

**C10 - TERTIARY CRUSHING, PROCESS MATERIAL, DRY, UNCONTROLLED, AWR / MPI / DISTRICT 4/9/96**  
**METHODOLOGY**

**CALCULATION METHODS**

(Fugitive Releases)

$$E_a = U_a \times EF \times C_i$$

$$E_h = U_h \times EF \times C_i$$

(Ducted Releases)

$$E_a = 0$$

$$E_h = 0$$

**Notes:**

- The AWR / MPI / District Crushing Operation Emission Factors for this material are 0.00240 lbs PM10 and 0.00507 lbs TSP per ton of material processed.
- The PM10 factor is based upon the uncontrolled PM10 tertiary crushing value in Section 11.19.2, Table 11.19.2-2 of AP-42 (1/95) and the District - AWR - MPI agreement dated 4/9/96.
- The TSP factor is calculated using a (0.74/0.35) ratio of particle size multipliers from Section 13.2.4 of AP-42 and the above PM10 value.
- The trace metal default concentrations are based on an AWR material analysis for crushed miscellaneous base, (Profile 7), submitted to the District in July 1996. Use site specific data if available.
- All emissions for this calculation procedure are assumed to be fugitive. No additional capture or control efficiencies should be applied.
- This emission estimation procedure is applicable to uncontrolled secondary crushers only. Note; the AP-42 emission factor for "tertiary crushers" is being used.
- Per the AWR / MPI / District agreement;  
 "Primary Material" = Feed streams containing >4 inch material.  
 "Process" Material = Feed Streams containing material >1/2 inch and <4 inches.  
 "Fines" Material = Feed streams Exclusively containing material <1/2 inch, or  
 "Fines" Material = Crushers manufacturing product that is 30% or more by weight < #4 mesh.  
 "Dry" Material = "Process" streams with an average moisture content of <1.5% and "Fines" streams with an average moisture content of < 3.0%.  
 "Wet" Material = "Process" streams with an average moisture content of 1.5% or more and "Fines" streams with an average moisture content of 3.0% or more

POLLUTANT	DISTRICT EMISSION FACTORS (ppmw)	REFERENCE DOCUMENT	ARB	(UNITS)	COMMENTS
NOX					
CO					
SOX					
TOG					
ROG					
TSP	1,000,000.00	AP-42, Sections 11.19.2 and 13.2.4 (1/95).			
PM10	1,000,000.00	AP-42, Sections 11.19.2 and 13.2.4 (1/95).			

POLLUTANT	DISTRICT EMISSION FACTORS (ppmw)	REFERENCE DOCUMENT	ARB	(UNITS)	COMMENTS
ALUMINUM	15,000.00				Based on local test results.
ARSENIC	22.00				Based on local test results.
BARIUM	225.00				Based on local test results.
BERYLLIUM	1.00				Based on local test results.
CADMIUM	1.00				Based on local test results.
CHROMIUM HEXAVALENT	-				Based on local test results. No Cr+6 detected in any samples analyzed.
CHROMIUM NONHEXAVALENT	28.00				Based on local test results.
COBALT	11.00				Based on local test results.
COPPER	37.00				Based on local test results.
LEAD	50.00				Based on local test results.
MANGANESE	530.00				Based on local test results.
MERCURY	-				Based on local test results. No mercury detected in any samples analyzed.
NICKEL	28.00				Based on local test results.
SELENIUM	1.00				Based on local test results.
SILICA, CRYSTALLINE	100,000.00				Based on local test results.
RESPIRABLE SILICA, CRYSTALLINE CRISTOBALITE QUARTZ	7,950.00				PM4 fraction of PM10 silica, assumed to be 7.95%
ZINC	99.00				Based on local test results.

*Last Updated on November 2023, J. Lofgren*