V04 - SOIL VAPOR EXTRACTION PROCESSES, GASOLINE MITIGATION, OUTLET QUANTIFIED AS BENZENE AFTER CONTROLS

CALCULATION METHODS

Ea = Ua x PPMVa x MW x Ci x k

Eh = Uh x PPMVm x MW x Ci x k

NOTES:

- A calculation procedure Molecular Weight = 78 lbs/lb mole (Benzene) is used in the for quantifying total organic outlet emissions.

- Must match calculation procedure reference compound to outlet concentration reference compound to correctly estimate emissions.

- Material composition is used as outlet speciation profile. Adjust the weight % of each compound for changes due to the control device if necessary.

- Use site specific outlet speciation information where available. Outlet ppmv measurements must reference the same compound (molecular weight) as the calculation method selected.

- Annual and maximum hourly outlet concentrations may decrease over time with mitigation of the contaminant source.

- The following emission factors are for the Ci portion of the above equation where Ci speciates the exhaust concentration by weight percent.

POLLUTANT	District Emission Factor	REFERENCE	AP-42	(UNITS)	COMMENTS
	(weight percent)	DOCUMENT	FACTOR		
NOX					
CO					
SOX					
TOG	100.00%	District Engineering Estimates			Assume all outlet ROG = TOG for gasoline contaminated site
ROG	100.00%	District Engineering Estimates			
TSP					
PM10					
BENZENE	1.00%				Based on the liquid speciation profile for reformulated gasoline.
ETHYL BENZENE	1.60%				Based on the liquid speciation profile for reformulated gasoline.
FORMALDEHYDE					
HEXANE	1.80%				Based on the liquid speciation profile for reformulated gasoline.
LEAD					
METHYL TERT BUTYL ETHER	11.00%				Based on the liquid speciation profile for reformulated gasoline.
TOLUENE	8.00%				Based on the liquid speciation profile for reformulated gasoline.
2,2,4-TRIMETHYLPENTANE	0.80%				Based on the liquid speciation profile for reformulated gasoline.
XYLENES	2.40%				Based on the liquid speciation profile for reformulated gasoline.

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