



Additional Information Requested for EAP

1: Operation time and volume of Wastewater generated

- Hours of operation – Laundry operations = Mon-Fri approx. 7am-4pm, Shipping/receiving may operate until later in the day (5-6pm) depending on arrival of trucks.
- Wastewater generated = approx. 78,500 Imperial Gallons/day or 170Gal/minute (based on annual water consumption/260 days worked).

2/3: Breakdown VOCs by species / Concentrations of each VOC species and PM from each process area

The following table contains emissions rates for the VOC compounds emitted from operation of the Air Stripper. Emissions rates were calculated by multiplying the airborne concentration of each compound as it is removed from the wastewater with the flow rate of air through the Air Stripper.

Equipment Type	Model	Contaminant Name	CAS #	Average Emission Rate (g/s)	Average Emission Concentration ^[1] (mg/m3)
Air Stripper	EZ Tray 36.4	Trichloroethene	79-01-6	9.89E-06	2.65E-05
		Tetrachloroethene	127-18-4	1.51E-04	4.05E-04
		Toluene	108-88-3	1.20E-03	3.22E-03
		Ethylbenzene	100-41-4	4.23E-05	1.13E-04
		Xylenes (total)	1330-20-7	2.81E-04	7.53E-04

Note 1: Based on a flow rate of 0.373 m³/s as measured for a comparable unit.

The following table contains the maximum emissions rates for the dryers, water heater and boilers used on the Site. This data was calculated using EPA AP42 emissions factors.

Make	Model	Serial #	BTUH	Contaminant Name	CAS #	Maximum Emission (g/s)
Consolidated	600GP	970708	2,700,000	Nitrogen Oxide	10102-44-0	3.30E-02
				Total Suspended Particulates	TSP	2.51E-03
				Carbon Monoxide	630-08-0	2.77E-02
Consolidated	600GP	881004	2,700,000	Nitrogen Oxide	10102-44-0	3.30E-02
				Total Suspended Particulates	TSP	2.51E-03
				Carbon Monoxide	630-08-0	2.77E-02
Consolidated	264GP	110802	2,700,000	Nitrogen Oxide	10102-44-0	3.30E-02
				Total Suspended Particulates	TSP	2.51E-03
				Carbon Monoxide	630-08-0	2.77E-02



Consolidated	264GP	120601	2,700,000	Nitrogen Oxide	10102-44-0	3.30E-02
				Total Suspended Particulates	TSP	2.51E-03
				Carbon Monoxide	630-08-0	2.77E-02
Consolidated	400GP	970707	2,700,000	Nitrogen Oxide	10102-44-0	3.30E-02
				Total Suspended Particulates	TSP	2.51E-03
				Carbon Monoxide	630-08-0	2.77E-02
Continental Dryer (Cissell)	X0010G	2004014272	250,000	Nitrogen Oxide	10102-44-0	3.14E-03
				Total Suspended Particulates	TSP	3.22E-03
				Carbon Monoxide	630-08-0	1.34E-03
Colmac Tunnel	2 CFS 2100-2R G/S	122198CXH0343	800,000 (2 X 400,000)	Nitrogen Oxide	10102-44-0	9.80E-03
				Total Suspended Particulates	TSP	7.40E-04
				Carbon Monoxide	630-08-0	8.20E-03
Ludell	DCWH5600	J8749B	5,600,000	Nitrogen Oxide	10102-44-0	3.27E-02
				Total Suspended Particulates	TSP	5.29E-03
				Carbon Monoxide	630-08-0	1.06E-01
Miura	LX150SG07	475423223	6,200,000	Nitrogen Oxide	10102-44-0	1.16E-02
				Total Suspended Particulates	TSP	5.82E-03
				Carbon Monoxide	630-08-0	7.08E-03
Miura	LX150SG07	475423224	6,200,000	Nitrogen Oxide	10102-44-0	1.27E-02
				Total Suspended Particulates	TSP	5.82E-03
				Carbon Monoxide	630-08-0	9.63E-03

The following table summarizes the airborne VOC emissions from the solvent washing machine. Concentration data were obtained through direct sampling of the solvent waste. Emissions factors are based on past studies.

Compound Name	CAS Number	Amount	Percent of Compound in Sample	Quantity of VOCs Released Annually	Emission Rate ^[1]	Emission Concentration ^[2]
		ug/g	%	kg	g/s	mg/m ³
Standard VOC Scan						
Ethylbenzene	N/A	1,300	0.1	2.4	2.85E-04	0.51
Toluene	N/A	73,000	7.3	135.1	1.60E-02	28.63
Xylene (Total)	N/A	9,300	0.9	17.2	2.04E-03	3.65
VOC Characterization						
n-Propyl acetate	109-60-4	10,000	1.0	18.5	2.20E-03	3.92
Nonane	111-84-2	30,000	3.0	55.5	6.59E-03	11.76
Dimethyl octane isomer	N/A	20,000	2.0	37.0	4.39E-03	7.84



Compound Name	CAS Number	Amount	Percent of Compound in Sample	Quantity of VOCs Released Annually	Emission Rate ^[1]	Emission Concentration ^[2]
		ug/g	%	kg	g/s	mg/m ³
1-Methylethylbenzene	98-82-8	10,000	1.0	18.5	2.20E-03	3.92
Propylbenzene	103-65-1	50,000	5.0	92.5	1.10E-02	19.61
Ethylmethylbenzene isomer 1	N/A	100,000	10.0	185.0	2.20E-02	39.22
Ethylmethylbenzene isomer 2	N/A	60,000	6.0	111.0	1.32E-02	23.53
Decane	124-18-5	70,000	7.0	129.5	1.54E-02	27.45
1,3,5-Trimethylbenzene	108-67-8	70,000	7.0	129.5	1.54E-02	27.45
Ethylmethylbenzene isomer 3	N/A	50,000	5.0	92.5	1.10E-02	19.61
1,2,4-Trimethylbenzene	95-63-6	200,000	20.0	370.0	4.39E-02	78.43
Alkylated (C ₁₀ H ₁₄) benzene	N/A	20,000	2.0	37.0	4.39E-03	7.84
1,2,3-Trimethylbenzene	526-73-8	30,000	3.0	55.5	6.59E-03	11.76
Methylpropylbenzene isomer	N/A	10,000	1.0	18.5	2.20E-03	3.92
Alkylated (C ₁₀ H ₁₄) benzene	N/A	10,000	1.0	18.5	2.20E-03	3.92

[1] Emission Rate calculated based on facility operating 7AM-4PM, 260 days/year: 8,424,000 seconds/year

[2] Flow rate of stack exhausting air stripper: 0.56 m³/s

4: Handling of point and fugitive emissions from all areas except wastewater treatment

- Venting for driers utilize lint screens. All other emissions sources are vented directly to the exterior (roof) of the building.

5: Description of pollution control equipment in wastewater area

- Wastewater directed to one 10,000 Imperial Gallon equalization tank, where pH is controlled using sulphuric acid.
- From EQ tank, wastewater pumped to a dissolved air floatation unit (DAF). Between the EQ tank and DAF, a coagulant, flocculent and clay slurry are injected into the pipe to condition the wastewater for treatment.
- Wastewater is treated in the DAF.
- Following treatment in the DAF, the wastewater is pumped through the air stripper, which uses a blower to force air through a column of wastewater. This strips Volatile Organic Compounds from the wastewater. The now-airborne VOCs are exhausted up the vent stack, while the Wastewater is directed to the sanitary sewer.
- Sludge from the DAF unit is piped to a storage tank and then put through a filter press to remove excess water. The water removed by the press is returned to the treatment system, while the dewatered sludge is collected in a waste bin for landfill disposal.



6: Quantities of each chemical used per day/week and quantity stored on site at any given time

Chemical	Quantity Stored on Site (typical)	Rate of Use (typical)
Caustic Soda	2500 Imp gallon tank	100L/day
Accent	1-3 55Gal drums + 30Gal day use tank	1L/day
Pinnacle Liquid Sour	1-3 55Gal drums + 30Gal day use tank	8L/day
Pinnacle Liquid Antichlor	1-3 55Gal drums + 30Gal day use tank	4L/day
Pinnacle Liquid Fabric Softener	1-3 55Gal drums + 30Gal day use tank	4L/day
Sodium Hypochlorite 15%	1-3 55Gal drums + 30Gal day use tank	43L/day
Eclipse	One 220Gal tote + 30Gal day use tank	80L/day
Structure	One 220Gal tote + 30Gal day use tank	56L/day
Sulphuric Acid 93%	One 1300kg tote	1300kg/week
Kathon LM Microbicide	One 30Gal drum	1.5L/day