

**W02-ENCINA ACTIVATED SLUDGE AERATION - AFTER CONTROLS****CALCULATION METHODS**

$E_a = U_a \text{ (million gal/year)} \times EF \text{ (lbs/million gal thru put)}$

$E_h = U_h \text{ (million gal/hour)} \times EF \text{ (lbs/million gal thru put)}$

**NOTES:**

- Emission factors are based on site specific source test data obtained on 1993.
- Assume emissions are similar to headworks for compounds that were not sampled at the activated sludge aeration on 1993.
- Data from the old source test conducted on 1991 is not used since the facility has been modified significantly after this test. However, the 1993 source test did not sample for methane. Therefore, the old test data was used to determine a methane emission factor.
- Emission factors are determined after controls.

Pollutant	District Emission Factor (lbs/ million gallons)	Reference Document	ARB Factor	Units	Comments
TOG	0.212			lbs/million gal	Sum of all organic emissions below.
VOC	0.184			lbs/million gal	VOC=TOG-exempt compounds.
Ammonia	0.00486			lbs/million gal	Determined by using NH <sub>4</sub> OH emission factor and fraction of NH <sub>3</sub> in NH <sub>4</sub> OH.
Benzene	0.000916			lbs/million gal	Assume emission factor is the same as for the headworks.
Carbon Disulfide	0.00631			lbs/million gal	Assume emission factor is the same as for the headworks.
Chlorine	0.0109			lbs/million gal	
Chloroform	0.0201			lbs/million gal	
Chlorofluoro-carbons	0.000879			lbs/million gal	Assume emission factor is the same as for the headworks.
P-Dichloro-benzene	0.00397			lbs/million gal	Assume emission factor is the same as for the headworks.
1,4-Dioxane	0.0169			lbs/million gal	Assume emission factor is the same as for the headworks.
Ethylene Dichloride	0.0296			lbs/million gal	Assume emission factor is the same as for the headworks.
Hydrogen Sulfide	0.00975			lbs/million gal	
Methane	0.0856			lbs/million gal	Using 1991 test data (uncontrolled emission) and assume a control efficiency of 80%.
Methylene Chloride	0.0172			lbs/million gal	Assume emission factor is the same as for the headworks.
Perchloro-Ethylene	0.0076			lbs/million gal	Assume emission factor is the same as for the headworks.
Sodium Hydroxide	0.00122			lbs/million gal	
Toluene	0.00204			lbs/million gal	Assume emission factor is the same as for the headworks.
1,1,1,-Tri-Chloroethane	0.00297			lbs/million gal	Assume emission factor is the same as for the headworks.
Trichloro-Ethane	0.0179			lbs/million gal	Assume emission factor is the same as for the headworks.
Xylenes	0.00044			lbs/million gal	Assume emission factor is the same as for the headworks.