

N04-A02 - LANDFILL WITH NO GAS COLLECTION SYSTEM
DRY GAS GENERATION RATE K=0.02 (NO CO-DISPOSAL)

CALCULATION METHODS

All Ducted Emissions:

Ea = 0
 Eh = 0

N04-A02 - VOC Fugitive Emissions:

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

Where k = 0.02 / 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 | |
| CHLORODIFLUOROMETHANE | 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 | |
| VINYLDENE 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