A03 - ASPHALT PLANT, BATCH MIX, DISTILLATE FIRED, BAGHOUSE

CALCULATION METHODS

Ea = Ua x EF

Eh = Uh x EF

NOTES:

- NOx and CO emissions are based on fuel usage (1000 gallons/hr or yr). Emission factors are lbs/1000 gallons fuel burned.
- NOx and CO factors are from the D. Smith memo (6/26/97) or site specific source test results, or AP-42 Section 11.1 (3/04).
- TOG, VOC, SOx, TSP, PM10, and trace toxic emissions are based on production (tons asphalt/hr or yr). Emission factors are lbs/ton asphalt.
- TOG, VOC, SOx, TSP, PM10, and trace toxic emissions factors are from site specific source test results or AP-42 Section 11.1 (3/04).
- TSP and PM10 uncontrolled drop zone emissions are assumed to be 0.018 lbs/ton of production as specified in the M. Lake memo (3/20/96).
- Drop zone emissions are unspeciated at this time. The factors listed below are for the control system exhaust only and do not include fugitive drop zone emissions.

POLLUTANT	District Emission Factor (lbs/1000 gal or lbs/ton production)	EPA REFERENCE DOCUMENT	EPA FACTOR	(UNITS)	COMMENTS
NOX	42.00	AP-42 factor in lbs/ton not used as default.	0.1200	lbs/ton	Emission factor in (lbs/1000 gallons) per D Smith memo (6/26/97).
CO	105.00	AP-42 factor in lbs/ton not used as default.	0.4000	lbs/ton	Emission factor in (lbs/1000 gallons) per D Smith memo (6/26/97).
SOX	0.0880	AP-42, Sect. 11.1 (3/04), Table 11.1-5	0.0880	lbs/ton	Sulfur sources may include the fuel, aggregate, and asphalt oil/slurry.
TOG	0.0430	AP-42, Sect. 11.1, (3/04) Tables 11.1-6	0.0430	lbs/ton	TOG value = VOC value + methane in Table 11.1-6.
VOC	0.0360	AP-42, Sect. 11.1 (3/04), Table 11.1-6	0.0360	lbs/ton	Use site specific NMHC test data if available. TOG should be more than VOC.
TSP	0.0420	AP-42, Sect. 11.1 (3/04), Table 11.1-1	0.0420	lbs/ton	Use site specific TSP test information if available.
PM10	0.0270	AP-42, Sect. 11.1 (3/04), Table 11.1-1	0.0270	lbs/ton	Use site specific PM10 test data if available. PM10 should not exceed TSP.
ACETALDEHYDE	3.20E-04	AP-42, Sect. 11.1, (3/04) Tables 11.1-9	3.20E-04	lbs/ton	
ARSENIC	4.60E-07	AP-42, Sect. 11.1, (3/04) Tables 11.1-11	4.60E-07	lbs/ton	
BARIUM	1.50E-06	AP-42, Sect. 11.1, (3/04) Tables 11.1-11	1.50E-06	lbs/ton	
BENZENE	2.80E-04	AP-42, Sect. 11.1, (3/04) Tables 11.1-9	2.80E-04	lbs/ton	
BERYLLIUM	1.50E-07	AP-42, Sect. 11.1, (3/04) Tables 11.1-11	1.50E-07	lbs/ton	
CADMIUM	6.10E-07	AP-42, Sect. 11.1, (3/04) Tables 11.1-11	6.10E-07	lbs/ton	
CHROMIUM HEXAVALENT	4.80E-08	AP-42, Sect. 11.1, (3/04) Tables 11.1-11	4.80E-08	lbs/ton	
TOTAL CHROMIUM	5.70E-07	AP-42, Sect. 11.1, (3/04) Tables 11.1-11	5.70E-07	lbs/ton	
CROTONALDEHYDE	2.90E-05	AP-42, Sect. 11.1, (3/04) Tables 11.1-9	2.90E-05	lbs/ton	
COPPER	2.80E-06	AP-42, Sect. 11.1, (3/04) Tables 11.1-11	2.80E-06	lbs/ton	
ETHYL BENZENE	2.20E-03	AP-42, Sect. 11.1, (3/04) Tables 11.1-9	2.20E-03	lbs/ton	

FORMALDEHYDE	7.40E-04	AP-42, Sect. 11.1, (3/04) Tables 11.1-9	7.40E-04	lbs/ton	
LEAD	1.10E-05	AP-42, Sect. 11.1, (3/04) Tables 11.1-11	1.10E-05	lbs/ton	
MANGANESE	6.90E-06	AP-42, Sect. 11.1, (3/04) Tables 11.1-11	6.90E-06	lbs/ton	
MERCURY	4.10E-07	AP-42, Sect. 11.1, (3/04) Tables 11.1-11	4.10E-07	lbs/ton	
METHANE	7.40E-03	AP-42, Sect. 11.1, (3/04) Tables 11.1-6	7.40E-03	lbs/ton	
NICKEL	3.00E-06	AP-42, Sect. 11.1, (3/04) Tables 11.1-11	3.00E-06	lbs/ton	
2-METHYLNAPHTHALENE	7.10E-05	AP-42, Sect. 11.1 (3/04), Table 11.1-9	7.10E-05	lbs/ton	
ACENAPHTHENE	9.00E-07	AP-42, Sect. 11.1 (3/04), Table 11.1-9	9.00E-07	lbs/ton	
ACENAPHTHYLENE	5.80E-07	AP-42, Sect. 11.1 (3/04), Table 11.1-9	5.80E-07	lbs/ton	
ANTHRACENE	2.10E-07	AP-42, Sect. 11.1 (3/04), Table 11.1-9	2.10E-07	lbs/ton	
BENZO(A)ANTHRACENE	4.60E-09	AP-42, Sect. 11.1 (3/04), Table 11.1-9	4.60E-09	lbs/ton	
BENZO(A)PYRENE	3.10E-10	AP-42, Sect. 11.1 (3/04), Table 11.1-9	3.10E-10	lbs/ton	
BENZO(B)FLUORANTHENE	9.40E-09	AP-42, Sect. 11.1 (3/04), Table 11.1-9	9.40E-09	lbs/ton	
BENZO(G,H,I)PERYLENE	5.00E-10	AP-42, Sect. 11.1 (3/04), Table 11.1-9	5.00E-10	lbs/ton	
BENZO(K)FLUORANTHENE	1.30E-08	AP-42, Sect. 11.1 (3/04), Table 11.1-9	1.30E-08	lbs/ton	
CHRYSENE	3.80E-09	AP-42, Sect. 11.1 (3/04), Table 11.1-9	3.80E-09	lbs/ton	
DIBENZO(A,H)ANTHRACENE	9.50E-11	AP-42, Sect. 11.1 (3/04), Table 11.1-9	9.50E-11	lbs/ton	
FLUORANTHENE	2.40E-05	AP-42, Sect. 11.1 (3/04), Table 11.1-9	2.40E-05	lbs/ton	
FLUORENE	1.60E-06	AP-42, Sect. 11.1 (3/04), Table 11.1-9	1.60E-06	lbs/ton	
INDENO(1,2,3-CD)PYRENE	3.10E-10	AP-42, Sect. 11.1 (3/04), Table 11.1-9	3.10E-10	lbs/ton	
NAPHTHALENE	3.60E-05	AP-42, Sect. 11.1 (3/04), Table 11.1-9	3.60E-05	lbs/ton	
PHENANTHRENE	3.70E-05	AP-42, Sect. 11.1 (3/04), Table 11.1-9	3.70E-05	lbs/ton	
PYRENE	5.50E-05	AP-42, Sect. 11.1 (3/04), Table 11.1-9	5.50E-05	lbs/ton	
QUINONE	2.70E-04	AP-42, Sect. 11.1, (3/04) Tables 11.1-9	2.70E-04	lbs/ton	
SELENIUM	4.90E-07	AP-42, Sect. 11.1, (3/04) Tables 11.1-11	4.90E-07	lbs/ton	
TOLUENE	1.00E-03	AP-42, Sect. 11.1, (3/04) Tables 11.1-9	1.80E-03	lbs/ton	
XYLENES	2.70E-03	AP-42, Sect. 11.1, (3/04) Tables 11.1-9	2.70E-03	lbs/ton	
ZINC	6.80E-06	AP-42, Sect. 11.1, (3/04) Tables 11.1-11	6.80E-06	lbs/ton	

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