X51 - COPPER ELECTROPLATING, WET SCRUBBER CONTROLLED

CALCULATION METHODS

Ea = Ua x EF

Eh = Uh x EF

NOTES:

- Ua = Annual electrical usage, ampere-hour/year

- Uh = Maximum hourly electrical usage, ampere-hour/ hour

- Assume 75% control efficency for wet scrubber. See ARB Tech. Support Doc. to Proposed ATCM for Emissions of Cr+6 from Chrome Plating & Chromic Acid Anodizing Operations (Jan. 1988), Table III-2 and

ARB Tech. Guidance Doc. to the Criteria & Guidelines Reg. for AB2588 (Aug. 1989), page 44.

- Assume TSP = PM-10.

- Ci = Weight percent of other listed substance in solution, %.

- C Cu = Weight percent of copper in solution, %.

- "OTHER" pollutants and their corresponding emission factors are to be manually entered.

- Assume 100% capture efficiency.

POLLUTANT	Emission Factor	REFERENCE	ARB	(UNITS)	COMMENTS
	(lbs/amp-hr)	DOCUMENT	FACTOR		
NOX					
CO					
SOX					
TOG					
ROG					
TSP	1.13E-5 x 1/C Cu	Assume that TSP and PM-10 are based on average weight percent of copper in solution.			
PM10	1.13E-5 x 1/C Cu				
ALUMINUM					
BERYLLIUM					
CADMIUM					
CHLORINE					
COPPER	1.13E-05	Assume emission factor is the same as nickel electroplating.			
OTHER	1.13E-5 x Ci/C Cu				

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