant proposes to revise its SWPCP or the department or agent require revisions to the SWPCP, the permit registrant must clearly describe these revisions in an Action Plan.
   b) The Action Plan is considered an addendum to the SWPCP and must be prepared in compliance with condition A.1 above.
   c) Within 30 calendar days of making SWPCP revisions, permit registrant must submit an Action Plan to the department or agent for approval. If the department or agent does not comment within 10 business days of receiving the Action Plan, it is deemed approved. Failure to implement any portion of the Action Plan constitutes a violation of the permit.

3. **Required SWPCP Elements**
   a) **Title Page** - The title page of the SWPCP must contain the following information:
      i) Name of the site.
      ii) Name of the site operator or owner.
      iii) Site or file number as indicated on the permit.
      iv) Contact person's name and telephone number.
      v) Physical address, including county, and mailing address if different.

   b) **Site Description** - The SWPCP must contain the following information:
      i) A description of the industrial activities conducted at the site. Include a description of the significant materials (see condition D.3, Definitions) that are stored, used, treated or disposed of in a manner that allows exposure to stormwater. Also describe the methods of storage, usage, treatment or disposal.
      ii) A general location map showing the location of the site in relation to surrounding properties, transportation routes, surface waters and other relevant features.
      iii) A site map including the following:
         (1) drainage patterns;
         (2) drainage and discharge structures (piping, ditches, etc.);
         (3) outline of the drainage area for each stormwater outfall;
         (4) paved areas and buildings within each drainage area;

(5) areas used for outdoor manufacturing, treatment, storage, or disposal of significant materials;
(6) existing structural control measures for reducing pollutants in stormwater runoff;
(7) material loading and access areas;
(8) hazardous waste treatment, storage and disposal facilities;
(9) location of wells including waste injection wells, seepage pits, drywells, etc., and
(10) location of springs, wetlands and other surface waterbodies both on site and adjacent to the site.

iv) Estimates of the amount of impervious surface area (including paved areas and building roofs) relative to the total area drained by each stormwater outfall.

v) For each area of the site where a reasonable potential exists for contributing pollutants to stormwater runoff, identify the potential pollutants that could be present in stormwater discharges.

vi) The name(s) of the receiving water(s) for stormwater drainage. If drainage is to a municipal storm sewer system, the name(s) of the ultimate receiving waters and the name of the municipality.

vii) Identification of the discharge outfall(s) and the point(s) where stormwater monitoring will occur as required by Schedule B. If multiple discharge outfalls exist but will not all be monitored, include a description of the outfalls and data or analysis supporting that the outfalls are representative as described in condition B.2.b.

c) **Site Controls** - The permit registrant must develop, implement, and maintain the controls that are appropriate for the site. The purpose of these controls is to eliminate or minimize the exposure of pollutants to stormwater or to remove pollutants from stormwater before it discharges to surface waters. In developing a control strategy, the permit registrant must include the following four (4) types of controls in the SWPCP and describe the specific components of each control:

i) *Stormwater Best Management Practices* - The permit registrant must employ the following types of best management practices that are appropriate for the site. A schedule for implementation of these practices must be included in the SWPCP if the practice has not already been accomplished. This schedule must be consistent with the requirements for implementing the SWPCP in Schedule C of this permit.

(1) Containment - All hazardous substances (see condition D.3, Definitions) must be stored within berms or other secondary containment devices to prevent leaks and spills from contaminating stormwater. If the use of berms or secondary containment devices is not possible, then hazardous substances must be stored in areas that do not drain to the storm sewer system.

(2) Oil and Grease - Oil/water separators, booms, skimmers or other methods must be employed to eliminate or minimize oil and grease contamination of stormwater discharges.

(3) Waste Chemicals and Material Disposal - Wastes must be recycled or properly disposed of in a manner to eliminate or minimize exposure of pollutants to stormwater. All waste contained in bins or dumpsters where there is a potential for drainage of stormwater through the waste must be covered to prevent exposure of stormwater to these pollutants. Acceptable covers include, but are not limited to, storage of bins or dumpsters under roofed areas and use of lids or temporary covers such as tarps.

(4) Erosion and Sediment Control - Erosion control methods such as vegetating exposed areas, graveling or paving must be employed to minimize erosion of soil at the site.

Sediment control methods such as detention facilities, vegetated filter strips, bioswales, or other permanent erosion or sediment controls must be employed to minimize sediment loads in stormwater discharges. For activities that involve land disturbance, the permit registrant must contact the local municipality to determine if there are other applicable requirements.

(5) Debris Control - Screens, booms, settling ponds, or other methods must be employed to eliminate or minimize debris in stormwater discharges.

(6) Stormwater Diversion - Stormwater must be diverted away from fueling, manufacturing, treatment, storage, and disposal areas to prevent exposure of uncontaminated stormwater to potential pollutants.

(7) Covering Activities – Fixed fueling, manufacturing, treatment, storage, and disposal areas must be covered to prevent exposure of stormwater to potential pollutants. Acceptable covers include, but are not limited to, permanent structures such as roofs or buildings and temporary covers such as tarps.

(8) Housekeeping - Areas that may contribute pollutants to stormwater must be kept clean. Sweeping, litter pick-up, prompt clean up of spills and leaks, and proper maintenance of vehicles must be employed to eliminate or minimize exposure of stormwater to pollutants.

ii) *Spill Prevention and Response Procedure* - Permit registrant must include in the SWPCP methods to prevent spills along with clean-up and notification procedures. These methods and procedures must be made available to appropriate personnel. The required clean-up material must be on-site or readily available and the location of materials must either be shown on the site drawings or indicated in the text of the SWPCP. Spills prevention plans required by other regulations may be substituted for this provision providing that stormwater management concerns are adequately addressed.

iii) *Preventative Maintenance* - Permit registrant must include in the SWPCP a preventative maintenance program to ensure the effective operation of all stormwater best management practices. At a minimum the program must include:

(1) Monthly inspections of areas where potential spills of significant materials or industrial activities could impact stormwater runoff.

(2) Monthly inspections of stormwater control measures, structures, catch basins, and treatment facilities.

(3) Cleaning, maintenance or repair of all materials handling and storage areas and all stormwater control measures, structures, catch basins, and treatment facilities as needed upon discovery. Cleaning, maintenance, and repair of such systems must be performed in such a manner as to prevent the discharge of pollution.

iv) *Employee Education* - Permit registrant must develop and maintain an employee orientation and education program to inform personnel of the components and goals of the SWPCP. The program must also address spill response procedures and the necessity of good housekeeping practices. A schedule for employee education must be included in the SWPCP. The education and training must occur within 30 calendar days of hiring an employee who works in areas where stormwater is exposed to industrial activities or conducts duties related to the implementation of the SWPCP, and annually thereafter.

d) **Record Keeping and Internal Reporting Procedures** - Permit registrant must record and maintain at the facility the following information, which does not need to be submitted to the department, agent or other government agencies, unless it is requested.
   i) Inspection, maintenance, repair and education activities as required by the SWPCP.
   ii) Spills or leaks of significant materials (See condition D.3, Definitions) that impacted or had the potential to impact stormwater or surface waters. Include the corrective actions to clean up the spill or leak as well as measures to prevent future problems of the same nature.

ADDITIONAL REQUIREMENTS

4. **Non-Stormwater Discharges**
   a) The following non-stormwater discharges are authorized by this permit:
      i) Discharges from fire-fighting activities.
      ii) Fire hydrant flushings.
      iii) Potable water, including water line flushings.
      iv) Uncontaminated air conditioning condensate.
      v) Irrigation drainage.
      vi) Landscape watering, provided that all pesticides, herbicides, and fertilizer have been applied in accordance with manufacturer's instructions.
      vii) Pavement wash waters where no detergents or hot water are used, no spills or leaks of toxic or hazardous materials have occurred (unless all spilled material has been removed), and surfaces are swept before washing.
      viii) Routine external building washdown that does not use detergents or hot water.
      ix) Uncontaminated ground water or spring water.
      x) Foundation or footing drains where flows are not contaminated with process materials.
      xi) Incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of the facility, but not intentional discharges from the cooling tower (e.g., "piped" cooling tower blowdown or drains).
   b) Piping and drainage systems for interior floor drains and process wastewater discharge points must be separated from the storm drainage system to prevent inadvertent discharge of pollutants to waters of the state. Discharge from floor drains to the stormwater drainage system is a violation of this permit.
   c) Any other wastewater discharge or disposal, including stormwater mixed with wastewater, must be permitted in a separate permit, unless the wastewater is reused or recycled without discharge or disposal, or discharged to the sanitary sewer with approval from the local sanitary authority.

5. **Water Quality Standards**
   a) The permit registrant must not cause a violation of instream water quality standards as established in OAR 340-041.
   b) If the permit registrant develops, implements, and revises its SWPCP in compliance with Schedule A of this permit, the department presumes that the discharges authorized by this permit will comply with instream water quality standards unless the department obtains evidence to the contrary. Coincident samples of the discharge and at upstream and downstream locations in the receiving waterbody must be collected to establish a violation of an instream water quality standard is caused by the discharge.
   c) In instances where the department determines that the permit registrant's stormwater discharges are not complying with instream water quality standards, the department may take

enforcement action for violations of the permit and will require the permit registrant to do one or more of the following:

i) Develop and implement an Action Plan that describes additional effective BMPs to address the parameters of concern and their locations at the site;
ii) Submit valid and verifiable data and information that are representative of ambient conditions and indicate that the receiving water is meeting water quality standards; or
iii) Curtail stormwater pollutant discharges to the extent possible and submit an individual permit application.

6. **Discharges to Impaired Waterbodies** - If a Total Maximum Daily Load (TMDL) Order (see condition D.3, Definitions) is established and the discharge from a permitted source is assigned a waste load allocation or is required to meet other conditions in the TMDL Order, then an application for an individual or different general permit or other appropriate tools may be required to address the allocation or other requirements.

CODE OF FEDERAL REGULATION STORMWATER DISCHARGE LIMITATIONS

7. **Effluent Limitations** - The permit registrant with the following activities must comply with the applicable limitations:

CFR Industry		Parameter	Limitation	
Category	Subcategory			
Cement manufacturing (40 CFR §411)	Materials storage piles runoff	pH	6.0 - 9.0 SU	
		Total Suspended Solids (TSS)	50 mg/l	
Steam powered electric power generating (40 CFR §423)	Coal pile runoff	TSS	50 mg/l, Daily Maximum	
Paving and roofing materials (tars and asphalt) (40 CFR §443)	Runoff from manufacturing of asphalt paving or roofing emulsion	Oil & Grease	15 mg/l, Daily Maximum	10 mg/l, 30 Day Average
		pH	6.0 - 9.0 SU	

STORMWATER DISCHARGE BENCHMARKS

8. **Benchmarks** - Benchmarks are guideline concentrations, not limitations. They are designed to assist the permit registrant in determining whether their SWPCP is effectively reducing pollutant concentrations in stormwater discharged from the site. For facilities that are subject to federal limitations, benchmarks apply to only those pollutants that are not limited by the federal regulations. See condition A.7 for a list of facilities subject to federal limitations.

   The following benchmarks apply to each point source discharge of stormwater associated with industrial activity:

Parameter	Benchmark
Total Copper	0.1 mg/l
Total Lead	0.4 mg/l
Total Zinc	0.6 mg/l
pH*	5.5 – 9.0 SU
Total Suspended Solids*	130 mg/l
Total Oil & Grease*	10 mg/l
E. coli**	406 counts/100 ml
Floating Solids (associated with industrial activities)	No Visible Discharge
Oil & Grease Sheen	No Visible Sheen

* See condition A.7 for list of facilities subject to federal limitations.

**The benchmark for E. coli applies only to landfills, if septage and sewage biosolids are disposed at the site, and sewage treatment plants.

9. **Response to a Benchmark Exceedance**
   a) If a stormwater sampling result exceeds any of the benchmark values, the permit registrant must, within 30 calendar days of receiving the sampling results, investigate the cause of the elevated pollutant levels, review the SWPCP and submit an Action Plan for department or agent approval.
   b) The purpose of this review is to determine if:
      i) The SWPCP is being followed;
      ii) There are alternative methods for implementing the existing site controls identified in the SWPCP;
      iii) The benchmark exceedance resulted from background or natural conditions not associated with industrial activities at the site; and
      iv) Additional effective site controls are needed to address the parameters of concern.
   c) The Action Plan must contain the following, unless condition A.9.d applies:
      i) The results of the review;
      ii) The corrective actions the permit registrant will take to address the benchmark exceedance; and
      iii) An implementation schedule including alternative methods for implementing existing site controls or methods for implementing additional effective site controls, if the site controls have not already been implemented.

d) If the permit registrant believes that the benchmark exceedance resulted from natural or background conditions, the Action Plan must propose a sampling plan and methodology for demonstrating that the elevated pollutant levels are due to background or natural conditions.
e) If the department or agent does not comment on the Action Plan within 10 business days of its receipt, it is deemed approved. The department or agent's approval of the Action Plan does not constitute compliance with this permit.
f) Upon approval, the permit registrant must implement the corrective actions identified in the Action Plan within 60 calendar days, unless otherwise approved by the department or agent.
g) If the department or agent affirms the assertion that background or natural conditions contributed to the benchmark exceedance, the permit registrant is not required to make this demonstration again during the term of this permit.

10. **Benchmark Compliance Evaluation**
a) By June 30th of the 4th year of permit coverage, the permit registrant must evaluate the last four samples collected from each outfall monitored and determine whether the geometric mean of the samples exceeds benchmark(s). This condition is not applicable to a permit registrant with a monitoring waiver as described in condition B.3.
b) The permit registrant must report this information in a Discharge Monitoring Report (DMR) and submit the DMR to the department or agent by July 31st of the 4th year of permit coverage as described in condition B.4.a.
c) If the geometric mean of the samples exceeds benchmark(s), the department will revoke the permit registrant's coverage under this permit and will require the permit registrant to apply for an individual permit pursuant to OAR 340-045-0033(10) and OAR 340-045-0060.

SCHEDULE B
MONITORING AND REPORTING REQUIREMENTS

1. **Minimum Monitoring Requirements** - All permit registrants must monitor stormwater associated with industrial activity for the following:

GRAB SAMPLES OF STORMWATER*	
Parameter	**Frequency****
Total Copper	Four times per Year
Total Lead	Four times per Year
Total Zinc	Four times per Year
pH	Four times per Year
Total Suspended Solids	Four times per Year
Total Oil & Grease	Four times per Year
E. coli***	Four times per Year

* For each outfall monitored, the permit registrant may collect a single grab sample or a series of equal volume grab samples. Samples must be collected from the same storm event.

** The permit registrant is allowed to collect more samples than the minimum frequency requires and must report this data.

***The monitoring for E. coli applies only to landfills, if septage and sewage biosolids are disposed at the site, and sewage treatment plants.

VISUAL MONITORING OF STORMWATER	
Parameter	**Frequency**
Floating Solids (associated with industrial activities)	Once per Month (when discharging)
Oil & Grease Sheen	Once per Month (when discharging)

2. **Grab Sampling and Visual Monitoring Procedures and Locations** - The following requirements apply to monitoring conducted in compliance with condition B.1 above.

   a) **Grab Sampling and Visual Monitoring Methodology** - The monitoring period is from July 1 to June 30th. Grab samples must be representative of the discharge and must be taken at least 14 calendar days apart. Two samples must be collected before December 31, and two samples must be collected after January 1. Time or flow-weighted compositing of samples may be used as an alternative to grab samples, except when monitoring for pH, oil and grease, and E. coli. Visual monitoring must occur at outfall(s) or discharge point(s) identified in the SWPCP as outfall(s) or point(s) where stormwater monitoring will occur.

   b) **Multiple Point Source Discharges** - Each stormwater outfall must be monitored unless:
      i) The outfall serves an area with no exposure of stormwater to industrial activities; or
      ii) The outfall has effluent that is substantially similar to the effluent(s) of a monitored outfall and the same BMPs are implemented and maintained at the similar outfalls or drainage areas that lead to the outfalls. Substantially similar effluent(s) are discharges from drainage areas serving comparable activities where the discharges are expected to be similar in composition. The determination of substantial similarity or effluent(s)

must be based on past monitoring or an analysis of industrial activities and site characteristics. The data or analysis supporting that the outfalls are representative must be included in the SWPCP as described in A.3.b.vii.

iii) If sampling points are modified, permit registrants must notify the department or agent and submit an Action Plan as described in condition A.2.c.

c) **Monitoring Location** - All samples must be taken at monitoring points specified in the SWPCP before the stormwater joins or is diluted by any other wastestream, body of water or substance, unless otherwise approved in writing by the department.

d) **Sampling Variance**

i) Permit registrants may request a sampling variance for missed samples if one of the following criteria is met:

a) State or federal authorities declared the year a drought year.

b) Demonstrate that rainfall in the area where the permit registrant's facility is located was 20% or more below the three-year average rainfall for that area.

c) Demonstrate to the department or agent's satisfaction that samples were unable to be collected due to the infrequency of storm events of sufficient magnitude to produce run-off. Supporting data and analysis must be submitted to the department or agent.

ii) Permit registrants must submit to the department or agent a written request for a sampling variance by July 31st of the monitoring year in which the missed sampling occurred.

3. **Monitoring Waiver**

a) **Visual Observations** - There is no reduction allowed of the required visual observations.

b) **Grab Samples** - If at least four consecutive sampling results meet the benchmarks specified in condition A.8, the permit registrant is not required to collect grab samples for the remainder of the permit term. Where the permit registrant demonstrates to the department or agent's satisfaction that a benchmark exceedance resulted from background or natural conditions as described in condition A.9, the department or agent will consider these samples as meeting the benchmark(s) for the purposes of granting a monitoring waiver. There is no reduction in monitoring allowed for facilities subject to CFR limitations as described in condition A.7.

i) Results from sampling events cannot be averaged to meet the benchmarks.

ii) Monitoring waivers may be allowed for individual parameters.

iii) The permit registrant must submit to the department or agent a request to exercise the monitoring waiver that includes the analytical results from the four sampling events. If the department or agent does not comment within 30 calendar days, the monitoring waiver is deemed approved.

c) **Revocation of Monitoring Waiver**

i) The permit registrant must conduct monitoring as specified in condition B.1 if:

a) The department or agent determines that prior monitoring efforts used to establish the monitoring waiver were improper or sampling results were incorrect;

b) The department, agent or permit registrant determines that changes to site conditions are likely to affect stormwater discharge characteristics, or

c) The department, agent or permit registrant conducts additional monitoring and the sampling results exceed benchmark(s).

ii) The department or agent will notify the permit registrant in writing if the monitoring waiver is revoked.

4. **Monitoring Reporting Requirements** - The permit registrant must submit the following to the appropriate DEQ regional office or agent:

a) **Monitoring Data** - The permit registrant must submit by July 31st of each year grab sampling and visual monitoring results for the previous monitoring period (July 1- June 30). The permit registrant must also report the minimum detection levels and analytical methods for the parameters analyzed. Non-detections must be reported as "ND" with the detection limit in mg/L parentheses, e.g., ND (0.005 mg/L). In calculating the geometric mean as described in condition A.10, one-half of the detection limits must be used for non-detections.

b) **Report Forms** - The permit registrant must use a department-approved Discharge Monitoring Report (DMR) form for both visual and analytical monitoring results.

SCHEDULE C
COMPLIANCE CONDITIONS AND SCHEDULES

1. **An Existing Permit Registrant** that is either renewing or transferring coverage under the permit where there are no changes to operation or industrial type (for a facility operating under an NPDES stormwater discharge permit prior to July 1, 2007):

   a) Not later than 90 calendar days after renewing or transferring coverage under the permit, permit registrant must implement new site controls identified in the SWPCP to meet new permit requirements.

   b) Site controls that are developed to meet new permit requirements that require capital improvements (see Schedule D.3, Definitions) must be completed in accordance with the schedule set forth in the SWPCP, but must be completed within two years of renewing or transferring coverage under this permit.

2. **A New Permit Registrant with an Existing Facility** (for a facility operating before July 1, 2007, without an NPDES stormwater discharge permit):

   a) Not later than 90 calendar days after obtaining permit coverage, the permit registrant must implement site controls identified in the SWPCP to meet the new permit requirements.

   b) Site controls that are developed to meet new permit requirements that require capital improvements (see Schedule D.3, Definitions) must be completed in accordance with the schedule set forth in the SWPCP, but must be completed within two years of obtaining permit coverage.

3. **A New Permit Registrant with a New Facility** (for a facility beginning operation after July 1, 2007 without an NPDES stormwater discharge permit):

   a) A permit registrant must begin implementation of the SWPCP before starting operations. Not later than 90 calendar days after obtaining permit coverage, the permit registrant must fully implement site controls identified in the SWPCP.

   b) Site controls that require capital improvements (see Schedule D.3, Definitions), must be completed in accordance with the schedule set forth in the SWPCP, but must be completed within two years of obtaining permit coverage.

4. **A New Permit Registrant Discharging to Clackamas River, McKenzie River above Hayden Bridge (River Mile 15) or North Santiam River** (For potential or existing dischargers that did not have a permit prior to January 28, 1994, and existing dischargers that have a NPDES stormwater discharge permit but request an increased load limitation.)

   a) Not later than 180 calendar days after obtaining permit coverage, permit registrant must submit to the department a monitoring and water quality evaluation program. This program must be effective in evaluating the in-stream impacts of the discharge as required by OAR 340-041-0470.

b) Within 30 calendar days of department approval, the permit registrant must implement the monitoring and water quality evaluation program.

SCHEDULE D
SPECIAL CONDITIONS

1. **Releases in Excess of Reportable Quantities.** This permit does not relieve the permit registrant of the reporting requirements of 40 CFR §117 Determination of Reportable Quantities for Hazardous Substances and 40 CFR §302 Designation, Reportable Quantities, and Notification.

2. **Availability of SWPCP and Monitoring Data.** The Stormwater Pollution Control Plan (SWPCP) or stormwater monitoring data must be made available to government agencies responsible for stormwater management in the permit registrant's area.

3. **Definitions**

   a) *Action Plan* means an addendum to the SWPCP developed in response to modification to the SWPCP or in response to a benchmark exceedance.

   b) *Capital Improvements* means the following improvements that require capital expenditures:
      i) Treatment best management practices including but not limited to settling basins, oil/water separation equipment, catch basins, grassy swales, detention/retention basins, and media filtration devices.
      ii) Manufacturing modifications that incur capital expenditures, including process changes for reduction of pollutants or wastes at the source.
      iii) Concrete pads, dikes and conveyance or pumping systems utilized for collection and transfer of stormwater to treatment systems.
      iv) Roofs and appropriate covers for manufacturing areas.

   c) *Hazardous Substances* as defined in 40 CFR §302 Designation, Reportable Quantities, and Notification.

   d) *Material Handling Activities* include the storage, loading and unloading, transportation or conveyance of raw material, intermediate product, finished product, by-product or waste product.

   e) *Point Source Discharge* means a discharge from any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, or conduit.

   f) *Significant Materials* includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical that a facility is required to report pursuant to section 313 of title III of SARA; fertilizers; pesticides; and waste products such as ash, slag, and sludge that have the potential to be released with stormwater discharges.

   g) *Site Controls* is analogous to Best Management Practices.

   h) *Stormwater Associated With Industrial Activity* includes, but is not limited to, stormwater discharges from the following:
      - Industrial plant yards

- Immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility
- Material handling sites (Material handling activities include the storage, loading and unloading, transportation or conveyance of raw material, intermediate product, finished product, by-product or waste product.)
- Refuse sites
- Sites used for the application or disposal of process waste waters (as defined in 40 CFR § 401)
- Sites used for storage or maintenance of material handling equipment
- Sites used for residual treatment, storage, or disposal; shipping and receiving areas
- Manufacturing buildings
- Storage areas (including tank farms) for raw materials, and intermediate and finished products
- Areas where industrial activity has taken place in the past and significant materials remain and are exposed to stormwater. Significant materials includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical that a facility is required to report pursuant to section 313 of title III of SARA; fertilizers; pesticides; and waste products such as ash, slag, and sludge that have the potential to be released with stormwater discharges.

i) *Stormwater Conveyance* means a sewer, ditch, or swale that is designed to carry stormwater; a stormwater conveyance may also be referred to as a storm drain or storm sewer.

j) *Total Maximum Daily Load (TMDL)* is the sum of the individual Waste Load Allocations (WLAs) for point sources and Load Allocations (LAs) for nonpoint sources and background. If a receiving water body has only one point source discharger, the TMDL is the sum of that point source WLA plus the LAs for any nonpoint sources of pollution and natural background sources, tributaries, or adjacent segments. TMDLs can be expressed in terms of either mass per time, toxicity, or other appropriate measure.

4. **Local Public Agencies Acting as the Department's Agent**

The department authorizes local public agencies to act as its agent in implementing this permit if they entered into a Memorandum of Agreement (MOA). The agent may be authorized to conduct the following activities, including but not limited to: application review and approval, inspections, monitoring data review, stormwater and wastewater monitoring, SWPCP review, and verification and approval of no-exposure certifications. Where the department has entered into such an agreement, the department or its agent must notify the permit registrant of where to submit no-exposure certifications, and other notifications or correspondence associated with this permit. Annual discharge monitoring reports, including analytical monitoring data and visual monitoring results, SWPCPs and Actions Plans must be submitted to both the department and the agent.

SCHEDULE F
NPDES GENERAL CONDITIONS – INDUSTRIAL FACILITIES

SECTION A. STANDARD CONDITIONS

1. Duty to Comply
The permit registrant must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of Oregon Revised Statutes (ORS) 468B.025 and 40 CFR 122.41(a) and is grounds for enforcement action; for permit termination, revocation, reissuance, or modification; or for denial of a permit renewal application.

2. Penalties for Water Pollution and Permit Condition Violations
ORS 468.140 allows the department to impose civil penalties up to $10,000 per day for violation of a term, condition, or requirement of a permit. Additionally, 40 CFR 122.41, modified by 40 CFR 19.4, provides that any person who violates any permit condition, term, or requirement may be subject to a federal civil penalty not to exceed $32,500 per day of each violation.

Under ORS 468.943 and 40 CFR 122.41, modified by 40 CFR 19.4, unlawful water pollution, if committed by a person with criminal negligence, is punishable by a fine of up to $32,500 or by imprisonment for not more than one year, or by both. Each day on which a violation occurs or continues is a separately punishable offense.

Under ORS 468.946, a person who knowingly discharges, places or causes to be placed any waste into the waters of the state or in a location where the waste is likely to escape into the waters of the state, is subject to a Class B felony punishable by a fine not to exceed $200,000 and up to 10 years in prison. Additionally, under 40 CFR §122.41(a) any person who knowingly discharges, places, or causes to be placed any waste into the waters of the state or in a location where the waste is likely to escape into the waters of the state is subject to a federal civil penalty not to exceed $100,000, and up to 6 years in prison.

3. Duty to Mitigate
The permit registrant must take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. In addition, upon request of the Department, the permit registrant must correct any adverse impact on the environment or human health resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge.

4. Duty to Reapply
If the permit registrant wishes to continue an activity regulated by this permit after the expiration date of this permit, the permit registrant must apply to have the permit renewed. The application must be submitted at least 180 days before the expiration date of this permit.

The Director may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date.

5. Permit Actions
This permit may be modified, suspended, revoked and reissued, or terminated for cause including, but not limited to, the following:

a. Violation of any term, condition, or requirement of this permit, a rule, or a statute;
b. Obtaining this permit by misrepresentation or failure to disclose fully all material facts;
c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge;
d. The permit registrant is identified as a Designated Management Agency or allocated a wasteload under a Total Maximum Daily Load (TMDL);
e. New information or regulations;
f. Modification of compliance schedules;
g. Requirements of permit re-opener conditions;
h. Correction of technical mistakes made in determining permit conditions;
i. Determination that the permitted activity endangers human health or the environment, or
j. Other causes as specified in 40 CFR §§122.62, 122.64, and 124.5.

The filing of a request by the permit registrant for a permit modification or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

6. Toxic Pollutants
The permit registrant must comply with any applicable effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

7. Property Rights
The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.

8. Permit References
Except for effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act, all rules and statutes referred to in this permit are those in effect on the date this permit is issued.

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance
The permit registrant must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permit registrant to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls, and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permit registrant only when the operation is necessary to achieve compliance with the conditions of the permit.

Duty to Halt or Reduce Activity
For industrial or commercial facilities, upon reduction, loss, or failure of the treatment facility, the permit registrant must, to the extent necessary to maintain compliance with its permit, control production or all discharges or both until the facility is restored or an alternative method of treatment is provided. This requirement applies, for example, when the primary source of power of the treatment facility fails or is reduced or lost. It is not a defense for a permit registrant in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

3. Bypass of Treatment Facilities
   a. Definitions
      (1) "Bypass" means intentional diversion of waste streams from any portion of the treatment facility. The term "bypass" does not include nonuse of singular or multiple units or processes of a treatment works when the nonuse is insignificant to the quality or quantity of the effluent produced by the treatment works. The term "bypass" does not apply if the diversion does not cause effluent limitations to be exceeded, provided the diversion is to allow essential maintenance to assure efficient operation.
      (2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities or treatment processes which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

   b. Prohibition of bypass.
      (1) Bypass is prohibited unless:
         (a) Bypass was necessary to prevent loss of life, personal injury, or severe property damage;
         (b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and
         (c) The permit registrant submitted notices and requests as required under General Condition B.3.c.

(2) The Director may approve an anticipated bypass, after considering its adverse effects and any alternatives to bypassing, when the Director determines that it will meet the three conditions listed above in General Condition B.3.b.(1).

c. Notice and request for bypass.
(1) Anticipated bypass. If the permit registrant knows in advance of the need for a bypass, it must submit prior written notice, if possible at least ten days before the date of the bypass.
(2) Unanticipated bypass. The permit registrant must submit notice of an unanticipated bypass as required in General Condition D.5.

4. Upset
a. Definition. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permit registrant. An upset does not include noncompliance to the extent caused by operation error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.

b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of General Condition B.4.c are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. Conditions necessary for a demonstration of upset. A permit registrant who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
(1) An upset occurred and that the permit registrant can identify the causes(s) of the upset;
(2) The permitted facility was at the time being properly operated;
(3) The permit registrant submitted notice of the upset as required in General Condition D.5, hereof (24-hour notice); and
(4) The permit registrant complied with any remedial measures required under General Condition A.3 hereof.

d. Burden of proof. In any enforcement proceeding the permit registrant seeking to establish the occurrence of an upset has the burden of proof.

5. Treatment of Single Operational Event
For purposes of this permit, A Single Operational Event which leads to simultaneous violations of more than one pollutant parameter must be treated as a single violation. A single operational event is an exceptional incident which causes simultaneous, unintentional, unknowing (not the result of a knowing act or omission), temporary noncompliance with more than one Clean Water Act effluent discharge pollutant parameter. A single operational event does not include Clean Water Act violations involving discharge without a NPDES permit or noncompliance to the extent caused by improperly designed or inadequate treatment facilities. Each day of a single operational event is a violation.

6. Overflows from Wastewater Conveyance Systems and Associated Pump Stations
a. Definitions
(1) "Overflow" means the diversion and discharge of waste streams from any portion of the wastewater conveyance system including pump stations, through a designed overflow device or structure, other than discharges to the wastewater treatment facility.
(2) "Severe property damage" means substantial physical damage to property, damage to the conveyance system or pump station which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of an overflow.
(3) "Uncontrolled overflow" means the diversion of waste streams other than through a designed overflow device or structure, for example to overflowing manholes or overflowing into residences, commercial establishments, or industries that may be connected to a conveyance system.

b. Prohibition of overflows. Overflows are prohibited unless:
(1) Overflows were unavoidable to prevent an uncontrolled overflow, loss of life, personal injury, or severe property damage;
(2) There were no feasible alternatives to the overflows, such as the use of auxiliary pumping or conveyance systems, or maximization of conveyance system storage; and

(3) The overflows are the result of an upset as defined in General Condition B.4. and meeting all requirements of this condition.

c. Uncontrolled overflows are prohibited where wastewater is likely to escape or be carried into the waters of the State by any means.

d. Reporting required. Unless otherwise specified in writing by the Department, all overflows and uncontrolled overflows must be reported orally to the Department within 24 hours from the time the permit registrant becomes aware of the overflow. Reporting procedures are described in more detail in General Condition D.5.

7. Public Notification of Effluent Violation or Overflow
If effluent limitations specified in this permit are exceeded or an overflow occurs, upon request by the Department, the permit registrant must take such steps as are necessary to alert the public about the extent and nature of the discharge. Such steps may include, but are not limited to, posting of the river at access points and other places, news releases, and paid announcements on radio and television.

8. Removed Substances
Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters must be disposed of in such a manner as to prevent any pollutant from such materials from entering public waters, causing nuisance conditions, or creating a public health hazard.

SECTION C. MONITORING AND RECORDS

1. Representative Sampling
Sampling and measurements taken as required herein must be representative of the volume and nature of the monitored discharge. All samples must be taken at the monitoring points specified in this permit and must be taken, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points must not be changed without notification to and the approval of the Director.

2. Flow Measurements
Appropriate flow measurement devices and methods consistent with accepted scientific practices must be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices must be installed, calibrated and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected must be capable of measuring flows with a maximum deviation of less than ± 10 percent from true discharge rates throughout the range of expected discharge volumes.

3. Monitoring Procedures
Monitoring must be conducted according to test procedures approved under 40 CFR §136, unless other test procedures have been specified in this permit.

4. Penalties of Tampering
The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit must, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than two years, or by both. If a conviction of a person is for a violation committed after a first conviction of such person, punishment is a fine not more than $20,000 per day of violation, or by imprisonment of not more than four years or both.

5. Reporting of Monitoring Results
Monitoring results must be summarized each month on a Discharge Monitoring Report form approved by the Department. The reports must be submitted monthly and are to be mailed, delivered or otherwise transmitted by the 15th day of the following month unless specifically approved otherwise in Schedule B of this permit.

Additional Monitoring by the Permit registrant
If the permit registrant monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR §136 or as specified in this permit, the results of this monitoring must be included in the calculation and reporting of the data

submitted in the Discharge Monitoring Report. Such increased frequency must also be indicated. For a pollutant parameter that may be sampled more than once per day (e.g., Total Chlorine Residual), only the average daily value must be recorded unless otherwise specified in this permit.

7. Averaging of Measurements
Calculations for all limitations which require averaging of measurements must utilize an arithmetic mean, except for bacteria which must be averaged as specified in this permit.

8. Retention of Records
Except for records of monitoring information required by this permit related to the permit registrant's sewage sludge use and disposal activities, which must be retained for a period of at least five years (or longer as required by 40 CFR §503), the permit registrant must retain records of all monitoring information, including all calibration and maintenance records of all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

9. Records Contents
Records of monitoring information must include:
   a. The date, exact place, time and methods of sampling or measurements;
   b. The individual(s) who performed the sampling or measurements;
   c. The date(s) analyses were performed;
   d. The individual(s) who performed the analyses;
   e. The analytical techniques or methods used; and
   f. The results of such analyses.

10. Inspection and Entry
The permit registrant must allow the Director, or an authorized representative upon the presentation of credentials to:
   a. Enter upon the permit registrant's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
   b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
   c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit, and
   d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by state law, any substances or parameters at any location.

SECTION D. REPORTING REQUIREMENTS

1. Planned Changes
The permit registrant must comply with Oregon Administrative Rules (OAR) 340, Division 052, "Review of Plans and Specifications". Except where exempted under OAR 340-052, no construction, installation, or modification involving disposal systems, treatment works, sewerage systems, or common sewers must be commenced until the plans and specifications are submitted to and approved by the Department. The permit registrant must give notice to the Department as soon as possible of any planned physical alternations or additions to the permitted facility.

2. Anticipated Noncompliance
The permit registrant must give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

3. Transfers
This permit may be transferred to a new permit registrant provided the transferee acquires a property interest in the permitted activity and agrees in writing to fully comply with all the terms and conditions of the permit and the rules of the Commission. No permit must be transferred to a third party without prior written approval from the Director. The permit registrant must notify the Department when a transfer of property interest takes place.

Compliance Schedule
Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date. Any reports of noncompliance must include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirements.

5. Twenty-Four Hour Reporting
The permit registrant must report any noncompliance which may endanger health or the environment. Any information must be provided orally (by telephone) within 24 hours, unless otherwise specified in this permit, from the time the permit registrant becomes aware of the circumstances. During normal business hours, the Department's Regional office must be called. Outside of normal business hours, the Department must be contacted at 1-800-452-0311 (Oregon Emergency Response System).

A written submission must also be provided within 5 days of the time the permit registrant becomes aware of the circumstances. If the permit registrant is establishing an affirmative defense of upset or bypass to any offense under ORS 468.922 to 468.946, and in which case if the original reporting notice was oral, delivered written notice must be made to the Department or other agency with regulatory jurisdiction within 4 (four) calendar days. The written submission must contain:
a. A description of the noncompliance and its cause;
b. The period of noncompliance, including exact dates and times;
c. The estimated time noncompliance is expected to continue if it has not been corrected;
d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance; and
e. Public notification steps taken, pursuant to General Condition B.7.

The following must be included as information which must be reported within 24 hours under this paragraph:
a. Any unanticipated bypass which exceeds any effluent limitation in this permit.
b. Any upset which exceeds any effluent limitation in this permit.
c. Violation of maximum daily discharge limitation for any of the pollutants listed by the Director in this permit.

The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

6. Other Noncompliance
The permit registrant must report all instances of noncompliance not reported under General Condition D.4 or D.5, at the time monitoring reports are submitted. The reports must contain:
a. A description of the noncompliance and its cause;
b. The period of noncompliance, including exact dates and times;
c. The estimated time noncompliance is expected to continue if it has not been corrected; and
d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

7. Duty to Provide Information
The permit registrant must furnish to the Department, within a reasonable time, any information which the Department may request to determine compliance with this permit. The permit registrant must also furnish to the Department, upon request, copies of records required to be kept by this permit.

Other Information: When the permit registrant becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Department, it must promptly submit such facts or information.

8. Signatory Requirements
All applications, reports or information submitted to the Department must be signed and certified in accordance with 40 CFR §122.22.

9. Falsification of Reports
Under ORS 468.953, any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, is subject to a Class C felony punishable by a fine not to exceed $100,000 per violation and up to 5 years in prison.

SECTION E. DEFINITIONS

1. BOD means five-day biochemical oxygen demand.
2. TSS means total suspended solids.
3. mg/l means milligrams per liter.
4. kg means kilograms.
5. m^3/d means cubic meters per day.
6. MGD means million gallons per day.
7. Composite sample means a sample formed by collecting and mixing discrete samples taken periodically and based on time or flow.
8. FC means fecal coliform bacteria.
9. Technology based permit effluent limitations means technology-based treatment requirements as defined in 40 CFR §125.3, and concentration and mass load effluent limitations that are based on minimum design criteria specified in OAR 340-041.
10. CBOD means five day carbonaceous biochemical oxygen demand.
11. Grab sample means an individual discrete sample collected over a period of time not to exceed 15 minutes.
12. Quarter means January through March, April through June, July through September, or October through December.
13. Month means calendar month.
14. Week means a calendar week of Sunday through Saturday.
15. Total residual chlorine means combined chlorine forms plus free residual chlorine.
16. The term "bacteria" includes but is not limited to fecal coliform bacteria, total coliform bacteria, and E. coli bacteria.
17. POTW means a publicly owned treatment works.

PRELIMINARY DRAFT

Permit Number: 1700-J
Expiration Date: 7-31-97

GENERAL PERMIT
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
WASTE WATER DISCHARGE PERMIT

Department of Environmental Quality
811 Southwest Sixth Avenue, Portland, OR
Telephone: (503) 229-5696

Issued pursuant to ORS 468B.050 and The Federal Clean Water Act

ISSUED TO:

All Owners or Operators of Waste
Water Point Source Discharges
Which are Covered by This Permit

SOURCES COVERED BY THIS PERMIT:

Vehicle cleaning, equipment cleaning, building cleaning, carpet cleaning, and other cleaning operations with or without the use of detergents, degreasers or other chemicals; including, steam cleaning, pressure washing, fixed cleaning stations, mobile cleaning operations, and in-stream boat hull cleaning facilities.

Lydia Taylor, Administrator
Water Quality Division

Date

PERMITTED ACTIVITIES

Until this permit expires or is modified or revoked, the permittee is authorized to construct water pollution control facilities and to discharge treated wastewater to public waters or to an approved land disposal system in accordance with plans which have been reviewed and approved by the Department. All discharges shall be in accordance with the attached schedules:

Page
Schedule A - Controls, Limitations, and Monitoring..... 2-5
Schedule B - Reporting Requirements and Special Conditions... 6
Schedule C - Compliance Schedules.....7
General Conditions.....8-16

Each other direct and indirect waste discharge to public waters is prohibited unless covered by another NPDES permit.

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SCHEDULE A

Controls and Limitations for Wastewater Disposal

1. This general permit does not cover "hydroblasting" or the use of abrasives for the removal of paint or oxidized metal.

2. With the exception of cleaning activities identified in Conditions 3. through 10., below, all wastewater shall be collected, treated, and disposed of by a wastewater treatment and disposal system, plans for which have been reviewed and approved in writing by the Department of Environmental Quality (DEQ).

3. Any facility which collects, treats, and recycles all wastewater, with no discharge, may operate without a permit from the DEQ.

4. Any facility which collects all wastewater and discharges to a municipal sanitary sewerage system, may operate without a permit from the DEQ. A permit may be required by the municipality.

5. A permit is not required to dispose of a limited amount of wastewater generated by a non-commercial (private) cleaning operation. If soaps or detergents are used, the wastewater shall be disposed of onto the ground surface in areas where it will soak into the ground without running off into drainage ways or storm sewers.

6. A wash water permit is not required where a small number of commercial washing operations occur in an area where the water will soak into the ground without discharge to storm sewers or directly to public waters. This exemption applies only if no more than 7 vehicles or boats are washed per week or no more than 5,000 square feet of carpet are washed per week. When washing large trucks, the tractor and trailer are counted as separate vehicles. If the business is one which requires a storm water permit under the Clean Water Act, the washing area may require regulation under a storm water permit.

7. Without requiring a permit, non-painted fiberglass boat hulls may be cleaned by in-stream cleaning equipment or methods, provided the cleaning takes place in areas where the turbidity generated will not create a nuisance and where sediment will not accumulate on the bottom of the receiving stream. All painted boats shall be cleaned with out-of-water systems where the paint chips and other residue can be separated from the wastewater.

8. A permit is not required to rinse salt water off a pleasure boat, provided cold water is used and the activity does not occur in a manner which causes erosion of the soil in the

area.

9. Without getting a permit, the chute and outside of a ready mix concrete truck may be rinsed at the site after discharging a load, provided the concrete residue is discharged on site in an area approved by the contractor or owner and provided it is not placed in a storm sewer or any other area where it is likely to be carried into surface waters.

10. A permit is not required for washing the outside of buildings, provided acids or caustics are not used and the residual wash water is allowed to soak into the ground with minimal runoff.

11. All steam cleaning operations and hot water or chemical assisted cleaning of oily or greasy equipment shall be conducted on a slab. All wastewater from such cleaning operations shall be collected and treated to remove grit and oil and grease prior to disposal. Oil or grease deposits shall not be allowed to accumulate on the ground surface.

12. Before a treatment and disposal system for washing operations using detergents or other chemicals will be approved by the Department, the applicant must show evidence that other alternatives such as connection to a municipal sewerage system and total recycle of the wastewater have been evaluated.

13. Wastewaters may be disposed on site with no discharge to surface waters of the state, provided the following treatment and disposal systems are used:

    (a) If no detergents or other chemicals are used, the wastewater treatment and disposal system shall include at least the following units:
        (1) An oil and grease absorption or removal unit;
        (2) A grit collection and removal system; and
        (3) An evaporation pond, seepage pond, seepage trench, irrigation system, or dry well which has been sized to take the maximum amount of wastewater to be generated.

    The maximum depth of any dry well shall be 10 feet. Discharge to the surface of the ground for seepage may be considered equivalent treatment provided oily residues do not accumulate on the surface of the ground and runoff does not occur.

    (b) If detergents or other cleaning chemicals, which are readily biodegradable, are used, the treatment and disposal system shall include at least the following units:
        (1) An oil and grease removal unit;

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(2) A grit collection and removal system; and
(3) A septic tank and leach field, the design of which has been approved in writing by the Department. If the design criteria in OAR 340 Divisions 71 and 73 are followed and the system is installed by an installer licensed by the Department, specific written plan approval of the Department will not be required.

(Note: Wash water shall not be discharged to an on-site sewage disposal system which is designed to treat only the sanitary sewage from the facility.)

(4) A seepage/evaporation pond may be used in lieu of a leach field, if approved in writing by the DEQ.

14. If halogenated hydrocarbons or chemicals, which are not readily biodegradable, are used, no discharge to public waters, to the ground surface, or to a subsurface disposal system is permitted. All wastewater shall be discharged to a municipal sewerage system or be totally recycled.

15. The treatment and discharge of cleaning wastewaters to surface waters of the state may be permitted, provided at least a 20:1 dilution is available in the receiving stream. For surface water discharge, the following waste discharge limitations and effluent monitoring requirements are in effect (unless otherwise approved in writing by the DEQ):

Parameters	Limitations	Monitoring
Oil & Grease	Not to exceed 10 mg/L and no visible sheen	Weekly visual observation[1] Monthly grab
S.S.[2]	Not to exceed 0.1 mL/L	Weekly grab
pH	Between 6.0 and 9.0	Weekly grab
COD[3]	Not to exceed 20 mg/L	Monthly grab
Phosphorus[3]	Not to exceed 2.0 mg/L	Monthly grab
Ammonia (N)[3]	Not to exceed 5.0 mg/L	Monthly grab
Total Recoverable Metals not to exceed[4]		
Arsenic	0.720 mg/L	Weekly grab
Chromium VI	0.016 mg/L	Weekly grab
Copper	0.018 mg/L	Weekly grab
Lead	0.068 mg/L	Weekly grab
Zinc	0.120 mg/L	Weekly grab
Toxicity[5]	No discharge of toxic chemicals in toxic concentrations	

[1] Whenever an oily sheen is observed, the effluent shall be sampled for oil & grease.
[2] Means Settleable Solids (EPA 160.5)
[3] Applies only where soaps, detergents or other biodegradable cleaning chemicals are used.
[4] Applies only where acids or caustics are used in cleaning or brightening.

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5 Toxic concentration means lethality to aquatic life as measured by a significant difference in lethal concentration between the control and 100 percent effluent in an acute bioassay test.

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SCHEDULE B

Reporting Requirements, Mixing Zone, and Special Conditions

1. All monitoring data and visual observations required by Schedule A shall be tabulated in a format approved by the Department and submitted monthly, by the 15th day of the following month. The reports shall be submitted to the appropriate DEQ regional office. (See last page of this permit for addresses.)

2. Allowable Mixing Zone - Notwithstanding the effluent limitations in this permit, no wastes shall be discharged and no activities shall be conducted which will violate applicable water quality standards as adopted in OAR 340 Division 41, except within a mixing zone in the receiving stream of a size which would provide a 20:1 dilution of the wastewater discharged. For in-stream boat hull cleaning, the mixing zone shall not extend beyond a radius of thirty feet from the cleaning device.

3. Solids removed in any cleaning process shall be collected and disposed of in an appropriate manner, dependent upon the character and toxicity of the solids.

6. The Department may approve the use of treatment and disposal systems, other than those described in Schedule A, provided the permittee can demonstrate that they will provide an equivalent degree of control and environmental protection. Before any such system can be used, approval shall be granted in writing by the Department.

7. Before any surface or subsurface treatment and disposal system will be approved by the Department for the disposal of wastewater containing cleaning chemicals, an evaluation of soils at the site shall be made by a soil scientist or other qualified expert trained in field soil evaluations. The evaluation shall determine soil characteristics and depth to groundwater. This site evaluation information shall be submitted along with the system design plans.

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SCHEDULE C

Compliance Conditions and Schedules (Unless otherwise approved in writing by the Department)

1. All facilities or operations regulated by this permit which begin operating after the issuance date of this permit shall be in compliance with the limitations in SCHEDULE A at the beginning of the operation.

2. Existing facilities shall be in compliance with the limitations of this permit within the following time schedule:
   a. Submit preliminary proposal or plans within 6 months of the date the permit is received.
   b. Submit final plans within 6 months of the preliminary plan approval by the Department.
   c. Construct any necessary facilities and be in total compliance with the permit within 12 months of the date final plans were approved by the Department.
   d. If attaining compliance is to be accomplished by connecting to a municipal sanitary sewerage system, the connection shall be made within 18 months of the date the permit is received.

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GENERAL CONDITIONS

SECTION A. STANDARD CONDITIONS

1. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination; revocation and re-issuance, or modification; or for denial of a permit renewal application.

2. Penalties for Violations of Permit Conditions

Oregon Law (ORS 468.990) classifies a willful or negligent violation of the terms of a permit or failure to get a permit as a misdemeanor and a person convicted thereof shall be punishable by a fine of not more than $25,000 or by imprisonment for not more than one year, or by both. Each day of violation constitutes a separate offense.

In addition to the criminal penalties specified above, Oregon Law (ORS 468.140) also allows the Director to impose civil penalties up to $10,000 per day for violation of the terms or conditions of a permit.

3. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment and human health resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

4. Individual NPDES Permit Required

Whenever a facility expansion, production increase, or process modification is anticipated which will result in a change in the character of pollutants to be discharged or which will result in a new or increased discharge that will exceed the conditions of this permit, an NPDES application must be submitted together with the necessary reports, plans, and specifications for the proposed changes. No change shall be made until plans have been approved and an individual NPDES permit has been issued.

5. Permit Actions

The Director may revoke a general permit as it applies to any person and require such person to apply for and obtain an individual NPDES permit if:

a. The covered source or activity is a significant contributor of pollution or creates other environmental

problems;

b. The permittee is not in compliance with the terms and conditions of this general permit; or

c. Conditions or standards have changed so that the source or activity no longer qualifies for a general permit.

6. General Permit Coverage

a. Any permittee not wishing to be covered or limited by this general permit may make application for an individual NPDES permit in accordance with NPDES procedures in OAR 340-45-030.

b. This general permit does not cover activities or discharges covered by an individual NPDES permit until the individual permit has expired or been cancelled. Any person conducting an activity covered by an individual permit but which could be covered by this general permit may request that the individual permit be cancelled.

c. All persons desiring to be covered by this general permit must register with the Department. This can be done by submitting an application provided by the Department along with applicable fees and a Land Use Compatibility Statement to:

Department of Environmental Quality
Water Quality Division
811 SW Sixth Avenue
Portland, OR 97204

7. Toxic Pollutants

The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

8. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

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The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

2. Duty to Halt or Reduce Activity

Upon reduction, loss, or failure of the treatment facility, the permittee shall, to the extent necessary to maintain compliance with its permit, control production or all discharges or both until the facility is restored or an alternative method of treatment is provided. This requirement applies, for example, when the primary source of power of the treatment facility fails or is reduced or lost. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

3. Bypass of Treatment Facilities

a. Definitions

(1) "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

(2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. Bypass not exceeding limitations.

The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs c. and d. of this section.

c. Notice

(1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the

bypass.

(2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Section D, Paragraph D-5 (24-hour notice).

d. Prohibition of bypass.

(1) Bypass is prohibited and the Director may take enforcement action against a permittee for bypass, unless:

(a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if the permittee could have installed adequate backup equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and

(c) The permittee submitted notices as required under paragraph c of this section.

(2) The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph d(1) of this section.

4. Removed Substances

Solids, sludges, or other pollutants removed in the course of treatment of control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering public waters.

SECTION C. MONITORING AND RECORDS

1. Representative Sampling

Sampling and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this permit and shall be taken, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points shall not be changed without notification to and the approval of

PRELIMINARY DRAFT

the Director.

2. Flow Measurements

Where flow monitoring is required, appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to insure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than ± 10% from true discharge rates throughout the range of expected discharge volumes.

3. Monitoring Procedures

Where effluent monitoring is required, monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.

4. Penalties of Tampering

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

5. Reporting of Monitoring Results

Monitoring results shall be summarized each month on a Discharge Monitoring Report form approved by the Department. The reports shall be submitted monthly and are to be postmarked by the 15th day of the following month unless specifically approved otherwise in Schedule B of this permit.

6. Additional Monitoring by the Permittee

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR. Such increased frequency shall also be indicated.

7. Averaging of Measurements

Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean, except for

PRELIMINARY DRAFT

coliform and fecal coliform bacteria which shall be averaged based on a geometric or log mean.

8. Retention of Records

The permittee shall retain records of all monitoring information, including all calibration and maintenance records of all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, or report of application. This period may be extended by request of the Director at any time.

9. Records Contents

Where effluent monitoring is required, records of monitoring information shall include:

a. The date, exact place, time and methods of sampling or measurements;

b. The individual(s) who performed the sampling or measurements;

c. The date(s) analyses were performed;

d. The individual(s) who performed the analyses;

e. The analytical techniques or methods used; and

f. The results of such analyses.

10. Inspection and Entry

The permittee shall allow the Director, or an authorized representative upon the presentation of credentials and other documents as may be required by law, to:

a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit, and

d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any

PRELIMINARY DRAFT

location.

SECTION D. REPORTING REQUIREMENTS

1. Planned Changes

The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility.

2. Anticipated Noncompliance

The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

3. Transfers

This permit may be transferred to a new permittee provided the transferee acquires a property interest in the permitted activity and agrees in writing to fully comply with all the terms and conditions of the permit and the rules of the Commission. No permit shall be transferred to a third party without prior written approval from the Director.

4. Compliance Schedule

Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date. Any reports of noncompliance shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirements.

5. Twenty-Four Hour Reporting

The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally (by telephone) within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain:

a. A description of the noncompliance and its cause;

b. The period of noncompliance, including exact dates and times;

c. The estimated time noncompliance is expected to continue if it has not been corrected; and

d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

The following shall be included as information which must be reported within 24 hours:

a. Any unanticipated bypass which exceeds any effluent limitation in the permit.

b. Any upset which exceeds any effluent limitation in the permit.

6. Other Noncompliance

The permittee shall report all instances of noncompliance not reported under Section D, Paragraphs D-4 and D-5, at the time monitoring reports are submitted unless required otherwise in Schedule B of this permit. The reports shall contain the information listed in Paragraph D-5.

7. Duty to Provide Information

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for revoking coverage by this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

Other Information: When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Director, it shall promptly submit such facts or information.

8. Signatory Requirements

All applications, reports or information submitted to the Director shall be signed and certified in accordance with 40 CFR 122.61.

9. Falsification of Reports

The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six months per violation, or by both.

PRELIMINARY DRAFT

SECTION E. DEFINITIONS AND ACRONYMS

1. mL/L means total settleable solids as measured in an Imhoff cone.

2. mg/L means milligrams per liter.

3. DEQ Regional Offices with Counties Covered

   Northwest - 1500 SW First Ave., Suite 750, Portland, OR 97201 (Clackamas, Clatsop, Columbia, Multnomah, Tillamook, Washington)

   Willamette Valley - 750 Front St. N.E., Suite 120, Salem, OR 97310 (Benton, Lane, Lincoln, Linn, Marion, Polk, Yamhill)

   Southwest - 201 W. Main St., Suite 2-D, Medford, OR 97501 (Coos, Curry, Douglas, Jackson, Josephine)

   Central - 2146 N.E. 4th, Bend, OR 97701 (Crook, Deschutes, Harney, Hood River, Jefferson, Klamath, Lake, Sherman, Wasco)

   Eastern - 700 S.E. Emigrant, Suite 330, Pendleton, OR 97801 (Baker, Gilliam, Grant, Malheur, Morrow, Umatilla, Union, Wallowa, Wheeler)

GP1700J.9M/CKA

EVALUATION REPORT AND FACT SHEET

Prepared by: Charles K. Ashbaker
Date: August 26, 1992

WHAT IS PROPOSED:
The Department of Environmental Quality is proposing to issue a general permit for vehicle cleaning and other washing and cleaning operations.

WHY:
In Oregon, all disposal of wastewater requires a permit from the Department of Environmental Quality (DEQ) pursuant to Oregon Revised Statutes 468B.050. This law has been in effect since 1967.

It has been determined that there are hundreds of cleaning operations taking place in Oregon with the wastewater being discharged onto the ground surface, to storm sewers, or directly to public waters without an appropriate DEQ permit. The DEQ desires to bring these facilities into compliance with state law and to correct present inadequate disposal practices. The DEQ has determined that the best way to bring these facilities into the permitting process is to issue a general permit. That will provide for a simplified uniform process of permitting these facilities.

WHAT TYPES OF OPERATIONS ARE INVOLVED:
Those types of cleaning operations which are of concern are vehicle cleaning, pleasure boat cleaning, equipment cleaning, building cleaning, carpet cleaning, parking lot cleaning, and any other cleaning operations where contaminated wastewater is being discharged to areas where public waters can be affected. Some of the operations are fixed and some mobile. Some use detergents, cleaners, metal brighteners, or other chemicals. Some use steam or hot water. Many use cold water.

ALTERNATIVES:
1. One alternative would be to require all washing or cleaning operations to be discharged to a sanitary sewer or to recycle all wastewater without discharge. If that was done, no permit would be necessary.

2. Another alternative would be to set effluent limits for all possible combinations and allow discharge to public waters after proper treatment.

3. Another alternative would be to allow for the use of subsurface treatment and disposal systems for some of the washing processes and treatment and disposal to surface waters for others.

4. Another alternative would be to assume this unregulated source is insignificant and to ignore it for things of

higher priority.

TECHNICAL REVIEW COMMITTEE:
The DEQ has used a Technical Review Committee consisting of representatives of the regulated community to review the DEQ's work and to make recommendations for the general permit. It has been determined that a permit should be issued and that it should not only address on-site land disposal but should also allow treated discharge to surface waters.

RECOMMENDATIONS:
Through the current storm water permitting activity, many of these cleaning operations are being revealed. Since the impact from many of they will surely be greater than the storm water leaving the property, it would be very unwise to ignore the problem. In addition, anyone in non-compliance with state and federal permitting laws are not only subject to civil and criminal penalties but are also subject to citizen suits.

Some categories of small operations which do not discharge to public waters should be exempt from permitting requirements. These should be identified in the permit. A permit should be written which has effluent limitations appropriate to the type of operation and chemicals used.

A general permit (GP1700-J) is recommended. The Department has very little data upon which to base treatment technology or standards for operations using chemicals, therefore, effluent limits will be based upon protecting water quality. It will still be recommended that most facilities using chemicals shall either discharge to a sanitary sewer or to an approved subsurface disposal system with no discharge to surface waters. Facilities using only water, hot water, or steam can discharge to surface waters after adequate removal of oil & grease and sediment.

SUGGESTED EXEMPTIONS:
1- Any facility which collects, treats, and recycles all wastewater may operate without a permit from the DEQ.
2- Any facility which collects all wastewater and discharges to a municipal sanitary sewer requires no permit from DEQ.
3- Small non-commercial washing operations which discharge cleaning water to the ground surface without discharge to public waters requires no permit from DEQ.
4- Small commercial operations (no more than 7 vehicles per week or no more that 5000 square feet of carpet per week) do not require a permit if all wastewater is discharged to the ground surface with no discharge to public waters.
5- In-stream boat scrubbing operations are exempt from the permitting requirements.
6- Rinsing salt water off pleasure boats requires no permit.
7- Cleaning the chute and outside of a ready mix concrete truck at the construction site requires no permit.
8- Washing outside of buildings requires no permit if the water is allowed to soak into the ground without discharge to

public waters.

PROPOSED TREATMENT TECHNOLOGY AND EFFLUENT LIMITATIONS:
If a cleaning operation cannot discharge to a municipal sewerage system, the next best alternative would be an on-site seepage/evaporation system. If no chemicals are used, grit removal and an oil/water separation system would probably be adequate treatment. If detergents or other biodegradable cleaners are used, the disposal system should be preceded by a septic tank or some unit which will allow for some degradation of the chemicals.

One method of approaching effluent limitations for those facility which plan to treat and discharge to surface waters is to establish water quality based limits assuming a 20:1 dilution in the receiving stream and then allow no discharge where less than 20:1 is available. For heavy metals, no dilution allowance should be granted because the background level of heavy metals in the receiving stream would be unknown. Proposed effluent limitations are as follows:

Parameter	Limitations	Monitoring Frequency
Oil and Grease	Not to exceed 10 mg/l	Monthly grab
Settleable Solids	Not to exceed 0.1 ml/l	Weekly grab
pH	Between 6.0 and 9.0	Weekly grab
COD	Not to exceed 20 mg/l	Monthly grab
Phosphorus	Not to exceed 2.0 mg/l	Monthly grab
Ammonia(N)	Not to exceed 5.0 mg/l	Monthly grab
Recoverable Metals not to exceed:(Applies when acids or caustics are used)		
Arsenic	0.720 mg/l	Weekly grab
Chromium VI	0.016 mg/l	Weekly grab
Copper	0.018 mg/l	Weekly grab
Lead	0.068 mg/l	Weekly grab
Zinc	0.120 mg/l	Weekly grab

OTHER LIMITATIONS:

1. If halogenated hydrocarbons or non-biodegradable detergents or chemicals are used, no discharge to the ground surface or to a subsurface treatment and disposal system is permitted.

2. Solids removed in any cleaning process shall be collected and disposed of in an appropriate manner dependent upon the character and toxicity of the solids.

3. The Department may approve the use of treatment and disposal systems, other than those described in Schedule A, provided the permittee can demonstrate that they will provide an equivalent degree of control and environmental protection. Before any such system can be used, approval shall be granted in writing by the Department.

4. Before any surface or subsurface treatment and disposal system will be approved by the Department, an evaluation of

soils at the site shall be made by a soil scientist or other qualified expert trained in soil field evaluations. The evaluation shall determine soil characteristics and depth to groundwater. This site evaluation information shall be submitted along with the system design plans.

WHEN SHOULD EXISTING FACILITIES ACHIEVE COMPLIANCE?
Since most facilities will not be in compliance with the permit at the time they receive it, it is necessary to add a compliance schedule to the permit. The following is proposed:

Existing facilities shall be in compliance with the limitations of this permit within the following time schedule:

a. Submit preliminary proposal or plans within 6 months of the date the permit is received.
b. Submit final plans within 6 months of the preliminary plan approval by the Department.
c. Construct any necessary facilities and be in total compliance with the permit within 12 months of the date final plans are approved.
d. If attaining compliance is to be accomplished by connecting to a municipal sanitary sewerage system, the connection shall be made within 18 months of the date the permit is received.

GENERAL CONDITIONS:
The standard boilerplate conditions will be added to the permit as General Conditions.

GP1700J.ER/cka

GENERAL PERMIT
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
STORMWATER DISCHARGE PERMIT (NPDES)
Department of Environmental Quality (DEQ)
811 Southwest Sixth Avenue, Portland, OR 97204
Telephone: (503) 229-5630 or 1-800-452-4011 toll free in Oregon
Issued pursuant to ORS 468B.050 and The Federal Clean Water Act

ISSUED TO:

All Owners or Operators of Stormwater Point Source Discharges that are Covered by this Permit

SOURCES COVERED BY THIS PERMIT

Facilities identified in 40 Code of Federal Regulation (CFR) §122.26(b)(14)(i - ix, xi) with stormwater discharges and Concrete Batch Plants and Asphalt Mix Batch Plants. See *Table 1: Sources Covered* on p. 2 for more information on the CFR regulated industries covered by this permit. Facilities may qualify for a conditional exclusion from the requirement to obtain coverage under a permit if there is no exposure of industrial activities and materials to stormwater pursuant to 40 CFR §122.26(g); see *Permit Coverage and Exclusion from Coverage* on p. 4 for more information.

Construction activities and Standard Industrial Classification code 14, *Mining and Quarrying of Nonmetallic Minerals, Except Fuels*, are excluded from this permit. These activities are regulated under separate general permits.

Lauri Aunan, Administrator
Water Quality Division

Issued: December 15, 2005
Effective: January 1, 2006
Expires: December 31, 2010

PERMITTED ACTIVITIES

Until this permit expires or is modified or revoked, the permittee is authorized to construct, install, modify, or operate stormwater treatment and/or control facilities, and to discharge stormwater to public waters in conformance with all the requirements, limitations, and conditions set forth in the attached schedules as follows:

		Page
Permit Coverage and Exclusion From Coverage		4
Schedule A -	Stormwater Pollution Control Plan, Additional Requirements, Limitations, and Benchmarks	7
Schedule B -	Monitoring and Reporting Requirements	14
Schedule C -	Compliance Conditions and Schedules	17
Schedule D -	Special Conditions	18
Schedule E	(Not Applicable)	
Schedule F -	General Conditions	20

Unless specifically authorized by this permit, by another NPDES or Water Pollution Control Facilities (WPCF) permit, or by Oregon Administrative Rule (OAR), any other direct or indirect discharge to waters of the state is prohibited, including discharges to an underground injection control system.

TABLE 1: SOURCES COVERED

Facilities with the following primary Standard Industrial Classification codes:

- 10 Metal Mining
- 12 Coal Mining
- 13 Oil and Gas Extraction
- 20 Food and Kindred Products
- 21 Tobacco Products
- 22 Textile Mill Products
- 23 Apparel and Other Finished Products Made From Fabrics and Similar Material
- 24 Lumber and Wood Products, Except Furniture (excluding 2491 Wood Preserving and 2411 Logging)
- 25 Furniture and Fixtures
- 26 Paper and Allied Products
- 27 Printing, Publishing and Allied Industries
- 28 Chemicals and Allied Products (excluding 2874 Phosphate Fertilizer Manufacturing)
- 29 Petroleum Refining and Related Industries
- 30 Rubber and Miscellaneous Plastics Products
- 31 Leather and Leather Products
- 32 Stone, Clay, Glass, and Concrete Products
- 33 Primary Metal Industries
- 34 Fabricated Metal Products, Except Machinery and Transportation Equipment
- 35 Industrial and Commercial Machinery and Computer Equipment
- 36 Electronic and Other Electrical Equipment and Components, Except Computer Equipment
- 37 Transportation Equipment
- 38 Measuring, Analyzing, and Controlling Instruments; Photographic, Medical and Optical Goods; Watches and Clocks
- 39 Miscellaneous Manufacturing Industries
- 4221 Farm Product Warehousing and Storage
- 4222 Refrigerated Warehousing and Storage
- 4225 General Warehousing and Storage
- 5015 Motor Vehicle Parts, Used
- 5093 Scrap and Waste Materials

Facilities with the following primary Standard Industrial Classification codes that have vehicle maintenance shops (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, or airport deicing operations:

- 40 Railroad Transportation
- 41 Local and Suburban Transit and Interurban Highway Passenger Transportation
- 42 Motor Freight Transportation and Warehousing (excluding 4221 Farm Product Warehousing and Storage, 4222 Refrigerated Warehousing and Storage, and 4225 General Warehousing and Storage)
- 43 United States Postal Service
- 44 Water Transportation
- 45 Transportation by Air
- 5171 Petroleum Bulk Stations and Terminals

Facilities storing, transferring, formulating and/or packaging bulk petroleum products or synthetic and naturally occurring oils, and other facilities with oily stormwater runoff*

Steam Electric Power Generation including coal handling sites

Landfills, land application sites and open dumps [excluding landfills regulated by 40 CFR §445 that discharge "contaminated stormwater" (as defined by 40 CFR §445.2) to waters of the U.S.]

Hazardous Waste Treatment, Storage and Disposal Facilities [excluding hazardous waste landfills regulated by 40 CFR §445 that discharge "contaminated stormwater" (as defined by 40 CFR §445.2) to waters of the U.S.]

Treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage, recycling, and reclamation of municipal or domestic sewage (including land dedicated to the disposal of sewage sludge that are located within the confines of the facility) with the design flow capacity of 1.0 mgd or more, or required to have a pretreatment program under 40 CFR §403.

*An NPDES 1200-Z permit is not required for bulk petroleum storage and handling facilities where the only source(s) of discharge is (are) from:

a. Storm water runoff that contacts oil-filled electrical equipment in transformer substations which are equipped with oil spill prevention measures such as containment areas and/or oil/water separators.

NEW exemptions?

b. Stormwater runoff that contacts petroleum product receiving or dispensing areas or product dispensing equipment from which product is dispensed only to final users, whether or not the discharge is treated by an oil/water separator.
c. Stormwater that collects in a secondary containment area at a petroleum product dispensing site, where the secondary containment area is associated with storage tanks from which product is dispensed only to final users, and the discharge from the containment area is treated by an oil/water separator.
d. Stormwater that collects in a secondary containment area at a bulk petroleum product storage site, where the total storage capacity at the site does not exceed 150,000 gallons and the discharge from the containment area is treated by an oil/water separator. A site with multiple containment areas is considered a single site for determining total storage capacity.

Note: Conditions (b) and (c) apply only to retail or fleet fueling stations, including motor pools, where the only fuel dispensing that occurs is to the final user of the fuel; it is not intended to cover bulk storage facilities or facilities where product is transferred to delivery vehicles.

Permits for the activities described in Table 1 are required when there exists a point source discharge of rain or snow melt associated with industrial activities that drains to surface waters. A point source means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, and container from which pollutants are or may be discharged. This term does not include agricultural runoff which is exempted from the definition of point source.

The definition of stormwater associated with industrial activity includes, but is not limited to, stormwater discharges from the following:

- Industrial plant yards
- Immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility
- Material handling sites[1]
- Refuse sites
- Sites used for the application or disposal of process waste waters (as defined in 40 CFR § 401)
- Sites used for storage and/or maintenance of material handling equipment
- Sites used for residual treatment, storage, or disposal; shipping and receiving areas
- Manufacturing buildings
- Storage areas (including tank farms) for raw materials, and intermediate and finished products
- Areas where industrial activity has taken place in the past and significant materials[2] remain and are exposed to stormwater

[1] Material handling activities include the storage, loading and unloading, transportation or conveyance of raw material, intermediate product, finished product, by-product or waste product.

[2] Significant materials includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical that a facility is required to report pursuant to section 313 of title III of SARA; fertilizers; pesticides; and waste products such as ash, slag, and sludge that have the potential to be released with stormwater discharges.

submit 30 days or to activity, but 5 day public notice & coverage starting after?!

PERMIT COVERAGE AND EXCLUSION FROM COVERAGE

1. **Application for General Permit Coverage**

a) *New facilities*

Owners or operators of sources to be covered by this permit must:

i) Submit a complete copy of the Department-approved application form with a complete Stormwater Pollution Control Plan (SWPCP) to the Department requesting coverage under this permit at least 30 days prior to the planned activity that will result in the discharge to waters of the state, unless otherwise approved by the Department.

reduced from 180 to 30 days

ii) Provide payment of all fees applicable to this permit prior to obtaining coverage.

iii) The existing permit will continue to be in effect through administrative extension after the permit expiration date if a complete renewal application is submitted and once the public review is completed and the Department has approved the SWPCP.

NEW (35-day public notice)

iv) Permit coverage begins after a 35-day public notice and review period, as per the requirements of OAR 340-045-____ (*to be adopted with these permit revisions*), and after approval of the ESCP by the Department or Agent. Once these processes are complete, a copy of the Permit will be mailed to the applicant. Receipt of this copy of the Permit signifies the official start of permit coverage

v) The 35-day public review period starts after the Department or Agent has determined that the permit application and the SWPCP are complete.

Formerly under same bullet

b) *New applicants for existing facilities*

Owners or operators of existing sources to be covered by this permit must:

i) Submit a complete copy of the Department-approved application form with a complete Stormwater Pollution Control Plan (SWPCP) to the Department requesting coverage under this permit.

ii) Provide payment of all fees applicable to this permit prior to obtaining coverage.

NEW (35-day public notice)

iii) Permit coverage begins after a 35-day public notice and review period, as per the requirements of OAR 340-045-____ (*to be adopted with these permit revisions*), and after approval of the ESCP by the Department or Agent. Once these processes are complete, a copy of the Permit will be mailed to the applicant. Receipt of this copy of the Permit signifies the official start of permit coverage

iv) The 35-day public review period starts after the Department or Agent has determined that the permit application and the SWPCP are complete.

c) *Renewal of permit coverage for existing permittees*

Owners or operators of sources covered by this permit must:

i) Submit a complete copy of the Department approved application form with a complete Stormwater Pollution Control Plan (SWPCP) 180 days prior to permit expiration, unless otherwise approved in writing by the Department or its Agent.

ii) Provide payment of all applicable fees for permit renewal.

iii) The existing permit will continue to be in effect through administrative extension after the permit expiration date if a complete renewal application is submitted and approved by the Department.

NEW (35-day public notice)

iv) Permit coverage under the renewal permit begins after a 35-day public notice and review period, as per the requirements of OAR 340-045-____ (*to be adopted with these permit revisions*), and after approval of the ESCP by the Department or Agent. Once these processes are complete, a copy of the Permit will be mailed to the applicant. Receipt of this copy of the Permit signifies the official start of permit coverage

NEW

v) The 35-day public review period starts after the Department or Agent has determined that the permit application and the SWPCP are complete.

d) *Transfer of permit coverage*

i) Transfer of a permitted site where the transfer is a legal entity or name change only with no industrial operational type change at the site, the applicant must:

(1) Submit a complete copy of the Department-approved application form with a revised SWPCP to the Department or its Agent requesting coverage under this permit. If a local agency administers the Industrial Stormwater Program for the Department then two copies of the SWPCP must be submitted.

(2) Provide payment of all applicable fees for the permit transfer.

NEW (permit transfer)

ii) Transfer of a permitted site where the transfer is to a different type of industrial operation from the previous permitted operator, the applicant must:

(1) Submit a complete copy of the Department-approved application form with a complete Stormwater Pollution Control Plan (SWPCP) to the Department or its agent requesting coverage under this permit at least 90 days prior to the planned activity that will result in the discharge to waters of the state, unless otherwise approved by the Department. If a DEQ agent administers the Industrial Stormwater Program for DEQ in the area of coverage, then two copies of the SWPCP must be submitted.

(2) Provide payment of all fees applicable to this permit prior to obtaining coverage.

e) *Notification that permit coverage has been obtained*

MODIFIED (commenter also notified of permit approval)

i) The Department will notify the applicant and any commenter by mail or by e-mail when the Department has approved a new application for coverage, transfer, or renewal application and accompanying SWPCP.

ii) If the applicant's operation cannot be approved for coverage under this permit, the applicant may apply for an individual permit.

2. **"No Exposure" Conditional Exclusion from Permit Coverage**

Application for "No Exposure" conditional exclusion may be obtained for some sites in lieu of a permit, provided the applicant for the "No Exposure" certification qualifies.

a) To qualify for this exclusion, the owner or operator must:

i) Provide a storm resistant shelter to protect industrial materials and activities from exposure to rain, snow, snow melt, and runoff.

ii) Complete and sign a certification, on a form approved by the Department, that there is no exposure to industrial materials and activities for the entire facility by stormwater, except as provided in 40 CFR §122.26(g)(2).

iii) Submit the signed certification to the Department once every five years.

iv) Allow the Department or its Agent to inspect the facility to determine compliance with the "no exposure" conditions, and allow the Department to make any "no exposure" inspection reports available to the public upon request.

v) For facilities that discharge through a municipal separate storm sewer system (MS4), upon request, submit a copy of the "no exposure" certification to the MS4 operator (i.e., local municipality, sewage district agency, etc.), as well as allow inspection and public reporting by the MS4 operator.

vi) Use the Environmental Protection Agency (EPA) *Guidance Manual for Conditional Exclusion from Stormwater Permitting Based on "No Exposure" of Industrial Activities to Stormwater* (EPA 833-B-00-001, June 2000 or later) to determine "no exposure."

b) Limitations for obtaining and/or maintaining the exclusion:

i) This exclusion is available on a facility-wide basis only, not for individual outfalls. If a facility has some discharges of stormwater that would otherwise be "no exposure" discharges, individual permit requirements should be adjusted accordingly.

ii) If circumstances change and industrial materials or activities become exposed to rain, snow, snow melt, and/or runoff, the conditions for this exclusion no longer apply. In such cases, the discharge becomes subject to enforcement for un-permitted discharge. Any conditionally exempt discharger who anticipates changes in circumstances should apply for and obtain permit coverage prior to the change of circumstances.

iii) The Department retains the authority to require permit coverage (and deny this exclusion) upon making a determination that the discharge causes, has reasonable potential to cause, or contributes to an instream excursion above an applicable water quality standard, including designated uses or determines that the site does not qualify for the "no exposure" provision.

iv) The Department will either notify the applicant of its approval of the "no exposure' conditional exclusion and in the case of a site covered under a permit, termination of permit coverage or the applicant can assume approval after receiving no response from the Department after thirty days from submittal of the form. The owner or operator must maintain this notification on site.

MODIFIED
(deletion of clause where no response means approval)

* why add no response clause if owner/op is still required to maintain a copy of notification?

SCHEDULE A
STORMWATER POLLUTION CONTROL PLAN

1. **Preparation and Implementation of the Stormwater Pollution Control Plan (SWPCP)** The SWPCP shall contain the applicable information outlined in the Department document "Guidance Document for Writing a Stormwater Pollution Control Plan" available at http://www.deq.state.or.us/nwr/stormwater.htm and the elements described in Schedule A.2. In addition the following plan revision and implementation requirements must be met:
   a) Updates and revisions to the SWPCP must also be signed and certified pursuant to 40 CFR §122.22.
   b) The SWPCP must be implemented according to the time frames set forth in Schedule C.
   c) The SWPCP must be kept current and updated as necessary to reflect any changes in facility operation.
   d) A copy of the SWPCP must be kept at the facility and made available upon request to government agencies responsible for stormwater management in the permittee's area.

2. **SWPCP Updates and Revisions – (Note: If revisions occur in response to benchmark exceedances, follow requirements in Schedule A.10)**

   a) **Update of SWPCP** The permittee must update the SWPCP in accordance with Schedule C of the permit. The permittee must submit an updated or completed SWPCP within 14 days after completion.

   b) **SWPCP Revision Submittals** The permittee must submit any revisions to the SWPCP within 14 days after the SWPCP is revised. The Department will provide for a 35-day public notice and comment on any SWPCP that constitutes an elimination or relaxation of requirements contained in the SWPCP. If the Department or Agent does not review and comment on the revised SWPCP within 30 days, the permittee must implement the revisions as proposed. The permittee may proceed immediately with implementation.

3. **Required Stormwater Pollution Control Plan Elements**
   a) **Site Description** The SWPCP must contain the following information:
      i) A description of the industrial activities conducted at the site. Include a description of the significant materials (see Schedule D.3, Definitions) that are stored, used, treated and/or disposed of in a manner that allows exposure to stormwater. Also describe the methods of storage, usage, treatment and/or disposal.
      ii) A general location map showing the location of the site in relation to surrounding properties, transportation routes, surface waters and other relevant features.
      iii) A site map including the following:
         (1) drainage patterns
         (2) drainage and discharge structures
         (3) outline of the drainage area for each stormwater outfall
         (4) paved areas and buildings within each drainage area
         (5) areas used for outdoor manufacturing, treatment, storage, and/or disposal of significant materials
         (6) existing structural control measures for reducing pollutants in stormwater runoff
         (7) material loading and access areas
         (8) hazardous waste treatment, storage and disposal facilities
         (9) location of wells including waste injection wells, seepage pits, drywells, etc.

(10) location of springs, wetlands and other surface water bodies.

iv) Estimates of the amount of impervious surface area (including paved areas and building roofs) relative to the total area drained by each stormwater outfall.

v) For each area of the site where a reasonable potential exists for contributing pollutants to stormwater runoff, identify the potential pollutants that could be present in stormwater discharges.

vi) The name(s) of the receiving water(s) for stormwater drainage. If drainage is to a municipal storm sewer system, the name(s) of the ultimate receiving waters and the name of the municipality.

vii) Identification of the discharge outfall(s) and the point(s) where stormwater monitoring will occur as required by Schedule B. If multiple discharge outfalls exist but will not all be monitored (as allowed in Schedule B.1.c), a description supporting this approach must also be included.

b) **Site Controls** The permittee must maintain existing controls and/or develop new controls appropriate for the site. The purpose of these controls is to eliminate or minimize the exposure of pollutants to stormwater. In developing a control strategy, the SWPCP must have the following minimum components. A description of each component must be included in the SWPCP.

i) *Stormwater Best Management Practices* If technically and economically feasible, the following best management practices must be employed at the site. A schedule for implementation of these practices must be included in the SWPCP if the practice has not already been accomplished. This schedule must be consistent with the requirements for developing and implementing the SWPCP in Schedule C of the permit.

(1) Containment - All hazardous substances (see Schedule D.3, Definitions) must be stored within berms or other secondary containment devices to prevent leaks and spills from contaminating stormwater. If the use of berms or secondary containment devices is not possible, then hazardous substances must be stored in areas that do not drain to the storm sewer system.

(2) Oil and Grease - Oil/Water separators, booms, skimmers or other methods must be employed to eliminate or minimize oil and grease contamination of stormwater discharges. Spill prevention plans required by other regulations used to meet this provision must be included in or submitted with SWPCP.

JEW must submit additional ones if required by other regs & used to meet oil/grease BMP provision

(3) Waste Chemicals and Material Disposal - Wastes must be recycled or properly disposed of in a manner to eliminate or minimize exposure of pollutants to stormwater. All waste contained in bins or dumpsters where there is a potential for drainage of stormwater through the waste must be covered to prevent exposure of stormwater to these pollutants. Acceptable covers include, but are not limited to, storage of bins or dumpsters under roofed areas and use of lids or temporary covers such as tarps.

(4) Erosion and Sediment Control - Erosion control methods such as vegetating exposed areas, graveling or paving must be employed to minimize erosion of soil at the site. Sediment control methods such as detention facilities, sediment control fences, vegetated filter strips, bioswales, or grassy swales must be employed to minimize sediment loads in stormwater discharges. For activities that involve land disturbance, the permittee must contact the local municipality to determine if there are other applicable requirements.

(5) Debris Control - Screens, booms, settling ponds, or other methods must be employed to eliminate or minimize debris in stormwater discharges.

(6) Stormwater Diversion - Stormwater must be diverted away from fueling, manufacturing, treatment, storage, and disposal areas to prevent exposure of uncontaminated stormwater to potential pollutants.

(7) Covering Activities - Fueling, manufacturing, treatment, storage, and disposal areas must be covered to prevent exposure of stormwater to potential pollutants. Acceptable covers include, but are not limited to, permanent structures such as roofs or buildings and temporary covers such as tarps.

(8) Housekeeping - Areas that may contribute pollutants to stormwater must be kept clean. Sweeping, prompt clean up of spills and leaks, and proper maintenance of vehicles must be employed to eliminate or minimize exposure of stormwater to pollutants.

ii) *Spill Prevention and Response Procedures* Methods to prevent spills along with clean-up and notification procedures must be included in the SWPCP. These methods and procedures must be made available to appropriate personnel. The required clean up material must be on-site or readily available. Spills prevention plans required by other regulations may be substituted for this provision providing that stormwater management concerns are adequately addressed.

iii) *Preventative Maintenance* A preventative maintenance program must be implemented to ensure the effective operation of all stormwater best management practices. At a minimum the program must include:

(1) Monthly inspections of areas where potential spills of significant materials or industrial activities could impact stormwater runoff.

(2) Monthly inspections of stormwater control measures, structures, catch basins, and treatment facilities.

(3) Cleaning, maintenance and/or repair of all materials handling and storage areas and all stormwater control measures, structures, catch basins, and treatment facilities as needed upon discovery. Cleaning, maintenance, and repair of such systems must be performed in such a manner as to prevent the discharge of pollution.

iv) *Employee Education* An employee orientation and education program must be developed and maintained to inform personnel of the components and goals of the SWPCP. The program must also address spill response procedures and the necessity of good housekeeping practices. A schedule for employee education must be included in the SWPCP. The Department recommends this education and training occur at the time of an employee's hire and annually thereafter.

4. **Record Keeping and Internal Reporting Procedures** The following information must be recorded and maintained at the facility and provided to the Department, its Agent, or other government agencies upon request. This information does not need to be submitted as part of the SWPCP.
   a) Inspection, maintenance, repair and education activities as required by the SWPCP.
   b) Spills or leaks of significant materials that impacted or had the potential to impact stormwater or surface waters. Include the corrective actions to clean up the spill or leak as well as measures to prevent future problems of the same nature.

ADDITIONAL REQUIREMENTS

REMOVED: Surface H2O Temp Mana Plan

5. **Stormwater Only** This permit only regulates the discharge of stormwater. It does not authorize the discharge or on-site disposal of process wastewater, wash water, boiler blow down, cooling water, air conditioning condensate, deicing residues, or any other non-stormwater discharges associated with the facility. However, the permittee can submit a request to the Department for discharges of uncontaminated water to waters of the state if such water discharged is not covered by other federal or state permits. The Department will evaluate these requests on case-by-case basis and will authorize the discharge by letter if approved.

NEW

Piping and drainage systems for floor drains and other process wastewater discharge points must be separated from the storm drainage system to prevent inadvertent discharge of pollutants to waters of the state. Non-stormwater discharges from floor drains are prohibited and thus constitute a violation of this permit if they are discharged to the stormwater drainage system.

MODIFIED
- separation of floor drains/process H2O from storm system was a recommendation + is now a requirement
- Floor drain discharge now a violation

Any other wastewater discharge or disposal must be permitted in a separate permit. A separate Department permit may not be required if the wastewater is reused or recycled without discharge or disposal, or discharged to the sanitary sewer with approval from the local sanitary authority.

6. **Water Quality Limited Streams** - If Total Maximum Daily Loads are established and the discharge from a permitted source is assigned a waste load allocation, application for an individual or different general permit or other appropriate tools may be required to address the allocation.

7. **Water Quality Standards** Permittees must comply with instream water quality standards in OAR 340-041. The Department may require a facility to implement additional management practices, apply for an individual permit, or take other appropriate action.

MODIFIED
formerly noted "the ultimate goal is..." Now, compliance w/ instream H2O quality standards is a requirement.

* - here is the provision that would allow Risk Reduction to paddle up in a kayak + collect a sample

CODE OF FEDERAL REGULATION STORMWATER DISCHARGE LIMITATIONS

8. The permittee with the following activities must be in compliance with the applicable limitations at the time of permit assignment:

CFR Industry		Parameter	Limitation	
Category	Subcategory			
Cement manufacturing (40 CFR §411)	Materials storage piles runoff	pH	6.0 - 9.0 SU	
		Total Suspended Solids (TSS)	50 mg/l	
Steam powered electric power generating (40 CFR §423)	Coal pile runoff	TSS	50 mg/l, Daily Maximum	
Paving and roofing materials (tars and asphalt) (40 CFR §443)	Runoff from manufacturing of asphalt paving or roofing emulsion	Oil & Grease	20 mg/l, Daily Maximum	15 mg/l, 30 Day Average
		pH	6.0 - 9.0 SU	

STORMWATER DISCHARGE BENCHMARKS AND EFFLUENT LIMITATIONS

MODIFIED
- benchmark definition changed
- benchmarks are limits IF SA.11 criteria met

9. **Benchmarks**: Benchmark values are designed to assist the permittee to verify that their SWPCP is effectively reducing pollutant concentrations. Benchmarks are not effluent limitations unless the criteria described in Schedule A.11 are met. For facilities that are subject to federal limitations, benchmarks apply to only those pollutants that are not limited by the federal regulations.*

The following benchmarks apply to each point source discharge of stormwater associated with industrial activity:

Parameter	Benchmark
Total Copper	0.1 mg/l
Total Lead	0.4 mg/l
Total Zinc	0.6 mg/l
pH*	5.5 – 9.0 SU
Total Suspended Solids*	130 mg/l
Total Oil & Grease	10 mg/l
E. coli**	406 counts/100 ml
Floating Solids (associated with industrial activities)	No Visible Discharge
Oil & Grease Sheen*	No Visible Sheen

* See Schedule A.8 for list of facilities subject to Federal Limitations.

** The benchmark for E. coli applies only to sewage treatment plants and to landfills where septage and/or sewage biosolids are managed or disposed.

MODIFIED

10. **Review of SWPCP in Response to Benchmark Exceedance** If stormwater samples exceed any of the benchmark values, within 30 days of receiving the sampling results, the permittee must investigate the cause of the elevated pollutant levels and review and revise the SWPCP. If revision of the SWPCP is not deemed necessary, alternative methods for implementing the existing SWPCP must be proposed. The purpose of this review is to determine if the SWPCP is being followed and to identify any additional site controls to further improve the quality of stormwater discharges. These site controls include best management practices, spill prevention and response procedures, preventative maintenance, and employee education procedures as described in Schedule A.3.b.

- SWPCP review period shortened From 60 to 30 days
- if no SWPCP revision, required to propose new methods of implementation of SWPCP?

MODIFIED

a) **SWPCP Revision Submittal** Proposed revisions to the SWPCP, or proposed alternative SWPCP implementation methods, and a corresponding implementation schedule must be submitted to the Department for approval within 14 days of completion the SWPCP revisions.

If the Department has not commented on the SWPCP within 30 days of receipt, the SWPCP shall be approved by default. If the SWPCP is required to be submitted to the Department's Agent, the permit registrant must follow the schedule set forth by the Agent. The Department or its Agent's approval of the SWPCP does not constitute compliance with this permit. The permit registrant must be responsible for complying with all permit conditions.

- 14 day window for submittal of review results
- no comment by DEQ w/in 30 days means approval

b) **Background or Natural Conditions** If the permittee demonstrates to the Department that background or natural conditions not associated with industrial activities at the site caused an exceedance of the benchmark, then no further modifications to the SWPCP are required for that parameter. The permittee must submit to the Department data or analysis supporting its assertion that its stormwater pollutant concentrations are significantly elevated by background or natural conditions, or stormwater from off-sites sources. Background data must be included with effluent data.

MODIFIED

- expansion of what materials must be submitted

* required response to DEQ re any w/in 44 day of results

2 response options
1) SWPCP revision
2) alternative SWPCP implementation methods + implementation schedule

11. **Conversion of Benchmarks to Enforceable Effluent Limits**

NEW

a) If the geometric mean value of all samples collected during the previous two monitoring years exceeds a benchmark for a parameter, any sample collected after that two year period will be evaluated against the benchmark value as if the benchmark is an effluent limit. Exceedences of the benchmark, under this condition, would be considered a violation of the permit. These conversion determinations will be made on July 15th of each year

- benchmark = limit if geometric mean of 2 years results exceeds benchmark
- exceedences of limits = permit violations
- conversion determination made 1x/yr → July 15

b) The benchmark will not be applied as an effluent limit, however, if none of the samples collected over the previous year exceed the benchmark.

- limit returns to benchmark if none of previous year's samples exceed values

c) **Missed Sampling Events** If the permittee is unable to collect eight (8) samples over a two-year period, due to conditions specified in Schedule B.1.b, the benchmark values listed in Schedule A.9 will be used in place of missed sampling events to calculate the geometric mean for the purposes of determining whether benchmarks will be applied as effluent limits.

- if cannot collect 8 samples in 2 yrs, benchmark value substituted for missed event to calculate geometric mean

d) **Background or Natural Conditions** If approved by the Department, the permittee may deduct background or natural condition pollutant concentration values from stormwater discharge

- possibility to deduct background levels from discharge concentrations when determining if benchmarks convert

NEW

concentrations in determining whether benchmarks convert to effluent limitations. As described in Schedule A.10, the permittee must submit to the Department data or analysis supporting its assertion that its stormwater pollutant concentrations are significantly elevated by background or natural conditions, or stormwater from off-sites sources. Background data must be included with effluent data.

For determining whether benchmarks convert, use ½ detection limit for ND value

e) **Sampling Results – Non-Detections** If a sampling result for any parameter is below the laboratory detection limit (assuming that the laboratory follows the Department's "sampling and analytical guidelines"), the value used to calculate the geometric mean, for the purpose of determining whether benchmarks will be applied as effluent limits, is one-half the detection limit.

NEW

12. **Application of a Benchmark as an Effluent Limit.** A benchmark will not be applied as a limit in either of the following cases:
    a) The geometric mean of all samples collected during the previous two years is less than the benchmark, or
    b) All samples collected during the previous one year are below the benchmark.

SCHEDULE B
MONITORING AND REPORTING REQUIREMENTS

1. **Minimum Monitoring Requirements**

a) All permittees must monitor stormwater associated with industrial activity for the following:

MODIFIED
- sampling increased 2x/yr

GRAB SAMPLES OF STORMWATER	
Parameter	Minimum Frequency
Total Copper	Four times per Year
Total Lead	Four times per Year
Total Zinc	Four times per Year
pH	Four times per Year
Total Suspended Solids	Four times per Year
Total Oil & Grease	Four times per Year
E. coli***	Four times per Year

* The permittee may collect a single grab sample, a series of grab samples, or may use a composite sampler to collect the samples. Samples should be collected from the same storm event.

NEW
- permittee can collect > 4 samples per year, must include all results when calculating mean

** The permittee is allowed to collect more samples than the minimum frequency requires. All data, however, must be reported and included when calculating the 2 year geometric mean.

? What if sample not collected for NPDES ?

*** E. coli sampling only applies to sewage treatment plants and to landfills where septage and/or sewage biosolids are managed or disposed.

VISUAL MONITORING OF STORMWATER	
Parameter	Frequency
Floating Solids (associated with industrial activities)	Once a Month (when discharging)
Oil & Grease Sheen	Once a Month (when discharging)

NEW

Bulk petroleum and storage facilities described in Table 1 are required to implement the following additional sampling requirement:

ADDITIONAL SAMPLING FOR BULK PETROLEUM FACILITIES	
Parameter	Frequency
Oil & Grease Sheen	Once a Month (when discharging)

? Where is additional requirement? Do they mean Total O+G?

MODIFIED
- min 14 days between samples
- 2 samples Jan-Jun 30
  2 samples July-Dec
→ time or flow-weighting composite of samples

b) **Sampling Methodology** Grab samples that are representative of the discharge must be taken at least 14 days apart. Two samples must be collected between July 1 and December 31, and two samples must be collected between January 1 and June 30. Time or flow-weighted compositing of samples from different drainage areas can be used as an alternative to grab samples.

c) **Monitoring Reduction** If the results of 8 consecutive samples demonstrate that the benchmark for a parameter has not been exceeded, the required monitoring frequency for that parameter is reduced to two (2) samples per year.

MODIFIED
- if 8 consecutive samples are below benchmarks, sampling reduced to 2x/yr

d) **Sampling Variance** A variance from the Department can be obtained for one missed sample during a monitoring year if one of the following criteria are met:

NEW
- criteria for missing 2 sample
  - must obtain permission, submit data, ...
- missing 2 samples requires additional permission

i) State or federal authorities declared the year a drought year.
ii) Demonstrate that rainfall in the area where the permittee's facility is located was 20% or more below the three-year average rainfall for that area. [*note: reference appropriate source]*
iii) If the criteria in B.c.i or B.c.ii are met, demonstrate to the Department's satisfaction that samples were unable to be collected due to the infrequency of storm events or the infrequency of storm events of sufficient magnitude to produce run-off. Supporting data and analysis must be submitted to the Department.

The Department may grant a variance for two missed samples in a monitoring year on a case-by-case basis. However, additional data and analysis would be required to be submitted to the Department to support this variance request.

MODIFIED
- can only omit outfalls if:
  - → discharge area has no industrial activity exposure
  - -or-
  - → effluent similar to monitored outfall
    - proc by:
      1) 4 consecutive prior events w/ no exceedance
      2) monitor 1st 2 samples
         - → if exceedance, must continue monitoring for that pollutant only

e) **Multiple Point Source Discharges** A stormwater outfall must be monitored in accordance with B.1.a. and B.1.b. unless the outfall:

i) Serves an area with no exposure of stormwater to industrial activities; or

ii) Has effluent that is substantially similar to the effluent(s) of a monitored outfall. Substantially similar effluent(s) are discharges from drainage areas serving comparable activities where the discharges are expected to be similar in composition. If the permittee elects not to monitor an outfall due to the substantially similar effluent(s), the permittee must do one of the following:

(1) Demonstrate that the benchmarks were not exceeded at the outfall for the last four sampling events, provided that the events were after June 30, 2000; or

(2) Monitor the outfall during the first two storm events for which samples are collected. If a benchmark is exceeded for a pollutant as a result of this monitoring, the permittee must monitor that pollutant at that outfall in accordance with Schedule B.1.a. and B.1.b. for the remainder of the permit term. In addition, the criteria set forth in A.10 for converting benchmarks to effluent limits apply to the parameter and outfall.

f) **Monitoring Location** All samples must be taken at monitoring points specified in the SWPCP before the stormwater joins or is diluted by any other waste stream, body of water, or substance unless otherwise approved in writing by the Department.

2. **Reporting Requirements** The permittee must submit the following to the appropriate Department regional office or its Agent:

a) **Monitoring Data** By July 15 of each year, the permittee must submit sampling and visual monitoring data for the previous monitoring period (July 1- June 30). If there was insufficient rainfall to collect samples, the permittee must notify the Department by July 15 of each year as set forth in condition B. 1.c. of this permit. The permittee must also report the minimum detection levels and analytical methods for the parameters analyzed. The monitoring report must also include dates when an oil/water separator is cleaned, the amount of material removed (in gallons for liquids and cubic feet for solids), and the location where waste materials were disposed.

NEW
- requirement to include date oil/water sep. in report

Why in quotes?!

NEW - report must include 2yr geometric mean

b) **Data Analysis** The annual report due on July 15 shall include a calculation of the two year geometric mean for each parameter. The report shall also include a specific notification if the two year geometric mean for any benchmark has been exceeded and whether or not any of the previous year's samples for the benchmark exceed the benchmark.

NEW data formatting requirements

c) The two year geometric mean of all sampling parameters must also be submitted with the annual report using the Department approved Daily monitoring Report (DMR) provided by the Department for both visual and if applicable environmental. Monitoring results. Non-Detect should be reported as ND with the detection limit in mg/L parentheses after the ND, i.e. ND (0.005). In calculating the running average, ½ of the detection limit shall be used for Non Detect (ND) and the benchmark for the particular parameter being calculated shall be used in the running average for any missed sample.

SCHEDULE C
COMPLIANCE CONDITIONS AND SCHEDULES

1. **Existing Permittee** (for a facility with an NPDES stormwater discharge permit assigned prior to September 30, 2005) and Transfer Application Permittee with no change in operation or industrial type:

   a) After receiving this permit, the existing permittee must immediately implement the SWPCP to meet any new permit requirements except for site controls requiring capital improvements.

   b) Site control activities that require capital improvements must be completed in accordance with the schedule set forth in the SWPCP but shall not be later than two years after receiving this permit.

2. **New Permittee with Existing Facility** (for a facility operating prior to September 30, 2005, without an NPDES stormwater discharge permit). Except for site controls that require capital improvements (see Schedule D.3, Definitions), the SWPCP must be fully implemented within 90 days after receiving this permit. Site control activities that require capital improvements must be completed in accordance with the schedule set forth in the SWPCP but shall not be later than two years after receiving this permit.

3. **New Permittee with New Facility.** For Permit Transfer Applicants with a change in operation of Industrial Type, the new permittee must begin implementation of the SWPCP prior to starting operations. Except for site controls that require capital improvements, the SWPCP must be fully implemented within 90 days of receiving the permit. Site control activities that require capital improvements must be completed in accordance with the schedule set forth in the SWPCP but shall not be later than two years after receiving this permit.

4. **New Permittee Discharging to Clackamas River, McKenzie River above Hayden Bridge (River Mile 15) or North Santiam River.** Not later than 180 days after receiving this permit, new permittees discharging to Clackamas River, McKenzie River above Hayden Bridge (river mile 15) or North Santiam River must submit to the Department a monitoring and water quality evaluation program. This program must be effective in evaluating the in-stream impacts of the discharge as required by OAR 340-041-0470. Within 30 days after Department approval, the permittee must implement the monitoring and water quality evaluation program. For the purpose of this condition, new permittees include potential or existing dischargers that did not have a permit prior to January 28, 1994, and existing dischargers that have a permit but request an increased load limitation.

SCHEDULE D
SPECIAL CONDITIONS

1. **Releases in Excess of Reportable Quantities.** This permit does not relieve the permittee of the reporting requirements of 40 CFR §117 Determination of Reportable Quantities for Hazardous Substances and 40 CFR §302 Designation, Reportable Quantities, and Notification.

2. **Availability of SWPCP and Monitoring Data.** The Stormwater Pollution Control Plan and/or stormwater monitoring data must be made available to government agencies responsible for stormwater management in the permittee's area.

3. **Definitions**

   a) *Capital Improvements* means the following improvements that require capital expenditures:
      i) Treatment best management practices including but not limited to settling basins, oil/water separation equipment, catch basins, grassy swales, detention/retention basins, and media filtration devices.
      ii) Manufacturing modifications that incur capital expenditures, including process changes for reduction of pollutants or wastes at the source.
      iii) Concrete pads, dikes and conveyance or pumping systems utilized for collection and transfer of stormwater to treatment systems.
      iv) Roofs and appropriate covers for manufacturing areas.

   b) *Geometric mean* is a measure of central tendency, just like a median. It is different than the traditional mean (which we sometimes call the arithmetic mean) because it uses multiplication rather than addition to summarize data values. The geometric mean is a useful summary when it is expected that changes in the data occur in a relative fashion. Geometric means are often useful summaries for highly skewed data. They are also natural for summarizing ratios:

   In a formula: the geometric mean of $a_1, a_2, \ldots, a_n$ is $(a_1 \cdot a_2 \cdots a_n)^{1/n}$, which is $\sqrt[n]{a_1 \cdot a_2 \cdots a_n}$.

   c) *Hazardous Substances* as defined in 40 CFR §302 Designation, Reportable Quantities, and Notification.

   d) *Material Handling Activities* include the storage, loading and unloading, transportation or conveyance of raw material, intermediate product, finished product, by-product or waste product.

   e) *Point Source* means a discharge from any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, or conduit.

   f) *Significant Materials* includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical that a facility is required to report pursuant to section 313 of title III of SARA; fertilizers; pesticides; and waste products such as ash, slag, and sludge that have the potential to be released with stormwater discharges.

   g) *Site Controls* is analogous to Best Management Practices.

4. **Local Public Agencies Acting as the Department's Agent**
   The Department authorizes local public agencies to act as its Agent in administrating this permit if they have entered into a Memorandum of Agreement (MOA) with the Department. The Department's Agent may be authorized to conduct the following activities, including but not limited to: application review and approval, inspections,

DIT.GD

monitoring data review, stormwater and wastewater monitoring, SWPCP review, and verification and approval of no-exposure certifications. The Department maintains NPDES enforcement authority. Where the Department has entered into such an agreement, the Department or its Agent will notify the permittee of where to submit no-exposure certifications, and other notifications or correspondence associated with this permit. Monitoring data, and SWPCPs shall be submitted to both the Department and its Agent.

SCHEDULE F
NPDES GENERAL CONDITIONS – INDUSTRIAL FACILITIES

added

SECTION A. STANDARD CONDITIONS

1. Duty to Comply

   The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of Oregon Revised Statutes (ORS) 468B.025, and 40 Code of Federal Regulations (CFR) Section 122.41(a), and is grounds for enforcement action; for permit termination, revocation or reissuance, or modification; or for denial of a permit renewal application.

2. Penalties for Water Pollution and Permit Condition Violations

   ADDED
   ORS 468.140 allows the Department to impose civil penalties up to $10,000 per day for violation of a term, condition, or requirement of a permit. Additionally 40 CFR 122.41 (A) provides that any person who violates any permit condition, term, or requirement may be subject to a federal civil penalty not to exceed $25,000 per day for each violation.

   Under ORS 468.943 and 40 CFR 122.41(a), unlawful water pollution, if committed by a person with criminal negligence, is punishable by a fine of up to $25,000, imprisonment for not more than one year, or both. Each day on which a violation occurs or continues is a separately punishable offense.

   ADDED
   Under ORS 468.946, a person who knowingly discharges, places, or causes to be placed any waste into the waters of the state or in a location where the waste is likely to escape into the waters of the state is subject to a Class B felony punishable by a fine not to exceed $200,000 and up to 10 years in prison. Additionally, under 40 CFR 122.41(a) any person who knowingly discharges, places, or causes to be placed any waste into the waters of the state or in a location where the waste is likely to escape into the waters of the state is subject to a federal civil penalty not to exceed $100,000, and up to 6 years in prison.

3. Duty to Mitigate

   The permittee must take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment. In addition, upon request of the Department, the permittee must correct any adverse impact on the environment or human health resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge.

4. Duty to Reapply

   If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and have the permit renewed. The application must be submitted at least 180 days before the expiration date of this permit.

   The Department may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date.

5. Permit Actions

   This permit may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:

   ADDED
   a. Violation of any term, condition, or requirement of this permit, a rule, or a statute
   b. Obtaining this permit by misrepresentation or failure to disclose fully all material facts
   c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge
   d. The permittee is identified as a Designated Management Agency or allocated a wasteload under a Total Maximum Daily Load (TMDL)
   e. New information or regulations
   f. Modification of compliance schedules
   g. Requirements of permit re-opener conditions
   h. Correction of technical mistakes made in determining permit conditions
   i. Determination that the permitted activity endangers human health or the environment
   j. Other causes as specified in 40 CFR 122.62, 122.64, and 124.5

   The filing of a request by the permittee for a permit modification, revocation or reissuance, termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

6. Toxic Pollutants

The permittee must comply with any applicable effluent standards or prohibitions established under Oregon Administrative Rules (OAR) 340-041-0033 for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

7. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege, nor does it authorize any injury to persons of property or invasion of any other private rights, nor any infringement of federal, tribal, state, or local laws or regulations.

8. Permit References

Except for effluent standards or prohibitions established under Section 307(a) of the Clean Water Act and OAR 340-041-0033for toxic pollutants, all rules and statutes referred to in this permit are those in effect on the date this permit is issued.

9. Permit Fees

The permittee must pay the fees required by OAR 340-045-0070 to 0075.

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

The permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

2. Duty to Halt or Reduce Activity

For industrial or commercial facilities, upon reduction, loss, or failure of the treatment facility, the permittee must, to the extent necessary to maintain compliance with its permit, control production or all discharges or both until the facility is restored or an alternative method of treatment is provided. This requirement applies, for example, when the primary source of power of the treatment facility fails or is reduced or lost. It is not a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

3. Bypass of Treatment Facilities

a. Definitions

(1) "Bypass" means intentional diversion of waste streams from any portion of the treatment facility. The term "bypass" does not apply if the diversion does not cause effluent limitations to be exceeded, provided the diversion is to allow essential maintenance to assure efficient operation or the diversion is due to nonuse of nonessential treatment units or processes at the treatment facility.

(2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities or treatment processes that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. Prohibition of bypass.

(1) Bypass is prohibited unless:
(a) Bypass was necessary to prevent loss of life, personal injury, or severe property damage;
(b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventative maintenance; and
(c) The permittee submitted notices and requests as required under General Condition B.3.c.

(2) The Department may approve an anticipated bypass, after considering its adverse effects and any alternatives to bypassing, when the Department determines that it will meet the three conditions listed above in General Condition B.3.b.(1).

c. Notice and request for bypass.
(1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, a written notice must be submitted to the Department at least ten days before the date of the bypass.
(2) Unanticipated bypass. The permittee must submit notice of an unanticipated bypass as required in General Condition D.5.

4. Upset

a. Definition. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operation error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.

b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of General Condition B.4.c are met. A determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance is not final administrative action subject to judicial review.

c. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
(1) An upset occurred and that the permittee can identify the causes(s) of the upset;
(2) The permitted facility was at the time being properly operated;
(3) The permittee submitted notice of the upset as required in General Condition D.5, hereof (24-hour notice); and
(4) The permittee complied with any remedial measures required under General Condition A.3 hereof.

d. Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

5. Treatment of Single Operational Upset

For purposes of this permit, A Single Operational Upset that leads to simultaneous violations of more than one pollutant parameter will be treated as a single violation. A single operational upset is an exceptional incident that causes simultaneous, unintentional, unknowing (not the result of a knowing act or omission), temporary noncompliance with more than one Clean Water Act effluent discharge pollutant parameter. A single operational upset does not include Clean Water Act violations involving discharge without a NPDES permit or noncompliance to the extent caused by improperly designed or inadequate treatment facilities. Each day of a single operational upset is a violation.

6. Overflows from Stormwater Conveyance Systems(Privately Owned)

a. Definitions
(1) "Overflow" means the diversion and discharge of waste streams from any portion of the wastewater conveyance system through a designed overflow device or structure, other than discharges to the wastewater treatment facility.
(2) "Severe property damage" means substantial physical damage to property, damage to the conveyance system which causes it to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of an overflow.
(3) "Uncontrolled overflow" means the diversion of waste streams other than through a designed overflow device or structure.

b. Prohibition of overflows. Overflows are prohibited unless:
(1) Overflows were unavoidable to prevent an uncontrolled overflow, loss of life, personal injury, or severe property damage;
(2) There were no feasible alternatives to the overflows, such as the use of auxiliary conveyance systems, or maximization of conveyance system storage; and
(3) The overflows are the result of an upset as defined in General Condition B.4. and meeting all requirements of this condition.

c. Uncontrolled overflows are prohibited where wastewater is likely to escape or be carried into the waters of the State by any means.
d. Reporting required. Unless otherwise specified in writing by the Department, all overflows and uncontrolled overflows must be reported orally to the Department within 24 hours from the time the permittee becomes aware of the overflow. Reporting procedures are described in more detail in General Condition D.5.

7. Public Notification of Effluent Violation or Overflow

If effluent limitations specified in this permit are exceeded or an overflow occurs, upon request by the Department, the permittee must take such steps as are necessary to alert the public about the extent and nature of the discharge. Such steps may include, but are not limited to, posting of the river at access points and other places, news releases, and paid announcements on radio and television.

8. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters must be disposed of in such a manner as to prevent any pollutant from such materials from entering waters of the state, causing nuisance conditions, or creating a public health hazard.

SECTION C. MONITORING AND RECORDS

1. Representative Sampling

Sampling and measurements taken as required herein must be representative of the volume and nature of the monitored discharge. All samples must be taken at the monitoring points specified in this permit, and shall be taken, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points may not be changed without notification to and the approval from the Department. CHANGED From "Director"

2. Flow Measurements

Appropriate flow measurement devices and methods consistent with accepted scientific practices must be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices must be installed, calibrated and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected must be capable of measuring flows with a maximum deviation of less than ± 10 percent from true discharge rates throughout the range of expected discharge volumes.

3. Monitoring Procedures

Monitoring must be conducted according to test procedures approved under 40 CFR part 136, unless other test procedures have been specified in this permit.

4. Penalties of Tampering

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit may, upon conviction, be punished by a fine of not more than $10,000 per violation, imprisonment for not more than two years, or both. If a conviction of a person is for a violation committed after a first conviction of such person, punishment is a fine not more than $20,000 per day of violation, or by imprisonment of not more than four years, or both.

5. Reporting of Monitoring Results

Monitoring results must be summarized each month on a Discharge Monitoring Report form approved by the Department. The reports must be submitted monthly and are to be mailed, delivered or otherwise transmitted by the 15th day of the following month unless specifically approved otherwise in Schedule B of this permit.

6. Additional Monitoring by the Permittee

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 part CFR 136 or as specified in this permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report. Such increased frequency must also be indicated. For a pollutant parameter that may be sampled more than once per day (e.g., Total Chlorine Residual), only the average daily value must be recorded unless otherwise specified in this permit.

7. Averaging of Measurements

Calculations for all limitations that require averaging of measurements must utilize an arithmetic mean, except for bacteria which shall be averaged as specified in this permit.

8. Retention of Records

The permittee must retain records of all monitoring information, including: all calibration, maintenance records, all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit for a period of at least 3 years from the date of the sample, measurement, report, or application. This period may be extended by request of the Department at any time.

CHANGED From "Director"

9. Records Contents

Records of monitoring information must include:
a. The date, exact place, time, and methods of sampling or measurements;
b. The individual(s) who performed the sampling or measurements;
c. The date(s) analyses were performed;
d. The individual(s) who performed the analyses;
e. The analytical techniques or methods used; and
f. The results of such analyses.

10. Inspection and Entry

CHANGED From "Director"

The permittee must allow the Department or an authorized representative upon the presentation of credentials to:

a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit, and
d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by state law, any substances or parameters at any location.

SECTION D. REPORTING REQUIREMENTS

1. Planned Changes

The permittee must comply with OAR chapter 340, division 52, "Review of Plans and Specifications" and 40 CFR Section 122.41(l)(1). Except where exempted under OAR chapter 340, division 52, no construction, installation, or modification involving disposal systems, treatment works, sewerage systems, or common sewers may be commenced until the plans and specifications are submitted to and approved by the Department. The permittee must give notice to the Department as soon as possible of any planned physical alternations or additions to the permitted facility.

2. Anticipated Noncompliance

The permittee must give advance notice to the Department of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements.

3. Transfers

This permit may be transferred to a new permittee provided the transferee acquires a property interest in the permitted activity and agrees in writing to fully comply with all the terms and conditions of the permit and the rules of the Commission. No permit may be transferred to a third party without prior written approval from the Department. The Department may require modification, revocation, and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary. The permittee must notify the Department when a transfer of property interest takes place.

NEW

4. Compliance Schedule

Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date. Any reports of noncompliance must include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirements.

5. Twenty-Four Hour Reporting

DEQ USE ONLY
Application #:
File #:
EPA #:
LUID/RM:
DOC Cont:
Note:

RENEWAL APPLICATION
NPDES STORM WATER DISCHARGE
GENERAL PERMIT #1200-Z

DEQ

Oregon Department of Environmental Quality

DEQ USE ONLY
Received:

A. REFERENCE INFORMATION

1. Legal Name: Vigor Industrial,LLC(was Cascade General, Inc.)	2. Common Name: Vigor Industrial, LLC (was Cascade General)
3. DEQ File #: 70596	4. Is the applicant the owner of the facility? ☐ Yes ☒ No
5. Facility Primary SIC code: 3731 County: Multnomah	6. Facility Physical Address: 5555 N Channel Avenue City, State, Zip Code: Portland, OR, 97217
7. Legal Contact : T. Alan Sprott asprott@vigorindustrial.net Mailing Address: 5555 N Channel Ave.	Telephone #: 503-247-1672 Email: City, State, Zip Code: Portland, OR 97217
8. Facility Contact: T. Alan Sprott Mailing Address: same as above	Telephone #: Email: City, State, Zip Code:
9. Invoice to: T. Alan Sprott Billing Address: same as above	Telephone #: Email: City, State, Zip Code:

B. STORMWATER DISCHARGE INFORMATION

1. Briefly describe any activities that have been added, removed or changed since your previous application: New barge craneway added.

2. Briefly describe any changes made to the number or locations of stormwater outfalls or flows off your property: none

3. Have any changes been made to cause your stormwater to discharge to a different waterbody, storm sewer system, or seepage system (i.e., dry well)? ☐ YES, explain below: ☒ NO

4. Have you submitted an updated Storm Water Pollution Control Plan (SWPCP) that thoroughly describes these changes with this application? ☒ YES, included with application

C. SIGNATURE OF LEGALLY AUTHORIZED REPRESENTATIVE

I hereby certify that the information contained in this application is true and correct to the best of my knowledge and belief. In addition, I agree to pay all permit fees required by Oregon Administrative Rules 340-45. This includes a renewal application fee to renew the permit and a compliance determination fee invoiced annually by DEQ to maintain the permit.

T. Alan Sprott	Environmental Director
Name of Legally Authorized Representative (Type or Print)	**Title**
T. Alan Sprott	December 22, 2006
Signature of Legally Authorized Representative	**Date**

State of Oregon
Department of Environmental Quality

Water Quality Permit Annual Invoice

DEQ -001

TO: Accounts Payable
Vigor Industrial LLC
PO Box 4367
Portland, OR 97208-4367

Invoice Number: **WQ08STM-0896**
Invoice Date: 08-01-2007
Payment Due Date: **09-30-2007**

FOR: File Number: 70596
Common Name: VIGOR INDUSTRIAL LLC
Location: 5555 N CHANNEL AVE BLDG 71
County: MULTNOMAH Ownership: PRIVATE Region: NWR

Permit Type	**GEN12Z**	
DEQ Class	**Tier 2**	
Permit Description	**Stormwater; NPDES specific SIC codes**	
Annual Invoice Month	**October**	
Annual Fee	**(Note 1:)**	**$396.00**
Invoice Total		**$396.00**

If you have any questions concerning this invoice, please contact Rodney Lemeni (Invoice Coordinator) in the Portland Headquarters Office at (503) 229-5437, LEMENI.RodneyA@deq.state.or.us or you may go to the DEQ web site for more water quality information at http://www.oregon.gov/DEQ/WQ/index.shtml.

see reverse side for notes charge to 9-205-0700 Item 5023

Okay to Pay.

Tear here and return this portion with your payment.

Remit and make checks payable to:
Department of Environmental Quality
Attention: Business Office
811 SW Sixth Avenue
Portland OR 97204-1390

File #70596, NWR Region, MULTNOMAH County
VIGOR INDUSTRIAL LLC
Invoice Number: **WQ08STM-0896**
Amount Due: **$396.00**

Amount Enclosed: _____

☐ *Check here if your address or phone number has changed and write your new information on the back of this portion.*

☐ *Check here if facility has been sold or the name has changed* ***(see note 2)***

☐ *Check here if your permit is no longer needed, and return correspondence asking for permit termination.* ***(see note 1)***

Vigor Industrial LLC

5555 N. Channel Ave.

Portland OR 97217

fax 503.247.1778

tel 503.247.1777

December 22, 2006

Mr. Dennis Jurries
Oregon Department of Environmental Quality
Northwest Region
2020 SW 4th, Suite 400
Portland, OR 97201

Re: Renewal of NPDES Industrial Storm Water General Permit No. 1200-Z
File No. 70596

Dear Dennis Jurries:

Enclosed is an application for renewal of Cascade General's NPDES Industrial Storm Water General Permit 1200-Z. Also enclosed is an updated version of the facility's Storm Water Pollution Control Plan. A copy of this plan has also been sent to the City of Portland's Water Pollution Control Laboratory as per your instructions.

While Cascade General, Inc. remains current and operating at the Portland Shipyard, it is now only one of four companies at this site operating under the new common parent company Vigor Industrial, LLC. The other companies are Specialty Finishes, LLC, the Shipyard Commerce Center, and U.S. Barge. Therefore, the new storm water permit would be more accurate if listed under Vigor Industrial, LLC. This change is reflected in our permit application.

If you have any questions regarding this notification, please call me at (503) 247-1672.

Sincerely,

T. Alan Sprott

T. Alan Sprott
Environmental Director
Vigor Industrial, LLC

Attached: (1) NPDES Industrial Storm Water General Permit No. 1200-Z Application
(2) October, 2006 Storm Water Pollution Control Plan

Oregon
Theodore Kulongoski, Governor

Department of Environmental Quality
Northwest Region Office
2020 SW Fourth Avenue, Suite 400
Portland, OR 97201-4987
(503) 229-5263
FAX (503) 229-6957
TTY (503) 229-5471

November 9, 2006

CASCADE GENERAL, INC.
PO Box 4367
Portland, OR 97208-4367

RE: Renewal of NPDES Industrial Stormwater General Permit No. 1200-Z
File No. 70596
CASCADE GENERAL, INC.

Dear Alan Sprott:

Your coverage under the Department of Environmental Quality (DEQ) National Pollutant Discharge Elimination System (NPDES) Industrial Stormwater General Permit 1200-Z is scheduled to expire on June 30, 2007. If you wish to maintain coverage under this permit, you must submit to DEQ *by December 31, 2006* a complete permit renewal application form (enclosed), and an updated version of your Stormwater Pollution Control Plan (SWPCP), if necessary.

In August 2006, Environmental Quality Commission adopted revisions to DEQ's industrial stormwater general permits which included the 1200-Z permit. The new permit does not become effective until July 1, 2007. The following are some of the key changes contained in the new permit:

- Applications and plans are subject to a public notice and comment period.
- Stormwater monitoring is increased from two to four times per year.
- Sampling waiver is limited to one permit term.
- If at the end of the 4th year of the permit registrant's coverage, the geometric mean of the last 4 samples taken exceeds benchmark(s), DEQ will revoke coverage under the general permit and require an individual permit.

For more information regarding these new permit conditions, you can review the new 1200-Z permit on DEQ's web page at: http://www.deq.state.or.us/wq/stormwater/swpind.htm or you can call Jenine Camilleri at DEQ Headquarters, (503) 229-6775.

Public Notification

The new permit requires DEQ to provide the public with the opportunity to review and comment on your renewal application and plan. DEQ recommends that you review the latest plan that you submitted to DEQ or its agent as the public will have an opportunity to review and comment on it during the public comment period. If this plan is current and reflects existing site conditions and you do not intend to make any changes to stormwater best management practices to meet new permit conditions, you *are not* required to submit an updated plan with the application form. If you do not submit an updated plan, DEQ will use the latest plan on file for public notice purposes.

The public will have 14 calendar days to review your renewal application and SWPCP and provide comment. DEQ will post a notification on its web site that these materials can be reviewed at DEQ's regional office in Portland. DEQ will consider any comments received in determining whether coverage will be renewed or the plan is adequate. Because of the significant number of facilities renewing their

coverage under the permit, DEQ will likely begin the public notice and comment period next summer and will likely stagger the review of the application materials by grouping facilities by county or city.

Renewal Application and Storm Water Pollution Control Plan

By December 31, 2006, please submit the renewal application, and plan, if necessary, to DEQ Northwest Region, 2020 SW 4th Avenue, Suite 400, Portland, OR 97201.

If your facility is within Clean Water Services' (CWS) jurisdiction, please also submit a copy of the SWPCP to CWS, who administers the permit on DEQ's behalf in this area, at 2550 SW Hillsboro Highway, Hillsboro, Oregon 97123 attn: Rick Fischl.

If your facility is within the City of Portland Multnomah County, please also submit a copy of the SWPCP to the City of Portland, who administers the permit on DEQ's behalf in this area, at City of Portland, Environmental Services, Water Pollution Control Laboratory, 6543 North Burlington Avenue, Portland, OR 97203-5452 attn: Michael Pronold.)

During the application process, your existing permit coverage will not expire until DEQ has taken final action on your renewal application. You will receive notification from DEQ that the renewal application has been granted or denied. The new permit conditions will not become effective until this occurs.

If you do not submit a renewal application, DEQ will terminate your permit coverage upon expiration of the 1200-Z permit (June 30, 2007). If you still need a permit at that time, you will be required to submit a new application, SWPCP, and permit fee of $771. *Please be aware that operating without a permit is a violation and subject to enforcement action including civil penalties.*

If you no longer conduct activities regulated by the 1200-Z permit or are no longer in business, please request that your permit coverage be terminated.

If you have any questions, please contact Dennis Jurries at 220-5937 or by email at jurries.dennis@deq.state.or.us.

Sincerely,

Dennis Jurries, PE
Storm Water Engineer

Enclosures: 1200-Z Renewal Application

DEQ USE ONLY
Application #:
File #:
Mail ID #2/#9:
LLID/RM:
ACD Fee Paid:
DOC Conf.:
Notes:

RENEWAL APPLICATION
NPDES STORM WATER DISCHARGE
GENERAL PERMIT #1200-Z

Oregon Department of Environmental Quality

DEQ USE ONLY
Received:
Amount Received:
Check #:
Deposit #:
☐ IND ☐ DOM ☐ UIC:
Notes:

A. REFERENCE INFORMATION

1. Legal Name: Cascade General, Inc.	2. Common Name: Cascade General
3. DEQ Site ID#: 70596/B	4. Is the applicant the owner of the facility? ☒ Yes ☐ No
5. Legal Status of Applicant: ☐ Federal ☐ State ☐ Public ☒ Private ☐ Other, specify:	
6. Facility Primary SIC code: 3731 County: Multnomah	7. Facility Physical Address: 5555 N Channel Ave. City, State, Zip Code: Portland, OR 97217
8. Responsible Official: Alan Sprott Mailing Address:	Telephone #: 503-247-1672 City, State, Zip Code:
9. Facility Contact: Facility Mailing Address:	Telephone #: City, State, Zip Code:
10. Invoice to: Alan Sprott Billing Address:	Telephone #: City, State, Zip Code:

B. STORM WATER DISCHARGE INFORMATION

1. Briefly describe any activities that have been added, removed or changed since your previous application:
   Removal of one floating drydock from facility.

2. Briefly describe any changes made to the number or locations of storm water outfalls or flows off your property:
   None

3. Have any changes been made to cause your storm water to discharge to a different waterbody, storm sewer system, or seepage system (i.e., dry well)? ☐ YES ☒ NO If "YES," explain:

4. Have you submitted your Storm Water Pollution Control Plan to DEQ as required by permit? ☒ YES ☐ YES, included with application ☐ NO, not due until: ☐ NO

5. Have you submitted storm water monitoring data to DEQ as required by permit? ☒ YES ☐ NO, exercising monitoring waiver ☐ NO, but submitted with this application ☐ NO, have not conducted any monitoring.

RENEWAL APPLICATION
NPDES STORM WATER DISCHARGE GENERAL PERMIT #1200-Z
Oregon Department of Environmental Quality
CONTINUED

C. NON-STORM WATER DISCHARGES

1. Have all non-storm water discharges to the ground or surface waters been discontinued, permitted by DEQ, or discharged into the municipal sanitary sewer? ☒ YES ☐ NO ☐ Never existed

2. If C.1 above is "NO," what non-storm water discharges to the ground or surface waters continue without permit?

D. SIGNATURE OF LEGALLY AUTHORIZED REPRESENTATIVE

I hereby certify that the information contained in this application is true and correct to the best of my knowledge and belief. In addition, I agree to pay all permit fees required by Oregon Administrative Rules 340-45. This includes a renewal application fee to renew the permit and a compliance determination fee invoiced annually by DEQ to maintain the permit.

T. ALAN SPROTT	DIRECTOR
Name of Legally Authorized Representative (Type or Print)	Title
T. Alan Sprott	12/28/01
Signature of Legally Authorized Representative	Date

#204 (9-00)

DATE	VOUCHER NO.	REFERENCE	GROSS AMOUNT	CASH DISC.	NET AMOUNT
		NPDES Storm Water Discharge General Permit #1200-Z	85.00		85.00

CASCADE GENERAL (503) 285-1111

DETACH AND RETAIN THIS STATEMENT
THE ATTACHED CHECK IS IN PAYMENT OF ITEMS DESCRIBED ABOVE.
IF NOT CORRECT PLEASE NOTIFY US PROMPTLY. NO RECEIPT DESIRED.

CASCADE GENERAL
PORTLAND SHIPYARD
P.O. BOX 4367 PORTLAND, OREGON 97208

usbank.
24-22/1230

NO. 5423

VENDOR NUMBER	DATE	CHECK NO.
	12/18/01	5423

PAY THIS AMOUNT
$85.00

PAY
Eighty-Five Dollars & no/100**********

TO THE ORDER OF
DEQ Northwest Region
2020 SW 4th Avenue, Suite 400
Portland, OR 97201

⑈005423⑈ ⑆123000220⑆ 153600099862⑈

Oregon
John A. Kitzhaber, M.D., Governor

Department of Environmental Quality
Northwest Region
2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987
(503) 229-5263 Voice
TTY (503) 229-5471

December 5, 2001

GEN12Z--70596/B--MULTNOMAH
ALAN SPROTT
CASCADE GENERAL, INC.
5555 N CHANNEL AVE BLDG #10
PORTLAND OR 97217

Re: RENEWAL NOTICE – NPDES Storm Water Discharge General Permit #1200-Z

NPDES General Permit #1200-Z renewal process

National Pollutant Discharge Elimination System (NPDES) General Permit #1200-Z for industrial storm water discharges is scheduled to expire on June 30, 2002. The Department intends to renew this permit. If you wish to maintain coverage under this permit, you must submit the enclosed application and renewal fee to the Department in a timely manner. Please see below for more information.

What is the renewal fee?

The renewal fee is **$85** ($50 filing + $35 renewal application processing fee). *Please note that the Department is proposing to increase fees by 20% in January 2002. If your application is submitted after January, you will be required to submit the increased fee.*

When and where to submit renewal application

The renewal application is due **December 31, 2001**. Please submit the enclosed application form and $85 to:

DEQ, Northwest Region
2020 SW Fourth Ave., Suite 400
Portland, OR 97201

Failure to submit application

If you do not submit a renewal application by the due date, the Department will terminate your permit coverage upon expiration of your existing permit. If you still need a permit at that time, you will be required to submit a new application and the new application permit fee of $560. This fee is proposed to be increased in January 2002 by 20% to $670. *Please be aware that operating without a permit is a violation and subject to enforcement action including civil penalties.*

What happens if the permit expires before it is renewed?

If you have submitted a complete renewal application by December 31, 2001, your existing general permit will not expire until final action has been taken on your application.

"No exposure" exemption will be considered during renewal

The Department will be considering the inclusion of a "no exposure" permit exemption condition as part of the permit renewal process. Phase II of the NPDES storm water regulations adopted by the Environmental Protection Agency (EPA) in December 1999 provided for a process that industries could utilize to demonstrate that no exposure of storm water to industrial materials or activities occur at a site. If a condition of no exposure exists, then permits would not be required for storm water discharges.

While the Department is interested in pursuing the "no exposure" permit exemption, it must still receive and respond to public comment on this issue. When the general permit is finalized, the Department will notify permittees about its final decision and let you know how to proceed.

No longer in business or conducting different activities?

If you no longer conduct activities regulated by the NPDES storm water program or are no longer in business, please request that your permit coverage be terminated. Submit this request to:

Dennis Jurries
DEQ, Northwest Region
2020 SW Fourth Ave., Suite 400
Portland, OR 97201

For technical questions

Please contact your permit inspector, Dennis Jurries at (503) 229-5937

For other questions

For questions about permit fees, name changes or other administrative items, please contact your permit coordinator, Annie Hill at (503) 229-5438.

Enclosure: *Renewal Application NPDES Storm Water Discharge General Permit #1200-Z*
cc: [regional staff]
Source File

CASCADE GENERAL INC.

CHECK REQUEST FORM

Date Requested: 12/11/01 Requested By: _____

Required Pay Date: 12/18/01 Approved By: _____

Amount Requested: $85.00

Explanation (attach supporting documentation - invoice. contract. request for payment):

NPDES Storm Water Discharge General Permit #1200-Z

CHECK PAYABLE TO:

Name: DEQ Northwest Region

Address: 2020 SW 4th Ave. Suite 400

Portland, OR 97201

Mail __ or Deliver ✓ To: Linda Sylvester - Enviro Dept

FOR ACCOUNTING USE ONLY:

Job/Account To Be Charged: 960-200

Accounting Approval: _____

70596/B

DEQ USE ONLY
Application #:
File #:
Mail ID #2/#9:
LLID/RM:
ACD Fee Paid:
DOC Conf.:
Notes:

RENEWAL APPLICATION
NPDES STORM WATER DISCHARGE
GENERAL PERMIT #1200-Z

Oregon Department of Environmental Quality

DEQ USE ONLY
Received:
Amount Received:
Check #:
Deposit #:
☐ IND ☐ DOM ☐ UIC:
Notes:

A. REFERENCE INFORMATION

1. Legal Name: CASCADE GENERAL INC
2. Common Name: CASCADE GENERAL
3. DEQ Site ID#: 70596/B
4. Is the applicant the owner of the facility? ☒ Yes ☐ No
5. Legal Status of Applicant: ☐ Federal ☐ State ☐ Public ☒ Private ☐ Other, specify:
6. Facility Primary SIC code: 3731
   County: MULTNOMAH
7. Facility Physical Address: 5555 N. CHANNEL
   City, State, Zip Code: PORTLAND, OR 97217
8. Responsible Official: ALAN SPROTT
   Telephone #: 503-247-1672
   Mailing Address: X
   City, State, Zip Code: X
9. Facility Contact: X
   Telephone #: X
   Facility Mailing Address: X
   City, State, Zip Code: X
10. Invoice to: ALAN SPROTT
    Telephone #: X
    Billing Address: X
    City, State, Zip Code: X

B. STORM WATER DISCHARGE INFORMATION

1. Briefly describe any activities that have been added, removed or changed since your previous application:

   REMOVAL OF ONE FLOATING DRYDOCK FROM FACILITY.

2. Briefly describe any changes made to the number or locations of storm water outfalls or flows off your property:

   NONE

3. Have any changes been made to cause your storm water to discharge to a different waterbody, storm sewer system, or seepage system (i.e., dry well)? ☐ YES ☒ NO If "YES," explain:

4. Have you submitted your Storm Water Pollution Control Plan to DEQ as required by permit? ☒ YES ☐ YES, included with application ☐ NO, not due until: ☐ NO

5. Have you submitted storm water monitoring data to DEQ as required by permit? ☒ YES ☐ NO, exercising monitoring waiver ☐ NO, but submitted with this application ☐ NO, have not conducted any monitoring

C. NON-STORM WATER DISCHARGES

1. Have all non-storm water discharges to the ground or surface waters been discontinued, permitted by DEQ, or discharged into the municipal sanitary sewer? ☒ YES ☐ NO ☐ Never existed
2. If C.1 above is "NO," what non-storm water discharges to the ground or surface waters continue without permit?

D. SIGNATURE OF LEGALLY AUTHORIZED REPRESENTATIVE

I hereby certify that the information contained in this application is true and correct to the best of my knowledge and belief. In addition, I agree to pay all permit fees required by Oregon Administrative Rules 340-45. This includes a renewal application fee to renew the permit and a compliance determination fee invoiced annually by DEQ to maintain the permit.

Name of Legally Authorized Representative (Type or Print)	Title
Signature of Legally Authorized Representative	**Date**

CASCADE GENERAL INC.

CHECK REQUEST FORM

Date Requested: 12-26-01

Requested By: _____

Required Pay Date: 12-28-01

Approved By: A. Sprecht

Amount Requested: $85

Explanation (attach supporting documentation - invoice, contract, request for payment):

NPDES Permit # 1200-Z

CHECK PAYABLE TO:

Name: DEQ Northwest Region

Address: 2020 SW 4th Ave, Suite 400

Portland, OR 97201-4987

Mail __ or Deliver ✓ To: L. Sylvester

FOR ACCOUNTING USE ONLY:

Job/Account To Be Charged: 960-200

Accounting Approval: _____

CHKREQ(12/07/94)rs

RENEWAL APPLICATION INSTRUCTIONS FOR NPDES GENERAL PERMIT #1200-Z

Please answer all questions. An incomplete application will not be processed.
If the information requested is not applicable, please indicate as such.

A. REFERENCE INFORMATION:

1. Enter the legal name of the applicant. This must be the legal Oregon name (i.e., Acme Products, Inc.) or the legal representative of the company if it operates under an assumed business name (i.e., John Smith, dba Acme Products). The name must be a legal, active name registered with the Oregon Department of Commerce, Corporation Division (503) 378-4752, unless otherwise exempted by their regulations. The permit will be issued to the legal name of the applicant.

   If the legal name of the applicant has changed since the initial permit was issued or the permit needs to be transferred to a new owner, a *Name Change/Transfer of Ownership* form (enclosed) must also be submitted with this application. This form is available by contacting a DEQ regional office listed below or at http://www.deq.state.or.us/wq/wqpermit/wqpermit.htm.

2. Enter the common name of the facility or operation if different than the legal name.
3. Enter the DEQ site identification number (also known as the facility number or file number; this number may be found on the first page of your permit).
4. Indicate if the applicant is the owner of the facility.
5. Provide the legal status of the applicant. Indicate "public" for a facility solely owned by local government.
6. Provide the primary Standard Industrial Classification (SIC) code and county for the facility
7. Enter the physical location facility (not mailing address), including city, state, and zip code.
8. Enter the name, telephone number, and mailing address of the Responsible Official. The Responsible Official is the person that receives official correspondence from DEQ, such as renewal notices or notices of noncompliance, and may be contacted if there are questions about this application.
9. Enter the name, telephone number and mailing address of the Facility Contact if different from the Responsible Official. The Facility Contact is the person located at the facility that has specific knowledge of the facility or operation under permit (e.g., the treatment plant operator), and may be contacted if there are specific questions about this application.
10. Enter invoicing information for billing purposes if different from the Responsible Official (e.g., "Invoice To: Business Office - Accounts Payable").

B. STORM WATER DISCHARGE INFORMATION:

Complete as indicated.

C. NON-STORM WATER DISCHARGES:

Complete as indicated.

D. SIGNATURE OF LEGALLY AUTHORIZED REPRESENTATIVE:

The signature of a legally authorized representative must be provided in order to process this application.

Definition of Legally Authorized Representative:
See 40 CFR 122.22 for more detail. Also, please also provide the information requested in *[brackets]*.

- **Corporation** — president, secretary, treasurer, vice-president, or any person who performs principal business functions; or a manager of one or more facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million that is authorized in accordance to corporate procedure to sign such documents
- **Partnership** — General partner *[list of general partners, their addresses and telephone numbers]*
- **Sole Proprietorship** — Owner(s) *[each owner must sign the application]*
- **City, County, State, Federal, or other Public Facility** — Principal executive officer or ranking elected official
- **Limited Liability Company** — Member *[articles of organization]*
- **Trusts** — Acting trustee *[list of trustees, their addresses and telephone numbers]*

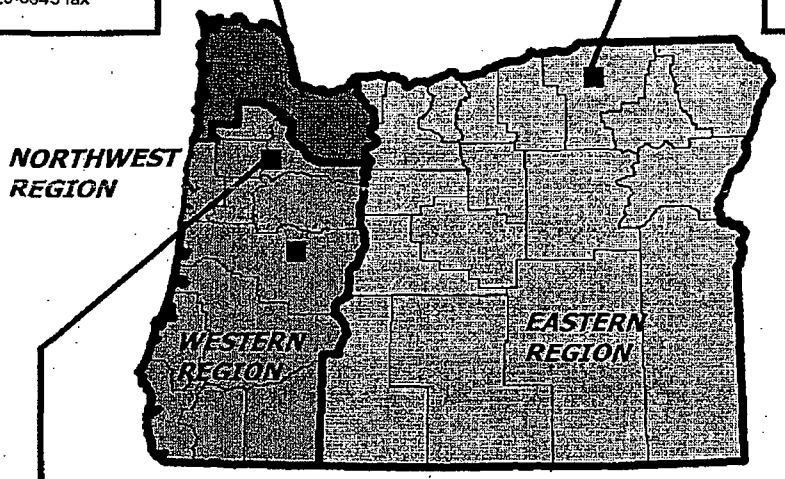
FEE AND APPLICATION SUBMITTAL:

The permit renewal fee is **$85** ($50 filing fee + $35 renewal application processing fee). Please send the $85 fee and completed renewal application to the appropriate regional office below by **December 31, 2001.**

Send this form and $85 fee to the appropriate DEQ regional office (see map on next page):
Make your check payable to the Department of Environmental Quality

DEQ Northwest Region	DEQ Western Region	DEQ Eastern Region
2020 SW 4th Ave., Suite 400	c/o DEQ Business Office	700 SE Emigrant, Suite 330
Portland, OR 97201-4987	811 SW 6th Ave.	Pendleton, OR 97801
(503) 229-5263 or 1-800-452-4011	Portland, OR 97204-1390	(541) 276-4063 or 1-800-452-4011
	(503) 378-8240 or 1-800-349-7677	

DEQ Regional Offices



Northwest Region
2020 SW 4th Ave., #400
Portland, OR 97201
(503) 229-5263
1-800-452-4011
(503) 229-6945 TTY
(503) 229-6945 fax

Eastern Region
700 SE Emigrant, #330
Pendleton, OR 97801
(541) 276-4063
1-800-452-4011
(541) 276-4063 TTY
(541) 278-0168 fax

Western Region
750 Front St. NE, #120
Salem, OR 97301
(503) 378-8240
1-800-349-7677
(503) 378-3684 TTY
(503) 373-7944 fax

NORTHWEST REGION (county)

Clackamas	Multnomah	Benton	Douglas	Lane	Marion
Clatsop	Tillamook	Coos	Jackson	Lincoln	Polk
Columbia	Washington	Curry	Josephine	Linn	Yamhill

EASTERN REGION (county)

Baker	Gilliam	Hood River	Lake	Sherman	Wallowa
Crook	Grant	Jefferson	Malheur	Umatilla	Wasco
Deschutes	Harney	Klamath	Morrow	Union	Wheeler

DEQ HEADQUARTERS
811 SW 6th Avenue
Portland, OR 97204
1-800-452-4011 (toll-free inside Oregon)
(503) 229-5696 / (503) 229-6993 TTY

Vigor Industrial LLC
5555 N. Channel Ave.
Portland OR 97217
fax 503.247.1778
tel 503.247.1777

December 22, 2006

Mr. Dennis Jurries
Oregon Department of Environmental Quality
Northwest Region
2020 SW 4th, Suite 400
Portland, OR 97201

Re: Renewal of NPDES Industrial Storm Water General Permit No. 1200-Z
File No. 70596

Dear Dennis Jurries:

Enclosed is an application for renewal of Cascade General's NPDES Industrial Storm Water General Permit 1200-Z. Also enclosed is an updated version of the facility's Storm Water Pollution Control Plan. A copy of this plan has also been sent to the City of Portland's Water Pollution Control Laboratory as per your instructions.

While Cascade General, Inc. remains current and operating at the Portland Shipyard, it is now only one of four companies at this site operating under the new common parent company Vigor Industrial, LLC. The other companies are Specialty Finishes, LLC, the Shipyard Commerce Center, and U.S. Barge. Therefore, the new storm water permit would be more accurate if listed under Vigor Industrial, LLC. This change is reflected in our permit application.

If you have any questions regarding this notification, please call me at (503) 247-1672.

Sincerely,

T. Alan Sprott

T. Alan Sprott
Environmental Director
Vigor Industrial, LLC

Attached: (1) NPDES Industrial Storm Water General Permit No. 1200-Z Application
(2) October, 2006 Storm Water Pollution Control Plan

DEQ USE ONLY
Application #:
File #:
EPA #:
LEID/RM:
DOC Cont.:
Notes:

RENEWAL APPLICATION
NPDES STORM WATER DISCHARGE
GENERAL PERMIT #1200-Z

Oregon Department of Environmental Quality

DEQ USE ONLY
Received:

A. REFERENCE INFORMATION

1. Legal Name: Vigor Industrial,LLC(was Cascade General, Inc.)	2. Common Name: Vigor Industrial, LLC (was Cascade General)
3. DEQ File #: 70596	4. Is the applicant the owner of the facility? ☐ Yes ☒ No
5. Facility Primary SIC code: 3731 County: Multnomah	6. Facility Physical Address: 5555 N Channel Avenue City, State, Zip Code: Portland, OR, 97217
7. Legal Contact : T. Alan Sprott asprott@vigorindustrial.net Mailing Address: 5555 N Channel Ave.	Telephone #: 503-247-1672 Email: City, State, Zip Code: Portland, OR 97217
8. Facility Contact: T. Alan Sprott Mailing Address: same as above	Telephone #: Email: City, State, Zip Code:
9. Invoice to: T. Alan Sprott Billing Address: same as above	Telephone #: Email: City, State, Zip Code:

B. STORMWATER DISCHARGE INFORMATION

1. Briefly describe any activities that have been added, removed or changed since your previous application: New barge craneway added.

2. Briefly describe any changes made to the number or locations of stormwater outfalls or flows off your property: none

3. Have any changes been made to cause your stormwater to discharge to a different waterbody, storm sewer system, or seepage system (i.e., dry well)? ☐ YES, explain below: ☒ NO

4. Have you submitted an updated Storm Water Pollution Control Plan (SWPCP) that thoroughly describes these changes with this application? ☒ YES, included with application

C. SIGNATURE OF LEGALLY AUTHORIZED REPRESENTATIVE

I hereby certify that the information contained in this application is true and correct to the best of my knowledge and belief. In addition, I agree to pay all permit fees required by Oregon Administrative Rules 340-45. This includes a renewal application fee to renew the permit and a compliance determination fee invoiced annually by DEQ to maintain the permit.

T. Alan Sprott	Environmental Director
Name of Legally Authorized Representative (Type or Print)	**Title**
T. Alan Sprott	December 22, 2006
Signature of Legally Authorized Representative	**Date**

Oregon
John A. Kitzhaber, M.D., Governor

Department of Environmental Quality
Northwest Region
2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987
(503) 229-5263 Voice
TTY (503) 229-5471

October 2, 2002

RE: Renewed NPDES 1200-Z Storm Water Permit

Enclosed is your copy of the recently renewed National Pollutant Discharge Elimination System (NPDES) 1200-Z general storm water discharge permit. It expires on June 30, 2007.

Most of the conditions in the renewed permit are not substantially different from the previous 1200-Z general permit issued in 1997. The most notable changes are the following:

□ **No Exposure Conditional Exclusion**: In 1999 the U.S. Environmental Protection Agency (EPA) adopted "Phase II" of the federal storm water rules. These rules included an exclusion from permit requirements for industrial facilities that can certify that their industrial activities and equipment are not exposed to storm water. Permittees interested in pursuing this exclusion can contact the DEQ regional office to obtain a certification form and guidance materials.

□ **Reinstatement of Monitoring**: The renewed permit clarifies the extent of the monitoring waiver for permittees who demonstrate that their storm water run-off is below the benchmarks in Schedule B for four consecutive monitoring events (Schedule B, Condition 2[c][4]). Specifically, if no monitoring was performed during the previous permit period, the permittee must reinitiate monitoring. Therefore, those permittees who received a monitoring waiver prior to the issuance of the 1997 1200-Z renewal would need to start monitoring again to demonstrate that benchmarks are still being met.

□ **Other Public Agencies Acting as the Department's Agent**: The Department has authorized certain local public agencies (City of Portland and Clean Water Services) to act as its Agent in implementing various aspects of this permit (see Schedule D, Condition 4). Additional agreements may be established with other local agencies over the course of this new permit period to provide these services. In instances where Agent agreements exist, the Department or its Agent will notify the permittee of where to submit monitoring data, plans, no-exposure certifications, and other notifications or correspondence associated with the permit.

If you have any questions about these changes or permit requirements, please call Dennis Jurries, Northwest Region Storm Water Engineer at (503) 229-5937 in our regional office. If you would like to receive the certification form and guidance materials for the "no exposure" conditional exclusion, contact me at (503) 229-5438.

Sincerely,

Annie Hill

Annie Hill
DEQ Regional Permit Coordinator
Northwest Region

GENERAL PERMIT
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
STORM WATER DISCHARGE PERMIT
Department of Environmental Quality
811 Southwest Sixth Avenue, Portland, OR 97204
Telephone: (503) 229-5630 or 1-800-452-4011 toll free in Oregon
Issued pursuant to ORS 468B.050 and The Federal Clean Water Act

Issued 10/4/02 GEN12Z MULTNOMAH/NWR
File No. 70596/B ORR20-0258

Cascade General, Inc.
5555 N. Channel Ave.
Portland, OR 97217

SOURCES COVERED BY THIS PERMIT

Facilities identified in 40 Code of Federal Regulation (CFR) §122.26(b)(14)(i - ix, xi) with storm water discharges. See *Table 1: Sources Covered* on p. 2 for more information on the CFR regulated industries covered by this permit. Facilities may qualify for a conditional exclusion from the requirement to obtain coverage under a permit if there is no exposure of industrial activities and materials to storm water pursuant to 40 CFR §122.26(g); see *Permit Coverage and Exclusion from Coverage* on p. 3 for more information.

Construction activities, asphalt mix batch plants, concrete batch plants and Standard Industrial Classification code 14, *Mining and Quarrying of Nonmetallic Minerals, Except Fuels*, are excluded from this permit. These activities are regulated under separate permits.

Michael T. Llewelyn, Administrator
Water Quality Division

Issued: July 26, 2002
Effective: August 9, 2002

PERMITTED ACTIVITIES

Until this permit expires or is modified or revoked, the permittee is authorized to construct, install, modify, or operate storm water treatment and/or control facilities, and to discharge storm water to public waters in conformance with all the requirements, limitations, and conditions set forth in the attached schedules as follows:

		Page
Permit Coverage and Exclusion From Coverage		3
Schedule A -	Storm Water Pollution Control Plan, Additional Requirements, Limitations, and Benchmarks	5
Schedule B -	Monitoring and Reporting Requirements	10
Schedule C -	Compliance Conditions and Schedules	12
Schedule D -	Special Conditions	13
Schedule F -	General Conditions	14

Unless specifically authorized by this permit, by another NPDES or WPCF permit, or by Oregon Administrative Rule, any other direct or indirect discharge to waters of the state is prohibited, including discharges to an underground injection control system.

TABLE 1: SOURCES COVERED

Facilities with the following primary Standard Industrial Classification codes: 10 Metal Mining 12 Coal Mining 13 Oil and Gas Extraction 20 Food and Kindred Products 21 Tobacco Products 22 Textile Mill Products 23 Apparel and Other Finished Products Made From Fabrics and Similar Material 24 Lumber and Wood Products, Except Furniture (excluding 2491 Wood Preserving and 2411 Logging) 25 Furniture and Fixtures 27 Printing, Publishing and Allied Industries 28 Chemicals and Allied Products (excluding 2874 Phosphate Fertilizer Manufacturing) 29 Petroleum Refining and Related Industries 30 Rubber and Miscellaneous Plastics Products 31 Leather and Leather Products 32 Stone, Clay, Glass, and Concrete Products 33 Primary Metal Industries 34 Fabricated Metal Products, Except Machinery and Transportation Equipment 35 Industrial and Commercial Machinery and Computer Equipment 36 Electronic and Other Electrical Equipment and Components, Except Computer Equipment 37 Transportation Equipment 38 Measuring, Analyzing, and Controlling Instruments; Photographic, Medical and Optical Goods; Watches and Clocks 39 Miscellaneous Manufacturing Industries 4221 Farm Product Warehousing and Storage 4222 Refrigerated Warehousing and Storage 4225 General Warehousing and Storage 5015 Motor Vehicle Parts, Used 5093 Scrap and Waste Materials
Facilities with the following primary Standard Industrial Classification codes that have vehicle maintenance shops (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, or airport deicing operations: 41 Local and Suburban Transit and Interurban Highway Passenger Transportation 42 Motor Freight Transportation and Warehousing (excluding 4221 Farm Product Warehousing and Storage, 4222 Refrigerated Warehousing and Storage, and 4225 General Warehousing and Storage) 43 United States Postal Service 44 Water Transportation 45 Transportation by Air 5171 Petroleum Bulk Stations and Terminals
Steam Electric Power Generation including coal handling sites
Landfills, land application sites and open dumps [excluding landfills regulated by 40 CFR §445 that discharge "contaminated storm water" (as defined by 40 CFR §445.2) to waters of the U.S.]
Hazardous Waste Treatment, Storage and Disposal Facilities [excluding hazardous waste landfills regulated by 40 CFR §445 that discharge "contaminated storm water" (as defined by 40 CFR §445.2) to waters of the U.S.]
Treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage, recycling, and reclamation of municipal or domestic sewage (including land dedicated to the disposal of sewage sludge that are located within the confines of the facility) with the design flow capacity of 1.0 mgd or more, or required to have a pretreatment program under 40 CFR §403.

ii) If circumstances change and industrial materials or activities become exposed to rain, snow, snow melt, and/or runoff, the conditions for this exclusion no longer apply. In such cases, the discharge becomes subject to enforcement for un-permitted discharge. Any conditionally exempt discharger who anticipates changes in circumstances should apply for and obtain permit coverage prior to the change of circumstances.

iii) The Department retains the authority to require permit coverage (and deny this exclusion) upon making a determination that the discharge causes, has reasonable potential to cause, or contributes to an instream excursion above an applicable water quality standard, including designated uses.

iv) The Department will notify the permittee in writing of its approval of the "no exposure' conditional exclusion and termination of permit coverage. The owner or operator must maintain this notification on site.

be monitored (as allowed in Schedule B.1.c), a description supporting this approach must also be included.

b) **Site Controls** The permittee must maintain existing controls and/or develop new controls appropriate for the site. The purpose of these controls is to eliminate or minimize the exposure of pollutants to storm water. In developing a control strategy, the SWPCP must have the following minimum components. A description of each component must be included in the SWPCP.

i) *Storm Water Best Management Practices* If technically and economically feasible, the following best management practices must be employed at the site. A schedule for implementation of these practices must be included in the SWPCP if the practice has not already been accomplished. This schedule must be consistent with the requirements for developing and implementing the SWPCP in Schedule C of the permit.

(1) Containment - All hazardous substances (see Schedule D.3, Definitions) must be stored within berms or other secondary containment devices to prevent leaks and spills from contaminating storm water. If the use of berms or secondary containment devices is not possible, then hazardous substances must be stored in areas that do not drain to the storm sewer system.

(2) Oil and Grease - Oil/Water separators, booms, skimmers or other methods must be employed to eliminate or minimize oil and grease contamination of storm water discharges.

(3) Waste Chemicals and Material Disposal - Wastes must be recycled or properly disposed of in a manner to eliminate or minimize exposure of pollutants to storm water. All waste contained in bins or dumpsters where there is a potential for drainage of storm water through the waste must be covered to prevent exposure of storm water to these pollutants. Acceptable covers include, but are not limited to, storage of bins or dumpsters under roofed areas and use of lids or temporary covers such as tarps.

(4) Erosion and Sediment Control - Erosion control methods such as vegetating exposed areas, graveling or paving must be employed to minimize erosion of soil at the site. Sediment control methods such as detention facilities, sediment control fences, vegetated filter strips, bioswales, or grassy swales must be employed to minimize sediment loads in storm water discharges. For activities that involve land disturbance, the permittee must contact the local municipality to determine if there are other applicable requirements.

(5) Debris Control - Screens, booms, settling ponds, or other methods must be employed to eliminate or minimize debris in storm water discharges.

(6) Storm Water Diversion - Storm water must be diverted away from fueling, manufacturing, treatment, storage, and disposal areas to prevent exposure of uncontaminated storm water to potential pollutants.

(7) Covering Activities - Fueling, manufacturing, treatment, storage, and disposal areas must be covered to prevent exposure of storm water to potential pollutants. Acceptable covers include, but are not limited to, permanent structures such as roofs or buildings and temporary covers such as tarps.

(8) Housekeeping - Areas that may contribute pollutants to storm water must be kept clean. Sweeping, prompt clean up of spills and leaks, and proper maintenance of vehicles must be employed to eliminate or minimize exposure of storm water to pollutants.

water, air conditioning condensate, deicing residues, or any other non-storm discharges associated with the facility. The Department recommends that piping and drainage systems for floor drains and other process wastewater discharge points be separated from the storm drainage system to prevent inadvertent discharge of pollutants to waters of the state.

Any other wastewater discharge or disposal must be permitted in a separate permit. A separate Department permit may not be required if the wastewater is reused or recycled without discharge or disposal, or discharged to the sanitary sewer with approval from the local sanitary authority.

5. **Water Quality Limited Streams** - If Total Maximum Daily Loads are established and the discharge from a permitted source is assigned a waste load allocation, application for an individual or different general permit or other appropriate tools may be required to address the allocation.

6. **Water Quality Standards** The ultimate goal for permittees is to comply with water quality standards in OAR 340-041. In instances where a storm water discharge adversely impacts water quality, the Department may require the facility to implement additional management practices, apply for an individual permit, or take other appropriate action.

CODE OF FEDERAL REGULATION STORM WATER DISCHARGE LIMITATIONS

7. The permittee with the following activities must be in compliance with the applicable limitations at the time of permit assignment:

CFR Industry		Parameter	Limitation	
Category	Subcategory			
Cement manufacturing (40 CFR §411)	Materials storage piles runoff	pH	6.0 - 9.0 SU	
		Total Suspended Solids (TSS)	50 mg/l	
Steam powered electric power generating (40 CFR §423)	Coal pile runoff	TSS	50 mg/l, Daily Maximum	
Paving and roofing materials (tars and asphalt) (40 CFR §443)	Runoff from manufacturing of asphalt paving or roofing emulsion	Oil & Grease	20 mg/l, Daily Maximum	15 mg/l, 30 Day Average
		pH	6.0 - 9.0 SU	

SCHEDULE B
MONITORING AND REPORTING REQUIREMENTS

1. **Minimum Monitoring Requirements**
   a) All permittees must monitor storm water associated with industrial activity for the following:

GRAB SAMPLES OF STORM WATER	
Parameter*	Frequency
Total Copper	Twice per Year
Total Lead	Twice per Year
Total Zinc	Twice per Year
pH	Twice per Year
Total Suspended Solids	Twice per Year
Total Oil & Grease	Twice per Year
E. coli**	Twice per Year

* Parameters should be analyzed on samples collected from the same storm event.

** The monitoring for E. coli applies only to landfills, if septage and sewage biosolids are disposed at the site, and sewage treatment plants.

VISUAL MONITORING OF STORM WATER	
Parameter	Frequency
Floating Solids (associated with industrial activities)	Once a Month (when discharging)
Oil & Grease Sheen	Once a Month (when discharging)

   b) **Grab Samples** Grab samples that are representative of the discharge must be taken at least 60 days apart. It is preferred, but not required, that one sample be collected in the fall and one in the spring. Compositing of samples from different drainage areas is not allowed.

   c) **Multiple Point Source Discharges** The permittee may reduce the number of storm water monitoring points provided the outfalls have substantially identical effluents. Substantially identical effluents are discharges from drainage areas serving similar activities where the discharges are expected to be similar in composition. Outfalls serving areas with no exposure of storm water to industrial activities are not required to be monitored.

   d) **Monitoring Location** All samples must be taken at monitoring points specified in the SWPCP before the storm water joins or is diluted by any other wastestream, body of water or substance unless otherwise approved in writing by the Department.

2. **Monitoring Reduction**
   a) **Visual Observations** There is no reduction allowed of the required visual observations.

   b) **Grab Samples** The permittee is not required to conduct sampling if the benchmarks specified in Schedule A.8 are met, or if the exceedance is due to natural or background conditions for at least four consecutive storm water monitoring events conducted by the permittee over 24 continuous months. Note that there is no reduction in monitoring allowed for facilities subject to limitations under CFR (Schedule A.7).
      i) Results from sampling events cannot be averaged to meet the benchmarks.

SCHEDULE C
COMPLIANCE CONDITIONS AND SCHEDULES

1. **Existing Permittee** (for a facility with an NPDES storm water discharge permit assigned prior to June 30,2002):

   a) Not later than 90 days after receiving this permit, the existing permittee must revise and begin implementation of the SWPCP to meet any new permit requirements.

   b) Except for site controls that require capital improvements (see Schedule D.3, Definitions), the SWPCP must be implemented within 90 days after revision of SWPCP. Site control activities that require capital improvements must be completed in accordance with the schedule set forth in the SWPCP.

2. **New Permittee with Existing Facility** (for a facility operating prior to June 30, 2002, without an NPDES storm water discharge permit):

   a) Not later than 90 days after receiving this permit, the new permittee must prepare and begin implementation of the SWPCP.

   b) Except for site controls that require capital improvements (see Schedule D.3, Definitions), the SWPCP must be implemented within 90 days after completion of SWPCP. Site control activities that require capital improvements must be completed in accordance with the schedule set forth in the SWPCP.

3. **New Permittee with New Facility** (for a facility beginning operation after June 30, 2002):

   a) Prior to starting operations, a new permittee must prepare and begin implementation of the SWPCP.

   b) Except for site controls that require capital improvements (see Schedule D.3, Definitions), the SWPCP must be implemented within 90 days after beginning operation. Site control activities that require capital improvements must be completed in accordance with the schedule set forth in the SWPCP.

4. **New Permittee Discharging to Clackamas River, McKenzie River above Hayden Bridge (River Mile 15) or North Santiam River.** Not later than 180 days after receiving this permit, new permittees discharging to Clackamas River, McKenzie River above Hayden Bridge (river mile 15) or North Santiam River must submit to the Department a monitoring and water quality evaluation program. This program must be effective in evaluating the in-stream impacts of the discharge as required by OAR 340-041-0470. Within 30 days after Department approval, the permittee must implement the monitoring and water quality evaluation program. For the purpose of this condition, new permittees include potential or existing dischargers that did not have a permit prior to January 28, 1994, and existing dischargers that have a permit but request an increased load limitation.

SCHEDULE F
NPDES GENERAL CONDITIONS

SECTION A. STANDARD CONDITIONS

1. Duty to Comply
The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of Oregon Revised Statutes (ORS) 468B.025 and is grounds for enforcement action; for permit termination, suspension, or modification; or for denial of a permit renewal application.

2. Penalties for Water Pollution and Permit Condition Violations
Oregon Law (ORS 468.140) allows the Director to impose civil penalties up to $10,000 per day for violation of a term, condition, or requirement of a permit.

Under ORS 468.943, unlawful water pollution, if committed by a person with criminal negligence, is punishable by a fine of up to $25,000 or by imprisonment for not more than one year, or by both. Each day on which a violation occurs or continues is a separately punishable offense.

Under ORS 468.946, a person who knowingly discharges, places or causes to be placed any waste into the waters of the state or in a location where the waste is likely to escape into the waters of the state, is subject to a Class B felony punishable by a fine not to exceed $200,000 and up to 10 years in prison.

3. Duty to Mitigate
The permittee must take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. In addition, upon request of the Department, the permittee must correct any adverse impact on the environment or human health resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

4. Duty to Reapply
If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply to have the permit renewed. The application must be submitted at least 180 days before the expiration date of this permit.

The Director may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date.

5. Permit Actions
This permit may be modified, suspended, revoked and reissued, or terminated for cause including, but not limited to, the following:

a. Violation of any term, condition, or requirement of this permit, a rule, or a statute;
b. Obtaining this permit by misrepresentation or failure to disclose fully all material facts; or
c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
d. The permittee shall pay the fees required to be filed with this permit application and to be paid annually for permit compliance determination as outlined in the Oregon Administrative Rules, Chapter 340, Division 045.

The filing of a request by the permittee for a permit modification or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

6. Toxic Pollutants
The permittee must comply with any applicable effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

7. Property Rights
The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.

b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of General Condition B.4.c are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
(1) An upset occurred and that the permittee can identify the causes(s) of the upset;
(2) The permitted facility was at the time being properly operated;
(3) The permittee submitted notice of the upset as required in General Condition D.5, hereof (24-hour notice); and
(4) The permittee complied with any remedial measures required under General Condition A.3 hereof.

d. Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

5. Treatment of Single Operational Event
For purposes of this permit, A Single Operational Event which leads to simultaneous violations of more than one pollutant parameter must be treated as a single violation. A single operational event is an exceptional incident which causes simultaneous, unintentional, unknowing (not the result of a knowing act or omission), temporary noncompliance with more than one Clean Water Act effluent discharge pollutant parameter. A single operational event does not include Clean Water Act violations involving discharge without a NPDES permit or noncompliance to the extent caused by improperly designed or inadequate treatment facilities. Each day of a single operational event is a violation.

6. Overflows from Wastewater Conveyance Systems and Associated Pump Stations
a. Definitions
(1) "Overflow" means the diversion and discharge of waste streams from any portion of the wastewater conveyance system including pump stations, through a designed overflow device or structure, other than discharges to the wastewater treatment facility.
(2) "Severe property damage" means substantial physical damage to property, damage to the conveyance system or pump station which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of an overflow.
(3) "Uncontrolled overflow" means the diversion of waste streams other than through a designed overflow device or structure, for example to overflowing manholes or overflowing into residences, commercial establishments, or industries that may be connected to a conveyance system.

b. Prohibition of overflows. Overflows are prohibited unless:
(1) Overflows were unavoidable to prevent an uncontrolled overflow, loss of life, personal injury, or severe property damage;
(2) There were no feasible alternatives to the overflows, such as the use of auxiliary pumping or conveyance systems, or maximization of conveyance system storage; and
(3) The overflows are the result of an upset as defined in General Condition B.4. and meeting all requirements of this condition.

c. Uncontrolled overflows are prohibited where wastewater is likely to escape or be carried into the waters of the State by any means.

d. Reporting required. Unless otherwise specified in writing by the Department, all overflows and uncontrolled overflows must be reported orally to the Department within 24 hours from the time the permittee becomes aware of the overflow. Reporting procedures are described in more detail in General Condition D.5.

7. Public Notification of Effluent Violation or Overflow
If effluent limitations specified in this permit are exceeded or an overflow occurs, upon request by the Department, the permittee must take such steps as are necessary to alert the public about the extent and nature of the discharge. Such steps may include, but are not limited to, posting of the river at access points and other places, news releases, and paid announcements on radio and television.

9. Records Contents
Records of monitoring information must include:
   a. The date, exact place, time and methods of sampling or measurements;
   b. The individual(s) who performed the sampling or measurements;
   c. The date(s) analyses were performed;
   d. The individual(s) who performed the analyses;
   e. The analytical techniques or methods used; and
   f. The results of such analyses.

10. Inspection and Entry
The permittee must allow the Director, or an authorized representative upon the presentation of credentials to:
   a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
   b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
   c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit, and
   d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by state law, any substances or parameters at any location.

SECTION D. REPORTING REQUIREMENTS

1. Planned Changes
The permittee must comply with Oregon Administrative Rules (OAR) 340, Division 052, "Review of Plans and Specifications". Except where exempted under OAR 340-052, no construction, installation, or modification involving disposal systems, treatment works, sewerage systems, or common sewers must be commenced until the plans and specifications are submitted to and approved by the Department. The permittee must give notice to the Department as soon as possible of any planned physical alternations or additions to the permitted facility.

2. Anticipated Noncompliance
The permittee must give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

3. Transfers
This permit may be transferred to a new permittee provided the transferee acquires a property interest in the permitted activity and agrees in writing to fully comply with all the terms and conditions of the permit and the rules of the Commission. No permit must be transferred to a third party without prior written approval from the Director. The permittee must notify the Department when a transfer of property interest takes place.

4. Compliance Schedule
Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date. Any reports of noncompliance must include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirements.

5. Twenty-Four Hour Reporting
The permittee must report any noncompliance which may endanger health or the environment. Any information must be provided orally (by telephone) within 24 hours, unless otherwise specified in this permit, from the time the permittee becomes aware of the circumstances. During normal business hours, the Department's Regional office must be called. Outside of normal business hours, the Department must be contacted at 1-800-452-0311 (Oregon Emergency Response System).

A written submission must also be provided within 5 days of the time the permittee becomes aware of the circumstances. If the permittee is establishing an affirmative defense of upset or bypass to any offense under ORS 468.922 to 468.946, and in which case if the original reporting notice was oral, delivered written notice must be made to the Department or other agency with regulatory jurisdiction within 4 (four) calendar days. The written submission must contain:
   a. A description of the noncompliance and its cause;
   b. The period of noncompliance, including exact dates and times;

(3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR §122.21(g)(7); or
(4) The level established by the Department in accordance with 40 CFR §122.44(f).

b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
(1) Five hundred micrograms per liter (500 µg/l);
(2) One milligram per liter (1 mg/l) for antimony;
(3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR §122.21(g)(7); or
(4) The level established by the Department in accordance with 40 CFR §122.44(f).

SECTION E. DEFINITIONS

1. BOD means five-day biochemical oxygen demand.
2. TSS means total suspended solids.
3. mg/l means milligrams per liter.
4. kg means kilograms.
5. m^3/d means cubic meters per day.
6. MGD means million gallons per day.
7. Composite sample means a sample formed by collecting and mixing discrete samples taken periodically and based on time or flow.
8. FC means fecal coliform bacteria.
9. Technology based permit effluent limitations means technology-based treatment requirements as defined in 40 CFR §125.3, and concentration and mass load effluent limitations that are based on minimum design criteria specified in OAR 340-041.
10. CBOD means five day carbonaceous biochemical oxygen demand.
11. Grab sample means an individual discrete sample collected over a period of time not to exceed 15 minutes.
12. Quarter means January through March, April through June, July through September, or October through December.
13. Month means calendar month.
14. Week means a calendar week of Sunday through Saturday.
15. Total residual chlorine means combined chlorine forms plus free residual chlorine.
16. The term "bacteria" includes but is not limited to fecal coliform bacteria, total coliform bacteria, and E. coli bacteria.
17. POTW means a publicly owned treatment works.

Oregon
John A. Kitzhaber, M.D., Governor

Department of Environmental Quality
Northwest Region
2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987
(503) 229-5263 Voice
TTY (503) 229-5471

April 9, 1998

David Donaldson, Vice President
Cascade General, Inc.
5555 N. Channel Avenue
Portland, OR 97217

Re: NPDES General Permit 1200Z
Cascade General, Inc.
File No. 70596/B
Multnomah County

The Oregon Department of Environmental Quality has received your application for renewal of National Pollutant Discharge Elimination System (NPDES) General Permit No. 1200 and the appropriate fees and is enclosing the requested permit. Additionally, we are enclosing a memo dated September 22, 1997 which discusses changes to the new NPDES General Permit 1200Z.

Please read the permit and the enclosed memo carefully to become familiar with the terms and conditions to which you must comply. We ask that you particularly observe the monitoring and reporting requirements outlined on pages 9 and 10 of the permit.

Should you have any questions, please contact the Northwest Region Office at 229-5552.

Sincerely,

Robert P. Baumgartner
Water Quality Manager
Northwest Region

rcd
Enclosures
cc: File

State of Oregon

Department of Environmental Quality — Memorandum

To: Holders of NPDES General Permit 1200 (D-W) **Date:** September 22, 1997

From: Rene C. Dulay

Subject: NPDES General Permit 1200Z Renewal

On July 22, 1997, the Department of Environmental Quality renewed the National Pollutant Discharge Elimination System (NPDES) General Permit 1200 (D, F, G, H, L, M, P, R, S, T, & W). These general permits cover the facilities identified in 40CFR§122.26(b)(14)(i-ix, xi) and with storm water discharges.

You should be aware of the following changes of the new permit which are as follows:

- The previous NPDES General Permits 1200 (D, F, G, H, L, M, P, R, S, T and W) were consolidated into one NPDES General Permit 1200Z. Table I on pages 2-3 shows the sources covered by the new permit.

- The Storm Water Pollution Control Plan (SWPCP) shall be prepared by a person knowledgeable in storm water management and familiar with the facility. It does not necessarily need a registered engineer or architect to review and stamped the SWPCP. The SWPCP shall be signed according to the procedures specified in the federal regulation, 40CFR§122.22. The SWPCP shall be submitted to the Department within 14 days after completion.

- If waste disposal wells will be used for surface drainage the requirements of Oregon Administrative Rules (OAR) 340-44-050 must be complied with. The wastewater that could be discharged to disposal wells is restricted to storm water only.

- Categorical industries such as cement manufacturing, steam powered electric power generation facilities with coal handling and storage facilities and asphalt paving and roofing emulsions manufacturing must meet their respective effluent limitations specified on page 7 of the permit.

- Benchmarks are established for pollutants of concern (see page 8) for each point source storm water discharge. The benchmarks are guideline concentrations and not limitations. Sampling frequency is specified in Schedule B. If the benchmarks are not achieved the SWPCP has to be reviewed within 60 days of receiving the sampling results and identify additional control to further improve the quality of the storm water discharge.

Please read the enclosed permit and be familiar with all the conditions and requirements including the conditions emphasized above.

If you have any questions regarding the permit please contact the Northwest Region office at 229-5552

GENERAL PERMIT
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
STORM WATER DISCHARGE PERMIT

Department of Environmental Quality
811 Southwest Sixth Avenue, Portland, OR 97204
Telephone: (503) 229-5279

Issued pursuant to ORS 468B.050 and The Federal Clean Water Act

Issued 4/9/98 GEN12Z MULTNOMAH/NWR
File No. 70596/B

Cascade General, Inc.
5555 N. Channel Ave. Bldg. 50
Portland OR 97217

SOURCES COVERED BY THIS PERMIT

Facilities identified in 40 Code of Federal Regulation (CFR) §122.26(b)(14)(i-ix, xi) with storm water discharges. Construction activities, asphalt mix batch plants, concrete batch plants and Standard Industrial Classification code 14, *Mining and Quarrying of Nonmetallic Minerals, Except Fuels* are excluded from this permit. These activities are regulated under separate permits.

See Table 1: Sources Covered, pages 2-3, for more information on the CFR regulated industries covered by this permit.

JULY 22, 1997

Michael T. Llewelyn, Administrator, Water Quality Division — Date

PERMITTED ACTIVITIES

Until this permit expires or is modified or revoked, the permittee is authorized to construct, install, modify, or operate storm water treatment and/or control facilities, and to discharge storm water to public waters in conformance with all the requirements, limitations, and conditions set forth in the attached schedules as follows:

		Page
Schedule A	- Storm Water Pollution Control Plan, Additional Requirements, Limitations, and Benchmarks	4-8
Schedule B	- Monitoring and Reporting Requirements	9-10
Schedule C	- Compliance Conditions and Schedules	11
Schedule D	- Special Conditions	12
Schedule F	- General Conditions	13

Unless authorized by another NPDES permit, all other direct and indirect discharges to public waters are prohibited.

TABLE 1: Sources Covered (cont.)

Previous Permit Type	Sources Covered
1200-M	Facilities with the following primary Standard Industrial Classification codes: 10 Metal Mining 12 Coal Mining 13 Oil and Gas Extraction
1200-P	Facilities with primary Standard Industrial Classification code 26 Paper and Allied Products. Facilities with SIC codes 265 and 267 are only required to apply for permit if storm water is exposed to material handling equipment or activities, raw materials, intermediate products, final products, waste materials, by-products, or industrial machinery.
1200-R	Hazardous Waste Treatment, Storage and Disposal Facilities, and facilities with primary Standard Industrial Classification codes 5015 Motor Vehicle Parts, Used, and 5093 Scrap and Waste Materials.
1200-S	Treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage, recycling, and reclamation of municipal or domestic sewage (including land dedicated to the disposal of sewage sludge that are located within the confines of the facility) with the design flow capacity of 1.0 mgd or more, or required to have a pretreatment program under 40 CFR § 403.
1200-T	Facilities with the following primary Standard Industrial Classification codes that have vehicle maintenance shops (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, or airport deicing operations: 40 Railroad Transportation 41 Local and Suburban Transit and Interurban Highway Passenger Transportation 42 Motor Freight Transportation and Warehousing (excluding 4221 Farm Product Warehousing and Storage, 4222 Refrigerated Warehousing and Storage, and 4225 General Warehousing and Storage) 43 United States Postal Service 44 Water Transportation 45 Transportation by Air 5171 Petroleum Bulk Stations and Terminals
1200-W	Facilities with the following primary Standard Industrial Classification codes: 24 Lumber and Wood Products, Except Furniture (excluding 2491 Wood Preserving and 2411 Logging) 25 Furniture and Fixtures Facilities with SIC codes 2434 and 25 are only required to apply for permit if storm water is exposed to material handling equipment or activities, raw materials, intermediate products, final products, waste materials, by-products, or industrial machinery.

vii) Identification of the discharge outfall(s) and the point(s) where storm water monitoring will occur as required by Schedule B. If multiple discharge outfalls exist but will not all be monitored (as allowed in Schedule B.1.c), a description supporting this approach shall also be included.

b) Site Controls The permittee shall maintain existing controls and/or develop new controls appropriate for the site. The purpose of these controls is to eliminate or minimize the exposure of pollutants to storm water. In developing a control strategy, the SWPCP shall have the following minimum components. A description of each component shall be included in the SWPCP.

i) *Storm Water Best Management Practices* If technically and economically feasible, the following best management practices shall be employed at the site. A schedule for implementation of these practices shall be included in the SWPCP if the practice has not already been accomplished. This schedule must be consistent with the requirements for developing and implementing the SWPCP in Schedule C of the permit.

(1) Containment - All hazardous materials (see Schedule D.3, Definitions) shall be stored within berms or other secondary containment devices to prevent leaks and spills from contaminating storm water. If the use of berms or secondary containment devices is not possible, then hazardous materials shall be stored in areas that do not drain to the storm sewer system.

(2) Oil and Grease - Oil/Water separators, booms, skimmers or other methods shall be employed to eliminate or minimize oil and grease contamination of storm water discharges.

(3) Waste Chemicals and Material Disposal - Wastes shall be recycled or properly disposed of in a manner to eliminate or minimize exposure of pollutants to storm water. All waste contained in bins or dumpsters where there is a potential for drainage of storm water through the waste shall be covered to prevent exposure of storm water to these pollutants. Acceptable covers include, but are not limited to, storage of bins or dumpsters under roofed areas and use of lids or temporary covers such as tarps.

(4) Erosion and Sediment Control - Erosion control methods such as vegetating exposed areas, graveling or paving shall be employed to minimize erosion of soil at the site. Sediment control methods such as detention facilities, sediment control fences, vegetated filter strips, bioswales, or grassy swales shall be employed to minimize sediment loads in storm water discharges. For activities that involve land disturbance, the permittee shall contact the local municipality to determine if there are other applicable requirements.

(5) Debris Control - Screens, booms, settling ponds, or other methods shall be employed to eliminate or minimize debris in storm water discharges.

(6) Storm Water Diversion - Storm water shall be diverted away from fueling, manufacturing, treatment, storage, and disposal areas to prevent exposure of uncontaminated storm water to potential pollutants.

(7) Covering Activities - Fueling, manufacturing, treatment, storage, and disposal areas shall be covered to prevent exposure of storm water to potential pollutants. Acceptable covers include, but are not limited to, permanent structures such as roofs or buildings and temporary covers such as tarps.

(8) Housekeeping - Areas that may contribute pollutants to storm water shall be kept clean. Sweeping, prompt clean up of spills and leaks, and proper maintenance of vehicles shall be employed to eliminate or minimize exposure of storm water to pollutants.

4. **Oregon Administrative Rule 340-41-26(3)(a)(D), Surface Water Temperature Management Plan** Individual storm water discharges are not expected to cause a measurable increase in stream temperature. Compliance with this permit meets the requirement of OAR 340-41-26(3)(a)(D) to develop and implement a surface water temperature management plan. If it is determined that storm discharges in a particular basin are impacting a Total Maximum Daily Load for temperature, then permittees in this basin will be required to implement additional management practices to reduce the temperature of the discharges. These practices include, but are not limited to, increased vegetation to provide for shading, underground conveyance systems or detention vaults, and filter treatment systems to reduce detention times.

5. **Storm Water Only** This permit only regulates the discharge of storm water. It does not authorize the discharge or on-site disposal of process wastewater, wash water, boiler blowdown, cooling water, air conditioning condensate, deicing residues, or any other non-storm discharges associated with the facility.

   Any other wastewater discharge or disposal must be permitted in a separate permit. A separate Department permit may not be required if the wastewater is reused or recycled without discharge or disposal, or discharged to the sanitary sewer with approval from the local sanitary authority.

6. **Specific River Basin Requirements** The permittee shall comply with any Oregon Administrative Rule requirements for storm water management specific to the applicable river basin.

7. **Water Quality Standards** The ultimate goal for permittees is to comply with water quality standards in OAR 340-41. In instances where a storm water discharge adversely impacts water quality, the Department may require the facility to implement additional management practices, apply for an individual permit, or take other appropriate action.

CODE OF FEDERAL REGULATION STORM WATER DISCHARGE LIMITATIONS

8. The permittee with the following activities shall be in compliance with the applicable limitations at the time of permit assignment:

CFR Industry Category	Parameter	Limitation	
Cement manufacturing facilities for runoff from material storage piles (40 CFR §411)	pH	6.0 - 9.0 SU	
	Total Suspended Solids (TSS)	50 mg/l	
Steam powered electric power generation facilities with coal handling and storage facilities (40 CFR §423)	TSS	50 mg/l, Daily Maximum	
Manufacturing of asphalt paving and roofing emulsions (40 CFR §443)	Oil & Grease	20 mg/l, Daily Maximum	15 mg/l, 30 Day Average
	pH	6.0 - 9.0 SU	

SCHEDULE B
MONITORING AND REPORTING REQUIREMENTS

1. **Minimum Monitoring Requirements**

a) All permittees shall monitor storm water associated with industrial activity for the following:

GRAB SAMPLES OF STORM WATER	
Parameter	Frequency
Total Copper	Twice per Year
Total Lead	Twice per Year
Total Zinc	Twice per Year
pH	Twice per Year
Total Suspended Solids	Twice per Year
Oil & Grease	Twice per Year
**E. coli	Twice per Year

**The monitoring for E.coli applies only to landfills, if septage and sewage biosolids are disposed at the site, and sewage treatment plants.

VISUAL MONITORING OF STORM WATER	
Parameter	Frequency
Floating Solids (associated with industrial activities)	Once a Month (when discharging)
Oil & Grease Sheen	Once a Month (when discharging)

b) **Grab Samples** Grab samples that are representative of the discharge shall be taken at least 60 days apart. It is preferred, but not required, that one sample be collected in the fall and one in the spring. Compositing of samples from different drainage areas is not allowed.

c) **Multiple Point Source Discharges** The permittee may reduce the number of storm water monitoring points provided the outfalls have substantially identical effluents. Substantially identical effluents are discharges from drainage areas serving similar activities where the discharges are expected to be similar in composition. Outfalls serving areas with no exposure of storm water to industrial activities are not required to be monitored.

d) **Monitoring Location** All samples shall be taken at monitoring points specified in the SWPCP before the storm water joins or is diluted by any other wastestream, body of water or substance.

e) **No Exposure** If there is no exposure of storm water to material handling equipment or activities, raw materials, intermediate products, final products, waste materials, by-products, or industrial machinery at the site, monitoring is not required. The permittee shall submit an annual statement certifying as such in lieu of monitoring (refer to Schedule B.3.b). If exposure cannot be prevented, the permittee shall comply with Schedule B.

SCHEDULE C
COMPLIANCE CONDITIONS AND SCHEDULES

1. **Existing Permittee** (for a facility with an NPDES storm water discharge permit assigned prior to September 30, 1996):

   a) Not later than 90 days after receiving this permit, the existing permittee shall revise and begin implementation of their SWPCP to meet any new permit requirements.

   b) Except for site controls that require capital improvements (see Schedule D.3, Definitions), the SWPCP shall be implemented within 90 days after revision of SWPCP. Site control activities that require capital improvements shall be completed in accordance with the schedule set forth in the SWPCP.

2. **New Permittee with Existing Facility** (for a facility operating prior to September 30, 1996, without an NPDES storm water discharge permit):

   a) Not later than 90 days after receiving this permit, the new permittee shall prepare and begin implementation of their SWPCP.

   b) Except for site controls that require capital improvements (see Schedule D.3, Definitions), the SWPCP shall be implemented within 90 days after completion of SWPCP. Site control activities that require capital improvements shall be completed in accordance with the schedule set forth in the SWPCP.

3. **New Facility** (for a facility beginning operation after September 30, 1996):

   a) Prior to starting operations, a new facility shall prepare and begin implementation of their SWPCP.

   b) Except for site controls that require capital improvements (see Schedule D.3, Definitions), the SWPCP shall be implemented within 90 days after beginning operation. Site control activities that require capital improvements shall be completed in accordance with the schedule set forth in the SWPCP.

4. **New Permittee Discharging to Clackamas River, McKenzie River above Hayden Bridge (River Mile 15) or North Santiam River.** Not later than 180 days after receiving this permit, new permittees discharging to Clackamas River, McKenzie River above Hayden Bridge (river mile 15) or North Santiam River shall submit to the Department a monitoring and water quality evaluation program. This program shall be effective in evaluating the in-stream impacts of the discharge as required by OAR 340-41-470. Within 30 days after Department approval, the permittee shall implement the monitoring and water quality evaluation program. New permittees are defined to include potential or existing dischargers that did not have a permit, and existing dischargers that have a permit but request an increased load limitation.

SCHEDULE F
NPDES GENERAL CONDITIONS

SECTION A. STANDARD CONDITIONS

1. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of Oregon Revised Statutes (ORS) 468B.025 and is grounds for enforcement action; for permit termination, suspension, or modification; or for denial of a permit renewal application.

2. Penalties for Water Pollution and Permit Condition Violations

Oregon Law (ORS 468.140) allows the Director to impose civil penalties up to $10,000 per day for violation of a term, condition, or requirement of a permit.

Under ORS 468.943, unlawful water pollution, if committed by a person with criminal negligence, is punishable by a fine of up to $25,000 or by imprisonment for not more than one year, or by both. Each day on which a violation occurs or continues is a separately punishable offense.

Under ORS 468.946, a person who knowingly discharges, places or causes to be placed any waste into the waters of the state or in a location where the waste is likely to escape into the waters of the state, is subject to a Class B felony punishable by a fine not to exceed $200,000 and up to 10 years in prison.

3. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. In addition, upon request of the Department, the permittee shall correct any adverse impact on the environment or human health resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

4. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and have the permit renewed. The application shall be submitted at least 180 days before the expiration date of this permit.

The Director may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date.

5. Permit Actions

This permit may be modified, suspended, revoked and reissued, or terminated for cause including, but not limited to, the following:

a. Violation of any term, condition, or requirement of this permit, a rule, or a statute;
b. Obtaining this permit by misrepresentation or failure to disclose fully all material facts; or
c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

The filing of a request by the permittee for a permit modification or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

6. Toxic Pollutants

The permittee shall comply with any applicable effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

7. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.

8. Permit References

Except for effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act, all rules and statutes referred to in this permit are those in effect on the date this permit is issued.

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

For purposes of this permit, A Single Operational Event which leads to simultaneous violations of more than one pollutant parameter shall be treated as a single violation. A single operational event is an exceptional incident which causes simultaneous, unintentional, unknowing (not the result of a knowing act or omission), temporary noncompliance with more than one Clean Water Act effluent discharge pollutant parameter. A single operational event does not include Clean Water Act violations involving discharge without a NPDES permit or noncompliance to the extent caused by improperly designed or inadequate treatment facilities. Each day of a single operational event is a violation.

6. Overflows from Wastewater Conveyance Systems and Associated Pump Stations

a. Definitions
(1) "Overflow" means the diversion and discharge of waste streams from any portion of the wastewater conveyance system including pump stations, through a designed overflow device or structure, other than discharges to the wastewater treatment facility.
(2) "Severe property damage" means substantial physical damage to property, damage to the conveyance system or pump station which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of an overflow.
(3) "Uncontrolled overflow" means the diversion of waste streams other than through a designed overflow device or structure, for example to overflowing manholes or overflowing into residences, commercial establishments, or industries that may be connected to a conveyance system.

b. Prohibition of overflows. Overflows are prohibited unless:
(1) Overflows were unavoidable to prevent an uncontrolled overflow, loss of life, personal injury, or severe property damage;
(2) There were no feasible alternatives to the overflows, such as the use of auxiliary pumping or conveyance systems, or maximization of conveyance system storage; and
(3) The overflows are the result of an upset as defined in General Condition B.4. and meeting all requirements of this condition.

c. Uncontrolled overflows are prohibited where wastewater is likely to escape or be carried into the waters of the State by any means.

d. Reporting required. Unless otherwise specified in writing by the Department, all overflows and uncontrolled overflows must be reported orally to the Department within 24 hours from the time the permittee becomes aware of the overflow. Reporting procedures are described in more detail in General Condition D.5.

7. Public Notification of Effluent Violation or Overflow

If effluent limitations specified in this permit are exceeded or an overflow occurs, upon request by the Department, the permittee shall take such steps as are necessary to alert the public about the extent and nature of the discharge. Such steps may include, but are not limited to, posting of the river at access points and other places, news releases, and paid announcements on radio and television.

8. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in such a manner as to prevent any pollutant from such materials from entering public waters, causing nuisance conditions, or creating a public health hazard.

SECTION C. MONITORING AND RECORDS

1. Representative Sampling

Sampling and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this permit and shall be taken, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points shall not be changed without notification to and the approval of the Director.

2. Flow Measurements

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than ± 10 percent from true discharge rates throughout the range of expected discharge volumes.

3. Monitoring Procedures

Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.

4. Penalties of Tampering

This permit may be transferred to a new permittee provided the transferee acquires a property interest in the permitted activity and agrees in writing to fully comply with all the terms and conditions of the permit and the rules of the Commission. No permit shall be transferred to a third party without prior written approval from the Director. The permittee shall notify the Department when a transfer of property interest takes place.

4. Compliance Schedule

Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date. Any reports of noncompliance shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirements.

5. Twenty-Four Hour Reporting

The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally (by telephone) within 24 hours, unless otherwise specified in this permit, from the time the permittee becomes aware of the circumstances. During normal business hours, the Department's Regional office shall be called. Outside of normal business hours, the Department shall be contacted at 1-800-452-0311 (Oregon Emergency Response System).

A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. If the permittee is establishing an affirmative defense of upset or bypass to any offense under ORS 468.922 to 468.946, and in which case if the original reporting notice was oral, delivered written notice must be made to the Department or other agency with regulatory jurisdiction within 4 (four) calendar days. The written submission shall contain:

a. A description of the noncompliance and its cause;
b. The period of noncompliance, including exact dates and times;
c. The estimated time noncompliance is expected to continue if it has not been corrected;
d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance; and
e. Public notification steps taken, pursuant to General Condition B.7.

The following shall be included as information which must be reported within 24 hours under this paragraph:

a. Any unanticipated bypass which exceeds any effluent limitation in this permit.
b. Any upset which exceeds any effluent limitation in this permit.
c. Violation of maximum daily discharge limitation for any of the pollutants listed by the Director in this permit.

The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

6. Other Noncompliance

The permittee shall report all instances of noncompliance not reported under General Condition D.4 or D.5, at the time monitoring reports are submitted. The reports shall contain:

a. A description of the noncompliance and its cause;
b. The period of noncompliance, including exact dates and times;
c. The estimated time noncompliance is expected to continue if it has not been corrected; and
d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

7. Duty to Provide Information

The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine compliance with this permit. The permittee shall also furnish to the Department, upon request, copies of records required to be kept by this permit.

Other Information: When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Department, it shall promptly submit such facts or information.

8. Signatory Requirements

All applications, reports or information submitted to the Department shall be signed and certified in accordance with 40 CFR 122.22.

9. Falsification of Reports

Under ORS 468.953, any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, is subject to a Class C felony punishable by a fine not to exceed $100,000 per violation and up to 5 years in prison.

10. Changes to Indirect Dischargers - [Applicable to Publicly Owned Treatment Works (POTW) only]

The permittee must provide adequate notice to the Department of the following:

a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of the Clean Water Act if it were directly discharging those pollutants and;

State of Oregon
Department of Environmental Quality — Memorandum

To: File and Water Quality Permitting Staff **Date:** October 16, 2002

From: Mike Kortenhof, Manager
Surface Water Management
Water Quality Division

Subject: NPDES General Permit 1200-Z applicable to SIC 26 and 40

We have become aware of inconsistencies between the "Sources Covered" text on p. 1 and Table 1 on p. 2 of the NPDES 1200-Z storm water general permit. Specifically, SIC 26 *Paper and Allied Products* and SIC 40 *Railroad Transportation* were mistakenly omitted from Table 1.

This memo is to clarify that the federal citation language in the "Sources Covered" section on p.1 of the permit is controlling [40 CFR §122.26(b)(14)(ii) and (xi) includes SIC 26 and 40 CFR 122.26(b)(14)(viii) includes SIC 40]. Therefore, a modification to the permit is not necessary. The permit is applicable to activities found under SIC 26 and 40. For SIC 40, only facilities that have vehicle maintenance shops (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication) or equipment cleaning operations are included.

We will make this minor housekeeping correction and add SIC 26 and 40 to Table 1 the next time Oregon Administrative Rule 340-045-0033 *General Permits* is opened for rulemaking.

rln:kwm:MHK
DEQ/WQ/SWM-KWM-00441.doc (10/02)

GENERAL PERMIT
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
STORM WATER DISCHARGE PERMIT
Department of Environmental Quality
811 Southwest Sixth Avenue, Portland, OR 97204
Telephone: (503) 229-5630 or 1-800-452-4011 toll free in Oregon
Issued pursuant to ORS 468B.050 and The Federal Clean Water Act

ISSUED TO:

All Owners or Operators of Storm Water Point Source Discharges that are Covered by this Permit

SOURCES COVERED BY THIS PERMIT

Facilities identified in 40 Code of Federal Regulation (CFR) §122.26(b)(14)(i - ix, xi) with storm water discharges. See *Table 1: Sources Covered* on p. 2 for more information on the CFR regulated industries covered by this permit. Facilities may qualify for a conditional exclusion from the requirement to obtain coverage under a permit if there is no exposure of industrial activities and materials to storm water pursuant to 40 CFR §122.26(g); see *Permit Coverage and Exclusion from Coverage* on p. 3 for more information.

Construction activities, asphalt mix batch plants, concrete batch plants and Standard Industrial Classification code 14, *Mining and Quarrying of Nonmetallic Minerals, Except Fuels*, are excluded from this permit. These activities are regulated under separate permits.

Issued: July 26, 2002
Effective: August 9, 2002

Michael T. Llewelyn, Administrator
Water Quality Division

PERMITTED ACTIVITIES

Until this permit expires or is modified or revoked, the permittee is authorized to construct, install, modify, or operate storm water treatment and/or control facilities, and to discharge storm water to public waters in conformance with all the requirements, limitations, and conditions set forth in the attached schedules as follows:

		Page
Permit Coverage and Exclusion From Coverage		3
Schedule A -	Storm Water Pollution Control Plan, Additional Requirements, Limitations, and Benchmarks	5
Schedule B -	Monitoring and Reporting Requirements	10
Schedule C -	Compliance Conditions and Schedules	12
Schedule D -	Special Conditions	13
Schedule F -	General Conditions	14

Unless specifically authorized by this permit, by another NPDES or WPCF permit, or by Oregon Administrative Rule, any other direct or indirect discharge to waters of the state is prohibited, including discharges to an underground injection control system.

TABLE 1: SOURCES COVERED

Facilities with the following primary Standard Industrial Classification codes: 10 Metal Mining 12 Coal Mining 13 Oil and Gas Extraction 20 Food and Kindred Products 21 Tobacco Products 22 Textile Mill Products 23 Apparel and Other Finished Products Made From Fabrics and Similar Material 24 Lumber and Wood Products, Except Furniture (excluding 2491 Wood Preserving and 2411 Logging) 25 Furniture and Fixtures 27 Printing, Publishing and Allied Industries 28 Chemicals and Allied Products (excluding 2874 Phosphate Fertilizer Manufacturing) 29 Petroleum Refining and Related Industries 30 Rubber and Miscellaneous Plastics Products 31 Leather and Leather Products 32 Stone, Clay, Glass, and Concrete Products 33 Primary Metal Industries 34 Fabricated Metal Products, Except Machinery and Transportation Equipment 35 Industrial and Commercial Machinery and Computer Equipment 36 Electronic and Other Electrical Equipment and Components, Except Computer Equipment 37 Transportation Equipment 38 Measuring, Analyzing, and Controlling Instruments; Photographic, Medical and Optical Goods; Watches and Clocks 39 Miscellaneous Manufacturing Industries 4221 Farm Product Warehousing and Storage 4222 Refrigerated Warehousing and Storage 4225 General Warehousing and Storage 5015 Motor Vehicle Parts, Used 5093 Scrap and Waste Materials
Facilities with the following primary Standard Industrial Classification codes that have vehicle maintenance shops (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, or airport deicing operations: 41 Local and Suburban Transit and Interurban Highway Passenger Transportation 42 Motor Freight Transportation and Warehousing (excluding 4221 Farm Product Warehousing and Storage, 4222 Refrigerated Warehousing and Storage, and 4225 General Warehousing and Storage) 43 United States Postal Service 44 Water Transportation 45 Transportation by Air 5171 Petroleum Bulk Stations and Terminals
Steam Electric Power Generation including coal handling sites
Landfills, land application sites and open dumps [excluding landfills regulated by 40 CFR §445 that discharge "contaminated storm water" (as defined by 40 CFR §445.2) to waters of the U.S.]
Hazardous Waste Treatment, Storage and Disposal Facilities [excluding hazardous waste landfills regulated by 40 CFR §445 that discharge "contaminated storm water" (as defined by 40 CFR §445.2) to waters of the U.S.]
Treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage, recycling, and reclamation of municipal or domestic sewage (including land dedicated to the disposal of sewage sludge that are located within the confines of the facility) with the design flow capacity of 1.0 mgd or more, or required to have a pretreatment program under 40 CFR §403.

PERMIT COVERAGE AND EXCLUSION FROM COVERAGE

1. **Application for General Permit Coverage**
   a) *New facilities and existing facilities obtaining coverage for the first time*
   Owners or operators of sources covered by this permit must:
      i) Submit a complete copy of the Department-approved application form to the Department requesting coverage under this permit at least 180 days prior to the planned activity that will result in the discharge to waters of the state, unless otherwise approved by the Department.
      ii) Provide payment of all fees applicable to this permit prior to obtaining coverage.

   b) *Renewal of permit coverage for existing permittees*
   Owners or operators of sources covered by this permit must:
      i) Submit a complete copy of the Department approved application form 180 days prior to permit expiration, unless otherwise approved in writing by the Department.
      ii) Provide payment of all applicable fees for permit renewal.
      iii) The existing permit will continue to be in effect through administrative extension after the permit expiration date if a complete renewal application is submitted.

   c) *Notification that permit coverage has been obtained*
      i) The Department will notify the applicant by mail that they have received coverage and is authorized to operate under the conditions of this permit.
      ii) If the applicant's operation cannot be approved for coverage under this permit, the applicant may apply for an individual permit.

2. **"No Exposure" Conditional Exclusion from Permit Coverage**
   Application for permit coverage is not required to obtain the "No Exposure" conditional exclusion described below.
   a) To qualify for this exclusion, the owner or operator must:
      i) Provide a storm resistant shelter to protect industrial materials and activities from exposure to rain, snow, snow melt, and runoff.
      ii) Complete and sign a certification, on a form approved by the Department, that there are no discharges of storm water contaminated by exposure to industrial materials and activities from the entire facility, except as provided in 40 CFR §122.26(g)(2).
      iii) Submit the signed certification to the Department once every five years.
      iv) Allow the Department to inspect the facility to determine compliance with the "no exposure" conditions, and allow the Department to make any "no exposure" inspection reports available to the public upon request.
      v) For facilities that discharge through a municipal separate storm sewer system (MS4), upon request, submit a copy of the "no exposure" certification to the MS4 operator (i.e., local municipality), as well as allow inspection and public reporting by the MS4 operator.
      vi) Use the Environmental Protection Agency (EPA) *Guidance Manual for Conditional Exclusion from Storm Water Permitting Based on "No Exposure" of Industrial Activities to Storm Water* (EPA 833-B-00-001, June 2000) to determine "no exposure."

   b) Limitations for obtaining and/or maintaining the exclusion:
      i) This exclusion is available on a facility-wide basis only, not for individual outfalls. If a facility has some discharges of storm water that would otherwise be "no exposure" discharges, individual permit requirements should be adjusted accordingly.

ii) If circumstances change and industrial materials or activities become exposed to rain, snow, snow melt, and/or runoff, the conditions for this exclusion no longer apply. In such cases, the discharge becomes subject to enforcement for un-permitted discharge. Any conditionally exempt discharger who anticipates changes in circumstances should apply for and obtain permit coverage prior to the change of circumstances.

iii) The Department retains the authority to require permit coverage (and deny this exclusion) upon making a determination that the discharge causes, has reasonable potential to cause, or contributes to an instream excursion above an applicable water quality standard, including designated uses.

iv) The Department will notify the permittee in writing of its approval of the "no exposure' conditional exclusion and termination of permit coverage. The owner or operator must maintain this notification on site.

SCHEDULE A
STORM WATER POLLUTION CONTROL PLAN

1. **Preparation and Implementation of the Storm Water Pollution Control Plan (SWPCP)**
The permittee must prepare and implement the SWPCP according to the following:
   a) The SWPCP must be prepared according to the requirements in Schedule A.2 by a person knowledgeable in storm water management and familiar with the facility. The person(s) preparing the plan must be identified in the plan.
   b) The SWPCP must be signed in accordance with 40 CFR §122.22. Updates and revisions to the SWPCP must also be signed and certified pursuant to 40 CFR §122.22.
   c) The SWPCP must be prepared and implemented according to the time frames set forth in Schedule C.
   d) The SWPCP must be kept current and updated as necessary to reflect any changes in facility operation.
   e) The SWPCP and updates to the SWPCP must be submitted to the Department in accordance with Schedule B.3.
   f) A copy of the SWPCP must be kept at the facility and made available upon request to government agencies responsible for storm water management in the permittee's area.

2. **Storm Water Pollution Control Plan Requirements**
   a) **Site Description** The SWPCP must contain the following information:
      i) A description of the industrial activities conducted at the site. Include a description of the significant materials (see Schedule D.3, Definitions) that are stored, used, treated and/or disposed of in a manner that allows exposure to storm water. Also describe the methods of storage, usage, treatment and/or disposal.
      ii) A general location map showing the location of the site in relation to surrounding properties, transportation routes, surface waters and other relevant features.
      iii) A site map including the following:
         (1) drainage patterns
         (2) drainage and discharge structures
         (3) outline of the drainage area for each storm water outfall
         (4) paved areas and buildings within each drainage area
         (5) areas used for outdoor manufacturing, treatment, storage, and/or disposal of significant materials
         (6) existing structural control measures for reducing pollutants in storm water runoff
         (7) material loading and access areas
         (8) hazardous waste treatment, storage and disposal facilities
         (9) location of wells including waste injection wells, seepage pits, drywells, etc.
         (10) location of springs, wetlands and other surface water bodies.
      iv) Estimates of the amount of impervious surface area (including paved areas and building roofs) relative to the total area drained by each storm water outfall.
      v) For each area of the site where a reasonable potential exists for contributing pollutants to storm water runoff, identify the potential pollutants that could be present in storm water discharges.
      vi) The name(s) of the receiving water(s) for storm water drainage. If drainage is to a municipal storm sewer system, the name(s) of the ultimate receiving waters and the name of the municipality.
      vii) Identification of the discharge outfall(s) and the point(s) where storm water monitoring will occur as required by Schedule B. If multiple discharge outfalls exist but will not all be monitored (as allowed in Schedule B.1.c), a description supporting this approach must also be included.

b) **Site Controls** The permittee must maintain existing controls and/or develop new controls appropriate for the site. The purpose of these controls is to eliminate or minimize the exposure of pollutants to storm water. In developing a control strategy, the SWPCP must have the following minimum components. A description of each component must be included in the SWPCP.

i) *Storm Water Best Management Practices* If technically and economically feasible, the following best management practices must be employed at the site. A schedule for implementation of these practices must be included in the SWPCP if the practice has not already been accomplished. This schedule must be consistent with the requirements for developing and implementing the SWPCP in Schedule C of the permit.

(1) Containment - All hazardous substances (see Schedule D.3, Definitions) must be stored within berms or other secondary containment devices to prevent leaks and spills from contaminating storm water. If the use of berms or secondary containment devices is not possible, then hazardous substances must be stored in areas that do not drain to the storm sewer system.

(2) Oil and Grease - Oil/Water separators, booms, skimmers or other methods must be employed to eliminate or minimize oil and grease contamination of storm water discharges.

(3) Waste Chemicals and Material Disposal - Wastes must be recycled or properly disposed of in a manner to eliminate or minimize exposure of pollutants to storm water. All waste contained in bins or dumpsters where there is a potential for drainage of storm water through the waste must be covered to prevent exposure of storm water to these pollutants. Acceptable covers include, but are not limited to, storage of bins or dumpsters under roofed areas and use of lids or temporary covers such as tarps.

(4) Erosion and Sediment Control - Erosion control methods such as vegetating exposed areas, graveling or paving must be employed to minimize erosion of soil at the site. Sediment control methods such as detention facilities, sediment control fences, vegetated filter strips, bioswales, or grassy swales must be employed to minimize sediment loads in storm water discharges. For activities that involve land disturbance, the permittee must contact the local municipality to determine if there are other applicable requirements.

(5) Debris Control - Screens, booms, settling ponds, or other methods must be employed to eliminate or minimize debris in storm water discharges.

(6) Storm Water Diversion - Storm water must be diverted away from fueling, manufacturing, treatment, storage, and disposal areas to prevent exposure of uncontaminated storm water to potential pollutants.

(7) Covering Activities - Fueling, manufacturing, treatment, storage, and disposal areas must be covered to prevent exposure of storm water to potential pollutants. Acceptable covers include, but are not limited to, permanent structures such as roofs or buildings and temporary covers such as tarps.

(8) Housekeeping - Areas that may contribute pollutants to storm water must be kept clean. Sweeping, prompt clean up of spills and leaks, and proper maintenance of vehicles must be employed to eliminate or minimize exposure of storm water to pollutants.

ii) *Spill Prevention and Response Procedures* Methods to prevent spills along with clean-up and notification procedures must be included in the SWPCP. These methods and procedures must be made available to appropriate personnel. The required clean up

material must be on-site or readily available. Spills prevention plans required by other regulations may be substituted for this provision providing that storm water management concerns are adequately addressed.

iii) *Preventative Maintenance* A preventative maintenance program must be implemented to ensure the effective operation of all storm water best management practices. At a minimum the program must include:
   (1) Monthly inspections of areas where potential spills of significant materials or industrial activities could impact storm water runoff.
   (2) Monthly inspections of storm water control measures, structures, catch basins, and treatment facilities.
   (3) Cleaning, maintenance and/or repair of all materials handling and storage areas and all storm water control measures, structures, catch basins, and treatment facilities as needed upon discovery. Cleaning, maintenance, and repair of such systems must be performed in such a manner as to prevent the discharge of pollution.

iv) *Employee Education* An employee orientation and education program must be developed and maintained to inform personnel of the components and goals of the SWPCP. The program must also address spill response procedures and the necessity of good housekeeping practices. A schedule for employee education must be included in the SWPCP. The Department recommends this education and training occur at the time of an employee's hire and annually thereafter.

c) **Record Keeping and Internal Reporting Procedures** The following information must be recorded and maintained at the facility and provided to the Department and other government agencies upon request. This information does not need to be submitted as part of the SWPCP.
   i) Inspection, maintenance, repair and education activities as required by the SWPCP.
   ii) Spills or leaks of significant materials that impacted or had the potential to impact storm water or surface waters. Include the corrective actions to clean up the spill or leak as well as measures to prevent future problems of the same nature.

ADDITIONAL REQUIREMENTS

3. **Oregon Administrative Rule 340-041-0026(3)(a)(D), Surface Water Temperature Management Plan** Individual storm water discharges are not expected to cause a measurable increase in stream temperature because the storm water discharges mainly occur at a time of year when ambient stream and runoff temperatures are relatively low. Compliance with this permit meets the requirement of OAR 340-041-0026(3)(a)(D) to develop and implement a surface water temperature management plan. If permitted storm water discharges in a particular basin are assigned waste load allocations under a Total Maximum Daily Load for temperature, then permittees in this basin will be required to implement additional management practices to reduce the temperature of the discharges. These practices include, but are not limited to, increased vegetation to provide for shading, underground conveyance systems or detention vaults, and filter treatment systems to reduce detention times.

4. **Storm Water Only** This permit only regulates the discharge of storm water. It does not authorize the discharge or on-site disposal of process wastewater, wash water, boiler blowdown, cooling water, air conditioning condensate, deicing residues, or any other non-storm discharges associated with the facility. The Department recommends that piping and drainage systems for floor drains and other process wastewater discharge points be separated from the storm drainage system to prevent inadvertent discharge of pollutants to waters of the state.

Any other wastewater discharge or disposal must be permitted in a separate permit. A separate Department permit may not be required if the wastewater is reused or recycled without discharge or disposal, or discharged to the sanitary sewer with approval from the local sanitary authority.

5. **Water Quality Limited Streams** - If Total Maximum Daily Loads are established and the discharge from a permitted source is assigned a waste load allocation, application for an individual or different general permit or other appropriate tools may be required to address the allocation.

6. **Water Quality Standards** The ultimate goal for permittees is to comply with water quality standards in OAR 340-041. In instances where a storm water discharge adversely impacts water quality, the Department may require the facility to implement additional management practices, apply for an individual permit, or take other appropriate action.

CODE OF FEDERAL REGULATION STORM WATER DISCHARGE LIMITATIONS

7. The permittee with the following activities must be in compliance with the applicable limitations at the time of permit assignment:

CFR Industry		Parameter	Limitation	
Category	Subcategory			
Cement manufacturing (40 CFR §411)	Materials storage piles runoff	pH	6.0 - 9.0 SU	
		Total Suspended Solids (TSS)	50 mg/l	
Steam powered electric power generating (40 CFR §423)	Coal pile runoff	TSS	50 mg/l, Daily Maximum	
Paving and roofing materials (tars and asphalt) (40 CFR §443)	Runoff from manufacturing of asphalt paving or roofing emulsion	Oil & Grease	20 mg/l, Daily Maximum	15 mg/l, 30 Day Average
		pH	6.0 - 9.0 SU	

STORM WATER DISCHARGE BENCHMARKS

8. **Benchmarks** Benchmarks are guideline concentrations not limitations. They are designed to assist the permittee in determining if the implementation of their SWPCP is reducing pollutant concentrations to below levels of concern. For facilities that are subject to federal limitations, benchmarks apply to only those pollutants that are not limited by the federal regulations. The following benchmarks apply to each point source discharge of storm water associated with industrial activity:

Parameter	Benchmark
Total Copper	0.1 mg/l
Total Lead	0.4 mg/l
Total Zinc	0.6 mg/l
pH	5.5 – 9.0 SU
Total Suspended Solids	130 mg/l
Total Oil & Grease	10 mg/l
E. coli**	406 counts/100 ml
Floating Solids (associated with industrial activities)	No Visible Discharge
Oil & Grease Sheen	No Visible Sheen

** The benchmark for E. coli applies only to landfills, if septage and sewage biosolids are disposed at the site, and sewage treatment plants.

9. **Review of SWPCP** If benchmarks are not achieved, the permittee must investigate the source of the elevated pollutant levels and review and, if necessary, revise the SWPCP within 60 days of receiving sampling results. The purpose of this review is to determine if the SWPCP is being followed and to identify any additional technically and economically feasible site controls that need to be implemented to further improve the quality of storm water discharges. These site controls include best management practices, spill prevention and response procedures, preventative maintenance, and employee education procedures as described in Schedule A.2.b.

   a) **SWPCP Revision** Any newly identified site controls must be implemented in a timely manner and incorporated into the SWPCP as an update. A new SWPCP is not required. If no additional site controls are identified, the permittee must state as such in an update to the SWPCP.

   b) **SWPCP Revision Submittal** Results of this review must be submitted to the Department in accordance with Schedule B.3 and made available upon request to government agencies responsible for storm water management in the permittee's area.

   c) **Background or Natural Conditions** If the permittee demonstrates that background or natural conditions not associated with industrial activities at the site cause an exceedance of a benchmark, then no further modifications to the SWPCP are required for that parameter. Upon successful demonstration of natural or background conditions through monitoring of the same storm event used to evaluate benchmarks the permittee would be eligible for the monitoring reduction as outlined in Schedule B.2.

SCHEDULE B
MONITORING AND REPORTING REQUIREMENTS

1. **Minimum Monitoring Requirements**
   a) All permittees must monitor storm water associated with industrial activity for the following:

GRAB SAMPLES OF STORM WATER	
Parameter	**Frequency**
Total Copper	Twice per Year
Total Lead	Twice per Year
Total Zinc	Twice per Year
pH	Twice per Year
Total Suspended Solids	Twice per Year
Total Oil & Grease	Twice per Year
E. coli**	Twice per Year

* Parameters should be analyzed on samples collected from the same storm event.

** The monitoring for E. coli applies only to landfills, if septage and sewage biosolids are disposed at the site, and sewage treatment plants.

VISUAL MONITORING OF STORM WATER	
Parameter	**Frequency**
Floating Solids (associated with industrial activities)	Once a Month (when discharging)
Oil & Grease Sheen	Once a Month (when discharging)

   b) **Grab Samples** Grab samples that are representative of the discharge must be taken at least 60 days apart. It is preferred, but not required, that one sample be collected in the fall and one in the spring. Compositing of samples from different drainage areas is not allowed.

   c) **Multiple Point Source Discharges** The permittee may reduce the number of storm water monitoring points provided the outfalls have substantially identical effluents. Substantially identical effluents are discharges from drainage areas serving similar activities where the discharges are expected to be similar in composition. Outfalls serving areas with no exposure of storm water to industrial activities are not required to be monitored.

   d) **Monitoring Location** All samples must be taken at monitoring points specified in the SWPCP before the storm water joins or is diluted by any other wastestream, body of water or substance unless otherwise approved in writing by the Department.

2. **Monitoring Reduction**
   a) **Visual Observations** There is no reduction allowed of the required visual observations.

   b) **Grab Samples** The permittee is not required to conduct sampling if the benchmarks specified in Schedule A.8 are met, or if the exceedance is due to natural or background conditions for at least four consecutive storm water monitoring events conducted by the permittee over 24 continuous months. Note that there is no reduction in monitoring allowed for facilities subject to limitations under CFR (Schedule A.7).
      i) Results from sampling events cannot be averaged to meet the benchmarks.
      ii) Monitoring waivers may be allowed for individual parameters.

iii) Parameters in exceedance or not previously sampled must be monitored as required in Schedule B.1 until the monitoring waiver condition above is met.
iv) Monitoring data from the previous permit period may be used to meet the waiver requirement. This data must be evaluated against the benchmarks specified in this permit.
v) Monitoring data from the same storm event must be used to demonstrate that background or natural conditions not associated with industrial activities at the site are contributing to the exceedance of a benchmark.
vi) The permittee must submit written notification to the Department when exercising the monitoring waiver condition (refer to Schedule B.3.b).

c) **Reinstatement of Monitoring Requirements**
i) The permittee must conduct monitoring as specified in Schedule B.1 if changes to site conditions are expected to affect storm water discharge characteristics.
ii) The Department may reinstate monitoring requirements as specified in Schedule B.1 if prior monitoring efforts were improper or results were incorrect. The Department will notify the permittee of reinstatement in writing.
iii) Monitoring may also be reinstated if future sampling efforts by the permittee or the Department indicate benchmarks are being exceeded.
iv) If no monitoring was performed during the previous permit period, the permittee must reinitiate monitoring as specified in Schedule B.1 to qualify for the monitoring reduction allowed in Schedule B.2.

3. **Reporting Requirements** The permittee must submit the following to the appropriate DEQ regional office (DEQ will provide regional office information when the permittee is notified that permit coverage has been obtained):

a) **Monitoring Data** The permittee must submit by July 15 of each year grab sampling and visual monitoring data for the previous monitoring period (July 1- June 30). If there was insufficient rainfall to collect samples, the permittee must notify the Department by July 15 of each year. The permittee must also report the minimum detection levels and analytical methods for the parameters analyzed.

b) **Monitoring Reduction Notification** The permittee must submit written notification when exercising the monitoring reduction condition in Schedule B.2.b.

c) **Initial Completion or Update of SWPCP** The permittee must prepare or update the SWPCP in accordance with Schedule C of the permit. The permittee must submit an updated or completed SWPCP within 14 days after completion.

d) **SWPCP Revision (when benchmarks are exceeded)** The permittee must submit any revisions to the SWPCP required by Schedule A.9 within 14 days after the SWPCP is revised. If the Department does not review and comment on the revised SWPCP within 30 days, the permittee must implement the revisions as proposed. The permittee may proceed immediately with implementation of the following management practices as described in Schedule A.2.b without waiting for Department comment: waste chemical and materials disposal, debris control, storm water diversion, covering activities, housekeeping, and preventative maintenance.

SCHEDULE C
COMPLIANCE CONDITIONS AND SCHEDULES

1. **Existing Permittee** (for a facility with an NPDES storm water discharge permit assigned prior to June 30,2002):

   a) Not later than 90 days after receiving this permit, the existing permittee must revise and begin implementation of the SWPCP to meet any new permit requirements.

   b) Except for site controls that require capital improvements (see Schedule D.3, Definitions), the SWPCP must be implemented within 90 days after revision of SWPCP. Site control activities that require capital improvements must be completed in accordance with the schedule set forth in the SWPCP.

2. **New Permittee with Existing Facility** (for a facility operating prior to June 30, 2002, without an NPDES storm water discharge permit):

   a) Not later than 90 days after receiving this permit, the new permittee must prepare and begin implementation of the SWPCP.

   b) Except for site controls that require capital improvements (see Schedule D.3, Definitions), the SWPCP must be implemented within 90 days after completion of SWPCP. Site control activities that require capital improvements must be completed in accordance with the schedule set forth in the SWPCP.

3. **New Permittee with New Facility** (for a facility beginning operation after June 30, 2002):

   a) Prior to starting operations, a new permittee must prepare and begin implementation of the SWPCP.

   b) Except for site controls that require capital improvements (see Schedule D.3, Definitions), the SWPCP must be implemented within 90 days after beginning operation. Site control activities that require capital improvements must be completed in accordance with the schedule set forth in the SWPCP.

4. **New Permittee Discharging to Clackamas River, McKenzie River above Hayden Bridge (River Mile 15) or North Santiam River.** Not later than 180 days after receiving this permit, new permittees discharging to Clackamas River, McKenzie River above Hayden Bridge (river mile 15) or North Santiam River must submit to the Department a monitoring and water quality evaluation program. This program must be effective in evaluating the in-stream impacts of the discharge as required by OAR 340-041-0470. Within 30 days after Department approval, the permittee must implement the monitoring and water quality evaluation program. For the purpose of this condition, new permittees include potential or existing dischargers that did not have a permit prior to January 28, 1994, and existing dischargers that have a permit but request an increased load limitation.

SCHEDULE D
SPECIAL CONDITIONS

1. **Releases in Excess of Reportable Quantities.** This permit does not relieve the permittee of the reporting requirements of 40 CFR §117 Determination of Reportable Quantities for Hazardous Substances and 40 CFR §302 Designation, Reportable Quantities, and Notification.

2. **Availability of SWPCP and Monitoring Data.** The Storm Water Pollution Control Plan and/or storm water monitoring data must be made available to government agencies responsible for storm water management in the permittee's area.

3. **Definitions**

   a) *Capital Improvements* means the following improvements that require capital expenditures:
      i) Treatment best management practices including but not limited to settling basins, oil/water separation equipment, catch basins, grassy swales, detention/retention basins, and media filtration devices.
      ii) Manufacturing modifications that incur capital expenditures, including process changes for reduction of pollutants or wastes at the source.
      iii) Concrete pads, dikes and conveyance or pumping systems utilized for collection and transfer of storm water to treatment systems.
      iv) Roofs and appropriate covers for manufacturing areas.

   b) *Hazardous Substances* as defined in 40 CFR §302 Designation, Reportable Quantities, and Notification.

   c) *Material Handling Activities* include the storage, loading and unloading, transportation or conveyance of raw material, intermediate product, finished product, by-product or waste product.

   d) *Point Source* means a discharge from any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, or conduit.

   e) *Significant Materials* includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical that a facility is required to report pursuant to section 313 of title III of SARA; fertilizers; pesticides; and waste products such as ash, slag, and sludge that have the potential to be released with storm water discharges.

4. **Local Public Agencies Acting as the Department's Agent**
   The Department authorizes local public agencies to act as its Agent in implementing this permit. The Department's Agent may be authorized to conduct the following activities, including but not limited to: application review and approval, inspections, monitoring data review, storm water and wastewater monitoring, SWPCP review, and verification and approval of no-exposure certifications. Where the Department has entered into such an agreement, the Department or its Agent will notify the permittee of where to submit monitoring data, SWPCPs, no-exposure certifications, and other notifications or correspondence associated with this permit.

SCHEDULE F
NPDES GENERAL CONDITIONS

SECTION A. STANDARD CONDITIONS

1. Duty to Comply
The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of Oregon Revised Statutes (ORS) 468B.025 and is grounds for enforcement action; for permit termination, suspension, or modification; or for denial of a permit renewal application.

2. Penalties for Water Pollution and Permit Condition Violations
Oregon Law (ORS 468.140) allows the Director to impose civil penalties up to $10,000 per day for violation of a term, condition, or requirement of a permit.

Under ORS 468.943, unlawful water pollution, if committed by a person with criminal negligence, is punishable by a fine of up to $25,000 or by imprisonment for not more than one year, or by both. Each day on which a violation occurs or continues is a separately punishable offense.

Under ORS 468.946, a person who knowingly discharges, places or causes to be placed any waste into the waters of the state or in a location where the waste is likely to escape into the waters of the state, is subject to a Class B felony punishable by a fine not to exceed $200,000 and up to 10 years in prison.

3. Duty to Mitigate
The permittee must take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. In addition, upon request of the Department, the permittee must correct any adverse impact on the environment or human health resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

4. Duty to Reapply
If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply to have the permit renewed. The application must be submitted at least 180 days before the expiration date of this permit.

The Director may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date.

5. Permit Actions
This permit may be modified, suspended, revoked and reissued, or terminated for cause including, but not limited to, the following:

a. Violation of any term, condition, or requirement of this permit, a rule, or a statute;
b. Obtaining this permit by misrepresentation or failure to disclose fully all material facts; or
c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
d. The permittee shall pay the fees required to be filed with this permit application and to be paid annually for permit compliance determination as outlined in the Oregon Administrative Rules, Chapter 340, Division 045.

The filing of a request by the permittee for a permit modification or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

6. Toxic Pollutants
The permittee must comply with any applicable effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

7. Property Rights
The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.

8. Permit References
Except for effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act, all rules and statutes referred to in this permit are those in effect on the date this permit is issued.

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance
The permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls, and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

2. Duty to Halt or Reduce Activity
For industrial or commercial facilities, upon reduction, loss, or failure of the treatment facility, the permittee must, to the extent necessary to maintain compliance with its permit, control production or all discharges or both until the facility is restored or an alternative method of treatment is provided. This requirement applies, for example, when the primary source of power of the treatment facility fails or is reduced or lost. It is not a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

3. Bypass of Treatment Facilities
   a. Definitions
      (1) "Bypass" means intentional diversion of waste streams from any portion of the treatment facility. The term "bypass" does not include nonuse of singular or multiple units or processes of a treatment works when the nonuse is insignificant to the quality and/or quantity of the effluent produced by the treatment works. The term "bypass" does not apply if the diversion does not cause effluent limitations to be exceeded, provided the diversion is to allow essential maintenance to assure efficient operation.
      (2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities or treatment processes which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

   b. Prohibition of bypass.
      (1) Bypass is prohibited unless:
         (a) Bypass was necessary to prevent loss of life, personal injury, or severe property damage;
         (b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and
         (c) The permittee submitted notices and requests as required under General Condition B.3.c.
      (2) The Director may approve an anticipated bypass, after considering its adverse effects and any alternatives to bypassing, when the Director determines that it will meet the three conditions listed above in General Condition B.3.b.(1).

   c. Notice and request for bypass.
      (1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it must submit prior written notice, if possible at least ten days before the date of the bypass.
      (2) Unanticipated bypass. The permittee must submit notice of an unanticipated bypass as required in General Condition D.5.

4. Upset
   a. Definition. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operation error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.

b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of General Condition B.4.c are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
(1) An upset occurred and that the permittee can identify the causes(s) of the upset;
(2) The permitted facility was at the time being properly operated;
(3) The permittee submitted notice of the upset as required in General Condition D.5, hereof (24-hour notice); and
(4) The permittee complied with any remedial measures required under General Condition A.3 hereof.

d. Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

5. Treatment of Single Operational Event
For purposes of this permit, A Single Operational Event which leads to simultaneous violations of more than one pollutant parameter must be treated as a single violation. A single operational event is an exceptional incident which causes simultaneous, unintentional, unknowing (not the result of a knowing act or omission), temporary noncompliance with more than one Clean Water Act effluent discharge pollutant parameter. A single operational event does not include Clean Water Act violations involving discharge without a NPDES permit or noncompliance to the extent caused by improperly designed or inadequate treatment facilities. Each day of a single operational event is a violation.

6. Overflows from Wastewater Conveyance Systems and Associated Pump Stations
a. Definitions
(1) "Overflow" means the diversion and discharge of waste streams from any portion of the wastewater conveyance system including pump stations, through a designed overflow device or structure, other than discharges to the wastewater treatment facility.
(2) "Severe property damage" means substantial physical damage to property, damage to the conveyance system or pump station which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of an overflow.
(3) "Uncontrolled overflow" means the diversion of waste streams other than through a designed overflow device or structure, for example to overflowing manholes or overflowing into residences, commercial establishments, or industries that may be connected to a conveyance system.

b. Prohibition of overflows. Overflows are prohibited unless:
(1) Overflows were unavoidable to prevent an uncontrolled overflow, loss of life, personal injury, or severe property damage;
(2) There were no feasible alternatives to the overflows, such as the use of auxiliary pumping or conveyance systems, or maximization of conveyance system storage; and
(3) The overflows are the result of an upset as defined in General Condition B.4. and meeting all requirements of this condition.

c. Uncontrolled overflows are prohibited where wastewater is likely to escape or be carried into the waters of the State by any means.

d. Reporting required. Unless otherwise specified in writing by the Department, all overflows and uncontrolled overflows must be reported orally to the Department within 24 hours from the time the permittee becomes aware of the overflow. Reporting procedures are described in more detail in General Condition D.5.

7. Public Notification of Effluent Violation or Overflow
If effluent limitations specified in this permit are exceeded or an overflow occurs, upon request by the Department, the permittee must take such steps as are necessary to alert the public about the extent and nature of the discharge. Such steps may include, but are not limited to, posting of the river at access points and other places, news releases, and paid announcements on radio and television.

8. Removed Substances
Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters must be disposed of in such a manner as to prevent any pollutant from such materials from entering public waters, causing nuisance conditions, or creating a public health hazard.

SECTION C. MONITORING AND RECORDS

1. Representative Sampling
Sampling and measurements taken as required herein must be representative of the volume and nature of the monitored discharge. All samples must be taken at the monitoring points specified in this permit and must be taken, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points must not be changed without notification to and the approval of the Director.

2. Flow Measurements
Appropriate flow measurement devices and methods consistent with accepted scientific practices must be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices must be installed, calibrated and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected must be capable of measuring flows with a maximum deviation of less than ± 10 percent from true discharge rates throughout the range of expected discharge volumes.

3. Monitoring Procedures
Monitoring must be conducted according to test procedures approved under 40 CFR §136, unless other test procedures have been specified in this permit.

4. Penalties of Tampering
The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit must, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than two years, or by both. If a conviction of a person is for a violation committed after a first conviction of such person, punishment is a fine not more than $20,000 per day of violation, or by imprisonment of not more than four years or both.

5. Reporting of Monitoring Results
Monitoring results must be summarized each month on a Discharge Monitoring Report form approved by the Department. The reports must be submitted monthly and are to be mailed, delivered or otherwise transmitted by the 15th day of the following month unless specifically approved otherwise in Schedule B of this permit.

6. Additional Monitoring by the Permittee
If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR §136 or as specified in this permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report. Such increased frequency must also be indicated. For a pollutant parameter that may be sampled more than once per day (e.g., Total Chlorine Residual), only the average daily value must be recorded unless otherwise specified in this permit.

7. Averaging of Measurements
Calculations for all limitations which require averaging of measurements must utilize an arithmetic mean, except for bacteria which must be averaged as specified in this permit.

8. Retention of Records
Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which must be retained for a period of at least five years (or longer as required by 40 CFR §503), the permittee must retain records of all monitoring information, including all calibration and maintenance records of all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

9. Records Contents

Records of monitoring information must include:
a. The date, exact place, time and methods of sampling or measurements;
b. The individual(s) who performed the sampling or measurements;
c. The date(s) analyses were performed;
d. The individual(s) who performed the analyses;
e. The analytical techniques or methods used; and
f. The results of such analyses.

10. Inspection and Entry
The permittee must allow the Director, or an authorized representative upon the presentation of credentials to:
a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit, and
d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by state law, any substances or parameters at any location.

SECTION D. REPORTING REQUIREMENTS

1. Planned Changes
The permittee must comply with Oregon Administrative Rules (OAR) 340, Division 052, "Review of Plans and Specifications". Except where exempted under OAR 340-052, no construction, installation, or modification involving disposal systems, treatment works, sewerage systems, or common sewers must be commenced until the plans and specifications are submitted to and approved by the Department. The permittee must give notice to the Department as soon as possible of any planned physical alternations or additions to the permitted facility.

2. Anticipated Noncompliance
The permittee must give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

3. Transfers
This permit may be transferred to a new permittee provided the transferee acquires a property interest in the permitted activity and agrees in writing to fully comply with all the terms and conditions of the permit and the rules of the Commission. No permit must be transferred to a third party without prior written approval from the Director. The permittee must notify the Department when a transfer of property interest takes place.

4. Compliance Schedule
Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date. Any reports of noncompliance must include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirements.

5. Twenty-Four Hour Reporting
The permittee must report any noncompliance which may endanger health or the environment. Any information must be provided orally (by telephone) within 24 hours, unless otherwise specified in this permit, from the time the permittee becomes aware of the circumstances. During normal business hours, the Department's Regional office must be called. Outside of normal business hours, the Department must be contacted at 1-800-452-0311 (Oregon Emergency Response System).

A written submission must also be provided within 5 days of the time the permittee becomes aware of the circumstances. If the permittee is establishing an affirmative defense of upset or bypass to any offense under ORS 468.922 to 468.946, and in which case if the original reporting notice was oral, delivered written notice must be made to the Department or other agency with regulatory jurisdiction within 4 (four) calendar days. The written submission must contain:
a. A description of the noncompliance and its cause;
b. The period of noncompliance, including exact dates and times;
c. The estimated time noncompliance is expected to continue if it has not been corrected;
d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance; and

e. Public notification steps taken, pursuant to General Condition B.7.

The following must be included as information which must be reported within 24 hours under this paragraph:
a. Any unanticipated bypass which exceeds any effluent limitation in this permit.
b. Any upset which exceeds any effluent limitation in this permit.
c. Violation of maximum daily discharge limitation for any of the pollutants listed by the Director in this permit.

The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

6. Other Noncompliance
The permittee must report all instances of noncompliance not reported under General Condition D.4 or D.5, at the time monitoring reports are submitted. The reports must contain:
a. A description of the noncompliance and its cause;
b. The period of noncompliance, including exact dates and times;
c. The estimated time noncompliance is expected to continue if it has not been corrected; and
d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

7. Duty to Provide Information
The permittee must furnish to the Department, within a reasonable time, any information which the Department may request to determine compliance with this permit. The permittee must also furnish to the Department, upon request, copies of records required to be kept by this permit.

Other Information: When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Department, it must promptly submit such facts or information.

8. Signatory Requirements
All applications, reports or information submitted to the Department must be signed and certified in accordance with 40 CFR §122.22.

9. Falsification of Reports
Under ORS 468.953, any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, is subject to a Class C felony punishable by a fine not to exceed $100,000 per violation and up to 5 years in prison.

10. Changes to Indirect Dischargers - **[Applicable to Publicly Owned Treatment Works (POTW) only]**
The permittee must provide adequate notice to the Department of the following:
a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of the Clean Water Act if it were directly discharging those pollutants and;
b. Any substantial change in the volume or character of pollutants being introduced into the POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
c. For the purposes of this paragraph, adequate notice must include information on (i) the quality and quantity of effluent introduced into the POTW, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

11. Changes to Discharges of Toxic Pollutant - **[Applicable to existing manufacturing, commercial, mining, and silvicultural dischargers only]**
The permittee must notify the Department as soon as they know or have reason to believe of the following:

a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:
(1) One hundred micrograms per liter (100 µg/l);
(2) Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
(3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR §122.21(g)(7); or
(4) The level established by the Department in accordance with 40 CFR §122.44(f).

b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
   (1) Five hundred micrograms per liter (500 µg/l);
   (2) One milligram per liter (1 mg/l) for antimony;
   (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR §122.21(g)(7); or
   (4) The level established by the Department in accordance with 40 CFR §122.44(f).

SECTION E. DEFINITIONS

1. BOD means five-day biochemical oxygen demand.
2. TSS means total suspended solids.
3. mg/l means milligrams per liter.
4. kg means kilograms.
5. m^3/d means cubic meters per day.
6. MGD means million gallons per day.
7. Composite sample means a sample formed by collecting and mixing discrete samples taken periodically and based on time or flow.
8. FC means fecal coliform bacteria.
9. Technology based permit effluent limitations means technology-based treatment requirements as defined in 40 CFR §125.3, and concentration and mass load effluent limitations that are based on minimum design criteria specified in OAR 340-041.
10. CBOD means five day carbonaceous biochemical oxygen demand.
11. Grab sample means an individual discrete sample collected over a period of time not to exceed 15 minutes.
12. Quarter means January through March, April through June, July through September, or October through December.
13. Month means calendar month.
14. Week means a calendar week of Sunday through Saturday.
15. Total residual chlorine means combined chlorine forms plus free residual chlorine.
16. The term "bacteria" includes but is not limited to fecal coliform bacteria, total coliform bacteria, and E. coli bacteria.
17. POTW means a publicly owned treatment works.