

# EMISSION SOURCES - EMISSION CAPS AND INDIVIDUAL EMISSION LIMITATIONS

Flexible Permit No. 21865

This table lists the maximum allowable emission caps and individual emission limitations of all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

## AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY
MPP-1	Solids Unloading Cabinet V-107	PM	0.113	0.211
MPP-2	Solids Vacuum Pump P-106	PM	0.215	0.605
MPP-3	Solution Tanks T-204 and 206	PM	0.198	0.130
MPP-4	Buffer Tank T-205	Acetic Acid	0.199	0.060
MPP-5	Packout from T-813	Organic Peroxide	0.531	0.043
MPP-6	Packout from R-301	Organic Peroxide	1.008	0.011
MPP-7	Packout from T-812 and 814	Organic Hydroperoxide	0.396	0.356
		Organic Peroxide	0.001	0.001
		Alcohol	0.012	0.011
MPP-FUG	Piping Fugitives (4)	Organic Hydroperoxide	0.254	0.901
		Acid Chloride	0.064	0.281
		Diluent	0.232	1.022
		Acetic Acid	0.048	0.211
		Ketone	0.038	0.168
		Organic Peroxide	0.436	1.713
		Alcohol	0.360	0.845
		Isoamylene	0.189	0.317
		Chloroformate	0.061	0.269
MPP-WW	Wastewater	Alcohol	0.011	0.022
		Organic Hydroperoxide	0.011	0.033
		Organic Peroxide	0.065	0.164
		Diluent	0.305	0.643
		Ketone	0.384	1.678
PERESTER-1	Stack Tank 403-333	Organic Hydroperoxide	0.043	0.050

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission *	Source	Air Contaminant	<u>Emission Rates</u>	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
		Ketone	0.026	0.027
		Alcohol	0.001	0.001
		Diisobutylene	0.002	0.002
PERESTER-2	Drying Feed Tank 403-313	Organic Hydroperoxide	0.001	0.001
		Organic Peroxide	0.045	0.045
		Acid Chloride	0.005	0.008
		Ketone	0.040	0.047
		Alcohol	0.035	0.045
		Diluent	0.045	0.069
		Cumene	0.004	0.004
		Diisobutylene	0.025	0.020
PERESTER-3	Dilution Vessels 403-318 and 403-338	Organic Hydroperoxide	0.002	0.002
		Organic Peroxide	2.943	0.414
		Ketone	0.002	0.002
		Alcohol	0.033	0.060
		Diluent	0.087	0.159
		Cumene	0.004	0.004
		Diisobutylene	0.037	0.028
PERESTER-4	Tanker Pad	Organic Peroxide	5.602	0.436
		Diluent	5.360	0.552
PERESTER-5	Solution Tank 403-301	PM	0.069	0.028
PERESTER-6	Solution Tank 403-301	PM	0.246	0.229
PERESTER-7	Buffer Tank 403-303	Acetic Acid	0.046	0.047
PERESTER-8	Recovery Vessel 403-340	Organic Hydroperoxide	0.002	0.001
		Organic Peroxide	0.088	0.011
		Ketone	0.002	0.001
		Alcohol	0.033	0.004
		Diluent	0.087	0.011
		Cumene	0.004	0.001
		Diisobutylene	0.037	0.004

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission *	Source	Air Contaminant	<u>Emission Rates</u>	
Point No. (1)	Name (2)	Name (3)	<u>lb/hr</u>	<u>TPY</u>
PEREST-FUG	Piping Fugitives (4)	Organic Hydroperoxide	0.101	0.448
		Acid Chloride	0.094	0.411
		Diluent	0.411	1.800
		Acetic Acid	0.055	0.239
		Ketone	0.020	0.085
		Organic Peroxide	0.682	2.987
PEREST-WW	Wastewater	Alcohol	0.011	0.044
		Organic Hydroperoxide	0.022	0.098
		Organic Peroxide	0.229	1.025
		Diluent	0.414	1.831
OXIDIZER	Thermal Oxidizer (5)	Organic Hydroperoxide	0.081	0.146
		Organic Peroxide	0.389	0.299
		Acid Chloride	0.063	0.087
		Chloroformate	0.049	0.084
		Ketone	0.397	0.482
		Alcohol	0.988	0.690
		Diluent	0.422	0.631
		Acetic Acid	0.001	0.004
		Acetic Anhydride	0.005	0.012
		Cumene	0.036	0.034
		Diisobutylene	0.262	0.205
		Isoamylene	0.102	0.093
		Hydrogen Peroxide	0.005	0.005
		Cyclic Ether	0.046	0.047
		Cyclic Peroxide	0.017	0.019
		PM	0.025	0.110
		SO <sub>2</sub>	0.001	0.005
		NO <sub>x</sub>	0.036	0.157
		CO	0.057	0.249
		TOC (from Combustion)	0.011	0.049
		HCl (6)	2.180	4.033

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources use area name or fugitive source name.
- (3) PM - particulate matter, suspended in the atmosphere, including PM<sub>10</sub>.  
PM<sub>10</sub> - particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no particulate matter greater than 10 microns is emitted.  
SO<sub>2</sub> - sulfur dioxide  
NO<sub>x</sub> - total oxides of nitrogen  
CO - carbon monoxide  
TOC - total organic carbon from combustion of natural gas  
HCl - hydrogen chloride
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
- (5) The thermal oxidizer shall start operation no later than July 1, 2001.
- (6) Hydrogen chloride may represent the combined total of hydrogen chloride and acid chloride emissions. For compliance purposes, testing results of HCl may exceed the stated allowable by 2 percent. This 2 percent allowance is made because the test method may register acid chloride as HCl.

\* Emission rates are based on and the facilities are limited by the following maximum operating schedule:

\_\_\_\_\_Hrs/day \_\_\_\_Days/week \_\_\_\_Weeks/year or 8,760 Hrs/year

Dated September 27, 2001