66266.107 Standards to Control Hydrogen Chloride (Hcl) and Chlorine Gas (CL) Emissions

(a)

General. The owner or operator shall comply with the hydrogen chloride (HCl) and chlorine (Cl2) controls provided by subsection (b), (c), or (e) of this section.

(b)

Screening limits- (1) Tier I feed rate screening limits. Feed rate screening limits are specified for total chlorine in appendix II of this chapter as a function of terrain-adjusted effective stack height and terrain and land use in the vicinity of the facility. The feed rate of total chlorine and chloride, both organic and inorganic, in all feed streams, including hazardous waste, fuels, and industrial furnace feed stocks shall not exceed the levels specified. (2) Tier II emission rate screening limits. Emission rate screening limits for HCl and Cl2 are specified in appendix III of this chapter as a function of terrain-adjusted effective stack height and terrain and land use in the vicinity of the facility. The stack emission rates of HCl and Cl2 shall not exceed the levels specified. (3) Definitions and limitations. The definitions and limitations provided by section 66266.106(b) for the following terms also apply to the screening limits provided by this subsection: terrain-adjusted effective stack height, good engineering practice stack height, terrain type, land use, and criteria for facilities not eligible to use the screening limits. (4) Multiple stacks. Owners and operators of facilities with more than one

on-site stack from a boiler, industrial furnace, incinerator, or other thermal treatment unit subject to controls on HCl or Cl2 emissions under a hazardous waste facility permit or interim status controls shall comply with the Tier I and Tier II screening limits for those stacks assuming all hazardous waste is fed into the device with the worst-case stack based on dispersion characteristics. (A) The worst-case stack is determined by procedures provided in section 66266.106(b)(6). (B) Under Tier I, the total feed rate of chlorine and chloride to all subject devices shall not exceed the screening limit for the worst-case stack. (C) Under Tier II, the total emissions of HCl and Cl2 from all subject stacks shall not exceed the screening limit for the worst-case stack.

(1)

Tier I feed rate screening limits. Feed rate screening limits are specified for total chlorine in appendix II of this chapter as a function of terrain-adjusted effective stack height and terrain and land use in the vicinity of the facility. The feed rate of total chlorine and chloride, both organic and inorganic, in all feed streams, including hazardous waste, fuels, and industrial furnace feed stocks shall not exceed the levels specified.

(2)

Tier II emission rate screening limits. Emission rate screening limits for HCl and Cl2 are specified in appendix III of this chapter as a function of terrain-adjusted effective stack height and terrain and land use in the vicinity of the facility. The stack emission rates of HCl and Cl2 shall not exceed the levels specified.

(3)

Definitions and limitations. The definitions and limitations provided by section 66266.106(b) for the following terms also apply to the screening limits provided by this subsection: terrain-adjusted effective stack height, good engineering practice stack

height, terrain type, land use, and criteria for facilities not eligible to use the screening limits.

(4)

Multiple stacks. Owners and operators of facilities with more than one on-site stack from a boiler, industrial furnace, incinerator, or other thermal treatment unit subject to controls on HCl or Cl2 emissions under a hazardous waste facility permit or interim status controls shall comply with the Tier I and Tier II screening limits for those stacks assuming all hazardous waste is fed into the device with the worst-case stack based on dispersion characteristics. (A) The worst-case stack is determined by procedures provided in section 66266.106(b)(6). (B) Under Tier I, the total feed rate of chlorine and chloride to all subject devices shall not exceed the screening limit for the worst-case stack. (C) Under Tier II, the total emissions of HCl and Cl2 from all subject stacks shall not exceed the screening limit for the worst-case stack.

(A)

The worst-case stack is determined by procedures provided in section 66266.106(b)(6).

(B)

Under Tier I, the total feed rate of chlorine and chloride to all subject devices shall not exceed the screening limit for the worst-case stack.

(C)

Under Tier II, the total emissions of HCl and Cl2 from all subject stacks shall not exceed the screening limit for the worst-case stack.

(c)

Tier III site-specific risk assessments-(1) General. Conformance with the Tier III controls shall be demonstrated by emissions testing to determine the emission rate for HCl and Cl2 air dispersion modeling to predict the maximum annual average off-site ground level concentration for each compound, and a

demonstration that acceptable ambient levels are not exceeded. (2) Acceptable ambient levels. Appendix IV of this chapter lists the reference air concentrations (RACs) for HCl (7 micrograms per cubic meter) and Cl2 (0.4 micrograms per cubic meter). (3) Multiple stacks. Owners and operators of facilities with more than one on-site stack from a boiler, industrial furnace, incinerator, or other thermal treatment unit subject to controls on HCl or Cl2 emissions under a hazardous waste facility permit or interim status controls shall conduct emissions testing and dispersion modeling to demonstrate that the aggregate emissions from all such on-site stacks do not result in an exceedance of the acceptable ambient levels for HCl and Cl2.

(1)

General. Conformance with the Tier III controls shall be demonstrated by emissions testing to determine the emission rate for HCl and Cl2 air dispersion modeling to predict the maximum annual average off-site ground level concentration for each compound, and a demonstration that acceptable ambient levels are not exceeded.

(2)

Acceptable ambient levels. Appendix IV of this chapter lists the reference air concentrations (RACs) for HCl (7 micrograms per cubic meter) and Cl2 (0.4 micrograms per cubic meter).

(3)

Multiple stacks. Owners and operators of facilities with more than one on-site stack from a boiler, industrial furnace, incinerator, or other thermal treatment unit subject to controls on HCl or Cl2 emissions under a hazardous waste facility permit or interim status controls shall conduct emissions testing and dispersion modeling to demonstrate that the aggregate emissions from all such on-site stacks do not result in an exceedance of the acceptable ambient levels for HCl and Cl2.

(d)

Averaging periods. The HCl and Cl2 controls are implemented by limiting the feed rate of total chlorine and chloride in all feedstreams, including hazardous waste, fuels, and industrial furnace feed stocks. Under Tier I, the feed rate of total chloride and chlorine is limited to the Tier I Screening Limits. Under Tier II and Tier III, the feed rate of total chloride and chlorine is limited to the feed rates during the trial burn (for new facilities or an interim status facility applying for a permit) or the compliance test (for interim status facilities). The feed rate limits are based on either: (1) An hourly rolling average as defined in section 66266.102(e)(6); or (2) An instantaneous basis not to be exceeded at any time.

(1)

An hourly rolling average as defined in section 66266.102(e)(6); or

(2)

An instantaneous basis not to be exceeded at any time.

(e)

Adjusted Tier I feed rate screening limits. The owner or operator may adjust the feed rate screening limit provided by appendix II of this chapter to account for site-specific dispersion modeling. Under this approach, the adjusted feed rate screening limit is determined by back-calculating from the acceptable ambient level for Cl2 provided by appendix IV of this chapter using dispersion modeling to determine the maximum allowable emission rate. This emission rate becomes the adjusted Tier I feed rate screening limit.

(f)

Emissions testing. Emissions testing for HCl and Cl2 shall be conducted using the procedures described in Methods 0050 or 0051, U.S. EPA Publication SW-846, Third Edition and Updates, as incorporated by reference in Section 66260.11 of

this Division.

(g)

Dispersion modeling. Dispersion modeling shall be conducted according to the provisions of section 66266.106(h).

(h)

Enforcement. For the purposes of permit enforcement, compliance with the operating requirements specified in the permit (under section 66266.102) will be regarded as compliance with this section. However, evidence that compliance with those permit conditions is insufficient to ensure compliance with the requirements of this section may be "information" justifying modification or revocation and re-issuance of a permit under section 66270.41 of this division.