42-003-00032
Jim Hoseloff
Natalia Vasquez

United States Steel Corporation
Clairton Plant
400 State Street
Clairton, PA 15025

Michael S. Rhoads
Plant Manager

April 4, 2019

RECEIVED
APR 08 2019
EPA REGION III
OFFICE OF REGIONAL ADMINISTRATOR

Mr. Shawn M. Garvin
Regional Administrator
U.S. EPA Region III
1650 Arch Street
Philadelphia, PA 19013

Subject: NESHAP Benzene Waste Operation
40 CFR Part 61 – Subpart FF – 2016 TAB

Dear Mr. Garvin,

In accordance with the requirements of the Benzene Waste NESHAP 40 CFR Part 61, Subpart FF, U.S. Steel Clairton Works is submitting annual benzene waste information for the Coke By-Product Recovery Facility.

Please find attached the annual report that identifies the benzene waste streams and the corresponding Total Annual Benzene (TAB) quantities for 2018. U.S. Steel in also in compliance with the recording keeping requirements of 40 CFR 61.356.

On behalf of U.S. Steel Clairton Works, I certify that I have personally examined and am familiar with the information contained in this report. The information contained in this report is, to the best of my knowledge and based on reasonable inquiry, true, accurate, and complete.

If you have any questions, please contact Jonelle Scheetz at 412-233-1015.

Sincerely,

Michael S. Rhoads
Plant Manager

cc: J. Graham, ACHD

Total Annual Benzene (TAB)
2018

United States Steel Corporation, Mon Valley Works, Clairton Plant
Clairton, Pennsylvania

April 2018

TAB Cap Report
USS Clairton Works
Total Annual Benzene (TAB) - 2017 Waste Stream Listing

Waste Streams	Individual Contribution	Total (Mg/Yr)
Sludge & Process Wastewater Streams		0.92
Tar Decanter Sludge	0.0586	
All Other Sludge top AKJ	0.0297	
Gas Handling/Chemical Recovery/Wastewater Streams		
a. Lube Oil Systems Water	3E-06	
b. COG Condensate	0.28	
c. Vacuum Carbonate Systems	0.033	
d. SCOT Unit Systems	0.00	
e. Underfire Stack Sumps	0.00	
f. #1 Flushing Liquor Sump Sources	0.05	
g. #2 Flushing Liquor Sump Sources	0.12	
h. Ammonia Still Effluent	0.336	
Equipment Maintenance Sources		0.44
Pumps	0.0027	
Pump Seals Leakage	0.20	
Vessels Drainage	0.14	
Exchanger	0.096	
Relief/ Control Valve	0.0003	
Instrumentation	0.000082	
Process Unit Turnarounds		0.019
Primary Cooler	0.0000	
Light Oil Tanks, 624	0.0000	
Centrifuge from Koppers	0.0008	
Tar Decanters	0.0000	
Other	0.0179	
Process Sampling		1.0E-02
Gross TAB		1.38

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USS Clairton Works
Total Annual Benzene (TAB) - 2017
Sludge Process Wastewaters

Waste No.	Waste Stream	Controlled Y/N	Water Content >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc. (ppm)	Annual BQ (Mg)	TAB Component Y/N
1	#1 Unit #1 Tar Decanter Sludge	N	Y	F	18736	38-350	45.90	0.003	Y
2	#1 Unit #2 Tar Decanter Sludge	N	Y	F	18736	38-350	45.90	0.003	Y
3	#1 Unit #3 Tar Decanter Sludge	N	Y	F	18736	38-350	45.90	0.003	Y
4	#1 Unit #4 Tar Decanter Sludge	N	Y	F	18736	38-350	45.90	0.003	Y
5	#1 Unit #5 Tar Decanter Sludge	N	Y	F	18736	38-350	45.90	0.003	Y
6	#1 Unit #6 Tar Decanter Sludge	N	Y	F	18736	38-350	45.90	0.003	Y
7	#1 Unit #7 Tar Decanter Sludge	N	Y	F	18736	38-350	45.90	0.003	Y
8	#1 Unit #8 Tar Decanter Sludge	N	Y	F	18736	38-350	45.90	0.003	Y
9	#1 Unit #9 Tar Decanter Sludge	N	Y	F		38-350	45.90	0.000	Y
10	#1 Unit #10 Tar Decanter Sludge	N	Y	F		38-350	45.90	0.000	Y
11	#1 Unit #11 Tar Decanter Sludge	N	Y	F	18736	38-350	45.90	0.003	Y
12	#1 Unit #12 Tar Decanter Sludge	N	Y	F	18736	38-350	45.90	0.003	Y
13	#2 Unit #1 Tar Decanter Sludge	N	Y	F	18736	38-350	45.90	0.003	Y
14	#2 Unit #2 Tar Decanter Sludge	N	Y	F	18736	38-350	45.90	0.003	Y
15	#2 Unit #3 Tar Decanter Sludge	N	Y	F	18736	38-350	45.90	0.003	Y
16	#2 Unit #4 Tar Decanter Sludge	N	Y	F	18736	38-350	45.90	0.003	Y
17	#2 Unit #5 Tar Decanter Sludge	N	Y	F	18736	38-350	45.90	0.003	Y
18	#2 Unit #6 Tar Decanter Sludge	N	Y	F	18736	38-350	45.90	0.003	Y
19	#2 Unit #7 Tar Decanter Sludge	N	Y	F		38-350	45.90	0.000	Y
20	#2 Unit #8 Tar Decanter Sludge	N	Y	F		38-350	45.90	0.000	Y
21	#2 Unit #9 Tar Decanter Sludge	N	Y	F	18736	38-350	45.90	0.003	Y
22	#2 Unit #10 Tar Decanter Sludge	N	Y	F	18736	38-350	45.90	0.003	Y
23	#2 Unit #11 Tar Decanter Sludge	N	Y	F	18736	38-350	45.90	0.003	Y
24	#2 Unit #12 Tar Decanter Sludge	N	Y	F	18736	38-350	45.90	0.003	Y
	Total Tar Decanter Sludge	**No**	**Y**	**F**	**374,712**			**0.059**	**Y**
25	Phosam Tar Unit Sludge	No	Y	F	5585	0-14	7.9	0.000	Y
26	T-1 Sludge	N	Y	F	0	0-14	7.9	0.000	Y
27	T-2 Sludge	N	Y	F	0	10 to 20	15	0.000	Y
28	Pitch Traps	N	Y	F	774	150-13000	3614	0.011	Y
29	By-Product Spills	N	Y	F	0	2.37-6.41	4.7	0.000	Y
30	Drains	N	Y	F	0	2.37-6.41	4.7	0.000	Y
31	Tar Trench	N	Y	F	29802	3.5-880	161.5	0.0182	Y
32	7-9 Decanters	N	Y	F	0	3.5-880	161.5	0.000	Y
33	Bad Boxes-Clean Ups	N	Y	F	0	3.5-880	161.5	0.000	Y
34	Vacuum Truck Wastes	N	Y	F	18868	0-20	10	0.001	Y
	All Other Sludge to AKJ Average	**No**	**Y**	**F**	**55,130**			**0.030**	**Y**
35	Lube Oil Water Removal #1 C.R. (Axi-Comp. Seals)	N	Y	B	3650	0.028-0.13	0.071	0.0000010	Y
36	Lube Oil Water Removal #2 C.R.	N	Y	B	3650	0.028-0.13	0.071	0.0000010	Y
37	Lube Oil Water Removal #5 C.R.	N	Y	B	3650	0.028-0.13	0.071	0.0000010	Y

*Y-Hard piped to Subpart L Controls
ND- Not Determined

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USS Clairton Works
Total Annual Benzene (TAB) - 2017
Sludge Process Wastewaters

Waste No.	Waste Stream	Controlled Y/N	Water Content >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc. (ppm)	Annual BQ (Mg)	TAB Component Y/N
	Lube Oil Systems	**No**	**Y**		**10950**			**0.000**	**Y**
38	100 - Vac.Carbonate Unit Rich Solution	N	Y	E	525600	10 - 14	11.7	0.023	Y
39	100 - Vac.Carbonate Unit Lean Solution	*Y	Y	E	13140000	0.58 - 1.1	0.80	0.000	N
40	600 - Vac.Carbonate Unit Rich Solution	N	Y	E	525600	1.9 - 11	5.00	0.010	Y
41	601 - Vac.Carbonate Unit Lean Solution	*Y	Y	E	13140000	7.4 - 9.8	8.30	0.000	N
	Vacuum Carbonate Systems	***Y,N**	**Y**		**27331200**			**0.033**	**Y**
42	SCOT Unit Quench Column Blowdown	*Y	Y	A	6832800	.04 - .13	0.080	0.000	N
43	SCOT Unit Condensate Blowdown - 301F	*Y	Y	A	5256000	0.028 - 0.16	0.099	0.000	N
	SCOT Unit Systems	***Y**			**12088800**			**0.00**	**N**
44	#1 U.F. Bleeder Stack Sump	N	Y	A	2628000	0 - .034	0.1	0.001	Y
45	#1 U.F. Bleeder Stack Sumps @ PC	N	Y	A	8935	0 - .325	0.1	0.000	Y
46	#2 U.F. Bleeder Stack Sump	N	Y	A	43625	2.3 - 2.6	2.4	0.000	Y
	Underfiring Bleeder Stacks	**N**			**2680560**			**0.00**	**Y**
47	Phosam Fractionator Bottoms	*Y	Y	E	52034400	.00028 - .53	0.185	0.000	N
	Gas Handling/Chem. Recovery Processes	**N, *Y**	**Y**	**A,B,E**	**52034400**			**0.00**	**Y**
48	#1 Unit COG Suction Main Condensate Drip #1	N	Y	A	552931.2	21 - 25	23.0	0.048	Y
49	#1 Unit COG Suction Main Condensate Drip #2	N	Y	A	552931.2	21 - 25	23.0	0.048	Y
50	#1 Unit COG Suction Main Condensate Drip #3	*Y	Y	A	471463.2	21 - 25	23.0	0.000	N
51	#1 Unit COG Suction Main Condensate Drip #4	*Y	Y	A	283298.4	21 - 25	23.0	0.000	N
52	#2 Unit COG Suction Main Condensate Drip #5	*Y	Y	A	333756	25 - 73	48.7	0.000	N
53	#2 Unit COG Suction Main Condensate Drip #6	*Y	Y	A	333756	25 - 73	48.7	0.000	N
54	Phosam Absorber Bottoms - Drip #7	N	Y	A	305373.6	25 - 73	48.7	0.056	Y
55	Phosam Absorber Bottoms - Drip #8	N	Y	A	305373.6	25 - 73	48.7	0.056	Y
56	Phosam Absorber Bottoms - Drip #9	N	Y	A	305373.6	25 - 73	48.7	0.056	Y
57	Phosam Absorber Outlet - Drip #10	*Y	Y	A	471463.2	21 - 25	23.0	0.000	N
58	Phosam Absorber Outlet - Drip #11	*Y	Y	A	471463.2	7.9 - 13	23.0	0.000	N
59	Phosam Absorber Outlet - Drip #12	*Y	Y	A	471463.2	30 - 54	23.0	0.000	N
60	#1 Unit COG Condensate Drip #13 - Raw Gas	N	Y	A	0	25 - 73	48.7	0.000	Y
61	#1 Unit COG Condensate Drip #14 - Raw Gas	N	Y	A	0	25 - 73	48.7	0.000	Y
62	#1 Unit COG Condensate Drip #15 - Sub Gas	N	Y	A	0	0 - 59	59.0	0.000	Y
63	#1 Unit COG Condensate Drip #16 - DR	*Y	Y	A	133645	0 - 59	33.5	0.017	Y
64	#1 Unit COG Condensate Drip #17 - UF	N	Y	A	0	0 - 10	5.0	0.000	Y
65	#1 Unit COG Condensate Drip #18 - UF Main	N	Y	A	0	0 - 10	5.0	0.000	Y
	COG Condensate - In Plant(Avg.)	**No**	**Y**	**A**	**4992291.4**			**0.28**	**Y**
66	#1 Unit NESHAPS Seal Pot #1 Tar Decanter Drain	*Y	Y	A	262800	3 - 6.9	4.46	0.000	N
67	#1 Unit NESHAPS Seal Pot #2 Tar Decanter Drain	*Y	Y	A	262800	3 - 6.9	4.46	0.000	N
68	#1 Unit NESHAPS Seal Pot #3 Tar Decanter Drain	*Y	Y	A	262800	3 - 6.9	4.46	0.000	N
69	#1 Unit NESHAPS Seal Pot #4 Tar Decanter Drain	*Y	Y	A	262800	3 - 6.9	4.46	0.000	N
70	#1 Unit NESHAPS Seal Pot #5 Tar Decanter Drain	*Y	Y	A	262800	3 - 6.9	4.46	0.000	N

*Y-Hard piped to Subpart I. Controls
ND- Not Determined

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USS Clairton Works
Total Annual Benzene (TAB) - 2017
Sludge Process Wastewaters

Waste No.	Waste Stream	Controlled Y/N	Water Content >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc. (ppm)	Annual BQ (Mg)	TAB Component Y/N
71	#1 Unit NESHAPS Seal Pot #6 Tar Decanter Drain	*Y	Y	A	262800	3 - 6.9	4.46	0.000	N
72	#1 Unit NESHAPS Seal Pot #7 Tar Decanter Drain	*Y	Y	A	262800	3 - 6.9	4.46	0.000	N
73	#1 Unit NESHAPS Seal Pot #8 Tar Decanter Drain	*Y	Y	A	262800	3 - 6.9	4.46	0.000	N
74	#1 Unit NESHAPS Seal Pot #9 Tar Decanter Drain	*Y	Y	A	262800	3 - 6.9	4.46	0.000	N
75	#1 Unit NESHAPS Seal Pot #10 Tar Decanter Drain	*Y	Y	A	262800	3 - 6.9	4.46	0.000	N
76	#1 Unit NESHAPS Seal Pot #11 Tar Decanter Drain	*Y	Y	A	262800	3 - 6.9	4.46	0.000	N
77	#1 Unit NESHAPS Seal Pot #12 Tar Decanter Drain	*Y	Y	A	262800	3 - 6.9	4.46	0.004	Y
78	#1 Unit NESHAPS Seal Pot #1 Tar Receiver Drain	N	Y	A	262800	3 - 6.9	4.46	0.004	Y
79	#1 Unit NESHAPS Seal Pot #2 Tar Receiver Drain	N	Y	A	262800	3 - 6.9	4.46	0.004	Y
80	#1 Unit NESHAPS Seal Pot #3 Tar Receiver Drain	N	Y	A	262800	3 - 6.9	4.46	0.004	Y
81	#1 Unit NESHAPS Seal Pot #4 Tar Receiver Drain	N	Y	A	262800	3 - 6.9	4.46	0.004	Y
82	#1 Unit NESHAPS Seal Pot #1 FL Surge Tank Drain	N	Y	A	262800	3 - 6.9	4.46	0.004	Y
83	#1 Unit NESHAPS Seal Pot #2 FL Surge Tank Drain	N	Y	A	262800	3 - 6.9	4.46	0.004	Y
84	#1 Unit NESHAPS Seal Pot #1 PC Cond. Sump	N	Y	A	262800	3 - 6.9	4.46	0.004	Y
85	#1 Unit NESHAPS Seal Pot #1 Weir Tank	N	Y	A	262800	3 - 6.9	4.46	0.004	Y
86	#1 Unit Tar Decanter Dike Water	N	Y	A	805035	.077 - .078	0.078	0.000	Y
87	Groundwater Wells	N	Y	C	262800	0 - 31	15.6	0.000	N
88	#1 Unit Flushingj Liquor Surge Tanks #1	N	Y	A	525600	2.37 - 6.41	4.7	0.009	Y
89	#1 Unit Flushing Liquor Surge Tanks #2	N	Y	A	525600	2.37 - 6.41	4.7	0.009	Y
	#1 Flushing Liquor Pumphouse Sump	***Y,No**	**Y**	**A,C**	**7375035**			**0.05**	**Y**
90	#1 Tar Tank Water (Process Water)	N	Y	B	288122	9.5 - 82	51.8	0.000	N
91	#2 Tar Tank Water (Process Water)	N	Y	B	288122	9.5 - 82	51.8	0.000	N
92	#3 Tar Tank Water (Process Water)	N	Y	B	288122	9.5 - 82	51.8	0.000	N
93	#4 Tar Tank Water (Process Water)	N	Y	B	288122	9.5 - 82	51.8	0.000	N
94	#5 Tar Tank Water (Process Water)	N	Y	B	288122	9.5 - 82	51.8	0.000	N
95	#6 Tar Tank Water (Process Water)	N	Y	B	288122	9.5 - 82	51.8	0.000	N
96	#7 Tar Tank Water (Process Water)	N	Y	B	288122	9.5 - 82	51.8	0.000	N
97	#8 Tar Tank Water (Process Water)	N	Y	B	288122	9.5 - 82	51.8	0.000	N
98	#9 Tar Tank Water (Process Water)	N	Y	B	288122	9.5 - 82	51.8	0.000	N
	Tar Tank Dewatering Avg.	**N**	**Y**	**B**	**2593098**	**9.5 - 82**	**51.8**	**0.00**	**N**
99	#2-Unit NESHAPS Seal Pot #1 Tar Decanter Drain	*Y	Y	A	262800	3 - 6.9	4.46	0.000	N
100	#2 Unit NESHAPS Seal Pot #2 Tar Decanter Drain	*Y	Y	A	262800	3 - 6.9	4.46	0.000	N
101	#2 Unit NESHAPS Seal Pot #3 Tar Decanter Drain	*Y	Y	A	262800	3 - 6.9	4.46	0.000	N
102	#2 Unit NESHAPS Seal Pot #4 Tar Decanter Drain	*Y	Y	A	262800	3 - 6.9	4.46	0.000	N
103	#2 Unit NESHAPS Seal Pot #5 Tar Decanter Drain	*Y	Y	A	262800	3 - 6.9	4.46	0.000	N
104	#2 Unit NESHAPS Seal Pot #6 Tar Decanter Drain	*Y	Y	A	262800	3 - 6.9	4.46	0.000	N
105	#2 Unit NESHAPS Seal Pot #7 Tar Decanter Drain	*Y	Y	A	262800	3 - 6.9	4.46	0.000	N
106	#2 Unit NESHAPS Seal Pot #8 Tar Decanter Drain	*Y	Y	A	262800	3 - 6.9	4.46	0.000	N
107	#2 Unit NESHAPS Seal Pot #9 Tar Decanter Drain	*Y	Y	A	262800	3 - 6.9	4.46	0.000	N

*Y-Hard piped to Subpart L Controls
ND- Not Determined

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USS Clairton Works
Total Annual Benzene (TAB) - 2017
Sludge Process Wastewaters

Waste No.	Waste Stream	Controlled Y/N	Water Content >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc. (ppm)	Annual BQ (Mg)	TAB Component Y/N
108	#2 Unit NESHAPS Seal Pot #10 Tar Decanter Drain	*Y	Y	A	262800	3 - 6.9	4.46	0.000	N
109	#2 Unit NESHAPS Seal Pot #1 Tar Receiver Drain	N	Y	A	262800	3 - 6.9	4.46	0.004	Y
110	#2 Unit NESHAPS Seal Pot #2 Tar Receiver Drain	N	Y	A	262800	3 - 6.9	4.46	0.004	Y
111	#2 Unit NESHAPS Seal Pot #3 Tar Receiver Drain	N	Y	A	262800	3 - 6.9	4.46	0.004	Y
112	#2 Unit NESHAPS Seal Pot #4 Tar Receiver Drain	N	Y	A	262800	3 - 6.9	4.46	0.004	Y
113	#2 Unit NESHAPS Seal Pot #1 FL Surge Tank Drain	N	Y	A	262800	3 - 6.9	4.46	0.004	Y
114	#2 Unit NESHAPS Seal Pot #2 FL Surge Tank Drain	N	Y	A	262800	3 - 6.9	4.46	0.004	Y
115	#2 Unit NESHAPS Seal Pot #2 PC Cond. Tank #1	N	Y	A	262800	3 - 6.9	4.46	0.004	Y
116	#2 Unit NESHAPS Seal Pot #2 PC Cond. Tank #2	N	Y	A	262800	3 - 6.9	4.46	0.004	Y
117	#2 Unit NESHAPS Seal Pot #1 WW Tank	N	Y	A	262800	3 - 6.9	4.46	0.004	Y
118	#2 Unit NESHAPS Seal Pot #2 WW Tank	N	Y	A	262800	3 - 6.9	4.46	0.004	Y
119	#2 Unit NESHAPS Seal Pot #1 Liquor Tank	N	Y	A	262800	3 - 6.9	4.46	0.004	Y
120	#2 Unit NESHAPS Seal Pot #2 Liquor Tank	N	Y	A	262800	3 - 6.9	4.46	0.004	Y
121	#2 Unit NESHAPS Seal Pot NH3 Still Feed Tank	N	Y	A	262800	3 - 6.9	4.46	0.004	Y
122	#2 Unit NESHAPS Seal Pot #1 Weir Tank	N	Y	A	262800	3 - 6.9	4.46	0.004	Y
123	#2 Unit NESHAPS Seal Pot #2 Weir Tank	N	Y	A	262800	3 - 6.9	4.46	0.004	Y
124	Wastewater Tank #1 - Light Oil, Top	*Y	Y	E	525600	190 - 320	263.3	0.000	N
125	Wastewater Tank #1 - Tar, Bottom	*Y	Y	E	2628000	200 - 260	230.0	0.000	N
126	Wastewater Tank #2 - Light Oil, Top	*Y	Y	E	525600	220 - 380	300.0	0.000	N
127	Wastewater Tank #2 - Tar, Bottom	*Y	Y	E	2628000	190 - 330	253.3	0.000	N
128	T-3 Process Water Tank - Drains, Top	*Y	Y	E	525600	160 - 250	206.7	0.000	N
129	T-3 Process Water Tank - Drains, Bottom	*Y	Y	E	2628000	140 - 280	213.3	0.000	N
130	#2 Unit Tank Farm Trench	N	Y	D	1116446	1.2 - 19	8.9	0.038	Y
131	#2 Unit Decanter Diked Area Water	N	Y	D	483806	.31 - .39	0.4	0.001	Y
132	#2 Flushing Liquor Surge Overflow	N	Y	D	525600	2.37 - 6.41	4.7	0.009	Y
133	#2 Primary Cooler Condensate Overflow	N	Y	D	1051200	.0 - .0	0.0	0.000	Y
134	#2 Fl. Liq/Prim. Cooler Rainwater Trench	N	Y	D	261800	0 - 9.9	9.9	0.010	Y
	#2 Flushing Liquor Pumphouse Sump	**No,*Y**	**Y**	**A,B,D,E**	**19469652**			**0.12**	**Y/N**
135	#1 Unit Primary Cooler Blowdown	*Y	Y	A	9198000	0 - .007	0.00	0.000	N
136	#2 Unit Primary Cooler Blowdown	*Y	Y	A	9198000	0 - .007	0.00	0.000	N
137	#1 Unit Flushing Liquor Blowdown	*Y	Y	A	131400000	70 - 110	90.00	0.000	N
138	#2 Unit Flushing Liquor Blowdown	*Y	Y	A	105120000	1.4-2.5	1.95	0.000	N
139	Light Oil Decanter Water	*Y	Y	A	34164000	8.9-2000	956	0.000	N
140	Ammonia Still Effluent	*Yes	Y	A,C	450,100,000	0-.5	0.197	0.336	Y
	Miscellaneous	**No,*Y**	**Y**	**A,B,D,E**	**739,180,000**			**0.34**	**Y/N**
	TOTAL ANNUAL BENZENE QUANTITY for SLUDGE and PROCESS WASTEWATER STREAMS							0.92	

*Y-Hard piped to Subpart L Controls
ND- Not Determined

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USS Clairton Works

Total Annual Benzene (TAB) - 2017 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	P207G SS L.O. Pump	N	Y	E	1.5	89 - 2000	983	5.5E-06	Y
1CR126	P207H SS L.O. Pump	N	Y	E	1.5	89 - 2000	983	5.5E-06	Y
1CR127	P2101 N Inline Pump	N	Y	A	0	0.03 - 0.081	0.06	0	Y
1CR128	P2102 S Inline Pump	N	Y	A	0	0.03 - 0.081	0.06	0	Y
1CR129	P2103 SS Reboiler Cond. Pump	N	Y	A	0	0.03 - 0.081	0.06	0	Y
1CR130	P2104 SS Reboiler Cond. Pump	N	Y	A	0	0.03 - 0.081	0.06	0	Y
1CR131	PP5 S SS Trench Pump	N	Y	A	0	0.03 - 0.081	0.06	0	Y
1CR132	P200C Horizontal Sump Pump	N	Y	A	91	93 - 221	144.1	4.9E-05	Y
1CR133	P201B T201 Top H20 Recirc. Pump	N	Y	A	425	93 - 221	144.1	2.3E-04	Y
1CR134	P202B T202 Top H20 Recirc. Pump	N	Y	A	425	93 - 221	144.1	2.3E-04	Y

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USS Clairton Works

Total Annual Benzene (TAB) - 2017 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
1CR135	P203A T203 1ST H2O Recirc. Pump	N	Y	A	425	93 - 221	144.1	2.3E-04	Y
1CR136	P203B T203 Top H2O Recirc. Pump	N	Y	A	425	93 - 221	144.1	2.3E-04	Y
1CR137	P204C Horizontal Sump Pump	N	Y	A	91	93 - 221	144.1	4.9E-05	Y
1CR138	P205C Horizontal Sump Pump	N	Y	A	91	93 - 221	144.1	4.9E-05	Y
1CR139	P206B1 T206 Top H2O Recirc. Pump	N	Y	A	91	93 - 221	144.1	4.9E-05	Y
1CR140	P206B2 T206 Top H2O Recirc. Pump	N	Y	A	520	93 - 221	144.1	2.8E-04	Y
1CR141	PFCPump Horizontal Sump Pump	N	Y	A	0	93 - 221	144.1	0.0E+00	Y
1CR142	PP1 FC "EAST" Trench Pump	N	Y	A	0	93 - 221	144.1	0.0E+00	Y
1CR143	PP2 FC "WEST" Trench Pump	N	Y	A	0	93 - 221	144.1	0.0E +00	Y
1CR144	PAPIN API Sump Pump - N	N	Y	A	0	93 - 221	144.1	0.0E+00	Y
1CR145	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	P619A L.O. Decanter H2O Pump	N	Y	A	3	89 - 2000	983	1.1E-05	Y
2CR56	P619B L.O. Decanter H2O Pump	N	Y	A	3	89 - 2000	983	1.1E-05	Y
2CR57	P620A Cont. H2O Pump	N	Y	A	35	235 - 343	284	3.7E-05	Y
2CR58	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

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USS Clairton Works
Total Annual Benzene (TAB) - 2017 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
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	0.003 - 0.003	0.003	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
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	P658C 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/P32	TFP4-1 Flushing Liquor Pump	N	Y	A	197	2.37 - 6.41	4.7	3.5E-06	Y
1B/P33	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

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USS Clairton Works

Total Annual Benzene (TAB) - 2017 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
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
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
1P/C43	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
1P/C46	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

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USS Clairton Works

Total Annual Benzene (TAB) - 2017 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
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/C15	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
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 Cir. 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 Respray 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		0.0027	

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USS Clairton Works
Total Annual Benzene (TAB) - 2017
PUMPS/EQUIPMENT SEAL LEAKAGE LISTING

Waste Stream ID#	Pumps/Equipment Seals Leakage Waste Stream Description	Controlled Y/N	Water Content >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (Gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
	#1 CONTROL ROOM								
1CR261	P2048 Pump Duplex Turbine	N	Y	A	0	93 - 221	144.1	0	Y
1CR262	P2049 CWTP Fractionator Feed Pump	N	Y	A	0	93 - 221	144.1	0	Y
1CR263	P2071 Dep. Froth Tank Pump	N	Y	E	0	8.16 - 14	9.9	0	Y
1CR264	P207J Dep. Froth Tank Pump	N	Y	E	0	8.16 - 14	9.9	0	Y
1CR265	P336 Rich Solution Pump	N	Y	E	10080	8.16 - 14	9.9	3.7E-04	Y
1CR266	P337 Rich Solution Pump	N	Y	E	0	8.16 - 14	9.9	0	Y
1CR267	P338 NH3 Fractionator Feed Pump	N	Y	E	0	0.005 - 0.027	0.02	0	Y
1CR268	P339 NH3 Fractionator Feed Pump	N	Y	E	0	0.005 - 0.027	0.02	0	Y
1CR269	P340 NH3 Fractionator Reflux Pump	N	Y	E	0	0.005 - 0.027	0.02	0	Y
1CR270	P341 NH3 Fractionator Reflux Pump	N	Y	E	0	0.005 - 0.027	0.02	0	Y
1CR271	P342 Phosam Lean Solution Pump	N	Y	E	10080	0.23 - 5.0	1.8	0	Y
1CR272	P343 Phosam Lean Solution Pump	N	Y	E	0	0.23 - 5.0	1.8	0	Y
1CR273	P345 Dep. Rich Solution Tank Pump	N	Y	E	10080	8.16 - 14	9.9	0.000	Y
1CR274	P346 Dep. Rich Solution Tank Pump	N	Y	E	0	8.16 - 14	9.9	0	Y
1CR275	P360 T301 Top Recirc. Pump	N	Y	A	50400	93 - 221	144.1	0.03	Y
1CR276	P361 T301 Phosam Solution Pump	N	Y	E	0	8.16 - 14	9.9	0	Y
1CR277	P362 T301 Top Recirc. Pump	N	Y	A	50400	93 - 221	144.1	0.03	Y
1CR278	P363 T302 Phosam Solution Pump	N	Y	E	0	8.16 - 14	9.9	0	Y
1CR279	P364 T303 Top Recirc. Pump	N	Y	A	0	93 - 221	144.1	0	Y
1CR280	P365 T303 Phosam Solution Pump	N	Y	E	10080	8.16 - 14	9.9	0.000	Y
1CR281	PP3 Blowdown Trench Pump	N	Y	E	0	8.16 - 14	9.9	0	Y
1CR282	P207A SS Bottoms Pump	N	Y	A	10080	0.03 - 0.081	0.06	0	Y
1CR283	P207B SS Bottoms Pump	N	Y	A	0	0.03 - 0.081	0.06	0	Y
1CR284	P207C SS Cond. Section Pump	N	Y	A	0	93 - 221	144.1	0	Y
1CR285	P207D SS Cond. Section Pump	N	Y	A	0	93 - 221	144.1	0	Y
1CR286	P207E SS Phosam Pump	N	Y	E	10080	8.16 - 14	9.9	0	Y
1CR287	P207F SS Phosam Pump	N	Y	E	0	8.16 - 14	9.9	0	Y
1CR288	P207G SS L.O. Pump	N	Y	E	0	89 - 2000	983	0	Y
1CR289	P207H SS L.O. Pump	N	Y	E	0	89 - 2000	983	0	Y
1CR290	P2101 N Inline Pump	N	Y	A	10080	0.03 - 0.081	0.06	0	Y
1CR291	P2102 S Inline Pump	N	Y	A	10080	0.03 - 0.081	0.06	0	Y
1CR292	P2103 SS Reboiler Cond. Pump	N	Y	A	0	0.03 - 0.081	0.06	0	Y
1CR293	P2104 SS Reboiler Cond. Pump	N	Y	A	0	0.03 - 0.081	0.06	0	Y
1CR294	PP5 S SS Trench Pump	N	Y	A	0	0.03 - 0.081	0.06	0	Y
1CR295	P200C Horizontal Sump Pump	N	Y	A	20160	93 - 221	144.1	0.01	Y
1CR296	P201B T201 Top H2O Recirc. Pump	N	Y	A	0	93 - 221	144.1	0	Y
1CR297	P202B T202 Top H2O Recirc. Pump	N	Y	A	50400	93 - 221	144.1	0.03	Y
1CR298	P203A T203 1ST H2O Recirc. Pump	N	Y	A	0	93 - 221	144.1	0	Y
1CR299	P203B T203 Top H2O Recirc. Pump	N	Y	A	100800	93 - 221	144.1	0.05	Y

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USS Clairton Works
Total Annual Benzene (TAB) - 2017
PUMPS/EQUIPMENT SEAL LEAKAGE LISTING

Waste Stream ID#	Pumps/Equipment Seals Leakage Waste Stream Description	Controlled Y/N	Water Content >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (Gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
1CR300	P204C Horizontal Sump Pump	N	Y	A	20160	93 - 221	144.1	0.01	Y
1CR301	P205C Horizontal Sump Pump	N	Y	A	20160	93 - 221	144.1	0.01	Y
1CR302	P206B1 T206 Top H2O Recirc. Pump	N	Y	A	10080	93 - 221	144.1	0.005	Y
1CR303	P206B2 T206 Top H2O Recirc. Pump	N	Y	A	10080	93 - 221	144.1	0.005	Y
1CR304	PFC Pump Horizontal Sump Pump	N	Y	A	0	93 - 221	144.1	0	Y
1CR305	PP1 FC "EAST" Trench Pump	N	Y	A	0	93 - 221	144.1	0	Y
1CR306	PP2 FC "WEST" Trench Pump	N	Y	A	0	93 - 221	144.1	0	Y
1CR307	PAPIN API Sump Pump - N	N	Y	A	0	93 - 221	144.1	0	Y
1CR308	PAPIS API Sump Pump - S	N	Y	A	0	93 - 221	144.1	0	Y
1CR309	C-100 AXI Compressor	N	Y	A	0	93 - 221	144.1	0	Y
1CR310	C-105 AXI Compressor	N	Y	A	0	93 - 221	144.1	0	Y
1CR311	C-110 AXI Compressor	N	Y	A	0	93 - 221	144.1	0	Y
1CR312	C-115 AXI Compressor	N	Y	A	0	93 - 221	144.1	0	Y
1CR 313	C-120 AXI Compressor	N	Y	A	0	93 - 221	144.1	0	Y
1CR314	C-125 AXI Compressor	N	Y	A	0	93 - 221	144.1	0	Y
1CR315	C-130 AXI Compressor	N	Y	A	0	93 - 221	144.1	0	Y
1CR316	C-135 AXI Compressor	N	Y	A	0	93 - 221	144.1	0	Y
1CR317	C-140 AXI Compressor	N	Y	A	0	93 - 221	144.1	0	Y
1CR318	C-145 AXI Compressor	N	Y	A	0	93 - 221	144.1	0	Y
1CR319	C-150 AXI Compressor	N	Y	A	0	93 - 221	144.1	0	Y
1CR320	C-155 AXI Compressor	N	Y	A	0	93 - 221	144.1	0	Y
1CR321	C-160 AXI Compressor	N	Y	A	0	93 - 221	144.1	0	Y
1CR322	C-165 AXI Compressor	N	Y	A	0	93 - 221	144.1	0	Y
1CR323	C-170 AXI Compressor	N	Y	A	0	93 - 221	144.1	0	Y
1CR324	C-175 AXI Compressor	N	Y	A	0	93 - 221	144.1	0	Y
1CR325	C-180 AXI Compressor	N	Y	A	0	93 - 221	144.1	0	Y
1CR326	C-185 AXI Compressor	N	Y	A	0	93 - 221	144.1	0	Y
1CR327	C-190 AXI Compressor	N	Y	A	0	93 - 221	144.1	0	Y
	#2 CONTROL ROOM								
2CR99	P578A SUB GAS Injection H2O Pump	N	Y	A	0	235 - 343	284	0	Y
2CR100	P578B SUB GAS Injection H2O Pump	N	Y	A	0	235 - 343	284	0	Y
2CR101	P618A L.O. Decanter H2O Pump	N	Y	A	0	89 - 2000	983	0	Y
2CR102	P618B L.O. Decanter H2O Pump	N	Y	A	0	89 - 2000	983	0	Y
2CR103	P619A L.O. Decanter H2O Pump	N	Y	A	0	89 - 2000	983	0	Y
2CR104	P619B L.O. Decanter H2O Pump	N	Y	A	0	89 - 2000	983	0	Y
2CR105	P620A Cont. H2O Pump	N	Y	A	10080	235 - 343	284	0.01	Y
2CR106	P620B Cont. H2O Pump	N	Y	A	10080	235 - 343	284	0	Y
2CR107	C500 VAC. Machine Drain Injection Water	N	Y	A	0	235 - 343	284	0	Y
2CR108	C503 VAC. Machine Drain Injection Water	N	Y	A	0	235 - 343	284	0	Y
2CR109	C506 VAC. Machine Drain Injection Water	N	Y	A	0	235 - 343	284	0	Y

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USS Clairton Works
Total Annual Benzene (TAB) - 2017
PUMPS/EQUIPMENT SEAL LEAKAGE LISTING

Waste Stream ID#	Pumps/Equipment Seals Leakage Waste Stream Description	Controlled Y/N	Water Content >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (Gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
2CR110	C509 VAC. Machine Drain Injection Water	N	Y	A	0	235 - 343	284	0	Y
2CR111	C512 VAC. Machine Drain Injection Water	N	Y	A	0	235 - 343	284	0	Y
2CR112	C515 VAC. Machine Drain Injection Water	N	Y	A	0	235 - 343	284	0	Y
2CR113	C518 VAC. Machine Drain Injection Water	N	Y	A	0	235 - 343	284	0	Y
2CR114	C521 VAC. Machine Drain Injection Water	N	Y	A	0	235 - 343	284	0	Y
2CR115	C524 VAC. Machine Drain Injection Water	N	Y	A	0	235 - 343	284	0	Y
2CR116	C527 VAC. Machine Drain Injection Water	N	Y	A	0	235 - 343	284	0	Y
2CR117	C530 VAC. Machine Drain Injection Water	N	Y	A	0	235 - 343	284	0	Y
2CR118	C533 VAC. Machine Drain Injection Water	N	Y	A	0	235 - 343	284	0	Y
2CR119	C536 VAC. Machine Drain Injection Water	N	Y	A	0	235 - 343	284	0	Y
2CR120	C539 VAC. Machine Drain Injection Water	N	Y	A	0	235 - 343	284	0	Y
2CR121	C542 VAC. Machine Drain Injection Water	N	Y	A	0	235 - 343	284	0	Y
2CR122	C545 VAC. Machine Drain Injection Water	N	Y	A	0	235 - 343	284	0	Y
2CR123	C548 VAC. Machine Drain Injection Water	N	Y	A	0	235 - 343	284	0	Y
	LIGHT OIL FACILITY								
LOS16	#1 Cont. H2O Pump	N	Y	A	0	714 - 1211	962.5	0	Y
LOS17	#2 Cont. H2O Pump	N	Y	A	0	714 - 1211	962.5	0	Y
LOS18	East Seal H2O Pump	N	Y	A	0	714 - 1211	962.5	0	Y
LOS19	West Seal H2O Pump	N	Y	A	0	714 - 1211	962.5	0	Y
LOS20	Middle Sump Pump 50 Series	N	Y	A	0	714 - 1211	962.5	0	Y
LOS21	North Sump Pump 60 Series	N	Y	A	0	714 - 1211	962.5	0	Y
LOS22	Yard Sump Pump	N	Y	A	0	714 - 1211	962.5	0	Y
LOS23	North Gas Blanketing Compressor	N	Y	A	0	714 - 1211	962.5	0	Y
LOS24	South Gas Blanketing Compressor	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	0	0.065 - 0.069	0.068	0	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	0	<0.005	<0.005	0	Y
5CR39	P313J Stripper Accum. Pump	N	Y	E	0	0.028 - 0.16	0.1	0	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	0.003 - 0.003	0.003	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	0	7.4 - 9.8	8.3	0	Y
5CR52	P668A Sep. Return Pump West	N	Y	A	0	7.4 - 9.8	8.3	0	Y

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USS Clairton Works
Total Annual Benzene (TAB) - 2017
PUMPS/EQUIPMENT SEAL LEAKAGE LISTING

Waste Stream ID#	Pumps/Equipment Seals Leakage Waste Stream Description	Controlled Y/N	Water Content >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (Gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
5CR57	P424 Methanol Transfer Pump	N	Y	E	0	4.285 - 40000	26295	0	Y
5CR60	C101J 100 Axi	N	Y	A	0	7.4 - 9.8	8.3	0	Y
5CR61	C658 600 Axi	N	Y	A	0	7.4 - 9.8	8.3	0	Y
5CR62	301J 300 Axi	N	Y	E	0	0.04 - 0.13	0.1	0	Y
5CR63	P101A Acid Gas Disch. Pump No.	N	Y	A	0	7.4 - 9.8	8.3	0	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	82	82	0	Y
5CR66	PDEHY6 Deh Cond. Pump So.	N	Y	A	0	82	82	0	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	0	0.003 - 0.003	0.003	0	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	0	7.4 - 9.8	8.3	0	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	0	9.32 - 11.13	10.2	0	Y
5CR163	P101-JC Coalescing Oil Pump	N	Y	A	0	0.001 - 0.065	0.025	0	Y
5CR164	P101-JCT Coalescing Oil Pump	N	Y	A	0	0.001 - 0.065	0.025	0	Y
5CR165	P658 TC Coalescing Oil Pump	N	Y	A	0	0.001 - 0.065	0.025	0	Y
5CR166	P658 C Coalescing Oil Pump	N	Y	A	0	0.001 - 0.065	0.025	0	Y
	#1 BY-PRODUCTS								
1B/P-27	PST1 Cont. H2O NH3 Storage	N	Y	A	0	2.37 - 6.41	4.7	0	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	201.6	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	0	2.37 - 6.41	4.7	0	Y
1B/P-33	TFP5-1 Flushing Liquor Pump	N	Y	A	100.8	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	0	2.37 - 6.41	4.7	0	Y
1B/P-36	2002-J Cont. Pump To Stg.	N	Y	A	0	2.37 - 6.41	4.7	0	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	0	2.37 - 6.41	4.7	0	Y
1B/P-44	TCSP-1 Tar Cond. Sump	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1B/P-45	TCSP-2 Tar Cond. Sump	N	Y	A	0	2.37 - 6.41	4.7	0	Y
	#2 BY-PRODUCTS								
2B/P-23	FSP-1 West Sump Pump	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2B/P-24	FSP-11 West Sump Pump	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2B/P-25	FSP-13-2 East Sump Pump	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2B/P-26	FSP-14-2 East Sump Pump	N	Y	A	0	2.37 - 6.41	4.7	0	Y

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USS Clairton Works
Total Annual Benzene (TAB) - 2017
PUMPS/EQUIPMENT SEAL LEAKAGE LISTING

Waste Stream ID#	Pumps/Equipment Seals Leakage Waste Stream Description	Controlled Y/N	Water Content >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (Gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
2B/P-31	P-105 P/C Cond. Pump	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2B/P-32	P-105A P/C Cond. Pump	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2B/P-37	TFP-2 #2 Flushing Liquor Pump	N	Y	A	0	2.37 - 6.41	4.7	0	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	30.24	2.37 - 6.41	4.7	0	Y
2B/P-40	TFP-5 #2 Flushing Liquor Pump	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2B/P-41	TFP-6 #2 Flushing Liquor Pump	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2B/P-42	TFP-7 #2 Flushing Liquor Pump	N	Y	A	10.08	2.37 - 6.41	4.7	0	Y
	CWTP #2 TANK FARM								
TKF-28	P-2601A Waste water pump	N	Y	A	56.16	8.6 - 61	34.8	7.3E-06	Y
TKF-29	P-2601B Waste water pump	N	Y	A	0	8.6 - 61	34.8	0.0E+00	Y
TKF-30	P-2602A WW-3 Pump	N	Y	A	30.24	8.6 - 61	34.8	3.9E-06	Y
TKF-31	P2602B WW-3 Pump	N	Y	A	30.24	8.6 - 61	34.8	3.9E-06	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	0	<0.005	0	0	Y
1P/C42	802P7A P/C Condensate Pump	N	Y	A	0	<0.005	0	0	Y
1/PC43	801P7B P/C Condensate Pump	N	Y	A	0	<0.005	0	0	Y
1P/C44	803P7A P/C Condensate Pump	N	Y	A	0	<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	0	2.37 - 6.41	4.7	0	Y
1P/C48	802P2A Circ. Pump	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1P/C49	802P2B Circ. Pump	N	Y	A	0	2.37 - 6.41	4.7	0	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	0	2.37 - 6.41	4.7	0	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	0	2.37 - 6.41	4.7	0	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	0	2.37 - 6.41	4.7	0	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	0	<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

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USS Clairton Works
Total Annual Benzene (TAB) - 2017
PUMPS/EQUIPMENT SEAL LEAKAGE LISTING

Waste Stream ID#	Pumps/Equipment Seals Leakage Waste Stream Description	Controlled Y/N	Water Content >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (Gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
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
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 Respray 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 - Pump Seal Leaks:		0.2	

ED_002508A_00000035-00018

USS Clairton Works
Total Annual Benzene (TAB) - 2017
MTCE-VESSELS DRAINS LISTING

Waste Stream ID#	Mtce - Vessel Drains Waste Stream Description	Controlled Y/N	Water Content >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (Gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
	#1 CONTROL ROOM								
1CR83	T301 Phosam	N	Y	E	100	8.16 - 14	9.9	3.7E-06	Y
1CR84	T302 Phosam	N	Y	E	100	8.16 - 14	9.9	3.7E-06	Y
1CR85	T303 Phosam	N	Y	E	100	8.16 - 14	9.9	3.7E-06	Y
1CR86	T306 Phosam NH3 Stripper	N	Y	E	100	0.23 - 5.0	1.8	6.8E-07	Y
1CR87	T307 Phosam NH3 Stripper	N	Y	E	100	0.23 - 5.0	1.8	6.8E-07	Y
1CR88	T350 Phosam NH3 Fract.	N	Y	E	100	0 - 0.53	0.2	7.5E-08	Y
1CR89	T353 Phosam NH3 Fract.	N	Y	E	100	0 - 0.53	0.2	7.5E-08	Y
1CR90	T207 Superstill	N	Y	A	0	0.03 - 0.081	0.06	0	Y
1CR91	V208B SS Light Oil Decanter	N	Y	B	0	89 - 2000	983	0	Y
1CR92	T201 FC	N	Y	A	100	93 - 221	144.1	5.4E-05	Y
1CR93	T202 FC	N	Y	A	100	93 - 221	144.1	5.4E-05	Y
1CR94	T203 FC	N	Y	A	100	93 - 221	144.1	5.4E-05	Y
1CR95	T206 FC	N	Y	A	100	93 - 221	144.1	5.4E-05	Y
1CR96	F198A Oil Rec Prefilter	N	Y	B	600	0.13 - 140	28.3	6.4E-05	Y
1CR97	F198B Oil Rec. Coalescer	N	Y	B	600	0.13 - 141	28.3	6.4E-05	Y
1CR146	C100 AXI Inj Water Drain	N	Y	A	100	93 - 221	144.1	5.4E-05	Y
1CR147	C105 AXI Inj Water Drain	N	Y	A	100	93 - 221	144.1	5.4E-05	Y
1CR148	C110 AXI Inj Water Drain	N	Y	A	100	93 - 221	144.1	5.4E-05	Y
1CR149	C115 AXI Inj Water Drain	N	Y	A	100	93 - 221	144.1	5.4E-05	Y
1CR150	C120 AXI Inj Water Drain	N	Y	A	100	93 - 221	144.1	5.4E-05	Y
1CR151	C125 AXI Inj Water Drain	N	Y	A	100	93 - 221	144.1	5.4E-05	Y
1CR152	C130 AXI Inj Water Drain	N	Y	A	100	93 - 221	144.1	5.4E-05	Y
1CR153	C135 AXI Inj Water Drain	N	Y	A	100	93 - 221	144.1	5.4E-05	Y
1CR154	C140 AXI Inj Water Drain	N	Y	A	100	93 - 221	144.1	5.4E-05	Y
1CR155	C145 AXI Inj Water Drain	N	Y	A	100	93 - 221	144.1	5.4E-05	Y
1CR156	C150 AXI Inj Water Drain	N	Y	A	100	93 - 221	144.1	5.4E-05	Y
1CR157	C155 AXI Inj Water Drain	N	Y	A	100	93 - 221	144.1	5.4E-05	Y
1CR158	C160 AXI Inj Water Drain	N	Y	A	100	93 - 221	144.1	5.4E-05	Y
1CR159	C165 AXI Inj Water Drain	N	Y	A	100	93 - 221	144.1	5.4E-05	Y
1CR160	C170 AXI Inj Water Drain	N	Y	A	100	93 - 221	144.1	5.4E-05	Y
1CR161	C175 AXI Inj Water Drain	N	Y	A	100	93 - 221	144.1	5.4E-05	Y
1CR162	C180 AXI Inj Water Drain	N	Y	A	100	93 - 221	144.1	5.4E-05	Y
1CR163	C185 AXI Inj Water Drain	N	Y	A	100	93 - 221	144.1	5.4E-05	Y
1CR164	C190 AXI Inj Water Drain	N	Y	A	100	93 - 221	144.1	5.4E-05	Y
	#2 CONTROL ROOM								
2CR4	D400A Warm Raw Gas Separator	N	Y	A	8000	235 - 343	284	8.5E-03	Y
2CR5	D400B Warm Raw Gas Separator	N	Y	A	8000	235 - 343	284	8.5E-03	Y

*Y - Subpart L Controlled
N** - Stream mixed with Process Wastewater >10%

ED_002508A_00000035-00019

USS Clairton Works
Total Annual Benzene (TAB) - 2017
MTCE-VESSELS DRAINS LISTING

Waste Stream ID#	Mtce - Vessel Drains Waste Stream Description	Controlled Y/N	Water Content >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (Gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
2CR6	D400C Warm Raw Gas Separator	N	Y	A	8000	235 - 343	284	8.5E-03	Y
2CR7	R401A Main Regenerator	N	Y	D	20000	39 - 59.8	43.3	0.003	Y
2CR8	R401B Main Regenerator	N	Y	D	20000	39 - 59.8	43.3	0.003	Y
2CR9	R401C Main Regenerator	N	Y	D	20000	39 - 59.8	43.3	0.003	Y
2CR10	R401D Main Regenerator	N	Y	D	20000	39 - 59.8	43.3	0.003	Y
2CR11	R402A Main Regenerator	N	Y	D	20000	39 - 59.8	43.3	0.003	Y
2CR12	R402B Main Regenerator	N	Y	D	20000	29 - 59.8	43.3	0.003	Y
2CR13	R402C Main Regenerator	N	Y	D	20000	39 - 59.8	43.3	0.003	Y
2CR14	R402D Main Regenerator	N	Y	D	20000	39 - 59.8	43.3	0.003	Y
2CR15	R403A Main Regenerator	N	Y	D	30000	39 - 59.8	43.3	0.005	Y
2CR16	R403B Main Regenerator	N	Y	D	30000	39 - 59.8	43.3	0.005	Y
2CR17	R403C Main Regenerator	N	Y	D	30000	39 - 59.8	43.3	0.005	Y
2CR18	R403D Main Regenerator	N	Y	D	30000	39 - 59.8	43.3	0.005	Y
2CR19	R404A Main Regenerator	N	Y	D	20000	39 - 59.8	43.3	0.003	Y
2CR20	R404B Main Regenerator	N	Y	D	20000	39 - 59.8	43.3	0.003	Y
2CR21	R404C Main Regenerator	N	Y	D	20000	39 - 59.8	43.3	0.003	Y
2CR22	R404D Main Regenerator	N	Y	D	20000	39 - 59.8	43.3	0.003	Y
2CR23	R405A Main Regenerator	N	Y	D	20000	39 - 59.8	43.3	0.003	Y
2CR24	R405B Main Regenerator	N	Y	D	20000	39 - 59.8	43.3	0.003	Y
2CR25	R405C Main Regenerator	N	Y	D	20000	39 - 59.8	43.3	0.003	Y
2CR26	R405D Main Regenerator	N	Y	D	20000	39 - 59.8	43.3	0.003	Y
2CR27	R406A Main Regenerator	N	Y	D	30000	39 - 59.8	43.3	0.005	Y
2CR28	R406B Main Regenerator	N	Y	D	30000	39 - 59.8	43.3	0.005	Y
2CR29	R406C Main Regenerator	N	Y	D	30000	39 - 59.8	43.3	0.005	Y
2CR30	R406D Main Regenerator	N	Y	D	30000	39 - 59.8	43.3	0.005	Y
2CR31	R407A Main Regenerator	N	Y	D	30000	39 - 59.8	43.3	0.005	Y
2CR32	R407B Main Regenerator	N	Y	D	30000	39 - 59.8	43.3	0.005	Y
2CR33	R407C Main Regenerator	N	Y	D	30000	39 - 59.8	43.3	0.005	Y
2CR34	R407D Main Regernator	N	Y	D	30000	39 - 59.8	43.3	0.005	Y
2CR35	D425 Blowdown Tank	N	Y	A	5000	39 - 59.8	43.3	0.001	Y
2CR36	D573 SUB Gas Injection H2O Separator	N	Y	A	8500	235 - 343	284	0	Y
2CR37	D575 SUB Gas Injection H2O Separator	N	Y	A	8500	235 - 343	284	0	Y
2CR38	D576 SUB Gas Injection H2O Separator	N	Y	A	8500	235 - 343	284	0	Y
2CR39	R582 L.O. Regenerator	N	Y	D	15000	89 - 2000	983	0	Y
2CR40	R584 L.O. Regenerator	N	Y	D	15000	89 - 2000	983	0	Y
2CR41	R586 L.O. Regenerator	N	Y	D	15000	89 - 2000	983	0	Y
2CR42	R590 L.O. Regenerator	N	Y	A	15000	89 - 2000	983	0	Y
2CR43	D600 SUB SUB Gas Injection H2O Separator	N	Y	A	50	235 - 343	284	0	Y

*Y - Subpart L Controlled
N** - Stream mixed with Process Wastewater >10%

ED_002508A_00000035-00020

USS Clairton Works
Total Annual Benzene (TAB) - 2017
MTCE-VESSELS DRAINS LISTING

Waste Stream ID#	Mtce - Vessel Drains Waste Stream Description	Controlled Y/N	Water Content >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (Gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
2CR44	D602 SUB SUB Gas Injection H2O Separator	N	Y	A	50	235 - 343	284	0	Y
2CR45	D624 SUB SUB Gas Glycol Cooler Separator	N	Y	A	50	235 - 343	284	0	Y
2CR46	V604 Light Oil Decanter Tank	N	Y	A	1050	89 - 2000	983	0	Y
2CR47	V605 Light Oil Decanter Tank	N	Y	A	1050	89 - 2000	983	0	Y
2CR48	D622 Cont H2O Collecting Vessel	N	Y	A	250	235 - 343	284	0	Y
2CR49	D624 SUB SUB Gas Separator	N	Y	A	50	235 - 343	284	0	Y
2CR50	FCoal Oil Cleanup Coalescer	N	Y	A	280	0.001 - 0.065	0.025	2.6E - 08	Y
2CR51	Oil Cleanup Prefilter	N	Y	A	280	0.001 - 0.066	0.025	2.6E - 08	Y
	#2 CONTROL ROOM - COMPRESSORS								
2CR57	C500 Vacuum Machine Drain Injection Water	N	Y	A	40	235 - 343	284	0	Y
2CR58	C503 Vacuum Machine Drain Injection Water	N	Y	A	40	235 - 343	284	0	Y
2CR59	C506 Vacuum Machine Drain Injection Water	N	Y	A	40	235 - 343	284	0	Y
2CR60	C509 Vacuum Machine Drain Injection Water	N	Y	A	40	235 - 343	284	0	Y
2CR61	C512 Vacuum Machine Drain Injection Water	N	Y	A	40	235 - 343	284	0	Y
2CR62	C515 Vacuum Machine Drain Injection Water	N	Y	A	40	235 - 343	284	0	Y
2CR63	C518 Vacuum Machine Drain Injection Water	N	Y	A	40	235 - 343	284	0	Y
2CR64	C521 Vacuum Machine Drain Injection Water	N	Y	A	40	235 - 343	284	0	Y
2CR65	C524 Vacuum Machine Drain Injection Water	N	Y	A	40	235 - 343	284	0	Y
2CR66	C527 Vacuum Machine Drain Injection Water	N	Y	A	40	235 - 343	284	0	Y
2CR67	C530 Vacuum Machine Drain Injection Water	N	Y	A	40	235 - 343	284	0	Y
2CR68	C533 Vacuum Machine Drain Injection Water	N	Y	A	40	235 - 343	284	0	Y
2CR69	C536 Vacuum Machine Drain Injection Water	N	Y	A	40	235 - 343	284	0	Y
2CR70	C539 Vacuum Machine Drain Injection Water	N	Y	A	40	235 - 343	284	0	Y
2CR71	C542 Vacuum Machine Drain Injection Water	N	Y	A	40	235 - 343	284	0	Y
2CR72	C545 Vacuum Machine Drain Injection Water	N	Y	A	40	235 - 343	284	0	Y
2CR73	C548 Vacuum Machine Drain Injection Water	N	Y	A	40	235 - 343	284	0	Y
	LIGHT OIL FACILITY								
LOS1	T59 L.O. Storage Tank	*Y	N	B	0	714 - 1211	962.5	0	N
LOS2	T60 L.O. Storage Tank	*Y	N	B	0	714 - 1211	962.5	0	N
LOS3	T61 L.O. Storage Tank	*Y	N	B	0	714 - 1211	962.5	0	N
LOS4	T62 L.O. Storage Tank	*Y	N	B	0	714 - 1211	962.5	0	N
LOS5	T63 L.O. Storage Tank	*Y	N	B	0	714 - 1211	962.5	0	N
LOS6	T64 L.O. Storage Tank	*Y	N	B	0	714 - 1211	962.5	0	N
LOS14	North Gas Blanketing Compressor	N	N	A	20	714 - 1211	962.5	0	Y
LOS15	South Gas Blanketing Compressor	N	N	A	20	714 - 1211	962.5	0	Y
	#5 CONTROL ROOM								
5CR1	V101E Carbonate Absorber	N	Y	E	0	9.32 - 11.13	10.2	0	Y
5CR2	V102E Carb. Str./Cond.	N	Y	E	75	0.003 - 0.003	0.003	8.4E-10	Y

*Y - Subpart L Controlled
N** - Stream mixed with Process Wastewater >10%

ED_002508A_00000035-00021

USS Clairton Works
Total Annual Benzene (TAB) - 2017
MTCE-VESSELS DRAINS LISTING

Waste Stream ID#	Mtce - Vessel Drains Waste Stream Description	Controlled Y/N	Water Content >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (Gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
5CR3	V102F Dir. Acid Aftercooler	N	Y	A	20	7.4 - 9.8	8.3	0	Y
5CR4	TV657 KO Pot	N	Y	A	0	7.4 - 9.8	8.3	0	Y
5CR7	VT650 Carb. Absorber	N	Y	E	0	9.32 - 11.13	10.2	0	Y
5CR8	VT651 Cond. Str.&Dir. Cond.	N	Y	A	75	7.4 - 9.8	8.3	0	Y
5CR9	VS100 Acid Gas Separator	N	Y	A	0	7.4 - 9.8	8.3	0	Y
5CR10	DEHYDCT Dehy. Cond. Tank	N	Y	A	10	82	82	3.10E-06	Y
5CR11	T401F Acid Gas K/O Drum	N	Y	A	0	7.4 - 9.8	8.3	0	Y
5CR75	T301F Stripper Accumulator	N	Y	E	0	0.028 - 0.16	0.1	0	Y
5CR76	T304F Acid Gas K/O Drum	N	Y	E	0	0.04 - 0.13	0.1	0	Y
5CR78	V301E Quench Column	N	Y	E	0	0.04 - 0.13	0.1	0	Y
5CR79	V302E MIDEA Absorber	N	Y	E	0	0.065 - 0.069	0.068	0	Y
5CR80	V303E MIDEA Stripper	N	Y	E	0	<0.005	<0.005	0	Y
5CR167	P101-JC Coalescing Oil Filter	N	N**	A	5	0.001 - 0.065	0.025	4.7E-10	Y
5CR168	P101-JCTCoalescing Oil Filter	N	N**	A	5	0.001 - 0.065	0.025	4.7E-10	Y
5CR169	P658 TC Coalescing Oil Filter	N	N**	A	2.5	0.001 - 0.065	0.025	2.3E-10	Y
5CR170	P658 C Coalescing Oil Filter	N	N**	A	7.5	0.001 - 0.065	0.025	7.0E-10	Y
5CR171	424 Methanol Tank	N	Y	E	0	4285 - 40000	26295	0	Y
	#1 BY-PRODUCTS								
1B/P-1	ST-1 Liquor Storage Tank	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1B/P-2	ST-2 Liquor Storage Tank	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1B/P-3	ST-3 Liquor Storage Tank	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1BP-6	S1 So. Surge Tank	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1B/P-7	S2 No. Surge Tank	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1BP-8	D1 #1 Unit Decanter	N	Y	B	0	2.37 - 6.41	4.7	0	Y
1B/P-9	D2 #1 Unit Decanter	N	Y	B	0	2.37 - 6.41	4.7	0	Y
1B/P-10	D3 #1 Unit Decanter	N	Y	B	0	2.37 - 6.41	4.7	0	Y
1B/P-11	D4 #1 Unit Decanter	N	Y	B	0	2.37 - 6.41	4.7	0	Y
1B/P-12	D5 #1 Unit Decanter	N	Y	B	0	2.37 - 6.41	4.7	0	Y
1B/P-13	D6 #1 Unit Decanter	N	Y	B	0	2.37 - 6.41	4.7	0	Y
1B/P-14	D7 #1 Unit Decanter	N	Y	B	0	2.37 - 6.41	4.7	0	Y
1B/P-15	D8 #1 Unit Decanter	N	Y	B	0	2.37 - 6.41	4.7	0	Y
1B/P-16	D9 #1 Unit Decanter	N	Y	B	0	2.37 - 6.41	4.7	0	Y
1B/P-17	D10 #1 Unit Decanter	N	Y	B	0	2.37 - 6.41	4.7	0	Y
1B/P-18	D11 #1 Unit Decanter	N	Y	B	0	2.37 - 6.41	4.7	0	Y
1B/P-19	D12 #1 Unit Decanter	N	Y	B	0	2.37 - 6.41	4.7	0	Y
1B/P-24	FS1 #1 Unit Flushing Strainer	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1B/P-25	FS2 #1 Unit Flushing Strainer	N	Y	A	0	2.37 -6.41	4.7	0	Y
1B/P-26	FS3 #1 Unit Flushing Strainer	N	Y	A	0	2.37 - 6.41	4.7	0	Y

*Y - Subpart L Controlled
N** - Stream mixed with Process Wastewater >10%

ED_002508A_00000035-00022

USS Clairton Works
Total Annual Benzene (TAB) - 2017
MTCE-VESSELS DRAINS LISTING

Waste Stream ID#	Mtce - Vessel Drains Waste Stream Description	Controlled Y/N	Water Content >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (Gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
	#2 BY-PRODUCTS								
2B/P-1	D1 #2 Unit Decanter	N	Y	B	0	2.37 - 6.41	4.7	0	Y
2B/P-2	D2 #2 Unit Decanter	N	Y	B	0	2.37 - 6.41	4.7	0	Y
2B/P-3	D3 #2 Unit Decanter	N	Y	B	0	2.37 - 6.41	4.7	0	Y
2B/P-4	D4 #2 Unit Decanter	N	Y	B	0	2.37 - 6.41	4.7	0	Y
2B/P-5	D5 #2 Unit Decanter	N	Y	B	0	2.37 - 6.41	4.7	0	Y
2B/P-6	D6 #2 Unit Decanter	N	Y	B	0	2.37 - 6.41	4.7	0	Y
2B/P-7	D7 #2 Unit Decanter	N	Y	B	0	2.37 - 6.41	4.7	0	Y
2B/P-8	D8 #2 Unit Decanter	N	Y	B	0	2.37 - 6.41	4.7	0	Y
2B/P-9	D11 #2 Unit Decanter	N	Y	B	0	2.37 - 6.41	4.7	0	Y
2B/P-10	D12 #2 Unit Decanter	N	Y	B	0	2.37 - 6.41	4.7	0	Y
2B/P-11	S-1 Surge #2 Unit Surge Tank	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2B/P-12	S-2 Surge #2 Unit Surge Tank	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2B/P-17	PCT-1 P/C Condensate Tank	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2B/P-18	PCT-2 P/C Condensate Tank	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2B/P-19	FS-1 #2 Unit Flush Strainer	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2B/P-20	FS-2 #2 Unit Flush Strainer	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2B/P-21	FS-3 #2 Unit Flush Strainer	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2B/P-22	FS-4 #2 Unit Flush Strainer	N	Y	A	0	2.37 - 6.41	4.7	0	Y
	CWTP #2 TANK FARM								
TKF-10	1 ST Liquior Storage Tank	N	Y	A	0	2.37 - 6.41	4.7	0	Y
TKF-11	2 ST Liquior Storage Tank	N	Y	A	0	2.37 - 6.41	4.7	0	Y
TKF-12	1WW Waste Water Tank	N	Y	A	0	260 - 500	373	0	Y
TKF-13	2WW Waste Water Tank	N	Y	A	0	260 - 500	373	0	Y
TKF-14	T-3 Still Feed Tank	N	Y	A	0	260 - 500	373	0	Y
	#1 PRIMARY COOLERS								
1P/C1	801-T1 Primary Cooler	N	Y	A	150	2.37 - 6.41	4.7	0	Y
1P/C2	802-T1 Primary Cooler	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1P/C3	803-T1 Primary Cooler	N	Y	A	0	2.37 - 6.41	4.7	0	Y
	#2 PRIMARY COOLERS								
2P/C1	804-T1 Primary Cooler	N	Y	A	150	2.37 - 6.41	4.7	0	Y
2P/C-22	805-T1 Primary Cooler	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2PC-59	806-T1 Primary Cooler	N	Y	A	0	2.37 - 6.41	4.7	0	Y
						Subtotal - Vessel Drains:		0.14	

*Y - Subpart L Controlled
N** - Stream mixed with Process Wastewater >10%

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USS Clairton Works
Total Annual Benzene (TAB) - 2017
MTCE - Exchangers Listing

Waste Stream ID#	Mtce - Exchangers Waste Stream Description	Controlled Y/N	Water Content >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (Gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
	#1 CONTROL ROOM								
1CR1	E324 Stripper Cond.	N	Y	E	780	8.16 - 14	9.9	2.9E-05	Y
1CR2	E325 Stripper Cond.	N	Y	E	780	8.16 - 14	9.9	2.898E-05	Y
1CR3	E330 Lean Solution Cooler	N	Y	E	96	0.23 - 5.0	1.8	6.485E-07	Y
1CR4	E331 Lean Solution Cooler	N	Y	E	96	0.23 - 5.0	1.8	6.485E-07	Y
1CR5	E332 Fract. Overhead Cond. - S	N	Y	E	1300	0 - 0.53	0.2	9.8E-07	Y
1CR6	E333 Fract. Overhead Cond. - N	N	Y	E	1300	0 - 0.53	0.2	9.8E-07	Y
1CR7	E334 NH3 Fract. Bottoms	N	Y	E	160	0 - 0.53	0.2	1.201E-07	Y
1CR8	E335 Fract. Bottoms	N	Y	A	200	93 - 221	144.1	1.1E-04	Y
1CR9	E335 Fract. Bottoms	N	Y	A	160	0. 053	0.2	1.2E-07	Y
1CR10	E350 Fract. Feed Pre-Heater	N	Y	E	60	0.23 - 5.0	1.8	4.053E-07	Y
1CR11	E350 Fract. Feed Pre-Heater	N	Y	A	110	0 - 0.53	0.2	8.3E-08	Y
1CR12	E360 Solution Exchanger	N	Y	E	310	8.16 - 14	9.9	1.152E-05	Y
1CR13	E360 Solution Exchanger	N	Y	E	290	0.23 - 5.0	1.8	1.959E-06	Y
1CR14	HEPA01 NO-1 Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR15	HEPA02 NO-2 Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR16	HEPA03 NO-2 Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR17	HEPA04 NO-2 Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR18	HEPA05 NO-2 Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR19	HEPA06 NO-2 Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR20	HEPA07 NO-2 Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR21	HEPA08 NO-2 Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR22	HEPA09 NO-2 Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR23	HEPA10 NO-2 Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR24	HEPA11 NO-2 Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR25	HEPA12 NO-2 Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR26	E-2101 SS Reboiler	N	Y	A	0	0.03 - 0.081	0.06	0	Y
1CR27	HESS01 SS Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR28	HESS02 SS Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR29	HESS03 SS Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR30	HESS04 SS Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR31	HESS05 SS Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR32	HESS06 SS Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR33	HESS07 SS Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR34	HESS08 SS Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR35	HESS09 SS Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR36	HESS10 SS Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR37	HESS11 SS Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y

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USS Clairton Works
Total Annual Benzene (TAB) - 2017
MTCE - Exchangers Listing

Waste Stream ID#	Mtce - Exchangers Waste Stream Description	Controlled Y/N	Water Content >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (Gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
1CR38	HESS12 SS Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR39	SHE206 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR40	SHE207 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR41	SHE208 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR42	SHE209 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR43	SHE210 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR44	SHE211 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR45	SHE212 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR46	SHE213 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR47	SHE214 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR48	SHE215 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR49	SHE216 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR50	SHE217 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR51	SHE218 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR52	SHE219 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR53	SHE220 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR54	SHE221 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR55	SHE222 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR56	SHE223 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR57	SHE224 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR58	SHE225 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR59	SHE226 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR60	SHE227 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR61	SHE228 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR62	SHE229 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR63	SHE230 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR64	SHE231 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR65	SHE232 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR66	SHE233 FC Spiral	N	y	A	2500	93 - 221	144.1	0.001	Y
1CR67	SHE234 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR68	SHE235 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR69	SHE236 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR70	SHE237 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR71	SHE238 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR72	SHE239 FC Spiral	N	y	A	2500	93 - 221	144.1	0.001	Y
1CR73	SHE240 FC Spiral	N	y	A	2500	93 - 221	144.1	0.001	Y
1CR74	SHE241 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR75	SHE242 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y

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USS Clairton Works
Total Annual Benzene (TAB) - 2017
MTCE - Exchangers Listing

Waste Stream ID#	Mtce - Exchangers Waste Stream Description	Controlled Y/N	Water Content >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (Gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
1CR76	SHE243 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR77	SHE244 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR78	SHE245 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR79	SHE246 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR80	SHE247 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR81	SHE248 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
1CR82	SHE249 FC Spiral	N	Y	A	2500	93 - 221	144.1	0.001	Y
	#2 CONTROL ROOM								
2CR1	E424 Blowdown Vessel Heater	N	Y	A	228	39 - 59.8	43.3	3.705E-05	Y
2CR2	E627 Injection H2O Cooler	N	y	A	612	235 - 343	284	6.5E-04	Y
2CR3	E628 Injection H2O Cooler	N	Y	A	612	235 - 343	284	6.5E-04	Y
	#5 CONTROL ROOM								
5CR12	E101CA Carb. Reb. Heat Exch.	N	Y	E	0	0.003 - 0.003	0.003	0	Y
5CR13	E101CB Carb. Reb. Heat Exch.	N	Y	E	0	0.003 - 0.003	0.003	0	Y
5CR14	E102C1 Proc. H2O Cool HT Exc	N	Y	A	0	7.4 - 9.8	8.3	0	Y
5CR15	E102C2 Proc H2O Cool HT Exc	N	Y	A	0	7.4 - 9.8	8.3	0	Y
5CR16	E103CA Carb. Sol. Heat Exch.	N	Y	E	0	9.32 - 11.13	10.2	0	Y
5CR17	E103CB Carb. Sol Heat Exch.	N	Y	E	0	9.32 - 11.13	10.2	0	Y
5CR18	E652A Solution Reboiler	N	Y	E	0	0.003 - 0.003	0.003	0	Y
5CR19	E652B Solution Reboiler	N	Y	E	0	0.003 - 0.003	0.003	0	Y
5CR20	E653 Lean Solution Cooler	N	Y	E	0	0.003 - 0.003	0.003	0	Y
5CR21	E654A Carb. Sol. Heat Exch.	N	Y	E	0	9.32 - 11.13	10.2	0	Y
5CR22	E654B Carb. Sol. Heat Exch.	N	Y	E	0	9.32 - 11.13	10.2	0	Y
5CR23	E655A Process Water Cooler	N	Y	A	0	7.4 - 9.8	8.3	0	Y
5CR24	E655B Process Water Cooler	N	Y	A	910	7.4 - 9.8	8.3	2.80E-05	Y
5CR26	E302C1 Quench Col. Cooler	N	Y	E	0	0.04 - 0.13	0.1	0	Y
5CR27	E302C2 Quench Col. Cooler	N	Y	E	307	0.04 - 0.13	0.1	1.20E-07	Y
5CR28	E303C1 Lean MDEA SolCooler	N	Y	E	0	<0.005	<0.005	0	Y
5CR29	E303C2 Lean MDEA SolCooler	N	Y	E	0	<0.005	<0.005	0	Y
5CR30	E304C1 MDEA L/R Sol Exch.	N	Y	E	2394	<0.005	<0.005	0	Y
5CR31	E304C2 MDEA L/R Sol Exch.	N	Y	E	2394	<0.005	<0.005	0	Y
5CR32	E304C3 MDEA L/R Sol Exch.	N	Y	E	2394	<0.005	<0.005	0	Y
5CR33	E305C 303-E Strip. Reboiler	N	Y	E	0	<0.005	<0.005	0	Y
	CWTP #2 TANK FARM								
TKF-17	E-1 Still Feed Heater	N	Y	A	13866	8.6 - 61	34.8	0.002	Y
	#1 PRIMARY COOLERS								
1P/C4	801E1A NH3 Liq Pit. & Frame	N	Y	A	400	2.37 - 6.41	4.7	7.1E-06	Y
1P/C5	801E1B NH3 Liq Pit. & Frame	N	Y	A	400	2.37 - 6.41	4.7	7.1E-06	Y

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USS Clairton Works
Total Annual Benzene (TAB) - 2017
MTCE - Exchangers Listing

Waste Stream ID#	Mtce - Exchangers Waste Stream Description	Controlled Y/N	Water Content >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (Gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
1P/C6	801E1C NH3 Liq Plt. & Frame	N	Y	A	400	2.37 - 6.41	4.7	7.1E-06	Y
1P/C7	802E1A NH3 Liq Plt. & Frame	N	Y	A	400	2.37 - 6.41	4.7	7.1E-06	Y
1P/C8	802E1B NH3 Liq Plt. & Frame	N	Y	A	400	2.37 - 6.41	4.7	7.1E-06	Y
1P/C9	802E1C NH3 Liq Plt. & Frame	N	Y	A	400	2.37 - 6.41	4.7	7.1E-06	Y
1P/C10	803E1A NH3 Liq Plt. & Frame	N	Y	A	400	2.37 - 6.41	4.7	7.1E-06	Y
1P/C11	803E1B NH3 Liq Plt. & Frame	N	Y	A	400	2.37 - 6.41	4.7	7.1E-06	Y
1P/C12	803E1C NH3 Liq Plt. & Frame	N	Y	A	400	2.37 - 6.41	4.7	7.1E-06	Y
1P/C13	801E2A NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
1P/C14	801E2B NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
1P/C15	801E2C NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
1P/C16	801E2D NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
1P/C17	801E2E NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
1P/C18	801E2F NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
1P/C19	801E2G NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
1P/C20	801E2H NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
1P/C21	802E2A NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
1P/C22	802E2B NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
1P/C23	802E2C NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
1P/C24	802E2D NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	8.4E-06	Y
1P/C25	802E2E NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
1P/C26	802E2F NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
1P/C27	802E2G NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
1P/C28	802E2H NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
1P/C29	803E2A NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
1P/C30	803E2B NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
1P/C31	803E2C NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
1P/C32	803E2D NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
1P/C33	803E2E NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
1P/C34	803E2F NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
1P/C35	803E2G NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
1P/C36	803E2H NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
	#2 PRIMARY COOLERS								
2P/C-3	804E1A NH3 Liq Plt.&Frame	N	Y	A	400	2.37 - 6.41	4.7	7.1E-06	Y
2P/C-4	804E1B NH3 Liq Plt.&Frame	N	Y	A	400	2.37 - 6.41	4.7	7.1E-06	Y
2P/C-5	804E1C NH3 Liq Plt.&Frame	N	Y	A	400	2.37 - 6.41	4.7	7.1E-06	Y
2P/C-6	804E2A NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
2P/C-7	804E2B NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
2P/C-8	804E2C NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y

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USS Clairton Works
Total Annual Benzene (TAB) - 2017
MTCE - Exchangers Listing

Waste Stream ID#	Mtce - Exchangers Waste Stream Description	Controlled Y/N	Water Content >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (Gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
2P/C-9	804E2D NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
2P/C-10	804E2E NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
2P/C-11	804E2F NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
2P/C-12	804E2G NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
2P/C-13	804E2H NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
2P/C-24	805E1A NH3 Liq Pit. & Frame	N	Y	A	400	2.37 - 6.41	4.7	7.1E-06	Y
2P/C-25	805E1B NH3 Liq Pit. & Frame	N	Y	A	400	2.37 - 6.41	4.7	7.1E-06	Y
2P/C-26	805E1C NH3 Liq Pit. & Frame	N	Y	A	400	2.37 - 6.41	4.7	7.1E-06	Y
2P/C-27	805E2A NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
2P/C-28	805E2B NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
2P/C-29	805E2C NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
2P/C-30	805E2D NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
2P/C-31	805E2E NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
2P/C-32	805E2F NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
2P/C-33	805E2G NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
2P/C-34	805E2H NH3 Liq Spiral Exc.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
2P/C-61	806E1A NH3 Liq Pit. & Frame	N	Y	A	400	2.37 - 6.41	4.7	7.1E-06	Y
2P/C-62	806E1B NH3 Liq Pit. & Frame	N	Y	A	400	2.37 - 6.41	4.7	7.1E-06	Y
2P/C-63	806E1C NH3 Liq. Pit. & Frame	N	Y	A	400	2.37 - 6.41	4.7	7.1E-06	Y
2P/C-64	806E2A NH3 Liq. Spiral Exch.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
2P/C-65	806E2B NH3 Liq. Spiral Exch.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
2P/C-66	806E2C NH3 Liq. Spiral Exch.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
2P/C-67	806E2D NH3 Liq. Spiral Exch.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
2P/C-68	806E2E NH3 Liq. Spiral Exch.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
2P/C-69	806E2F NH3 Liq. Spiral Exch.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
2P/C-70	806E2G NH3 Liq. Spiral Exch.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
2P/C-71	806E2H NH3 Liq. Spiral Exch.	N	Y	A	365	2.37 - 6.41	4.7	6.4E-06	Y
						Subtotal Mtce Exchangers:		9.6E-02	

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USS Clairton Works
Total Annual Benzene (TAB) - 2017
MTCE-RELIEF/CONTROL VALVES LISTING

Waste Stream ID#	Mtce - Valves Waste Stream Description	Controlled Y/N	Water Content >10% Y/N	Waste Stream Types Code	Annual Waste Quantity (Gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
	#1 CONTROL ROOM								
1CR165	LICV2725 DEP Rich Tank Level	N	Y	A	4.5	8.16 - 14	9.9	1.7E-07	Y
1CR166	FRCV2726 DEP Rich Tank Level	N	Y	A	1	8.16 - 14	9.9	3.7E-08	Y
1CR167	LICV3011 Top Recirc. H2O Level	N	Y	A	50	93 - 221	144.1	2.7E-05	Y
1CR168	LRACV3014 Phosam Solution Level	N	Y	A	13	8.16 - 14	9.9	4.8E-07	Y
1CR169	LICV3016 DEP Level	N	Y	A	3	8.16 - 14	9.9	1.1E-07	Y
1CR170	LICV3021 Top Recirc. H2O Level	N	Y	A	50	93 - 221	144.1	2.7E-05	Y
1CR171	LRCAV3024 Phosam Solution Level	N	Y	A	13	8.16 - 14	9.9	4.8E-07	Y
1CR172	LICV3031Top Recirc. H2O Level	N	Y	A	50	93 - 221	144.1	2.7E-05	Y
1CR173	LICAV3056 Phosam Rich Solution Flow	N	Y	A	2	8.16 - 14	9.9	7.4E-08	Y
1CR174	LICV3063 Phosam StripP Bottom Level	N	Y	A	4.5	0.23 - 5.0	1.8	3.0E-08	Y
1CR175	LICV3073 Phosam Strip Bottom Level	N	Y	A	4.5	0.23 - 5.0	1.8	3.0E-08	Y
1CR176	LICV3103 Vapor Cont. Level+B14	N	Y	A	2	8.16 - 14	9.9	7.4E-08	Y
1CR177	LICV3113 Vapor Cont Level	N	Y	A	2	8.16 - 14	9.9	7.4E-08	Y
1CR178	LICV3124 Fract. Feed Tank Level	N	Y	A	2	0.005 - 0.027	0.02	1.5E-10	Y
1CR179	LICV3134 Fract. Feed Tank Level	N	Y	A	1	0.005 - 0.027	0.02	7.5E-11	Y
1CR180	LICV3174 Phosam Flash Tank Level	N	Y	A	15	0.23 - 5.0	1.8	1.0E-07	Y
1CR181	PICV3244 Fract. Feed Tank Pressure	N	Y	A	4.5	0.005 - 0.027	0.02	3.4E-10	Y
1CR182	PICV3254 Fract. Feed Tank Pressure	N	Y	A	4.5	0.005 - 0.027	0.02	3.4E-10	Y
1CR183	TICV3302 E330 Lean Solution Cooler	N	Y	A	18	0.23 - 5.0	1.8	1.2E-07	Y
1CR184	TICV3312 E331 Lean Solution Cooler	N	Y	A	18	0.23 - 5.0	1.8	1.2E-07	Y
1CR185	LICV3505 NH3 Fract. Bottoms Level	N	Y	A	13	0 -.05.3	0.2	9.8E-09	Y
1CR186	PICV3523 NH3 Fract. Top Pressure	N	Y	A	1	0 - 0.53	0.2	7.5E-10	Y
1CR187	PICV3535 NH3 Fract. Bottoms	N	Y	A	2	0 - 0.53	0.2	1.5E-09	Y
1CR188	FRCV3558 NH3 Product Flow	N	Y	A	1	0.005 - 0. 027	0.02	7.5E-11	Y
1CR189	HIC CV Make-up H2O	N	Y	A	1	0.005 - 0.027	0.02	7.5E-11	Y
1CR190	HIC H360 Lean Solution Bypass	N	Y	A	7	0.23 - 5.0	1.8	4.7E-08	Y
1CR191	FICV2700 Superstill CV-Process Water Flow	N	Y	A	2	93 - 221	144.1	1.1E-06	Y
1CR192	LICV2705 Superstill CV - Bottoms Level	N	Y	A	4.5	0.03 - 0.081	0.06	1.0E-09	Y
1CR193	LIC2709 Superstill CV - Phosam Level	N	Y	A	2	8.16 - 14	9.9	7.4E-08	Y
1CR194	LIC2710 Superstill CV - Phosam Level	N	Y	A	2	8.16 - 14	9.9	7.4E-08	Y
1CR195	LICAV2015 Section Level - T201 Valve	N	Y	A	25	93 - 221	144.1	1.4E-05	Y
1CR196	LICAV2025 Section Level - T202 Valve	N	Y	A	25	93 - 221	144.1	1.4E-05	Y
1CR197	LICAV2035 Section Level - T203 Valve	N	Y	A	25	93 - 221	144.1	1.4E-05	Y
1CR198	LICV2044 West Final Cooler Sump Level Control Valve	N	Y	A	1.5	93 - 221	144.1	8.1E-07	Y
1CR199	LICV2058 Final Cooler Sump Level Control Valve	N	Y	A	1.5	93 - 221	144.1	8.1E-07	Y
1CR200	FIRCV2128 Cold Proc Water - Mid. Sprays - T201 Valve	N	Y	A	24	93 - 221	144.1	1.3E-05	Y

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USS Clairton Works
Total Annual Benzene (TAB) - 2017
MTCE-RELIEF/CONTROL VALVES LISTING

Waste Stream ID#	Mtce - Valves Waste Stream Description	Controlled Y/N	Water Content >10% Y/N	Waste Stream Types Code	Annual Waste Quantity (Gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
1CR201	CV2136 Tar Water Section Level - T210 Valve	N	Y	A	24	93 - 221	144.1	1.3E-05	Y
1CR202	FIRCV2149 Top Spray Water Make-up - T202 Valve	N	Y	A	1	93 - 221	144.1	5.4E-07	Y
1CR203	FIRCV2238 Cold Proc. Water - Middle Sprays - T202	N	Y	A	24	93 - 221	144.1	1.3E-05	Y
1CR204	FIRCV 2279 Top Sprays Water Make-up - T202 Valve	N	Y	A	1	93 - 221	144.1	5.4E-07	Y
1CR205	LICAV 2356 Tar Water Section Level - T203 Valve	N	Y	A	24	93 - 221	144.1	1.3E-05	Y
1CR206	FIRCV2369 Top Spray Water Make-up- T203 Valve	N	Y	A	1	93 - 221	144.1	5.4E-07	Y
1CR207	CV2635 Valve Knockout Pot for T206	N	Y	A	24	93 - 221	144.1	1.3E-05	Y
1CR208	HIC2666 Top Recirculating Water Bleed-off T206	N	Y	A	1	93 - 221	144.1	5.4E-07	Y
1CR209	LICAV2667 Tar Water Section Levelof T206 Valve	N	Y	A	8	93 - 221	144.1	4.3E-06	Y
1CR210	CV2668 Cold Process Water to Middle Sprays T206	N	Y	A	32	93 - 221	144.1	1.7E-05	Y
1CR211	HIC2669 Top Recirculating Water Makeup for T206	N	Y	A	2	93 - 221	144.1	1.1E-06	Y
1CR212	E324 Pressure Relief 1X2	N	Y	A	0	93 - 221	144.1	0.0E+00	Y
1CR213	E325 Pressure Relief 1X1	N	Y	A	0	93 - 221	144.1	0.0E+00	Y
1CR214	E360 Pressure Relief 3/4X1	N	Y	E	0	0.23 - 5.0	1.8	0.0E+00	Y
1CR215	E360 Pressure Relief 3/4X1	N	Y	E	0	0.23 - 5.0	1.8	0.0E+00	Y
	#2 CONTROL ROOM								
2CR74	LCV5730 Level Control on Injection H2O Makeup Line	N	Y	A	15	235 - 343	284	1.6E-05	Y
2CR75	LICV5753 Level Control in Injection H2O Line - D575	N	Y	A	10	235 - 343	284	1.1E-05	Y
2CR76	LICAV5764 Level Control on Injection H2O Line - D576	N	Y	A	10	235 - 343	284	1.1E-05	Y
2CR77	CV6005 Control Valve on Bottom Line of D600	N	Y	A	10	235 - 343	284	1.1E-05	Y
2CR78	CV6023 Control Valve on Bottom Line of D602	N	Y	A	7	235 - 343	284	7.5E-06	Y
2CR79	CV6243 Control Valve on Bottom Line of D624	N	Y	A	7	235 - 343	284	7.5E-06	Y
2CR80	CV6048 Level Control for Cont. H2O Level in V604&5	N	Y	A	15	235 - 343	284	1.6E-05	Y
2CR81	CV6041 L.O. Level Control for V604 and V605	N	Y	A	5	89 - 2000	983	1.8E-05	Y
2CR98	E424 Relief Valve 3252-R Vessel E-424	N	Y	A	0	235 - 343	284	0	Y
	#5 CONTROL ROOM								
5CR81	LCV-6513 Lean Sol. To T-651	N	Y	E	0	0.003 - 0003	0.003	0	Y
5CR82	FCV-6515 Rich to T651 Stripper	N	Y	E	0	9.32 - 11.13	10.2	0	Y
5CR83	LC-321 304-F Drain Valve	N	Y	E	0	0.04 - 0.13	0.1	0	Y
5CR84	LCV-6571 Acid gas K/O Pot	N	Y	E	5.2	7.4 - 9.8	8.3	1.6E-07	Y
5CR86	FCV-110 Rich Carb. Flow	N	Y	E	14.2	9.32 - 11.13	10.2	5.4E-07	Y
5CR87	FCV-101 Lean Carb.	N	Y	E	20.4	0.003 - 0.003	0.003	2.3E-10	Y
5CR88	FIC-103 D/C to 102-F	N	Y	E	0	7.4 - 9.8	8.3	0	Y
5CR89	LIC-104 102-F Level	N	Y	E	0	7.4 - 9.8	8.3	0	Y
5CR90	LCV-6500 T-650 ABS Make Up	N	Y	E	0	7.4 - 9.8	8.3	0	Y
5CR91	LCV-6516 T-651 Blowdown	N	Y	E	0	7.4 - 9.8	8.3	0	Y
5CR92	FRCA-307 301-F Blowdown	N	Y	E	0	0.026 - 0.16	0.1	0	Y

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USS Clairton Works
Total Annual Benzene (TAB) - 2017
MTCE-RELIEF/CONTROL VALVES LISTING

Waste Stream ID#	Mtce - Valves Waste Stream Description	Controlled Y/N	Water Content >10% Y/N	Waste Stream Types Code	Annual Waste Quantity (Gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
5CR93	LCV-305 303-E Reflux Flow 319	N	Y	E	0	0.028 - 0.16	0.1	0	Y
5CR94	LRCA-301 302-E Level Control	N	Y	E	0	0.028 - 0.16	0.1	0	Y
5CR95	FRCA-305 303-E Lean Flow	N	Y	E	0	<0.005	<0.005	0	Y
5CR96	FRCA-304 302-E Quench Flow	N	Y	E	0	0.04 - 0.13	0.1	0	Y
5CR97	LRCA-300 301-E Level	N	Y	E	0	0.04 - 0.13	0.1	0	Y
5CR98	E302C1S Valve Relief 1"x2"	N	Y	E	0	0.04 - 0.13	0.1	0	Y
5CR99	E302C2S Valve Relief 1'x2'	N	Y	E	0	0.04 - 0.13	0.1	0	Y
5CR100	E303C1S Valve Relief 1"x2"	N	Y	E	0	0.065 - 0.069	0.068	0	Y
5CR101	E303C2S Valve Relief 1"x2"	N	Y	E	0	<0.005	<0.005	0	Y
5CR103	E-654A Relief Valve 3/4"x1"	N	Y	E	0	9.32 - 11.13	10.2	0	Y
5CR104	E-654B Relief Valve 3/4"x1"	N	Y	E	0	9.32 - 11.13	10.2	0	Y
	#1 BY-PRODUCTS								
1B/P-52	CV-2000 Cont. Valve To ST. 1-2-3	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1B/P-53	LCV Surge - Tank Level	N	Y	A	0	2.37 - 6.41	4.7	0	Y
	#2 BY-PRODUCTS								
2B/P-33	LCV-TSP-1 Sump Level Cont.	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2B/P-34	LCV-ST-1&2 Surge Tanks	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2B/P-35	LCV-RTR Tar Receiver Level	N	N	A	0	2.37 - 6.41	4.7	0	Y
	CWTP #2 TANK FARM								
TKF-35	LICV-101 WW-1&2 level valve	N	Y	A	0	8.6 - 61	34.8	0	Y
TKF-36	FCV-102 Valve from WW-3	N	Y	A	0	8.6 - 61	34.8	0	Y
TKF-37	TRCV-42 Temp.E-1 Outlet	N	Y	A	0	8.6 - 61	34.8	0	Y
TKF-38	FCV-41 Still Feed Flow Valve	N	Y	A	0	8.6 - 61	34.8	0	Y
TKF-20	PSV-35 Relief Valve E1 Heater	N	Y	A	0	8.6 - 61	34.8	0	Y
	#1 PRIMARY COOLER								
1P/C64	LCV-801 Level Control 801-T1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1P/C65	LCV-802 Level Control 802-T1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1P/C66	LCV-803 Level Control 803-T1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1P/C67	LTV-801 Liq. Trim Valve 801-T1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1P/C68	LTV-802 Liq. Trim Valve 802-T1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1P/C69	LTV-803 Liq. Trim Valve 803-T1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1P/C70	FCV-801-1 Tar to 801-T1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1P/C71	FCV-802-1 Tar to 802-T1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1P/C72	FCV-803-1 Tar to 803-T1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
	#2 PRIMARY COOLER								
2P/C-51	Lcv-804 Level Control 804-T1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2P/C-52	Lcv-805 Level Control 805-T1	N	Y	A	0	2.37 - 6.41	4.7	0	Y

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USS Clairton Works
Total Annual Benzene (TAB) - 2017
MTCE-RELIEF/CONTROL VALVES LISTING

Waste Stream ID#	Mtce - Valves Waste Stream Description	Controlled Y/N	Water Content >10% Y/N	Waste Stream Types Code	Annual Waste Quantity (Gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
2P/C-84	Lcv-806 Level Control 806-T1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2P/C-57	LTV-804 Liq. Trim Valve 804-T1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2P/C-58	LTV-805 Liq. Trim Valve 805-T1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2P/C-87	LTV-806 Liq. Trim Valve 806-T1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2P/C-43	FCV-804-1 Tar to 804-T-1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2P/C-44	FCV-805-1 Tar to 805-T-1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2P/C-80	FCV-806-1 Tar to 806-T-1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
						Subtotal Mtce - Valves:		3.1E-04	

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USS Clairton Works
Total Annual Benzene (TAB) - 2017
INSTRUMENTATION MAINTENANCE LISTING

Waste Stream ID#	Instrumentation Waste Stream Description	Controlled Y/N	Water Content >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (Gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
	#1 CONTROL ROOM								
1CR216	FR3010 Phosam Rich Solution Return From #1 BP	N	N	E	1	8.16 - 14	9.9	0	Y
1CR217	LIC3011 Top Water Level T301 Absorber	N	Y	A	10	93 - 221	144.1	0	Y
1CR218	LR3014 Bottoms Level T301 Absorber	N	Y	A	20	93 - 221	144.1	0	Y
1CR219	LIC3021 Top Water Level T302 Absorber	N	Y	A	10	93 - 221	144.1	0	Y
1CR220	LR3024 Bottoms Level T302 Absorber	N	Y	A	20	93 - 221	144.1	0	Y
1CR221	FR3030 Lean Phosam Solution to #1 BP	N	Y	E	1	0.23 - 5.0	1.8	6.8E-09	Y
1CR222	LIC3031 Top water Level T303 Absorber	N	Y	A	10	93 - 221	144.1	0	Y
1CR223	LR3034 Bottoms Level T303 Absorber	N	Y	A	10	93 - 221	144.1	0	Y
1CR224	FRC3056 Rich Solution Flow to Sueprstill	N	Y	E	1	8.16 - 14	9.9	3.7E-08	Y
1CR225	LIC3063 T-306 Stripper Bottoms Level Control	N	Y	E	10	0.23 - 5.0	1.8	6.8E-08	Y
1CR226	LIC3073 T307 Stripper Bottoms Level Control	N	Y	E	10	0.23 - 5.0	1.8	6.8E-08	Y
1CR227	LIC3103 East Contractor Liquid Level	N	Y	E	10	8.16 - 14	9.9	3.7E-07	Y
1CR228	FRC3105 Lean Phosam Solution Flow to Absorber	N	Y	E	1	0.23 - 5.0	1.8	6.8E-09	Y
1CR229	FRC3106 Rich Phosam Solution Flow to Contactor	N	Y	E	1	8.16 - 14	9.9	3.7E-08	Y
1CR230	LIC3113 West Contactor Level Control	N	Y	E	10	8.16 - 14	9.9	3.7E-07	Y
1CR231	LIC3123 East Fractionator Feed Tank Level Control	N	Y	E	10	0.005 - 0.027	0.02	7.5E-10	Y
1CR232	FRC3124 Fractionator Column Feed	N	Y	E	1	0.005 - 0.027	0.02	7.5E-11	Y
1CR233	LIC3133 West Frac. Feed Tank Level Control	N	Y	E	10	0.005 - 0.027	0.02	7.5E-10	Y
1CR234	LIC3174 Flash Tank Liquid Level Control	N	Y	E	10	8.16 - 14	9.9	3.7E-07	Y
1CR235	LIC3332 E333 Overhead Condenser Level	N	Y	A	10	93 - 221	144.1	0	Y
1CR236	FR3527 Fractionator Reflux	N	Y	A	1	93 - 221	144.1	0	Y
1CR237	FRC3528 Fractionator Product	N	Y	E	1	0 - 0.53	0.2	0	Y
1CR238	FRC3709 Hot Proc. H2O from Absorbers-Spirals	N	Y	A	1	93 - 221	144.1	0	Y
1CR239	FIC2700 Hot Process Flow to Superstill	N	Y	A	1	93 - 221	144.1	0	Y
1CR240	LIC2025 Injection Water Level in T202	N	Y	A	10	93 - 221	144.1	0	Y
1CR241	LI2035 Injection Water Level in T203	N	Y	A	10	93 - 221	144.1	0	Y
1CR242	LI2047 East Sump Water Level	N	Y	A	10	93 - 221	144.1	0	Y
1CR243	LIC2054 East Sump Tar Liquid Level	N	Y	A	10	93 - 221	144.1	0	Y
1CR244	LI2057 Middle Sump Water Level	N	Y	A	10	93 - 221	144.1	0	Y
1CR245	LI2127 Tp Recirc. H2O Level T201	N	Y	A	10	93 - 221	144.1	0	Y
1CR246	FIC2128 Inject H2O Flow to MDL Sprays T201	N	Y	A	1	93 - 221	144.1	0	Y
1CR247	LIC2136 Bottom Tar Water Level T201	N	Y	A	10	93 - 221	144.1	0	Y
1CR248	FIC2149 Makeup H2O to Top Sprays T201	N	Y	A	1	93 - 221	144.1	0	Y
1CR249	LI2237 Top Recirc. H2O Level T202	N	Y	A	10	93 - 221	144.1	0	Y
1CR250	FIC2238 Inject H2O Flow to Middle Sprays T202	N	Y	A	1	93 - 221	144.1	0	Y
1CR251	LIC2246 Bottom Tar Water Level T202	N	Y	A	1	93 - 221	144.1	0	Y
1CR252	FIC2279 Makeup Water to Top Sprays T202	N	Y	A	1	93 - 221	144.1	0	Y

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USS Clairton Works
Total Annual Benzene (TAB) - 2017
INSTRUMENTATION MAINTENANCE LISTING

Waste Stream ID#	Instrumentation Waste Stream Description	Controlled Y/N	Water Content >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (Gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
1CR253	LI2327 Top Recirc. H2O Level T203	N	Y	A	10	93 - 221	144.1	0	Y
1CR254	FIC2328 Injection H2O Flow to Middle Sprays T203	N	Y	A	1	93 - 221	144.1	0	Y
1CR255	LIC2356 Bottom Tar Water Level T203	N	Y	A	10	93 - 221	144.1	0	Y
1CR256	FIC2369 Makeup H2O to Top Sprays T203	N	Y	A	1	93 - 221	144.1	0	Y
1CR257	FIC2384 CTW Return Temp from N. Spirals	N	Y	A	1	93 - 221	144.1	0	Y
1CR258	LI2627 T206 TOP Recirc. Level	N	Y	A	10	93 - 221	144.1	0	Y
1CR259	F2668 MID H2O SPRAY to T206	N	Y	A	1	93 - 221	144.1	0	Y
1CR260	LI2621 Condensate Level in Free Blowdown Tank	N	Y	A	10	93 - 221	144.1	0	Y
	#2 CONTROL ROOM								
2CR82	FT6262 FlowTransmitter - Injection H2O outlet - E626	N	Y	A	2	235 - 343	284	2.1E-06	Y
2CR83	LIC5730 Level Indicator Control on D573 Separator	N	Y	A	5	235 - 343	284	5.3E-06	Y
2CR84	LG5742 Level Gauge - D573 Separator	N	Y	A	7	235 - 343	284	7.5E-06	Y
2CR85	LG5750 Level Gauge - D575	N	Y	A	5	235 - 343	284	5.3E-06	Y
2CR86	LIC5733 Level Indicator Control on D575 Separator	N	Y	A	5	235 - 343	284	5.3E-06	Y
2CR87	LG5766 Level Gauge - D576	N	Y	A	10	235 - 343	284	1.1E-05	Y
2CR88	Level Gauge - D596	N	Y	A	5	235 - 343	284	5.3E-06	Y
2CR89	LG6003 Level Gauge - D600	N	Y	A	10	235 - 343	284	1.1E-05	Y
2CR90	LG6020 Level Gauge - D602	N	Y	A	10	235 - 343	284	1.1E-05	Y
2CR91	LG6240 Level Gauge - D-624	N	Y	A	10	235 - 343	284	1.1E-05	Y
2CR92	LIC6243 Level Indicator - D624	N	Y	A	5	235 - 343	824	5.3E-06	Y
2CR93	LICA6048 Cont. H2O Level Indicator - V604	N	Y	A	5	89 - 2000	983	0	Y
2CR94	LG6047 Level Gauge for H2O Level V604	N	Y	A	10	89 - 2000	983	0	Y
2CR95	LIC6058 Cont. H2O Level Indicator for V605	N	Y	A	5	89 - 2000	983	0	Y
2CR96	LG6057 Cont. H2O Level Gauge for V605	N	Y	A	5	89 - 2000	983	0	Y
2CR97	LG6222 Level Gauge on D622	N	Y	A	1	235 - 343	284	1.1E-06	Y
	#5 CONTROL ROOM								
5CR106	LICA 6500 Abs Level Displacer	N	Y	E	4	9.32 - 11.13	10.2	1.5E-07	Y
5CR107	LG 6507 ABS Level Glass	N	Y	E	2	9.32 - 11.13	10.2	1.7E-08	Y
5CR108	FR 6513 Level Flow Trans.	N	Y	E	0	0.003 - 0.003	0.003	0	Y
5CR109	FI 6580 Axi Inj. Water	N	Y	A	0	7.4 - 9.8	8.3	0	Y
5CR110	FRC 6515 Rich Flow	N	Y	E	0	9.32 - 11.13	10.2	0	Y
5CR111	LICA 6513 Stripper Level Disp.	N	Y	E	1.5	0.003 - 0.003	0.003	1.7E-11	Y
5CR112	LG 6510 Stripper Level Glass	N	Y	E	0.5	0.003 - 0.003	0.003	5.6E-12	Y
5CR113	LICA 6516 D/C Level Displacer	N	Y	A	1	7.4 - 9.8	8.3	3.1E-08	Y
5CR114	LG 6524 D/C Level Glass	N	Y	A	0.5	7.4 - 9.8	8.3	1.6E-08	Y
5CR115	FI 6556 D/C Flow	N	Y	A	0	7.4 - 9.8	8.3	0	Y
5CR116	LIC 6571 V-657 Level Displacer	N	Y	A	3	7.4 - 9.8	8.3	9.3E-08	Y
5CR117	LG 6572 V-657 Level Glass	N	Y	A	0.8	7.4 - 9.8	8.3	2.5E-08	Y

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USS Clairton Works
Total Annual Benzene (TAB) - 2017
INSTRUMENTATION MAINTENANCE LISTING

Waste Stream ID#	Instrumentation Waste Stream Description	Controlled Y/N	Water Content >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (Gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
5CR118	LG 101 101-E Level Glass	N	Y	E	1.5	9.32 - 11.13	10.2	5.7E-08	Y
5CR119	LT 101 101-E Level Displacer	N	Y	E	4	9.32 - 11.13	10.2	1.5E-07	Y
5CR120	LT 101-A 101-E Level D/P	N	Y	E	0	9.32 - 11.13	10.2	0	Y
5CR121	FI 110-A ABS Blowdown	N	Y	E	0	9.21 - 11.13	10.2	0	Y
5CR122	FIC-110 Rich Flow Transmitter	N	Y	E	0	9.32 - 11.13	10.2	0	Y
5CR123	LG102-A Strip Level Glass	N	Y	E	0	0.003 - 0.003	0.003	0	Y
5CR124	LT 102-A 102-E Strip Level Disp.	N	Y	E	0	0.003 - 0.003	0.003	0	Y
5CR125	LT 102-B 102-E Strip Level Disp.	N	Y	E	0	0.003 - 0.003	0.003	0	Y
5CR126	LG-102-B 102-E DC Level Glass	N	Y	A	0	7.4 - 9.8	8.3	0	Y
5CR127	LT-102-C 102-E DC level Disp.	N	Y	A	0	7.4 - 9.8	8.3	0	Y
5CR128	LT 102-D 102-E DC level Disp.	N	Y	A	0	7.4 - 9.8	8.3	0	Y
5CR129	FT 102-C D/C To 102-E	N	Y	A	0	7.4 - 9.8	8.3	0	Y
5CR130	FT 102-B 102-E D/C Blowdown	N	Y	A	0	7.4 - 9.8	8.3	0	Y
5CR131	FT 101 Lean To 101-E ABS	N	Y	E	0	0.003 - 0.003	0.003	0	Y
5CR132	FIC 103 D/C to 102-F	N	Y	A	0.05	7.4 - 9.8	8.3	1.6E-09	Y
5CR133	LIC 104 102-F Level Displacer	N	Y	A	5	7.4 - 9.8	8.3	1.6E-07	Y
5CR134	LG 102-F Level Glass	N	Y	A	0.5	7.4 - 9.8	8.3	1.6E-08	Y
5CR135	LSL 100 S-100 Low Level	N	Y	A	0.5	7.4 - 9.8	8.3	1.6E-08	Y
5CR136	LSH 100 S- 100 High Level	N	y	A	0.5	7.4 - 9.8	8.3	1.6E-08	Y
5CR137	LC 401 401-F Level Displacer	N	Y	A	0	7.4 - 9.8	8.3	0	Y
5CR138	LG 401 401-F Level Glass	N	Y	A	0	7.4 - 9.8	8.3	0	Y
5CR139	LG 315 A&B 301-E Que Level Gl	N	Y	E	0	0.04 - 0.13	0.1	0	Y
5CR140	LRCA 300 301-E Level Displ.	N	Y	E	0	0.04 - 0.13	0.1	0	Y
5CR141	FRCA 304 301-E Circ. Rate	N	Y	E	0	0.04 - 0.13	0.1	0	Y
5CR142	LC 321 304-F Level Displacer	N	Y	E	0	0.04 - 0.13	0.1	0	Y
5CR143	LG 324 304-F Level Glass	N	Y	E	0	0.04 - 0.13	0.1	0	Y
5CR144	HLA 322 304-F Alarm	N	Y	E	0	0.04 - 0.13	0.1	0	Y
5CR145	HHLA 323 304-F Alarm	N	Y	E	0	0.04 - 0.13	0.1	0	Y
5CR146	LG 318A 302-E Level Glass	N	Y	E	0	0.065 - 0.069	0.068	0	Y
5CR147	LG 318B 302-E Level Glass	N	Y	E	0	0.065 - 0.069	0.068	0	Y
5CR148	LRCA 301 302-E Level Displ.	N	Y	E	0	0.065 - 0.069	0.068	0	Y
5CR149	FRA 311 Rich MDEA Flow Trans.	N	Y	E	0	0.065 - 0.069	0.068	0	Y
5CR150	FRCA 305 Lean MDEA to 302-E	N	Y	E	0	<0.005	<0.005	0	Y
5CR151	LG 317A 303-E Level Displ.	N	Y	E	0	<0.005	<0.005	0	Y
5CR152	LG 317B 303-E Level Displ.	N	Y	E	0	<0.005	<0.005	0	Y
5CR153	LG 317-C 303-E Level Displ.	N	Y	E	0	<0.005	<0.005	0	Y
5CR154	LRA 302 303-E Leve Displacer	N	Y	E	0	<0.005	<0.005	0	Y
5CR155	LG 318 307-C Trap Out Level Gl.	N	Y	E	0	<0.005	<0.005	0	Y

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USS Clairton Works
Total Annual Benzene (TAB) - 2017
INSTRUMENTATION MAINTENANCE LISTING

Waste Stream ID#	Instrumentation Waste Stream Description	Controlled Y/N	Water Content >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (Gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
5CR156	LLA 331 307-C Trap Out Low Lev.	N	Y	E	0	<0.005	<0.005	0	Y
5CR157	LC 305 301-F Accum. Displacer	N	Y	E	0	0.028 - 0.16	0.1	0	Y
5CR158	LG 326 301-F Level Glass	N	Y	E	0	0.028 - 0.16	0.1	0	Y
5CR159	FRCA 307 313 J & JA Flow	N	Y	E	0.08	0.028 - 0.16	0.1	3.0024E-11	Y
5CR160	FRCA 319 Flow TO 303-E Reflux	N	y	E	0	0.028 - 0.16	0.1	0	Y
5CR161	LSLL-3 Dehy. Low Level Switch	N	Y	A	0.2	82	82	6.20E-08	Y
5CR162	LI-1 Dehy. Cond. Pot Level Glass	N	Y	A	0.4	82	82	1.20E-07	Y
	#1 BY-PRODUCTS								
1B/P-46	FO-1EX #1 FPH Excess Liquor	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1B/P-47	FO-2000 Flow To Stg. Tank	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1B/P-48	FO-R1 Flow From Stg. Tank	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1B/P-49	FO-KOP Cont. Flow From Kop.	N	Y	A	1.02	2.37 - 6.41	4.7	1.79919E-08	Y
1B/P-50	FO-SUI Cont. Flow - Carb. Plant	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1B/P-54	FO-2001 From ST.1-2-3	N	Y	A	0	2.37 - 6.41	4.7	0	Y
	#2 BY-PRODUCTS								
2B/P-36	FO-2EX #2 Excess Liquor	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2B/P-37	PI-FP1 Pressure to Batt.	N	Y	A	0	2.37 - 6.41	4.7	0	Y
	CWTP #2 TANK FARM								
TKF-32	FT-102 2602 A&B pump flow	N	Y	A	0	8.6 - 61	34.8	0	Y
TKF-33	FT-101 2601 A&B pump flow	N	Y	A	0	8.6 - 61	34.8	0	Y
TKF-34	FT-41 Flow to Still	N	Y	A	0	8.6 - 61	34.8	0	Y
	#1 PRIMARY COOLER								
1P/C73	FO-801 Respray Liq.to 801-T1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1P/C74	FO-802 Respray Liq. To 802-T1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1P/C75	FO-803 Respray Liq.to 803-T1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1P/C76	FO-801-5 Cond.from 801-T1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1P/C77	FO-802-5 Cond.from 802-T1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1P/C78	FO-803-5 Cond.from 803-T1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1P/C79	FO-801-3 Circ.Liq. To 801-T1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1P/C80	FO-802-3 Circ Liq. To 802-T2	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1P/C81	FO-803-3 Circ.Liq. To 803-T1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1P/C82	LIC-801 Level Trans. 801-T1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1P/C83	LIC-802 Level Trans. 802-T1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1P/C84	LIC-803 Level Trans. 803-T1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1P/C85	LG-801 Level glass 801-T1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1P/C86	LG-802 Level glass 802-T1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
1P/C87	LG-803 Level glass 803-T1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
	#2 PRIMARY COOLER								

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USS Clairton Works
Total Annual Benzene (TAB) - 2017
INSTRUMENTATION MAINTENANCE LISTING

Waste Stream ID#	Instrumentation Waste Stream Description	Controlled Y/N	Water Content >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (Gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
2P/C-45	FO-804 Respray Liq. To 804-T1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2P/C-48	FO-805 Respray Liq. To 805-T1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2P/C-81	FO-806 Repray Liq. To 806-T-1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2P/C-46	FO-804 -3 Circ Liq. To 804-T-1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2P/C-49	FO-805-3 Circ Liq. To 805-T-1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2P/C-82	FO-806 -3 Circ Liq to 806-T-1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2P/C-47	FO-804-5 Cond.from 804-T-1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2P/C-50	FO-805-5 Cond. from 805-T-1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2P/C-83	FO-806-5 Cond. from 806-T-1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2P/C-53	LG-804 Level glass 804-T-1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2P/C-54	LG-805 Level glass 805-T-1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2P/C-85	LG-806 Level glass 806-T-1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2P/C-55	LIC-804 Level Trans. 804-T1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2P/C-56	LIC-805 Level Trans. 805-T1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
2P/C-86	LIC-806 Level Trans. 806-T-1	N	Y	A	0	2.37 - 6.41	4.7	0	Y
					Subtotal - Mtce- Valves:			8.20E-05	

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USS Clairton Works
Total Annual Benzene (TAB) - 2017 Process Sampling Streams Listing

Waste No.	Waste Stream	Controlled Y/N	Water Content >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
TT4	Wastewater Tanks Inlet Sample Line	N	Y	A	12	260 - 360	310.0	0.0	Y
	#1 CONTROL ROOM								
1CR328	Fractionator Feed	N	Y	E	91.3	0.005 - 0.027	0.02	0.0	Y
1CR329	Lean Phosam Soln.	N	Y	E	91.3	0.23 - 5.0	1.8	0.0	Y
1CR330	Rich Phosam Soln.	N	Y	E	91.3	8.16 - 14	9.9	0.0	Y
1CR331	Superstill Bottoms Condensate H2O	N	Y	A	91.3	0.016 - 0.073	0.04	0.0	Y
1CR332	Fractionator Bottoms H2O	N	Y	A	91.3	0 - 0.53	0.2	0.0	Y
1CR333	Rich Phosam Soln.	N	Y	E	91.3	8.16 - 14	9.9	0.0	Y
1CR334	Mid Rich Phosam Soln.	N	Y	E	91.3	8.16 - 14	9.9	0.0	Y
1CR335	Condensate H2O	N	Y	A	91.3	<0.005	0	0.0	Y
1CR336	Contaminated H2O	N	Y	A	91.3	260 - 500	373	0.0	Y
1CR337	Process H2O	N	Y	A	91.3	93 - 221	144.1	0.0	Y
1CR338	P-207 G Pump Sample	N	Y	A	29.2	<0.005	0	0.0	Y
1CR339	P-207 H Pump Sample	N	Y	A	29.2	<0.005	0	0.0	Y
	#2 CONTROL ROOM								
2CR124	Injection H2O Sample	N	Y	A	91.25	235 - 343	284	0.0	Y
2CR125	P-619A L.O. Decanter Water Pump	N	Y	A	1.10	89 - 2000	284	0.0	Y
2CR126	P-619B L.O. Decanter Water Pump	N	Y	A	1.10	89 - 2000	284	0.0	Y
2CR127	618 Sample	N	Y	A	45.63	89 - 2000	983	0.0	Y
	LIGHT OIL FACILITY								
LOS25	Contaminated Water	N	Y	A	91.25	714 - 1211	962.5	0.0	Y
LOS32	Contaminated Water Pumps East	N	Y	A	7.3	89 - 2000	962.5	0.0	Y
LOS33	Contaminated Water Pumps West	N	Y	A	7.3	89 - 2000	962.5	0.0	Y
	#5 CONTROL ROOM								
5CR57	P424 Methanol Transfer Pump	N	Y	E	91.25	4285 - 40000	26295	0.0	Y
5CR95	FRCA-305 303-E Lean Flow	N	Y	E	228.13	<0.005	<0.005	0.0	Y
5CR96	FRCA-304 302-E Quench Flow	N	Y	E	228.13	0.04 - 0.13	0.1	0.0	Y
5CR108	FR 6513 Level Flow Trans.	N	Y	E	228.13	0.003 - 0.003	0.003	0.0	Y
5CR110	FRC 6515 Rich Flow	N	Y	E	228.13	0.065 - 0.069	0.067	0.0	Y
5CR115	FI 6556 D/C Flow	N	Y	A	228.13	7.4 - 9.8	8.3	0.0	Y
5CR130	FT 102-D/C To 102-E	N	Y	A	228.13	7.4 - 9.8	8.3	0.0	Y
5CR132	FIC 103 D/C To 102-F	N	Y	A	228.13	7.4 - 9.8	8.3	0.0	Y
5CR141	FRCA 304 301-E Circ. Rate	N	Y	E	228.13	0.04 - 0.13	0.1	0.0	Y
5CR149	FRA 311 Rich MDEA Flow Trans.	N	Y	E	228.13	0.065 - 0.069	0.068	0.0	Y
5CR150	FRCA 305 Lean MDEA To 302-E	N	Y	E	228.13	<0.005	<0.005	0	Y
5CR160	FRCA 319 Flow TO 303-E Reflux	N	Y	E	228.13	0.04 - 0.13	0.1	0.0	Y
	#1 BY-PRODUCTS								
1B/P-46	FO-1EX #1 FPH Excess Liquor	N	Y	A	68.44	2.37 - 6.41	4.7	0.0	Y

*N - TAB Double Counted

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USS Clairton Works
Total Annual Benzene (TAB) - 2017 Process Sampling Streams Listing

Waste No.	Waste Stream	Controlled Y/N	Water Content >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
1B/P-49	FO-KOP Cont. Flow From Kop. Condensate	N	Y	A	45.63	210 - 560	392	0.0	N
1B/P-50	FO-SUI Cont. Flow - Carb. Plant - D/C	N	Y	A	22.81	7.4 - 9.8	8.3	0.0	Y
1B/P-51	1BP 1/6 Pitch Traps	N	Y	F	136.9	1000 - 4500	3167	0.0	*N
1B/P-52	1B/P 7/12 Pitch Traps	N	Y	F	136.9	150 - 1200	850	0.0	*N
	#2 BY-PRODUCTS								
2B/P-36	FO-2EX #2 Excess Liquor	N	Y	A	68.4	2.37 - 7.41	4.7	0.0	Y
2B/P-38	2BP 1/6 Pitch Traps	N	Y	F	136.9	20 - 10000	20	0.0	*N
2B/P-39	2B/P 7/12 Pitch Traps	N	y	F	136.9	20 - 13000	20	0.0	*N
	CWTP #2 TANK FARM								
TKF-39	Feed to Wastewater Tanks	N	Y	A	109.5	260 - 360	310	0.0	Y
TKF-40	Wastewater Tank - P2601A/B	N	Y	A	109.5	190 - 400	284	0.0	Y
TKF-41	Wastewater T-3 Tank to Still - P2602A/B	N	Y	A	146.0	160 - 250	207	0.0	Y
						Subtotal - Samples:		1.0E-02	

*N - TAB Double Counted

ED_002508A_00000035-00039

Waste Stream ID#	Process Unit Turnaround Stream Description	Controlled Y/N	Water Content >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (Gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
	#1 CONTROL ROOM								
1CR340	E-2101 SS Reboiler	N	Y	D	75	0.03 - 0.081	0.06	1.7E-08	Y
1CR341	HESS01 SS Spiral	N	Y	D	2500	93 - 221	144.1	1.4E-03	Y
1CR342	HESS02 SS Spiral	N	Y	D	2500	93 - 221	144.1	1.4E-03	Y
1CR343	HESS03 SS Spiral	N	Y	D	2500	93 - 221	144.1	1.4E-03	Y
1CR344	HESS04 SS Spiral	N	Y	D	2500	93 - 221	144.1	1.4E-03	Y
1CR345	HESS05 SS Spiral	N	Y	D	2500	93 - 221	144.1	1.4E-03	Y
1CR346	HESS06 SS Spiral	N	Y	D	2500	93 - 221	144.1	1.4E-03	Y
1CR347	HESS07 SS Spiral	N	Y	D	2500	93 - 221	144.1	1.4E-03	Y
1CR348	HESS08 SS Spiral	N	Y	D	2500	93 - 221	144.1	1.4E-03	Y
1CR349	HESS09 SS Spiral	N	Y	D	2500	93 - 221	144.1	1.4E-03	Y
1CR350	HESS010 SS Spiral	N	Y	D	2500	93 - 221	144.1	1.4E-03	Y
1CR351	HESS011 SS Spiral	N	Y	D	2500	93 - 221	144.1	1.4E-03	Y
1CR352	HESS012 SS Spiral	N	Y	D	2500	93 - 221	144.1	1.4E-03	Y
1CR353	T207 SS	N	Y	D	100	0.03 - 0.081	0.06	2.3E-08	Y
1CR354	V208B SS Light Oil Pump	N	Y	D	100	89 - 2000	983	3.7E-04	Y
1CR355	P207A SS BTMS Pump	N	Y	D	295	0.03 - 0.081	0.06	6.6E-08	Y
1CR356	P207B SS BTMS Pump	N	Y	D	390	0.03 - 0.081	0.06	8.8E-08	Y
1CR357	P207C SS Cond. Section Pump	N	Y	D	450	93 - 221	144.1	2.4E-04	Y
1CR358	P207D SS Cond. Section Pump	N	Y	D	350	93 - 221	144.1	1.9E-04	Y
1CR359	P207E SS Phosam Pump	N	Y	D	50	8.16 - 14	9.9	1.9E-06	Y
1CR360	P207F SS Phosam Pump	N	Y	D	50	8.16 - 14	9.9	1.9E-06	Y
1CR361	P207G SS L.O. Pump	N	Y	D	25	89 - 2000	983	0.0E+00	Y
1CR362	P207H SS L.O. Pump	N	Y	D	25	89 - 2000	983	0.0E+00	Y
1CR363	P2101 N Inline Pump	N	Y	D	20	0.03 - 0.081	0.06	4.5E-09	Y
1CR364	P2102 S Inline Pump	N	Y	D	20	0.03 - 0.081	0.06	4.5E-09	Y
1CR365	P2103 SS Reboiler Cond. Pump	N	Y	D	15	0.03 - 0.081	0.06	3.4E-09	Y
1CR366	P2104 SS Reboiler Cond. Pump	N	Y	D	15	0.03 - 0.081	0.06	3.4E-09	Y
1CR367	PP5 S SS TRENCH Pump	N	Y	D	5	0.03 - 0.081	0.06	1.1E-09	Y
1CR368	FICV2700 SS CV - Process Water Flow	N	Y	D	2	93 - 221	144.1	1.1E-06	Y
1CR369	LICV2705 SS CV - Bottoms Level	N	Y	D	4.5	0.03 - 0.081	0.06	1.0E-09	Y
1CR370	LIC2709 SS CV - Phosam Level	N	Y	D	2	8.16 - 14	9.9	7.4E-08	Y
1CR371	LICV2710 SS CV - Phosam Level	N	Y	D	2	8.16 - 14	9.9	7.4E-08	Y
	LIGHT OIL STORAGE								
LOS26	T59 L.O. Storage Tank	*Y	Y	D	0	714 - 1211	962.5	0.0E+00	N
LOS27	T60 L.O. Storage Tank	*Y	Y	D	0	714 - 1211	962.5	0.0E+00	N
LOS28	T61 L.O. Storage Tank	*Y	Y	D	0	714 - 1211	962.5	0.0E+00	N
LOS29	T62 L.O. Storage Tank	*Y	Y	D	0	714 - 1211	962.5	0.0E+00	N

*Y - Subpart L Controlled

ED_002508A_00000035-00040

Waste Stream ID#	Process Unit Turnaround Stream Description	Controlled Y/N	Water Content >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (Gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
LOS30	T63 L.O. Storage Tank	*Y	Y	D	0	714 - 1211	962.5	0.0E+00	N
LOS31	T64 L.O. Storage Tank	*Y	Y	D	0	714 - 1211	962.5	0.0E+00	N
	#5 CONTROL ROOM - 100 VCU								
5CR1	V101E Carbonate Absorber	N	Y	D	75	10 - 14	11.7	3.3E-06	Y
5CR2	V102E Carb. Str./Cond.	N	Y	D	75	0.003 - 0.003	0.003	8.5E-10	Y
5CR12	E101CA Carb. Reb. Heat Exch.	N	Y	D	502	0.003 - 0.003	0.003	5.7E-09	Y
5CR13	E101CB Carb. Reb. Heat Exch.	N	Y	D	502	0.003 - 0.003	0.003	5.7E-09	Y
5CR14	E102C1 Proc. H2O cool HT Exc	N	Y	D	2254	7.4 - 9.8	8.3	7.1E-05	Y
5CR15	E102C2 Proc H2O cool HT Exc	N	Y	D	2254	7.4 - 9.8	8.3	7.1E-05	Y
5CR16	E103CA Carb.Sol. Heat Exch.	N	Y	D	502	9.32 - 11.13	10.2	1.9E-05	Y
5CR17	E103CB Carb. Sol. Heat Exch.	N	Y	D	502	9.32 - 11.13	10.2	1.9E-05	Y
5CR67	P111J Lean Carb. Sol. Pump	N	Y	D	77	0.003 - 0.003	0.003	8.7E-10	Y
5CR68	P111JA Lean Carb. Sol. Pump	N	Y	D	77	0.003 - 0.003	0.003	8.7E-10	Y
5CR69	P113J Direct Condenser Pump	N	Y	D	95	7.4 - 9.8	8.3	3.0E-06	Y
5CR70	P113JA Direct Cond. Pump	N	Y	D	95	7.4 - 9.8	8.3	3.0E-06	Y
5CR73	P662A Rich 100 Carb.Sol.Pump 26.6	N	Y	D	26.6	10 - 14	11.7	1.2E-06	Y
5CR74	P662B New Rich Carb.Sol.Pump	N	Y	D	26.6	10 - 14	11.7	1.2E-06	Y
5CR86	FCV-110 Rich Carb. Flow	N	Y	D	14.2	10 - 14	11.7	6.3E-07	Y
5CR87	FCV-101 Lean Carb.	N	Y	D	20.4	0.003 - 0.003	0.003	2.3E-10	Y
5CR118	LG 101 101-E Level Glass	N	Y	D	1.5	10 - 14	11.7	6.6E-08	Y
5CR119	LT 101 101-E Level Displacer	N	Y	D	4	10 - 14	11.7	1.8E-07	Y
5CR120	LT 101-A 101-E Level D/P	N	Y	D	0.2	10 - 14	11.7	8.9E-09	Y
5CR121	FI 110-A ABS Blowdown	N	Y	D	0.2	10 - 14	11.7	8.9E-09	Y
5CR122	FIC-110 Rich Flow Transmitter	N	Y	D	0.3	10 - 14	11.7	1.3E-08	Y
5CR123	LG102-A Strip Level Glass	N	Y	D	0.5	0.003 - 0.003	0.003	5.7E-12	Y
5CR124	LT 102-A 102-E Strip Level Disp.	N	Y	D	2.5	0.003 - 0.003	0.003	2.8E-11	Y
5CR125	LT 102-B 102-E Strip Level Disp.	N	Y	D	2.5	0.003 - 0.003	0.003	2.8E-11	Y
5CR126	LG 102-B 102-E DC Level Glass	N	Y	D	0.5	7.4 - 9.8	8.3	1.6E-08	Y
5CR127	LT-102-C 102-E DC Level Disp.	N	Y	D	2.5	7.4 - 9.8	8.3	7.9E-08	Y
5CR128	LT 102-D 102-E DC Level Disp.	N	Y	D	2.5	7.4 - 9.8	8.3	7.9E-08	Y
5CR129	FT 102-C D/C To 102-E	N	Y	D	0.1	7.4 - 9.8	8.3	3.1E-09	Y
5CR130	Ft 102-B 102-E D/C Blowdown	N	Y	D	0.12	7.4 - 9.8	8.3	3.8E-09	Y
5CR131	FT 101 Lean To 101-E ABS	N	Y	D	0.3	0.003 - 0.003	0.003	3.4E-12	Y
5CR132	FIC 103 D/C To 102-F	N	Y	D	0.05	7.4 - 9.8	8.3	1.6E-09	Y
	#5 CONTROL ROOM - 600 VCU								
5CR7	VT650 Carb. Absorber	N	Y	D	50	1.9 - 11.0	5	9.5E-07	Y
5CR8	VT651 Cond. Str.&Dir. Cond.	N	Y	D	75	7.4 - 9.8	8.3	2.4E-06	Y
5CR18	E652A Solution Reboiler	N	Y	D	665	0.003 - 0.003	0.003	7.6E-09	Y

*Y - Subpart L Controlled

ED_002508A_00000035-00041

USS Clairton Works
Total Annual Benzene (TAB) - 2017
PROCESS UNIT TURNAROUNDS LISTING

Waste Stream ID#	Process Unit Turnaround Stream Description	Controlled Y/N	Water Content >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (Gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
5CR19	E652B Solution Reboiler	N	Y	D	665	0.003 - 0.003	0.003	7.6E-09	Y
5CR20	E653 Lean Solution Cooler	N	Y	D	958	0.003 - 0.003	0.003	1.1E-08	Y
5CR21	E654A Carb. Sol. Heat Exch.	N	Y	D	689	0.003 - 0.003	0.003	7.8E-09	Y
5CR22	E654B Carb. Sol. Heat Exch.	N	Y	D	689	0.003 - 0.003	0.003	7.8E-09	Y
5CR23	E655A Process Water Cooler	N	Y	D	910	7.4 - 9.8	8.3	2.9E-05	Y
5CR24	E655B Process Water Cooler	N	Y	D	910	7.4 - 9.8	8.3	2.9E-05	Y
5CR45	P662 Rich Carb. Sol. Pump	N	Y	D	46.9	1.9 - 11.0	5	8.9E-07	Y
5CR46	P663C Rich Carb. Sol. Pump	N	Y	D	53.9	1.9 - 11.0	5	1.0E-06	Y
5CR47	P663 Lean Carb. Sol. Pump	N	Y	D	54.8	0.003 - 0.003	0.003	6.2E-10	Y
5CR48	P663A Lean Carb. Sol. Pump	N	Y	D	54.8	0.003 - 0.003	0.003	6.2E-10	Y
5CR49	P664 Direct Cond. H2O Pump	N	Y	D	79	7.4 - 9.8	8.3	2.5E-06	Y
5CR50	P664A Ditect Cond. H2O Pump	N	Y	D	79	7.4 - 9.8	8.3	2.5E-06	Y
5CR81	LCV-6513 Lean Sol. To T-651	N	Y	D	10.2	0.003 - 0.003	0.003	1.2E-10	Y
5CR82	FCV-6515 Rich to T651 Stripper	N	Y	D	5.2	1.9 - 11.0	5	9.8E-08	Y
5CR90	LCV-6500 T-650 ABS Make Up	N	Y	D	0.5	7.4 - 9.8	8.3	1.6E-08	Y
5CR91	LCV-6516 T-651 Blowdown	N	Y	D	0.5	7.4 - 9.8	8.3	1.6E-08	Y
5CR103	E-654A Relief Valve 3/4"x1"	N	Y	D	2.31	1.9 - 11.0	5	4.4E-08	Y
5CR104	E-654B Relief Valve 3/4"x1"	N	Y	D	2.31	1.9 - 11.0	5	4.4E-08	Y
5CR106	LICA 6500 Abs Level Displacer	N	Y	D	1	1.9 - 11.0	5	1.9E-08	Y
5CR107	LG 6507 ABS Level Glass	N	Y	D	0.5	1.9 - 11.0	5	9.5E-09	Y
5CR108	FR 6513 Level Flow Trans.	N	Y	D	0.4	0.003 - 0.003	0.003	4.5E-12	Y
5CR109	FI 6580 Axi Inj. Water	N	Y	D	0.6	7.4 - 9.8	8.3	1.9E-08	Y
5CR110	FRC 6515 Rich Flow	N	Y	D	0.4	1.9 - 11.0	5	7.6E-09	Y
5CR111	LICA 6513 Stripper Level Disp	N	Y	D	1.5	0.003 - 0.003	0.003	1.7E-11	Y
5CR112	LG 6510 Stripper Level Glass	N	Y	D	0.5	0.003 - 0.003	0.003	5.7E-12	Y
5CR113	LICA 6516 D/C Level Displacer	N	Y	D	1	7.4 - 9.8	8.3	3.1E-08	Y
5CR114	LG 6524 D/C Level Glass	N	Y	D	0.5	7.4 - 9.8	8.3	1.6E-08	Y
5CR115	FI 6556 D/C Flow	N	Y	D	0.32	7.4 - 9.8	8.3	1.0E-08	Y
	#5 CONTROL ROOM - 300 SCOT								
5CR26	E302C1 Quench Col. Cooler	N	Y	D	307	0.04 - 0.13	0.08	9.3E-08	Y
5CR27	E302C2 Quench Col. Cooler	N	Y	D	307	0.04 - 0.13	0.08	9.3E-08	Y
5CR28	E303C1 Lean MDEA SolCooler	N	Y	D	306	<0.005	<0.005	0.0E+00	Y
5CR29	E303C2 Lean MDEA SolCooler	N	Y	D	306	<0.005	<0.005	0.0E+00	Y
5CR30	E304C1 MDEA L/R Sol Exch.	N	Y	D	2394	0.065 - 0.069	0.068	6.2E-07	Y
5CR31	E304C2 MDEA L/R Sol Exch.	N	Y	D	2394	0.065 - 0.069	0.068	6.2E-07	Y
5CR32	E304C3 MDEA L/R Sol Exch.	N	Y	D	2394	0.065 - 0.069	0.068	6.2E-07	Y
5CR33	E305C 303-E Strip.Reboiler	N	Y	D	987	0.065 - 0.069	0.068	2.5E-07	Y
5CR34	P310J Que.Col.Bottoms Pump	N	Y	D	11.5	0.04 - 0.13	0.08	3.5E-09	Y

*Y - Subpart L Controlled

ED_002508A_00000035-00042

USS Clairton Works
Total Annual Benzene (TAB) - 2017
PROCESS UNIT TURNAROUNDS LISTING

Waste Stream ID#	Process Unit Turnaround Stream Description	Controlled Y/N	Water Content >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (Gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
5CR35	P310Ja Que.Col.Bottom Pump	N	Y	D	11.5	0.04 - 0.13	0.08	3.5E-09	Y
5CR36	P311J MDEA Rich Sol. Pump	N	Y	D	11.6	0.065 - 0.069	0.068	3.0E-09	Y
5CR37	P312J Lean MDEA Sol. Pump	N	Y	D	20.5	<0.005	<0.005	0	Y
5CR38	P312JA Lean MDEA Sol.Pump	N	Y	D	13.3	<0.005	<0.005	0	Y
5CR39	P313J Stripper Accum. Pump	N	Y	D	6	0.028 - 0.16	0.099	2.2E-09	Y
5CR40	P313JA Stripper Accum. Pump	N	Y	D	6	0.028 - 0.16	0.099	2.2E-09	Y
5CR62	301J 300 Axi	N	Y	D	2	0.04 - 0.13	0.08	6.1E-10	Y
5CR75	T301F Stripper Accumulator	N	Y	D	10	0.028 - 0.16	0.099	3.7E-09	Y
5CR76	T304F Acid Gas K/O Drum	N	Y	D	5	0.04 - 0.13	0.08	1.5E-09	Y
5CR78	V301E Quench Column	N	Y	D	50	0.04 - 0.13	0.08	1.5E-08	Y
5CR79	V302E MDEA Absorber	N	Y	D	50	0.065 - 0.069	0.068	1.3E-08	Y
5CR80	V303E MDEA Stripper	N	Y	D	50	<0.005	<0.005	0.0E+00	Y
5CR83	LC-321 304-F Drain Valve	N	Y	D	0.3	0.04 - 0.13	0.08	9.1E-11	Y
5CR92	FRCA-307 301-F Blowdown	N	Y	D	0.4	0.028 - 0.16	0.099	1.5E-10	Y
5CR93	LCV-305 303-E Reflux Flow 319	N	Y	D	0.5	0.028 - 0.16	0.099	1.9E-10	Y
5CR94	LRCA-301 302-E Level Control	N	Y	D	2.6	0.028 - 0.16	0.099	9.7E-10	Y
5CR95	FRCA-305 303-E Lean Flow	N	Y	D	17.9	<0.005	<0.005	0.0E+00	Y
5CR96	FRCA-304 302-E Quench Flow	N	Y	D	17.9	0.04 - 0.13	0.08	5.4E-09	Y
5CR97	LRCA-300 301-E Level	N	Y	D	0.4	0.04 - 0.13	0.08	1.2E-10	Y
5CR98	E302C1S Valve Relief 1"x2"	N	Y	D	2.93	0.04 - 0.13	0.08	8.9E-10	Y
5CR99	E302C2S Valve Relief 1'x2'	N	Y	D	2.93	0.04 - 0.13	0.08	8.9E-10	Y
5CR100	E303C1S Valve Relief 1"x2"	N	Y	D	2.94	0.065 - 0.069	0.068	7.6E-10	Y
5CR101	E303C2S Valve Relief 1"x2"	N	Y	D	2.94	0.065 - 0.069	0.068	7.6E-10	Y
5CR139	LG 315 A&B 301-E Que Level Gl	N	Y	D	1	0.04 - 0.13	0.08	3.0E-10	Y
5CR140	LRCA 300 301-E Level Displ.	N	Y	D	3	0.04 - 0.13	0.08	9.1E-10	Y
5CR141	FRCA 304 301-E Circ. Rate	N	Y	D	0.1	0.04 - 0.13	0.08	3.0E-11	Y
5CR142	LC 321 304-F Level Displacer	N	Y	D	2	0.04 - 0.13	0.08	6.1E-10	Y
5CR143	LG 324-F Level Glass	N	Y	D	0.5	0.04 - 0.13	0.08	1.5E-10	Y
5CR144	HLA 322 304-F Alarm	N	Y	D	0.25	0.04 - 0.13	0.08	7.6E-11	Y
5CR145	HHLA 323 304-F Alarm	N	Y	D	0.25	0.04 - 0.13	0.08	7.6E-11	Y
5CR146	LG 318A 302-E Level Glass	N	Y	D	1	0.065 - 0.069	0.068	2.6E-10	Y
5CR147	LG 318B 302-E Level Glass	N	Y	D	1	0.065 - 0.069	0.068	2.6E-10	Y
5CR148	LRCA 301 302-E Level Displ.	N	Y	D	5.5	0.065 - 0.069	0.068	1.4E-09	Y
5CR149	FRA 311 Rich MDEA Flow Trans.	N	Y	D	0.1	0.065 - 0.069	0.068	2.6E-11	Y
5CR150	FRCA 305 Lean MDEA to 302-E	N	Y	D	0.12	<0.005	<0.005	0.0E+00	Y
5CR151	LG 317 A 303-E Level Displ.	N	Y	D	0.5	<0.005	<0.005	0.0E+00	Y
5CR152	LG 317 B 303-E Level Displ.	N	Y	D	0.5	<0.005	<0.005	0.0E+00	Y
5CR153	LG 317-C 303-E Level Displ.	N	Y	D	0.5	<0.005	<0.005	0.0E+00	Y

*Y - Subpart L Controlled

ED_002508A_00000035-00043

USS Clairton Works
Total Annual Benzene (TAB) - 2017
PROCESS UNIT TURNAROUNDS LISTING

Waste Stream ID#	Process Unit Turnaround Stream Description	Controlled Y/N	Water Content >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (Gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
5CR154	LRA 302 303-E Level Displacer	N	Y	D	3.5	<0.005	<0.005	0.0E+00	Y
5CR155	LG 318 307-C Trap Out Level Gl.	N	Y	D	0.5	<0.005	<0.005	0.0E+00	Y
5CR156	LLA 331 307-C Trap Out Low Lev.	N	Y	D	0.5	<0.005	<0.005	0.0E+00	Y
5CR157	LC 305 301-F Accum. Displacer	N	Y	D	2	0.028 - 0.16	0.099	7.5E-10	Y
5CR158	LG 326 301-F Level Glass	N	Y	D	0.25	0.028 - 0.16	0.099	9.4E-11	Y
5CR159	FRCA 307 313 J & JA Flow	N	Y	D	0.08	0.028 - 0.16	0.099	3.0E-11	Y
5CR160	FRCA 319 Flow TO 303-E Reflux	N	Y	D	0.1	0.028 - 0.16	0.099	3.7E-11	Y
	#1 BY-PRODUCTS								
1BP-8	D1 #1 Unit Decanter	*Y	Y	D	0	2.37 - 6.41	4.7	0	N
1B/P-9	D2 #1 Unit Decanter	*Y	Y	D	0	2.37 - 6.41	4.7	0	N
1B/P-10	D3 #1 Unit Decanter	*Y	Y	D	0	2.37 - 6.41	4.7	0	N
1B/P-11	D4 #1 Unit Decanter	*Y	Y	D	0	2.37 - 6.41	4.7	0	N
1B/P-12	D5 #1 Unit Decanter	*Y	Y	D	0	2.37 - 6.41	4.7	0.0E+00	Y
1B/P-13	D6 #1 Unit Decanter	*Y	Y	D	0	2.37 - 6.41	4.7	0.0E+00	Y
1B/P-14	D7 #1 Unit Decanter	*Y	Y	D	0	2.37 - 6.41	4.7	0.0E+00	Y
1B/P-15	D8 #1 Unit Decanter	*Y	Y	D	0	2.37 - 6.41	4.7	0.0E+00	Y
1B/P-16	D9 #1 Unit Decanter	*Y	Y	D	0	2.37 - 6.41	4.7	0.0E+00	Y
1B/P-17	D10 #1 Unit Decanter	*Y	Y	D	0	2.37 - 6.41	4.7	0.0E+00	Y
1B/P-18	D11 #1 Unit Decanter	*Y	Y	D	0	2.37 - 6.41	4.7	0.0E+00	Y
1B/P-19	D12 #1 Unit Decanter	*Y	Y	D	0	2.37 - 6.41	4.7	0.0E+00	Y
	#2 BY-PRODUCTS								
2B/P-1	D1 #2 Unit Decanter	*Y	Y	D	0	2.37 - 6.41	4.7	0.0E+00	Y
2B/P-2	D2 #2 Unit Decanter	*Y	Y	D	0	2.37 - 6.41	4.7	0.0E+00	Y
2B/P-3	D3 #2 Unit Decanter	*Y	Y	D	0	2.37 - 6.41	4.7	0.0E+00	Y
2B/P-4	D4 #2 Unit Decanter	*Y	Y	D	0	2.37 - 6.41	4.7	0.0E+00	Y
2B/P-5	D5 #2 Unit Decanter	*Y	Y	D	0	2.37 - 6.41	4.7	0.0E+00	Y
2B/P-6	D6 #2 Unit Decanter	*Y	Y	D	0	2.37 - 6.41	4.7	0.0E+00	Y
2B/P-7	D7 #2 Unit Decanter	*Y	Y	D	0	2.37 - 6.41	4.7	0.0E+00	Y
2B/P-8	D8 #2 Unit Decanter	*Y	Y	D	0	2.37 - 6.41	4.7	0.0E+00	Y
2B/P-9	D11 #2 Unit Decanter	*Y	Y	D	0	2.37 - 6.41	4.7	0.0E+00	Y
2B/P-10	D12 #2 Unit Decanter	*Y	Y	D	0	2.37 - 6.41	4.7	0.0E+00	Y
	Tar Tanks								
TT-1	D13 #2 Tar Tank	*Y	Y	D	0	0 - 82	0.05	0.000000	Y
TT-2	D14 #5 Tar Tank	*Y	Y	D	0	0 - 82	0.05	0.000000	Y
TT-3	D15 #7 Tar Tank	*Y	Y	D	0	0 - 82	0.05	0.000000	Y
	Miscellaneous								
M-1	Primary Cooler	Y	Y	D	0	2.37 -6.41	4.7	0.000000	Y
M-2	Tar tanker overfill	*Y	Y	D	0	>0.1-0.3	0.2	0.000000	Y

*Y - Subpart L Controlled

ED_002508A_00000035-00044

USS Clairton Works
Total Annual Benzene (TAB) - 2017
PROCESS UNIT TURNAROUNDS LISTING

Waste Stream ID#	Process Unit Turnaround Stream Description	Controlled Y/N	Water Content >10% Y/N	Waste Stream Type Code	Annual Waste Quantity (Gal)	Range of Benzene Concentration (ppm)	Annual Flow Weighted Avg. Benz. Conc.(ppm)	Annual BQ (Mg)	TAB Component Y/N
M-3	Centrifuge from Koppers	Y	Y	D	44350	2.37 -6.41	4.7	0.00080	Y
M-4	Light Oil Tanks, T-62	*Y	Y	D	0	89 - 2000	284	0.00000	Y
M-5	decanter cleanout	N	Y	D	0	38-350	118.2	0.0000000	Y
M-6	Absorber Cleanout	N	Y	D	0	93 - 221	157	0.0000000	Y
						Subtotal - Process Unit Turnarounds		0.019	

*Y - Subpart L Controlled

ED_002508A_00000035-00045

Ex First Overnight®

FedEx Express

8109 9920 3085

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4 Express Pa

5 Packaging

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Other

6 Special Handling and Delivery Signature Options

Saturday Delivery

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7 Payment

Sender

Total Packages

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FedEx FIRST OVERNIGHT

Delivery Address

1650 ARCH STREET

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OFFICE OF THE REGIONAL ADMINISTRATOR

Please Review and Take Appropriate Action

✓	ORA	3RA00	Office of the Regional Administrator
✓	APD	3AP00	Mission Support Division
	CBPO	3CB00	Chesapeake Bay Program Office
	EAID	3EA00	Env Assessment & Innovation Division
	HSCD	3HS00	Hazardous Site Cleanup Division
	LCD	3LC00	Land & Chemicals Division
	OCGR	3CG00	Office of Comm & Gov Relations
	OECEJ	3EC00	Office of Enforcement, Compliance & EJ
	OPM	3PM00	Office of Policy & Management
	ORC	3RC00	Office of Regional Counsel
	WPD	3WP00	Water Protection Division

Comments: