

**H03 - HAUL ROADS, MINERAL INDUSTRY SITES, PAVED & UNPAVED, DEFAULT TRACE METAL COMPOSITION**

**CALCULATION METHODS**

$E_a = VMT \times EF \text{ (lbs TSP/VMT)} \times C_i \times (1 - e)$

$E_h = U_a / H$

**NOTES:**

- Fugitive emission control methods and efficiencies must be identified in the database if applicable. Emission factors assume "uncontrolled" releases.
- TSP and PM10 factors are based on District engineering estimates as agreed upon in discussions with the Mineral Products Industry (1995 through 1996).
- Trace metal default concentrations are based on local source test results ~1996. Use site specific data if available.
- The PM10 fraction of the TSP released is based on default AP-42 procedures as agreed upon with the Mineral Products Industry.

<b>POLLUTANT</b>	<b>District Emission Factor</b>	<b>REFERENCE</b>	<b>AP-42</b>	<b>(UNITS)</b>	<b>COMMENTS</b>
	<b>(ppmw)</b>	<b>DOCUMENT</b>	<b>FACTOR</b>		
NOX					
CO					
SOX					
TOG					
ROG					
TSP	1,000,000	TSP Factor from AP-42 included in calc method			
PM10	1,000,000	PM10 Factor from AP-42 included in calc method			
ALUMINUM	15,000				Based on local haul road samples and analyses
ARSENIC	21				Based on local haul road samples and analyses
BARIUM	145				Based on local haul road samples and analyses
BENZENE					
BERYLLIUM	1				Based on local haul road samples and analyses
CADMIUM	1				Based on local haul road samples and analyses
CHROMIUM HEXAVALENT	0				
CHROMIUM NONHEXAVALENT	25				Based on local haul road samples and analyses
COBALT					
COPPER	40				Based on local haul road samples and analyses
LEAD	30				Based on local haul road samples and analyses
MANGANESE	490				Based on local haul road samples and analyses
MERCURY	0				
NICKEL	19				Based on local haul road samples and analyses
PAH'S (UNSPECIFIED)					
- BENZO(A)ANTHRACENE					
- BENZO(B)FLUORANTHENE					
- INDENO(1,2,3-CD)PYRENE					
- DIBENZ(A,H)ANTHRACENE					
					Based on local haul road samples and

SELENIUM	1				analyses
SILICA, CRYSTALLINE	100,000				Based on local haul road samples and analyses
ZINC	112				Based on local haul road samples and analyses

*Last Updated on 8/24/99  
By D. Byrnes*