USS Clairton Works
Total Annual Benzene (TAB) - 1998
CHEM. RECOVERY and GAS HANDLING PUMP LISTING

Waste Stream ID#	Pump Waste Stream Description	Controlled Y/N	%Water >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (Gal)	Range of Benzene Conc.(ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
	#1 CONTROL ROOM								
1CR98	P2048 Pump Duplex Turbine	N	Y	A	7	93 - 221	144.1	3.8E-06	Y
1CR99	P2049 CWTP Fract. Feed Pump	N	Y	A	7	93 - 221	144.1	3.8E-06	Y
1CR100	P207I DEP Froth Tank Pump	N	Y	E	5	8.16 - 14	9.9	1.9E-07	Y
1CR101	P207J DEP Froth Tank Pump	N	Y	E	5	8.16 - 14	9.9	1.9E-07	Y
1CR102	P336 Rich Solution Pump	N	Y	E	36	8.16 - 14	9.9	1.3E-06	Y
1CR103	P337 Rich Solution Pump	N	Y	E	36	8.16 - 14	9.9	1.3E-06	Y
1CR104	P338 NH3 Fract. Feed Pump	N	Y	E	15	0.005 - 0.027	0.02	1.1E-09	Y
1CR105	P339 NH3 Fract. Feed Pump	N	Y	E	15	0.005 - 0.027	0.02	1.1E-09	Y
1CR106	P340 NH3 Fract. Reflux Pump	N	Y	E	12	0.005 - 0.027	0.02	9.0E-10	Y
1CR107	P341 NH3 Fract. Reflux Pump	N	Y	E	12	0.005 - 0.027	0.02	9.0E-10	Y
1CR108	P342 Phosam Lean Solution Pump	N	Y	E	19	0.23 - 5.0	1.8	1.3E-07	Y
1CR109	P343 Phosam Lean Solution Pump	N	Y	E	25	0.23 - 5.0	1.8	1.7E-07	Y
1CR110	P345 DEP Rich Solution Tank Pump	N	Y	E	8	8.16 - 14	9.9	3.0E-07	Y
1CR111	P346 DEP Rich Solution Tank Pump	N	Y	E	8	8.16 - 14	9.9	3.0E-07	Y
1CR112	P360 T301 Top Recirc. Pump	N	Y	E	47	93 - 221	144.1	2.5E-05	Y
1CR113	P361 T301 Phosam Solution Pump	N	Y	E	102	8.16 - 14	9.9	3.8E-06	Y
1CR114	P362 T302 Top Recirc. Pump	N	Y	E	47	93 - 221	144.1	2.5E-05	Y
1CR115	P363 T302 Rich Phosam Solution Pump	N	Y	E	102	8.16 - 14	9.9	3.8E-06	Y
1CR116	P364 T303 Top Recirc. Pump	N	Y	E	47	93 - 221	144.1	2.5E-05	Y
1CR117	P365 T303 Phosam Solution Pump	N	Y	E	102	8.16 - 14	9.9	3.8E-06	Y
1CR118	PP3 Blowdown Trench Pump	N	Y	E	5	8.16 - 14	9.9	1.9E-07	Y
1CR119	P207A SS Bottoms Pump	N	Y	A	0	0.03 - 0.081	0.06	0	Y
1CR120	P207B SS Bottoms Pump	N	Y	A	0	0.03 - 0.081	0.06	0	Y
1CR121	P207C SS Cond. Section Pump	N	Y	A	0	93 - 221	144.1	0	Y
1CR122	P207D SS Cond. Section Pump	N	Y	A	0	93 - 221	144.1	0	Y
1CR123	P207E SS Phosam Pump	N	Y	E	0	8.16 - 14	9.9	0	Y
1CR124	P207F SS Phosam Pump	N	Y	E	0	8.16 - 14	9.9	0	Y
1CR125	P2101 N Inline Pump	N	Y	A	0	0.03 - 0.081	0.06	0	Y
1CR126	P2102 S Inline Pump	N	Y	A	0	0.03 - 0.081	0.06	0	Y
1CR127	P2103 SS Reboiler Cond. Pump	N	Y	A	0	0.03 - 0.081	0.06	0	Y
1CR128	P2104 SS Reboiler Cond. Pump	N	Y	A	0	0.03 - 0.081	0.06	0	Y
1CR129	PP5 S SS Trench Pump	N	Y	A	0	0.03 - 0.081	0.06	0	Y
1CR130	P200C Horizontal Sump Pump	N	Y	A	91	93 - 221	144.1	4.9E-05	Y
1CR131	P201B T201 Top H2O Recirc. Pump	N	Y	A	425	93 - 221	144.1	2.3E-04	Y
1CR132	P202B T202 Top H2O Recirc. Pump	N	Y	A	425	93 - 221	144.1	2.3E-04	Y
1CR133	P203A T203 1ST H2O Recirc. Pump	N	Y	A	425	93 - 221	144.1	2.3E-04	Y
1CR134	P203B T203 Top H2O Recirc. Pump	N	Y	A	425	93 - 221	144.1	2.3E-04	Y
1CR135	P204C Horizontal Sump Pump	N	Y	A	91	93 - 221	144.1	4.9E-05	Y
1CR136	P205C Horizontal Sump Pump	N	Y	A	91	93 - 221	144.1	4.9E-05	Y
1CR137	P206B1 T206 Top H2O Recirc. Pump	N	Y	A	91	93 - 221	144.1	4.9E-05	Y

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USS Clairton Works
Total Annual Benzene (TAB) - 1998
CHEM. RECOVERY and GAS HANDLING PUMP LISTING

Waste Stream ID#	Pump Waste Stream Description	Controlled Y/N	%Water >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (Gal)	Range of Benzene Conc.(ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
1CR138	P206B2 T206 Top H2O Recirc. Pump	N	Y	A	520	93 - 221	144.1	2.8E-04	Y
1CR139	PFCPump Horizontal Sump Pump	N	Y	A	0	93 - 221	144.1	0.0E+00	Y
1CR140	PP1 FC "EAST" Trench Pump	N	Y	A	0	93 - 221	144.1	0.0E+00	Y
1CR141	PP2 FC "WEST" Trench Pump	N	Y	A	0	93 - 221	144.1	0.0E+00	Y
1CR142	PAPIN API Sump Pump - N	N	Y	A	0	93 - 221	144.1	0.0E+00	Y
1CR143	PAPIS API Sump Pump - S	N	Y	A	0	93 - 221	144.1	0.0E+00	Y
	#2 CONTROL ROOM								
2CR51	P578A SUB GAS Injection H2O Pump	N	Y	A	125	235 - 343	284	1.3E-04	Y
2CR52	P578B SUB GAS Injection H2O Pump	N	Y	A	125	235 - 343	284	1.3E-04	Y
2CR53	P618A L.O. Decanter H2O Pump	N	Y	A	35	89 - 2000	983	1.3E-04	Y
2CR54	P618B L.O. Decanter H2O Pump	N	Y	A	35	89 - 2000	983	1.3E-04	Y
2CR55	P620A Cont. H2O Pump	N	Y	A	35	235 - 343	284	3.7E-05	Y
2CR56	P620B Cont. H2O Pump	N	Y	A	35	235 - 343	284	3.7E-05	Y
	LIGHT OIL FACILITY								
LOS7	#1 Cont. H2O Pump	N	Y	A	0	714 - 1211	962.5	0	Y
LOS8	#2 Cont. H2O Pump	N	Y	A	0	714 - 1211	962.5	0	Y
LOS9	East Seal H2O Pump	N	Y	A	0	714 - 1211	962.5	0	Y
LOS10	WesT Seal H2O Pump	N	Y	A	0	714 - 1211	962.5	0	Y
LOS11	Middle Sump Pump 50 Series	N	Y	A	0	714 - 1211	962.5	0	Y
LOS12	North Sump Pump 60 Series	N	Y	A	0	714 - 1211	962.5	0	Y
LOS13	Yard Sump Pump	N	Y	A	0	714 - 1211	962.5	0	Y
	#5 CONTROL ROOM								
5CR34	P310J Que.Col.Bottoms Pump	N	Y	E	0	0.04 - 0.13	0.1	0	Y
5CR35	P310Ja Que.Col.Bottom Pump	N	Y	E	0	0.04 - 0.13	0.1	0	Y
5CR36	P311J MDEA Rich Sol. Pump	N	Y	E	11.6	0.065 - 0.069	0.068	3.0E-09	Y
5CR37	P312J Lean MDEA Sol. Pump	N	Y	E	0	<0.005	<0.005	0	Y
5CR38	P312JA Lean MDEA Sol.Pump	N	Y	E	26.6	<0.005	<0.005	0	Y
5CR39	P313J Stripper Accum. Pump	N	Y	E	6	0.028 - 0.16	0.1	2.3E-09	Y
5CR40	P313JA Stripper Accum. Pump	N	Y	E	0	0.028 - 0.16	0.1	0	Y
5CR45	P662 Rich Carb. Sol. Pump	N	Y	E	0	9.32 - 11.13	10.2	0	Y
5CR46	P663C Rich Carb. Sol. Pump	N	Y	E	0	9.32 - 11.13	10.2	0	Y
5CR47	P663 Lean Carb. Sol. Pump	N	Y	E	0	0.003 - 0.003	0.003	0	Y
5CR48	P663A Lean Carb. Sol. Pump	N	Y	E	0	Lean Carb		0	Y
5CR49	P664 Direct Cond. H2O Pump	N	Y	A	0	7.4 - 9.8	8.3	0	Y
5CR50	P664A Ditect Cond. H2O Pump	N	Y	A	0	7.4 - 9.8	8.3	0	Y
5CR51	P668 Sep. Return Pump East	N	Y	A	6.5	7.4 - 9.8	8.3	2.0E-07	Y
5CR52	P668A Sep. Return Pump West	N	Y	A	13	7.4 - 9.8	8.3	4.0E-07	Y
5CR57	P424 Methanol Transfer Pump	N	Y	E	4.75	4285 - 40000	26295	4.7E-04	Y
5CR60	C101J 100 Axi	N	Y	A	50	7.4 - 9.8	8.3	1.6E-06	Y
5CR61	C658 600 AXI	N	Y	A	50	7.4 - 9.8	8.3	1.6E-06	Y
5CR62	301J 300 Axi	N	Y	E	0	0.04 - 0.13	0.1	0	Y

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USS Clairton Works
Total Annual Benzene (TAB) - 1998
CHEM. RECOVERY and GAS HANDLING PUMP LISTING

Waste Stream ID#	Pump Waste Stream Description	Controlled Y/N	%Water >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (Gal)	Range of Benzene Conc.(ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
5CR63	P101A Acid Gas Disch.Pump No.	N	Y	A	0.35	7.4 - 9.8	8.3	1.1E-08	Y
5CR64	P101B Acid Gas Disch.Pump So.	N	Y	A	0	7.4 - 9.8	8.3	0	Y
5CR65	PDEHY5 Deh. Cond.Pump No.	N	Y	A	0.8	82	82	2.5E-07	Y
5CR66	PDEHY6 Deh. Cond.Pump So.	N	Y	A	0.8	82	82	2.5E-07	Y
5CR67	P111J Lean Carb. Sol. Pump	N	Y	E	0	0.003 - 0.003	0.003	0	Y
5CR68	P111JA Lean Carb. Sol. Pump	N	Y	E	77	0.003 - 0.003	0.003	8.7E-10	Y
5CR69	P113J Direct Condenser Pump	N	Y	A	0	7.4 - 9.8	8.3	0	Y
5CR70	P113JA Direct Cond. Pump	N	Y	A	0	7.4 - 9.8	8.3	0	Y
5CR71	P116J Dir. Aftercooler Pump	N	Y	A	0	7.4 - 9.8	8.3	0	Y
5CR72	P116JA Dir. Aftercooler Pump	N	Y	A	1.8	7.4 - 9.8	8.3	5.6E-08	Y
5CR73	P662A Rich 100 Carb.Sol.Pump 26.6	N	Y	E	0*	9.32 - 11.13	10.2	0	Y
5CR74	P662B New Rich Carb.Sol.Pump	N	Y	E	26.6	9.32 - 11.13	10.2	1.0E-06	Y
5CR163	P101-JC Coalessing Oil Pump	N	Y	B	0	0.001 - 0.065	0.025	0	Y
5CR164	P101-JCTCoalessing Oil Pump	N	Y	B	0	0.001 - 0.065	0.025	0	Y
5CR165	P658 TC Coalessing oil Pump	N	Y	B	0	0.001 - 0.065	0.025	0	Y
5CR166	P658 C Coalessing Oil Pump	N	Y	B	0	0.001 - 0.065	0.025	0	Y
	#1 BY-PRODUCTS								
1B/P-27	PST1 Cont. H2O NH3 Storage	N	Y	A	1.25	2.37 - 6.41	4.7	2.2E-08	Y
1B/P-28	PST2 Cont. H2O NH3 Storage	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1B/P-29	TFP1-1 Flushing Liquor Pump	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1B/P-30	TFP2-1 Flushing Liquor Pump	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1B/P-31	TFP3-1 Flushing Liquor Pump	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1B/P-32	TFP4-1 Flushing Liquor Pump	N	Y	A	197	2.37 - 6.41	4.7	3.5E-06	Y
1B/P-33	TFP5-1 Flushing Liquor Pump	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1B/P-34	TFP6-1 Flushing Liquor Pump	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1B/P-35	2001-J Cont. Pump To Stg.	N	Y	A	180	2.37 - 6.41	4.7	3.2E-06	Y
1B/P-36	2002-J Cont. Pump To Stg.	N	Y	A	180	2.37 - 6.41	4.7	3.2E-06	Y
1B/P-37	2001-JA Cont. Pump To Stg.	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1B/P-38	2002-JA Cont. Pump To Stg.	N	Y	A	7	2.37 - 6.41	4.7	1.2E-07	Y
1B/P-44	TCSP-1 Tar Cond. Sump	N	Y	A	16.5	2.37 - 6.41	4.7	2.9E-07	Y
1B/P-45	TCSP-2 Tar Cond. Sump	N	Y	A	16.5	2.37 - 6.41	4.7	2.9E-07	Y
	#2 BY-PRODUCTS								
2B/P-23	FSP-1 West Sump Pump	N	Y	A	0	235 - 343	284	0	Y
2B/P-24	FSP-11 West Sump Pump	N	Y	A	0	235 - 343	284	0	Y
2B/P-25	FSF-13-2 East Sump Pump	N	Y	A	2	235 - 343	284	2.1E-06	Y
2B/P-26	FSP-14-2 East Sump Pump	N	Y	A	0	235 - 343	284	0	Y
2B/P-31	P-105 P/C Cond. Pump	N	Y	A	0	<0.005	0	0	Y
2B/P-32	P-105A P/C Cond. Pump	N	Y	A	0	<0.005	0	0	Y
2B/P-37	TFP-2 #2 Flushing Liquor Pump	N	Y	A	146	2.37 - 6.41	4.7	2.6E-06	Y
2B/P-38	TFP-3 #2 Flushing Liquor Pump	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2B/P-39	TFP-4 #2 Flushing Liquor Pump	N	Y	A	0	2.37 - 6.41	4.7	0	Y

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USS Clairton Works
Total Annual Benzene (TAB) - 1998
CHEM. RECOVERY and GAS HANDLING PUMP LISTING

Waste Stream ID#	Pump Waste Stream Description	Controlled Y/N	%Water >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (Gal)	Range of Benzene Conc.(ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
2B/P-40	TFP-5 #2 Flushing Liquor Pump	N	Y	A	146	2.37 - 6.41	4.7	2.6E-06	Y
2B/P-41	TFP-6 #2 Flushing Liquor Pump	N	Y	A	146	2.37 - 6.41	4.7	2.6E-06	Y
2B/P-42	TFP-7 #2 Flushing Liquor Pump	N	Y	A	0	2.37 - 6.41	4.7	0	Y
	CWTP #2 TANK FARM								
TKF-28	P-2601A Waste water pump	N	Y	A	130	8.6 - 61	34.8	1.7E-05	Y
TKF-29	P-2601B Waste water pump	N	Y	A	65	8.6 - 61	34.8	8.5E-06	Y
TKF-30	P-2602A WW-3 Pump	N	Y	A	210	8.6 - 61	34.8	2.7E-05	Y
TKF-31	P-2602B WW-3 Pump	N	Y	A	184	8.6 - 61	34.8	2.4E-05	Y
	#1 PRIMARY COOLERS								
1P/C40	801P7A P/C Condensate Pump	N	Y	A	0	<0.005	0	0	Y
1P/C41	801P7B P/C Condensate Pump	N	Y	A	6.5*	<0.005	0	0	Y
1P/C42	802P7A P/C Condensate Pump	N	Y	A	0	<0.005	0	0	Y
1/PC43	802P7B P/C Condensate Pump	N	Y	A	0	<0.005	0	0	Y
1P/C44	803P7A P/C Condensate Pump	N	Y	A	6.5	<0.005	0	0	Y
1P/C45	803P7B P/C Condensate Pump	N	Y	A	0	<0.005	0	0	Y
1PC/46	801P2A Circ.Pump	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1P/C47	801P2B Circ.Pump	N	Y	A	77.25	2.37 - 6.41	4.7	1.4E-06	Y
1P/C48	802P2A Circ.Pump	N	Y	A	77.25	2.37 - 6.41	4.7	1.4E-06	Y
1P/C49	802P2B Circ.Pump	N	Y	A	77.25	2.37 - 6.41	4.7	1.4E-06	Y
1P/C50	803P2A Circ.Pump	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1P/C51	803P2B Circ. Pump	N	Y	A	77.25	2.37 - 6.41	4.7	1.4E-06	Y
1P/C52	801P1A Respray Pump	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1P/C53	801P1B Respray Pump	N	Y	A	64	2.37 - 6.41	4.7	1.1E-06	Y
1P/C54	802P1A Respray Pump	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1P/C55	802P1B Respray Pump	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1P/C56	803P1A Respray Pump	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1P/C57	803P1B Respray Pump	N	Y	A	64	2.37 - 6.41	4.7	1.1E-06	Y
1P/C58	801P5A Cond.Sump Pump	N	Y	A	0	<0.005	0	0	Y
1P/C59	801P5B Cond. Sump Pump	N	Y	A	0	<0.005	0	0	Y
1P/C60	802P5A Cond. Sump Pump	N	Y	A	1	<0.005	0	0	Y
1P/C61	802P5B Cond. Sump Pump	N	Y	A	0	<0.005	0	0	Y
1P/C62	803P5A Cond. Sump Pump	N	Y	A	0	<0.005	0	0	Y
1P/C63	803P5B Cond. Sump Pump	N	Y	A	0	<0.005	0	0	Y
	#2 PRIMARY COOLERS								
2P/C-14	804P1A Respray Pump	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2P/C-15	804P1B Respray Pump	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2P/C-16	804P2A Circ.Pump	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2P/C-17	804P2B Circ.Pump	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2P/C-18	804P5A Cond. Sump Pump	N	Y	A	0	<0.005	0	0	Y
2P/C-19	804P5B Cond. Sump Pump	N	Y	A	0	<0.005	0	0	Y
2P/C-20	804P7A P/C Condensate Pump	N	Y	A	0	<0.005	0	0	Y

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USS Clairton Works
Total Annual Benzene (TAB) - 1998
CHEM. RECOVERY and GAS HANDLING PUMP LISTING

Waste Stream ID#	Pump Waste Stream Description	Controlled Y/N	%Water >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (Gal)	Range of Benzene Conc.(ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
2P/C-21	804P7B P/C Condensate Pump	N	Y	A	0	<0.005	0	0	Y
2P/C-35	805P1A Respray Pump	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2P/C-36	805P1B Respray Pump	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2P/C-37	805P2A Circ.Pump	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2P/C-38	805P2B Circ. Pump	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2P/C-39	805P5A Cond. Sump Pump	N	Y	A	0	<0.005	0	0	Y
2P/C-40	805P5B Cond. Sump Pump	N	Y	A	0	<0.005	0	0	Y
2P/C-41	805P7A P/C Condensate Pump	N	Y	A	0	<0.005	0	0	Y
2P/C-42	805P7B P/C Condensate Pump	N	Y	A	0	<0.005	0	0	Y
2P/C-72	806P1A Respray Pump	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2P/C-73	806P1B Reapray Pump	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2P/C-74	806P2A Circ. Pump	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2P/C-75	806P2B Circ. Pump	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2P/C-76	806P5A Cond. Sump Pump	N	Y	A	0	<0.005	0	0	Y
2P/C-77	806P5B Cond. Sump Pump	N	Y	A	0	<0.005	0	0	Y
2P/C-78	806P7A P/C Cond. Pump	N	Y	A	0	<0.005	0	0	Y
2P/C-79	806P7B P/C Cond. Pump	N	Y	A	0	<0.005	0	0	Y
						Subtotal - Pumps		**2.7E-03**	

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