

C04 - CONCRETE BATCH PLANT, CENTRAL MIX OPERATION, SECTION 11.12 AP-42 (1/95), W/BAGHOUSE CONTROLS

CALCULATION METHODS

Fugitive emissions:

$$E_a = U_a \text{ (yd}^3\text{/yr)} \times EF \text{ (lbs TSP/ yd}^3\text{)} \times C_i \text{ (lb/lb TSP)} \times (1-e)$$

$$E_h = U_h \text{ (yd}^3\text{/hr)} \times EF \text{ (lbs TSP/ yd}^3\text{)} \times C_i \text{ (lb/lb TSP)} \times (1-e)$$

Ducted emissions:

$$E_a = \text{Flow Rate (cfm)} \times 60 \text{ (min/hr)} \times \text{Hours per day (hr/day)} \times \text{Days per year (days/year)} \times 0.008 \text{ (grains/ft}^3\text{)} / 7000 \text{ (grains/lb)} \times C_i \text{ (lb/lb TSP)}$$

$$E_h = \text{Flow Rate (cfm)} \times 60 \text{ (min/hr)} \times 0.008 \text{ (grains/ft}^3\text{)} / 7000 \text{ (grains/lb)} \times C_i \text{ (lb/lb TSP)}$$

Notes:

- Ducted TSP emission factor (weigh hopper & mixer) = 0.11 lbs/yd³. Fugitive TSP emission factor (truck loading) = 0 lbs/yd³.
- Ducted emissions are assumed to be released at a particulate rate of 0.008 grains/ft³. No additional capture or control efficiencies should be applied.
- TSP emission factors are based on EPA data in Section 11.12 of AP-42 (1/95).
- TSP emission factors represent controlled releases (i.e.; after baghouse).
- Trace metal emission factors are based on sample analyses submitted to the District for AB2588 purposes (~1996).

POLLUTANT	DISTRICT EMISSION FACTORS (lbs/lb TSP)	REFERENCE DOCUMENT	Default Composition	(UNITS)	COMMENTS
NOX					
CO					
SOX					
TOG					
ROG					
TSP	1.00	AP-42, 1/95, Sect 11.12, Table 11.12-2	1.00	lbs/lb TSP	TSP emission factors = 0.04 (weigh hopper) and 0.07 (mixer loading).
PM10	0.92	ARB PM10 Report (12/87)	0.92	lbs/lb TSP	ARB report indicates 92% of TSP is PM10 or less.
ALUMINUM	0.011960	Based on local sample analyses	13000	PPMW	Based on AWR Technical Report 96-07 (7/96)
ARSENIC	0.000014	Based on local sample analyses	15	PPMW	Based on AWR Technical Report 96-07 (7/96)
BARIUM	0.000001	Based on local sample analyses	1	PPMW	Based on AWR Technical Report 96-07 (7/96)
CADMIUM	0.000001	Based on local sample analyses	1	PPMW	Based on AWR Technical Report 96-07 (7/96)

POLLUTANT	DISTRICT EMISSION FACTORS (lbs/lb TSP)	REFERENCE DOCUMENT	Default Composition	(UNITS)	COMMENTS
CHROMIUM HEXAVALENT	0.000002	Based on local sample analyses	2	PPMW	Based on AWR Technical Report 96-07 (7/96)
CHROMIUM NONHEXAVALENT	0.000046	Based on local sample analyses	50	PPMW	Based on AWR Technical Report 96-07 (7/96)
COPPER	0.000042	Based on local sample analyses	46	PPMW	Based on AWR Technical Report 96-07 (7/96)
LEAD	0.000030	Based on local sample analyses	33	PPMW	Based on AWR Technical Report 96-07 (7/96)
MANGANESE	0.000386	Based on local sample analyses	420	PPMW	Based on AWR Technical Report 96-07 (7/96)
MERCURY		Based on local sample analyses		PPMW	Based on AWR Technical Report 96-07 (7/96)
NICKEL	0.000017	Based on local sample analyses	18	PPMW	Based on AWR Technical Report 96-07 (7/96)
SELENIUM	0.000001	Based on local sample analyses	1	PPMW	Based on AWR Technical Report 96-07 (7/96)
SILICA, CRYSTALLINE	0.092000	Based on local sample analyses	100000	PPMW	Based on AWR Technical Report 96-07 (7/96)
ZINC	0.000129	Based on local sample analyses	140	PPMW	Based on AWR Technical Report 96-07 (7/96)

Last Updated on 8/25/1999 By D. Byrnes