**USS Clairton Works**
**Total Annual Benzene (TAB) - 1998**
**MTCE-RELIEF/CONTROL VALVES LISTING**

| Waste Stream ID# | Mtce - Valves 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 | | | | | | | | |
| 1CR163 | LICV2725 DEP Rich Tank Level | N | Y | A | 4.5 | 8.16 - 14 | 9.9 | 1.7E-07 | Y |
| 1CR164 | FRCV2726 DEP Rich Tank Level | N | Y | A | 1 | 8.16 - 14 | 9.9 | 3.7E-08 | Y |
| 1CR165 | LICV3011 Top Recirc. H2O Level | N | Y | A | 50 | 93 - 221 | 144.1 | 2.7E-05 | Y |
| 1CR166 | LRACV3014 Phosam Solution Level | N | Y | A | 13 | 8.16 - 14 | 9.9 | 4.8E-07 | Y |
| 1CR167 | LICV3016 DEP Level | N | Y | A | 3 | 8.16 - 14 | 9.9 | 1.1E-07 | Y |
| 1CR168 | LICV3021 Top Recirc. H2O Level | N | Y | A | 50 | 93 - 221 | 144.1 | 2.7E-05 | Y |
| 1CR169 | LRCAV3024 Phosam Solution Level | N | Y | A | 13 | 8.16 - 14 | 9.9 | 4.8E-07 | Y |
| 1CR170 | LICV3031 Top Recirc. H2O Level | N | Y | A | 50 | 93 - 221 | 144.1 | 2.7E-05 | Y |
| 1CR171 | LICAV3056 Phosam Rich Solution Flow | N | Y | A | 2 | 8.16 - 14 | 9.9 | 7.4E-08 | Y |
| 1CR172 | LICV3063 Phosam StripP Bottom Level | N | Y | A | 4.5 | 0.23 - 5.0 | 1.8 | 3.0E-08 | Y |
| 1CR173 | LICV3073 Phosam Strip Bottom Level | N | Y | A | 4.5 | 0.23 - 5.0 | 1.8 | 3.0E-08 | Y |
| 1CR174 | LICV3103 Vapor Cont. Level | N | Y | A | 2 | 8.16 - 14 | 9.9 | 7.4E-08 | Y |
| 1CR175 | LICV3113 Vapor Cont Level | N | Y | A | 2 | 8.16 - 14 | 9.9 | 7.4E-08 | Y |
| 1CR176 | LICV3124 Fract. Feed Tank Level | N | Y | A | 2 | 0.005 - 0.027 | 0.02 | 1.5E-10 | Y |
| 1CR177 | LICV3134 Fract. Feed Tank Level | N | Y | A | 1 | 0.005 - 0.027 | 0.02 | 7.5E-11 | Y |
| 1CR178 | LICV3174 Phosam Flash Tank Level | N | Y | A | 15 | 0.23 - 5.0 | 1.8 | 1.0E-07 | Y |
| 1CR179 | PICV3244 Fract. Feed Tank Pressure | N | Y | A | 4.5 | 0.005 - 0.027 | 0.02 | 3.4E-10 | Y |
| 1CR180 | PICV3254 Fract. Feed Tank Pressure | N | Y | A | 4.5 | 0.005 - 0.027 | 0.02 | 3.4E-10 | Y |
| 1CR181 | TICV3302 E330 Lean Solution Cooler | N | Y | A | 18 | 0.23 - 5.0 | 1.8 | 1.2E-07 | Y |
| 1CR182 | TICV3312 E331 Lean Solution Cooler | N | Y | A | 18 | 0.23 - 5.0 | 1.8 | 1.2E-07 | Y |
| 1CR183 | LICV3505 NH3 Fract. Bottoms Level | N | Y | A | 13 | 0 - 0.53 | 0.2 | 9.8E-09 | Y |
| 1CR184 | PICV3523 NH3 Fract. Top Pressure | N | Y | A | 1 | 0 - 0.53 | 0.2 | 7.5E-10 | Y |
| 1CR185 | PICV3535 NH3 Fract. Bottoms | N | Y | A | 2 | 0 - 0.53 | 0.2 | 1.5E-09 | Y |
| 1CR186 | FRCV3558 NH3 Product Flow | N | Y | A | 1 | 0.005 - 0.027 | 0.02 | 7.5E-11 | Y |
| 1CR187 | HIC CV Make-up H2O | N | Y | A | 1 | 0.005 - 0.027 | 0.02 | 7.5E-11 | Y |
| 1CR188 | HIC H360 Lean Solution Bypass | N | Y | A | 7 | 0.23 - 5.0 | 1.8 | 4.7E-08 | Y |
| 1CR189 | FICV2700 Superstill CV -Process Water Flow | N | Y | A | 2 | 93 - 221 | 144.1 | 1.1E-06 | Y |
| 1CR190 | LICV2705 Superstill CV - Bottoms Level | N | Y | A | 4.5 | 0.03 - 0.081 | 0.06 | 1.0E-09 | Y |
| 1CR191 | LIC2709 Superstill CV - Phosam Level | N | Y | A | 2 | 8.16 - 14 | 9.9 | 7.4E-08 | Y |
| 1CR192 | LIC2710 Superstill CV - Phosam Level | N | Y | A | 2 | 8.16 - 14 | 9.9 | 7.4E-08 | Y |
| 1CR193 | LICAV2015 Section Level - T201 Valve | N | Y | A | 25 | 93 - 221 | 144.1 | 1.4E-05 | Y |
| 1CR194 | LICAV2025 Section Level - T202 Valve | N | Y | A | 25 | 93 - 221 | 144.1 | 1.4E-05 | Y |
| 1CR195 | LICAV2035 Section Level - T203 Valve | N | Y | A | 25 | 93 - 221 | 144.1 | 1.4E-05 | Y |
| 1CR196 | LICV2044 West Final Cooler Sump Level Control Valve | N | Y | A | 1.5 | 93 - 221 | 144.1 | 8.1E-07 | Y |
| 1CR197 | LICV2058 Final Cooler Sump Level Control Valve | N | Y | A | 1.5 | 93 - 221 | 144.1 | 8.1E-07 | Y |
| 1CR198 | FIRCV2128 Cold Proc Water - Mid. Sprays - T201 Valve | N | Y | A | 24 | 93 - 221 | 144.1 | 1.3E-05 | Y |
| 1CR199 | CV2136 Tar Water Section Level - T210 Valve | N | Y | A | 24 | 93 - 221 | 144.1 | 1.3E-05 | Y |



ED_002508A_00001330-00001

**USS Clairton Works**
**Total Annual Benzene (TAB) - 1998**
**MTCE-RELIEF/CONTROL VALVES LISTING**

| Waste Stream ID# | Mtce - Valves 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 |
|---|---|---|---|---|---|---|---|---|---|
| 1CR200 | FIRCV2149 Top Spray Water Make-up - T202 Valve | N | Y | A | 1 | 93 - 221 | 144.1 | 5.4E-07 | Y |
| 1CR201 | FIRCV2238 Cold Proc. Water - Middle Sprays - T202 | N | Y | A | 24 | 93 - 221 | 144.1 | 1.3E-05 | Y |
| 1CR202 | FIRCV 2279 Top Sprays Water Make-up - T202 Valve | N | Y | A | 1 | 93 - 221 | 144.1 | 5.4E-07 | Y |
| 1CR203 | LICAV 2356 Tar Water Section Level - T203 Valve | N | Y | A | 24 | 93 - 221 | 144.1 | 1.3E-05 | Y |
| 1CR204 | FIRCV2369 Top Spray Water Make-up- T203 Valve | N | Y | A | 1 | 93 - 221 | 144.1 | 5.4E-07 | Y |
| 1CR205 | CV2635 Valve Knockout Pot for T206 | N | Y | A | 24 | 93 - 221 | 144.1 | 1.3E-05 | Y |
| 1CR206 | HIC2666 Top Recirculating Water Bleed-off T206 | N | Y | A | 1 | 93 - 221 | 144.1 | 5.4E-07 | Y |
| 1CR207 | LICAV2667 Tar Water Section Levelof T206 Valve | N | Y | A | 8 | 93 - 221 | 144.1 | 4.3E-06 | Y |
| 1CR208 | CV2668 Cold Process Water to Middle Sprays T206 | N | Y | A | 32 | 93 - 221 | 144.1 | 1.7E-05 | Y |
| 1CR209 | HIC2669 Top Recirculating Water Makeup for T206 | N | Y | A | 2 | 93 - 221 | 144.1 | 1.1E-06 | Y |
| 1CR255 | E324 Pressure Relief 1X2 | N | Y | A | 0 | 93 - 221 | 144.1 | 0.0E+00 | Y |
| 1CR256 | E325 Pressure Relief 1X1 | N | Y | A | 0 | 93 - 221 | 144.1 | 0.0E+00 | Y |
| 1CR257 | E360 Pressure Relief 3/4X1 | N | Y | E | 0 | 0.23 - 5.0 | 1.8 | 0.0E+00 | Y |
| 1CR258 | 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 H20 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 - 0.003 | 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 | 0.028 - 0.16 | 0.1 | 0 | Y |
| 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 |



ED_002508A_00001330-00002

**USS Clairton Works**
**Total Annual Benzene (TAB) - 1998**
**MTCE-RELIEF/CONTROL VALVES LISTING**

| Waste Stream ID# | Mtce - Valves 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 |
|---|---|---|---|---|---|---|---|---|---|
| 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** | | | | | | | | |
| 1/PC64 | 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-803-1Tar 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 |
| 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 |



ED_002508A_00001330-00003

**USS Clairton Works**
**Total Annual Benzene (TAB) - 1998**
**MTCE-RELIEF/CONTROL VALVES LISTING**

| Waste Stream ID# | Mtce - Valves 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-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 | |



ED_002508A_00001330-00004