N04-A05 - LANDFILL WITH NO GAS COLLECTION SYSTEM IN WATER GAS GENERATION RATE K=0.08 (NO CO-DISPOSAL)

CALCULATION METHODS

All Ducted Emissions:

Ea = 0
Eh = 0

N04-A05 - VOC Fugitive Emissions:

Ea = [Lo * R * (e^(-kc) - e^(-kt)) - (Gf + Gr)] * (Ci * MW) / (385 * 10^6)
Eh = Ea / (365 * 24)

Where k = 0.08 / yr

NOTES:
- Above calculation does not account for extracted gas incinerated in control or cogen equipment.
- Generation rate k varies from 0.01 (arid sites) to 0.08 (sites in water).
- Average refuse acceptance rate R base on tons in place divided by years of operation.
- Lo (Landfill gas generation potential) is default 8020 ft3 landfill gas / ton of waste.
- The TOG factor is based on an average 40% methane content in the raw gas.
- The ROG factor is based on the EPA AP-42 assumption of 595 ppmv NMHC as hexane in the raw gas.
- Individual pollutant factors are estimated using AP-42 Section 2.4 raw gas speciation (9/97).

POLLUTANT	DISTRICT EMISSION FACTORS (ppmv)	EPA REFERENCE DOCUMENT	EPA-FACTOR	(UNITS)	COMMENTS
NOX					
CO	141.00	AP-42, Sect.2.4, 9/97, Table 2.4-1	141.00	ppmv	
SOX					
TOG	400000.00			ppmv	ASSUMES 40% AVERAGE METHANE CONTENT OF LANDFILL GAS.
ROG	595.00	AP-42, Sect.2.4, 9/97, Table 2.4-2	595.00	ppmv as hexane	
ACETONE	7.01	AP-42, Sect.2.4, 9/97, Table 2.4-1	7.01	ppmv	
ACRYLONITRILE	6.33	AP-42, Sect.2.4, 9/97, Table 2.4-1	6.33	ppmv	
BENZENE	1.91	AP-42, Sect.2.4, 9/97, Table 2.4-1	1.91	ppmv	
CARBON DISULFIDE	0.58	AP-42, Sect.2.4, 9/97, Table 2.4-1		ppmv	

POLLUTANT	DISTRICT EMISSION FACTORS (ppmv)	EPA REFERENCE DOCUMENT	EPA-FACTOR	(UNITS)	COMMENTS
CARBONYL SULFIDE	0.49	AP-42, Sect.2.4, 9/97, Table 2.4-1		ppmv	
CHLOROBENZENE	0.25	AP-42, Sect.2.4, 9/97, Table 2.4-1	0.25	ppmv	
CHLOROFORM	0.03	AP-42, Sect.2.4, 9/97, Table 2.4-1	0.03	ppmv	
CHLORODIFLUORO-METHANE	1.30	AP-42, Sect.2.4, 9/97, Table 2.4-1	1.30	ppmv	This pollutant is represented as Chlorofluorocarbons in the online reporting system
1,1-DICHLOROETHANE	2.35	AP-42, Sect.2.4, 9/97, Table 2.4-1	2.35	ppmv	
DIMETHYL SULFIDE	7.82	AP-42, Sect.2.4, 9/97, Table 2.4-1	7.82	ppmv	
ETHYL BENZENE	4.61	AP-42, Sect.2.4, 9/97, Table 2.4-1	4.61	ppmv	
ETHYLENE DIBROMIDE					NO VALUE REPORTED IN THE REVISED AP-42 (9/97).
ETHYLENE DICHLORIDE	0.41	AP-42, Sect.2.4, 9/97, Table 2.4-1	0.41	ppmv	
HEXANE	6.57	AP-42, Sect.2.4, 9/97, Table 2.4-1	6.57	ppmv	
HYDROGEN SULFIDE	35.50	AP-42, Sect.2.4, 9/97, Table 2.4-1	35.50	ppmv	
METHYLENE CHLORIDE	14.30	AP-42, Sect.2.4, 9/97, Table 2.4-1	14.3	ppmv	
METHYL ISOBUTYL KETONE	1.87	AP-42, Sect.2.4, 9/97, Table 2.4-1	1.87	ppmv	
METHYL ETHYL KETONE	7.09	AP-42, Sect.2.4, 9/97, Table 2.4-1	7.09	ppmv	
PERCHLOROETHYLENE	3.73	AP-42, Sect.2.4, 9/97, Table 2.4-1	3.73	ppmv	
TOLUENE	39.30	AP-42, Sect.2.4, 9/97, Table 2.4-1	39.30	ppmv	
1,1,1-TRICHLOROETHANE	0.48	AP-42, Sect.2.4, 9/97, Table 2.4-1	0.48	ppmv	
TRICHLOROETHYLENE	2.82	AP-42, Sect.2.4, 9/97, Table 2.4-1	2.82	ppmv	
VINYL CHLORIDE	7.34	AP-42, Sect.2.4, 9/97, Table 2.4-1	7.34	ppmv	
VINYLIDENE CHLORIDE	0.20	AP-42, Sect.2.4, 9/97, Table 2.4-1	0.20	ppmv	
XYLENES	12.10	AP-42, Sect.2.4, 9/97, Table 2.4-1	12.10	ppmv	

Last Updated on Feb 2025 by B. Wong