USS[illegible]n Works
Total Annual benzene (TAB) - 2009
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	1.125	9.32 - 11.13	10.2	5.7E-08	Y
5CR119	LT 101 101-E Level Displacer	N	Y	E	3	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	0.0375	7.4 - 9.8	8.3	1.6E-09	Y
5CR133	LIC 104 102-F Level Displacer	N	Y	A	3.75	7.4 - 9.8	8.3	1.6E-07	Y
5CR134	LG 102-F Level Glass	N	Y	A	0.375	7.4 - 9.8	8.3	1.6E-08	Y
5CR135	LSL 100 S-100 Low Level	N	Y	A	0.375	7.4 - 9.8	8.3	1.6E-08	Y
5CR136	LSH 100 S- 100 High Level	N	y	A	0.375	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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USL n Works
Total Annual benzene (TAB) - 2009
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	0.06	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	0.15	82	82	6.20E-08	Y
5CR162	LI-1 Dehy. Cond. Pot Level Glass	N	Y	A	0.3	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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US: on Works
Total Annual Benzene (TAB) - 2009
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 [illegible] Works
Total Annual Benzene (TAB) - 2009 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	61	235 - 343	284	0.0	Y
2CR125	P-619A L.O. Decanter Water Pump	N	Y	A	1	89 - 2000	284	0.0	Y
2CR126	P-619B L.O. Decanter Water Pump	N	Y	A	1	89 - 2000	284	0.0	Y
2CR127	618 Sample	N	Y	A	31	89 - 2000	983	0.0	Y
	LIGHT OIL FACILITY								
LOS25	Contaminated Water	N	Y	A	61	714 - 1211	962.5	0.0	Y
LOS32	Contaminated Water Pumps East	N	Y	A	5	89 - 2000	962.5	0.0	Y
LOS33	Contaminated Water Pumps West	N	Y	A	5	89 - 2000	962.5	0.0	Y
	#5 CONTROL ROOM								
5CR57	P424 Methanol Transfer Pump	N	Y	E	68	4285 - 40000	26295	0.0	Y
5CR95	FRCA-305 303-E Lean Flow	N	Y	E	171	<0.005	<0.005	0.0	Y
5CR96	FRCA-304 302-E Quench Flow	N	Y	E	171	0.04 - 0.13	0.1	0.0	Y
5CR108	FR 6513 Level Flow Trans.	N	Y	E	171	0.003 - 0.003	0.003	0.0	Y
5CR110	FRC 6515 Rich Flow	N	Y	E	171	0.065 - 0.069	0.067	0.0	Y
5CR115	FI 6556 D/C Flow	N	Y	A	171	7.4 - 9.8	8.3	0.0	Y
5CR130	FT 102-D/C To 102-E	N	Y	A	171	7.4 - 9.8	8.3	0.0	Y
5CR132	FIC 103 D/C To 102-F	N	Y	A	171	7.4 - 9.8	8.3	0.0	Y
5CR141	FRCA 304 301-E Circ. Rate	N	Y	E	171	0.04 - 0.13	0.1	0.0	Y
5CR149	FRA 311 Rich MDEA Flow Trans.	N	Y	E	171	0.065 - 0.069	0.068	0.0	Y
5CR150	FRCA 305 Lean MDEA To 302-E	N	Y	E	171	<0.005	<0.005	0	Y
5CR160	FRCA 319 Flow TO 303-E Reflux	N	Y	E	171	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 [illegible] n Works

Total Annual Benzene (TAB) - 2009 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	46	2.37 - 7.41	4.7	0.0	Y
2B/P-38	2BP 1/6 Pitch Traps	N	Y	F	92	20 - 10000	20	0.0	*N
2B/P-39	2B/P 7/12 Pitch Traps	N	y	F	92	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

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USS n Works
Total Annual benzene (TAB) - 2009
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)	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	0	714 - 1211	962.5	0.0E+00	N
LOS31	T64 L.O. Storage Tank	*Y	Y	D	0	0	714 - 1211	962.5	0.0E+00	N
	#5 CONTROL ROOM - 100 VCU									
5CR1	V101E Carbonate Absorber	N	Y	D	56	75	10 - 14	11.7	2.5E-06	Y
5CR2	V102E Carb. Str./Cond.	N	Y	D	56	75	0.003 - 0.003	0.003	6.4E-10	Y
5CR12	E101CA Carb. Reb. Heat Exch.	N	Y	D	377	502	0.003 - 0.003	0.003	4.3E-09	Y
5CR13	E101CB Carb. Reb. Heat Exch.	N	Y	D	377	502	0.003 - 0.003	0.003	4.3E-09	Y
5CR14	E102C1 Proc. H2O cool HT Exc	N	Y	D	1691	2254	7.4 - 9.8	8.3	5.3E-05	Y
5CR15	E102C2 Proc H2O cool HT Exc	N	Y	D	1691	2254	7.4 - 9.8	8.3	5.3E-05	Y
5CR16	E103CA Carb.Sol. Heat Exch.	N	Y	D	377	502	9.32 - 11.13	10.2	1.5E-05	Y
5CR17	E103CB Carb. Sol. Heat Exch.	N	Y	D	377	502	9.32 - 11.13	10.2	1.5E-05	Y
5CR67	P111J Lean Carb. Sol. Pump	N	Y	D	58	77	0.003 - 0.003	0.003	6.6E-10	Y
5CR68	P111JA Lean Carb. Sol. Pump	N	Y	D	58	77	0.003 - 0.003	0.003	6.6E-10	Y
5CR69	P113J Direct Condenser Pump	N	Y	D	71	95	7.4 - 9.8	8.3	2.2E-06	Y
5CR70	P113JA Direct Cond. Pump	N	Y	D	71	95	7.4 - 9.8	8.3	2.2E-06	Y
5CR73	P662A Rich 100 Carb.Sol.Pump 26.6	N	Y	D	20	26.6	10 - 14	11.7	8.8E-07	Y
5CR74	P662B New Rich Carb.Sol.Pump	N	Y	D	19.95	26.6	10 - 14	11.7	8.8E-07	Y
5CR86	FCV-110 Rich Carb. Flow	N	Y	D	10.65	14.2	10 - 14	11.7	4.7E-07	Y
5CR87	FCV-101 Lean Carb.	N	Y	D	15.30	20.4	0.003 - 0.003	0.003	1.7E-10	Y
5CR118	LG 101 101-E Level Glass	N	Y	D	1.13	1.5	10 - 14	11.7	5.0E-08	Y
5CR119	LT 101 101-E Level Displacer	N	Y	D	3.00	4	10 - 14	11.7	1.3E-07	Y
5CR120	LT 101-A 101-E Level D/P	N	Y	D	0.15	0.2	10 - 14	11.7	6.6E-09	Y
5CR121	FI 110-A ABS Blowdown	N	Y	D	0.15	0.2	10 - 14	11.7	6.6E-09	Y
5CR122	FIC-110 Rich Flow Transmitter	N	Y	D	0.23	0.3	10 - 14	11.7	1.0E-08	Y
5CR123	LG102-A Strip Level Glass	N	Y	D	0.38	0.5	0.003 - 0.003	0.003	4.3E-12	Y
5CR124	LT 102-A 102-E Strip Level Disp.	N	Y	D	1.88	2.5	0.003 - 0.003	0.003	2.1E-11	Y
5CR125	LT 102-B 102-E Strip Level Disp.	N	Y	D	1.88	2.5	0.003 - 0.003	0.003	2.1E-11	Y
5CR126	LG 102-B 102-E DC Level Glass	N	Y	D	0.38	0.5	7.4 - 9.8	8.3	1.2E-08	Y
5CR127	LT-102-C 102-E DC Level Disp.	N	Y	D	1.88	2.5	7.4 - 9.8	8.3	5.9E-08	Y
5CR128	LT 102-D 102-E DC Level Disp.	N	Y	D	1.88	2.5	7.4 - 9.8	8.3	5.9E-08	Y
5CR129	FT 102-C D/C To 102-E	N	Y	D	0.08	0.1	7.4 - 9.8	8.3	2.4E-09	Y
5CR130	Ft 102-B 102-E D/C Blowdown	N	Y	D	0.09	0.12	7.4 - 9.8	8.3	2.8E-09	Y
5CR131	FT 101 Lean To 101-E ABS	N	Y	D	0.23	0.3	0.003 - 0.003	0.003	2.6E-12	Y
5CR132	FIC 103 D/C To 102-F	N	Y	D	0.04	0.05	7.4 - 9.8	8.3	1.2E-09	Y
	#5 CONTROL ROOM - 600 VCU									
5CR7	VT650 Carb. Absorber	N	Y	D	38	50	1.9 - 11.0	5	7.1E-07	Y
5CR8	VT651 Cond. Str.&Dir. Cond.	N	Y	D	56	75	7.4 - 9.8	8.3	1.8E-06	Y
5CR18	E652A Solution Reboiler	N	Y	D	499	665	0.003 - 0.003	0.003	5.7E-09	Y

*Y - Subpart L Controlled

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USS .n Works
Total Annual benzene (TAB) - 2009
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)	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	499	665	0.003 - 0.003	0.003	5.7E-09	Y
5CR20	E653 Lean Solution Cooler	N	Y	D	719	958	0.003 - 0.003	0.003	8.2E-09	Y
5CR21	E654A Carb. Sol. Heat Exch.	N	Y	D	517	689	0.003 - 0.003	0.003	5.9E-09	Y
5CR22	E654B Carb. Sol. Heat Exch.	N	Y	D	517	689	0.003 - 0.003	0.003	5.9E-09	Y
5CR23	E655A Process Water Cooler	N	Y	D	683	910	7.4 - 9.8	8.3	2.1E-05	Y
5CR24	E655B Process Water Cooler	N	Y	D	683	910	7.4 - 9.8	8.3	2.1E-05	Y
5CR45	P662 Rich Carb. Sol. Pump	N	Y	D	35	46.9	1.9 - 11.0	5	6.7E-07	Y
5CR46	P663C Rich Carb. Sol. Pump	N	Y	D	40	53.9	1.9 - 11.0	5	7.7E-07	Y
5CR47	P663 Lean Carb. Sol. Pump	N	Y	D	41	54.8	0.003 - 0.003	0.003	4.7E-10	Y
5CR48	P663A Lean Carb. Sol. Pump	N	Y	D	41	54.8	0.003 - 0.003	0.003	4.7E-10	Y
5CR49	P664 Direct Cond. H2O Pump	N	Y	D	59	79	7.4 - 9.8	8.3	1.9E-06	Y
5CR50	P664A Ditect Cond. H2O Pump	N	Y	D	59	79	7.4 - 9.8	8.3	1.9E-06	Y
5CR81	LCV-6513 Lean Sol. To T-651	N	Y	D	8	10.2	0.003 - 0.003	0.003	8.7E-11	Y
5CR82	FCV-6515 Rich to T651 Stripper	N	Y	D	3.90	5.2	1.9 - 11.0	5	7.4E-08	Y
5CR90	LCV-6500 T-650 ABS Make Up	N	Y	D	0.38	0.5	7.4 - 9.8	8.3	1.2E-08	Y
5CR91	LCV-6516 T-651 Blowdown	N	Y	D	0.38	0.5	7.4 - 9.8	8.3	1.2E-08	Y
5CR103	E-654A Relief Valve 3/4"x1"	N	Y	D	1.73	2.31	1.9 - 11.0	5	3.3E-08	Y
5CR104	E-654B Relief Valve 3/4"x1"	N	Y	D	1.73	2.31	1.9 - 11.0	5	3.3E-08	Y
5CR106	LICA 6500 Abs Level Displacer	N	Y	D	0.75	1	1.9 - 11.0	5	1.4E-08	Y
5CR107	LG 6507 ABS Level Glass	N	Y	D	0.38	0.5	1.9 - 11.0	5	7.1E-09	Y
5CR108	FR 6513 Level Flow Trans.	N	Y	D	0.30	0.4	0.003 - 0.003	0.003	3.4E-12	Y
5CR109	FI 6580 Axi Inj. Water	N	Y	D	0.45	0.6	7.4 - 9.8	8.3	1.4E-08	Y
5CR110	FRC 6515 Rich Flow	N	Y	D	0.30	0.4	1.9 - 11.0	5	5.7E-09	Y
5CR111	LICA 6513 Stripper Level Disp	N	Y	D	1.13	1.5	0.003 - 0.003	0.003	1.3E-11	Y
5CR112	LG 6510 Stripper Level Glass	N	Y	D	0.38	0.5	0.003 - 0.003	0.003	4.3E-12	Y
5CR113	LICA 6516 D/C Level Displacer	N	Y	D	0.75	1	7.4 - 9.8	8.3	2.4E-08	Y
5CR114	LG 6524 D/C Level Glass	N	Y	D	0.38	0.5	7.4 - 9.8	8.3	1.2E-08	Y
5CR115	FI 6556 D/C Flow	N	Y	D	0.24	0.32	7.4 - 9.8	8.3	7.5E-09	Y
	#5 CONTROL ROOM - 300 SCOT									
5CR26	E302C1 Quench Col. Cooler	N	Y	D	230	307	0.04 - 0.13	0.08	7.0E-08	Y
5CR27	E302C2 Quench Col. Cooler	N	Y	D	230	307	0.04 - 0.13	0.08	7.0E-08	Y
5CR28	E303C1 Lean MDEA SolCooler	N	Y	D	230	306	<0.005	<0.005	0.0E+00	Y
5CR29	E303C2 Lean MDEA SolCooler	N	Y	D	230	306	<0.005	<0.005	0.0E+00	Y
5CR30	E304C1 MDEA L/R Sol Exch.	N	Y	D	1796	2394	0.065 - 0.069	0.068	4.6E-07	Y
5CR31	E304C2 MDEA L/R Sol Exch.	N	Y	D	1796	2394	0.065 - 0.069	0.068	4.6E-07	Y
5CR32	E304C3 MDEA L/R Sol Exch.	N	Y	D	1796	2394	0.065 - 0.069	0.068	4.6E-07	Y
5CR33	E305C 303-E Strip.Reboiler	N	Y	D	740	987	0.065 - 0.069	0.068	2.5E-07	Y
5CR34	P310J Que.Col.Bottoms Pump	N	Y	D	9	11.5	0.04 - 0.13	0.08	3.5E-09	Y

*Y - Subpart L Controlled

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USS n Works
Total Annual benzene (TAB) - 2009
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)	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	9	11.5	0.04 - 0.13	0.08	3.5E-09	Y
5CR36	P311J MDEA Rich Sol. Pump	N	Y	D	9	11.6	0.065 - 0.069	0.068	3.0E-09	Y
5CR37	P312J Lean MDEA Sol. Pump	N	Y	D	15	20.5	<0.005	<0.005	0	Y
5CR38	P312JA Lean MDEA Sol.Pump	N	Y	D	10	13.3	<0.005	<0.005	0	Y
5CR39	P313J Stripper Accum. Pump	N	Y	D	5	6	0.028 - 0.16	0.099	1.7E-09	Y
5CR40	P313JA Stripper Accum. Pump	N	Y	D	5	6	0.028 - 0.16	0.099	1.7E-09	Y
5CR62	301J 300 Axi	N	Y	D	2	2	0.04 - 0.13	0.08	4.5E-10	Y
5CR75	T301F Stripper Accumulator	N	Y	D	8	10	0.028 - 0.16	0.099	2.8E-09	Y
5CR76	T304F Acid Gas K/O Drum	N	Y	D	4	5	0.04 - 0.13	0.08	1.1E-09	Y
5CR78	V301E Quench Column	N	Y	D	38	50	0.04 - 0.13	0.08	1.1E-08	Y
5CR79	V302E MDEA Absorber	N	Y	D	38	50	0.065 - 0.069	0.068	9.7E-09	Y
5CR80	V303E MDEA Stripper	N	Y	D	38	50	<0.005	<0.005	0.0E+00	Y
5CR83	LC-321 304-F Drain Valve	N	Y	D	0.23	0.3	0.04 - 0.13	0.08	6.8E-11	Y
5CR92	FRCA-307 301-F Blowdown	N	Y	D	0.30	0.4	0.028 - 0.16	0.099	1.1E-10	Y
5CR93	LCV-305 303-E Reflux Flow 319	N	Y	D	0.38	0.5	0.028 - 0.16	0.099	1.4E-10	Y
5CR94	LRCA-301 302-E Level Control	N	Y	D	1.95	2.6	0.028 - 0.16	0.099	7.3E-10	Y
5CR95	FRCA-305 303-E Lean Flow	N	Y	D	13.43	17.9	<0.005	<0.005	0.0E+00	Y
5CR96	FRCA-304 302-E Quench Flow	N	Y	D	13.43	17.9	0.04 - 0.13	0.08	4.1E-09	Y
5CR97	LRCA-300 301-E Level	N	Y	D	0.30	0.4	0.04 - 0.13	0.08	9.1E-11	Y
5CR98	E302C1S Valve Relief 1"x2"	N	Y	D	2.20	2.93	0.04 - 0.13	0.08	6.7E-10	Y
5CR99	E302C2S Valve Relief 1'x2'	N	Y	D	2.20	2.93	0.04 - 0.13	0.08	6.7E-10	Y
5CR100	E303C1S Valve Relief 1"x2"	N	Y	D	2.21	2.94	0.065 - 0.069	0.068	5.7E-10	Y
5CR101	E303C2S Valve Relief 1"x2"	N	Y	D	2.21	2.94	0.065 - 0.069	0.068	5.7E-10	Y
5CR139	LG 315 A&B 301-E Que Level Gl	N	Y	D	0.75	1	0.04 - 0.13	0.08	2.3E-10	Y
5CR140	LRCA 300 301-E Level Displ.	N	Y	D	2.25	3	0.04 - 0.13	0.08	6.8E-10	Y
5CR141	FRCA 304 301-E Circ. Rate	N	Y	D	0.08	0.1	0.04 - 0.13	0.08	2.3E-11	Y
5CR142	LC 321 304-F Level Displacer	N	Y	D	1.50	2	0.04 - 0.13	0.08	4.5E-10	Y
5CR143	LG 324-F Level Glass	N	Y	D	0.38	0.5	0.04 - 0.13	0.08	1.1E-10	Y
5CR144	HLA 322 304-F Alarm	N	Y	D	0.19	0.25	0.04 - 0.13	0.08	5.7E-11	Y
5CR145	HHLA 323 304-F Alarm	N	Y	D	0.19	0.25	0.04 - 0.13	0.08	5.7E-11	Y
5CR146	LG 318A 302-E Level Glass	N	Y	D	0.75	1	0.065 - 0.069	0.068	1.9E-10	Y
5CR147	LG 318B 302-E Level Glass	N	Y	D	0.75	1	0.065 - 0.069	0.068	1.9E-10	Y
5CR148	LRCA 301 302-E Level Displ.	N	Y	D	4.13	5.5	0.065 - 0.069	0.068	1.1E-09	Y
5CR149	FRA 311 Rich MDEA Flow Trans	N	Y	D	0.08	0.1	0.065 - 0.069	0.068	1.9E-11	Y
5CR150	FRCA 305 Lean MDEA to 302-E	N	Y	D	0.09	0.12	<0.005	<0.005	0.0E+00	Y
5CR151	LG 317 A 303-E Level Displ.	N	Y	D	0.38	0.5	<0.005	<0.005	0.0E+00	Y
5CR152	LG 317 B 303-E Level Displ.	N	Y	D	0.38	0.5	<0.005	<0.005	0.0E+00	Y
5CR153	LG 317-C 303-E Level Displ.	N	Y	D	0.38	0.5	<0.005	<0.005	0.0E+00	Y

*Y - Subpart L Controlled

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USS n Works
Total Annual benzene (TAB) - 2009
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)	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	2.63	3.5	<0.005	<0.005	0.0E+00	Y
5CR155	LG 318 307-C Trap Out Level Gl.	N	Y	D	0.38	0.5	<0.005	<0.005	0.0E+00	Y
5CR156	LLA 331 307-C Trap Out Low Lev.	N	Y	D	0.38	0.5	<0.005	<0.005	0.0E+00	Y
5CR157	LC 305 301-F Accum. Displacer	N	Y	D	1.50	2	0.028 - 0.16	0.099	5.6E-10	Y
5CR158	LG 326 301-F Level Glass	N	Y	D	0.19	0.25	0.028 - 0.16	0.099	7.0E-11	Y
5CR159	FRCA 307 313 J & JA Flow	N	Y	D	0.06	0.08	0.028 - 0.16	0.099	2.2E-11	Y
5CR160	FRCA 319 Flow TO 303-E Reflux	N	Y	D	0.08	0.1	0.028 - 0.16	0.099	2.8E-11	Y
	#1 BY-PRODUCTS									
1BP-8	D1 #1 Unit Decanter	*Y	Y	D	0	0	2.37 - 6.41	4.7	0	N
1B/P-9	D2 #1 Unit Decanter	*Y	Y	D	0	0	2.37 - 6.41	4.7	0	N
1B/P-10	D3 #1 Unit Decanter	*Y	Y	D	0	0	2.37 - 6.41	4.7	0	N
1B/P-11	D4 #1 Unit Decanter	*Y	Y	D	0	0	2.37 - 6.41	4.7	0	N
1B/P-12	D5 #1 Unit Decanter	*Y	Y	D	0	0	2.37 - 6.41	4.7	0.0E+00	Y
1B/P-13	D6 #1 Unit Decanter	*Y	Y	D	0	0	2.37 - 6.41	4.7	0.0E+00	Y
1B/P-14	D7 #1 Unit Decanter	*Y	Y	D	1382	1382	2.37 - 6.41	4.7	2.5E-05	Y
1B/P-15	D8 #1 Unit Decanter	*Y	Y	D	1382	1382	2.37 - 6.41	4.7	2.5E-05	Y
1B/P-16	D9 #1 Unit Decanter	*Y	Y	D	0	0	2.37 - 6.41	4.7	0.0E+00	Y
1B/P-17	D10 #1 Unit Decanter	*Y	Y	D	0	0	2.37 - 6.41	4.7	0.0E+00	Y
1B/P-18	D11 #1 Unit Decanter	*Y	Y	D	0	0	2.37 - 6.41	4.7	0.0E+00	Y
1B/P-19	D12 #1 Unit Decanter	*Y	Y	D	0	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	0	2.37 - 6.41	4.7	0.0E+00	Y
2B/P-2	D2 #2 Unit Decanter	*Y	Y	D	0	0	2.37 - 6.41	4.7	0.0E+00	Y
2B/P-3	D3 #2 Unit Decanter	*Y	Y	D	0	0	2.37 - 6.41	4.7	0.0E+00	Y
2B/P-4	D4 #2 Unit Decanter	*Y	Y	D	0	0	2.37 - 6.41	4.7	0.0E+00	Y
2B/P-5	D5 #2 Unit Decanter	*Y	Y	D	0	0	2.37 - 6.41	4.7	0.0E+00	Y
2B/P-6	D6 #2 Unit Decanter	*Y	Y	D	1382	1382	2.37 - 6.41	4.7	2.5E-05	Y
2B/P-7	D7 #2 Unit Decanter	*Y	Y	D	0	0	2.37 - 6.41	4.7	0.0E+00	Y
2B/P-8	D8 #2 Unit Decanter	*Y	Y	D	0	0	2.37 - 6.41	4.7	0.0E+00	Y
2B/P-9	D11 #2 Unit Decanter	*Y	Y	D	0	0	2.37 - 6.41	4.7	0.0E+00	Y
2B/P-10	D12 #2 Unit Decanter	*Y	Y	D	0	0	2.37 - 6.41	4.7	0.0E+00	Y
	Tar Tanks									
TT-1	D13 #2 Tar Tank	*Y	Y	D	0	0	0 - 82	0.05	0.000000	Y
TT-2	D14 #5 Tar Tank	*Y	Y	D	0	0	0 - 82	0.05	0.000000	Y
TT-3	D15 #7 Tar Tank	*Y	Y	D	0	0	0 - 82	0.05	0.000000	Y
	Miscellaneous									
M-1	Primary Cooler	Y	Y	D	0	0	2.37 -6.41	4.7	0.000000	Y
M-2	Tar tanker overfill	*Y	Y	D	284	284	>0.1-0.3	0.2	0.000000	Y

*Y - Subpart L Controlled

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USS n Works
Total Annual benzene (TAB) - 2009
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)	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	75	0.03 - 0.081	0.06	1.7E-08	Y
1CR341	HESS01 SS Spiral	N	Y	D	2500	2500	93 - 221	144.1	1.4E-03	Y
1CR342	HESS02 SS Spiral	N	Y	D	2500	2500	93 - 221	144.1	1.4E-03	Y
1CR343	HESS03 SS Spiral	N	Y	D	2500	2500	93 - 221	144.1	1.4E-03	Y
1CR344	HESS04 SS Spiral	N	Y	D	2500	2500	93 - 221	144.1	1.4E-03	Y
1CR345	HESS05 SS Spiral	N	Y	D	2500	2500	93 - 221	144.1	1.4E-03	Y
1CR346	HESS06 SS Spiral	N	Y	D	2500	2500	93 - 221	144.1	1.4E-03	Y
1CR347	HESS07 SS Spiral	N	Y	D	2500	2500	93 - 221	144.1	1.4E-03	Y
1CR348	HESS08 SS Spiral	N	Y	D	2500	2500	93 - 221	144.1	1.4E-03	Y
1CR349	HESS09 SS Spiral	N	Y	D	2500	2500	93 - 221	144.1	1.4E-03	Y
1CR350	HESS010 SS Spiral	N	Y	D	2500	2500	93 - 221	144.1	1.4E-03	Y
1CR351	HESS011 SS Spiral	N	Y	D	2500	2500	93 - 221	144.1	1.4E-03	Y
1CR352	HESS012 SS Spiral	N	Y	D	2500	2500	93 - 221	144.1	1.4E-03	Y
1CR353	T207 SS	N	Y	D	100	100	0.03 - 0.081	0.06	2.3E-08	Y
1CR354	V208B SS Light Oil Pump	N	Y	D	100	100	89 - 2000	983	3.7E-04	Y
1CR355	P207A SS BTMS Pump	N	Y	D	295	295	0.03 - 0.081	0.06	6.6E-08	Y
1CR356	P207B SS BTMS Pump	N	Y	D	390	390	0.03 - 0.081	0.06	8.8E-08	Y
1CR357	P207C SS Cond. Section Pump	N	Y	D	450	450	93 - 221	144.1	2.4E-04	Y
1CR358	P207D SS Cond. Section Pump	N	Y	D	350	350	93 - 221	144.1	1.9E-04	Y
1CR359	P207E SS Phosam Pump	N	Y	D	50	50	8.16 - 14	9.9	1.9E-06	Y
1CR360	P207F SS Phosam Pump	N	Y	D	50	50	8.16 - 14	9.9	1.9E-06	Y
1CR361	P207G SS L.O. Pump	N	Y	D	25	25	89 - 2000	983	0.0E+00	Y
1CR362	P207H SS L.O. Pump	N	Y	D	25	25	89 - 2000	983	0.0E+00	Y
1CR363	P2101 N Inline Pump	N	Y	D	20	20	0.03 - 0.081	0.06	4.5E-09	Y
1CR364	P2102 S Inline Pump	N	Y	D	20	20	0.03 - 0.081	0.06	4.5E-09	Y
1CR365	P2103 SS Reboiler Cond. Pump	N	Y	D	15	15	0.03 - 0.081	0.06	3.4E-09	Y
1CR366	P2104 SS Reboiler Cond. Pump	N	Y	D	15	15	0.03 - 0.081	0.06	3.4E-09	Y
1CR367	PP5 S SS TRENCH Pump	N	Y	D	5	5	0.03 - 0.081	0.06	1.1E-09	Y
1CR368	FICV2700 SS CV - Process Water Flow	N	Y	D	2	2	93 - 221	144.1	1.1E-06	Y
1CR369	LICV2705 SS CV - Bottoms Level	N	Y	D	4.5	4.5	0.03 - 0.081	0.06	1.0E-09	Y
1CR370	LIC2709 SS CV - Phosam Level	N	Y	D	2	2	8.16 - 14	9.9	7.4E-08	Y
1CR371	LICV2710 SS CV - Phosam Level	N	Y	D	2	2	8.16 - 14	9.9	7.4E-08	Y
	LIGHT OIL STORAGE									
LOS26	T59 L.O. Storage Tank	*Y	Y	D	0	0	714 - 1211	962.5	0.0E+00	N
LOS27	T60 L.O. Storage Tank	*Y	Y	D	0	0	714 - 1211	962.5	0.0E+00	N
LOS28	T61 L.O. Storage Tank	*Y	Y	D	0	0	714 - 1211	962.5	0.0E+00	N
LOS29	T62 L.O. Storage Tank	*Y	Y	D	0	0	714 - 1211	962.5	0.0E+00	N

*Y - Subpart L Controlled

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USS n Works
Total Annual benzene (TAB) - 2009
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)	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	1989	1989	2.37 -6.41	4.7	0.00004	Y
M-4	Light Oil Tanks, 624	*Y	Y	D	0	0	89 - 2000	284	0.00000	Y
M-5	decanter cleanout	N	Y	D	0	0	38-350	118.2	0.0000000	Y
M-6	Absorber Cleanout	N	Y	D	1044	1044	93 - 221	157	0.0006204	Y
							Subtotal - Process Unit Turnarounds		0.019	

*Y - Subpart L Controlled

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