CA

66266.106 Standards to Control Metals Emissions

(a)

General. The owner or operator shall comply with the metals standards provided by subsections (b), (c), (d), (e), or (f) of this section for each metal listed in subsection (b) of this section that is present in the hazardous waste at detectable levels using analytical procedures specified in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846), incorporated by reference in section 66260.11 of chapter 10 of this division.

(b)

Tier I feed rate screening limits. Feed rate screening limits for metals are specified in appendix I of this chapter as a function of terrain-adjusted effective stack height and terrain and land use in the vicinity of the facility. Criteria for facilities that are not eligible to comply with the screening limits are provided in subsection (b)(7) of this section. (1) Noncarcinogenic metals. The feed rates of antimony, barium, lead, mercury, thallium, and silver in all feed streams, including hazardous waste, fuels, and industrial furnace feed stocks shall not exceed the screening limits specified in appendix I of this chapter. (A) The feed rate screening limits for antimony, barium, mercury, thallium, and silver are based on either: 1. An hourly rolling average as defined in section 66266.102(e)(6)(A)2.; or 2. An instantaneous limit not to be exceeded at any time. (B) The feed rate screening limit for lead is based on one of the following: 1. An hourly rolling

average as defined in section 66266.102(e)(6)(A)2.; 2. An averaging period of 2 to 24 hours as defined in section 66266.102(e)(6)(B) with an instantaneous feed rate limit not to exceed 10 times the feed rate that would be allowed on an hourly rolling average basis; or 3. An instantaneous limit not to be exceeded at any time. (2) Carcinogenic metals. (A) The feed rates of arsenic, cadmium, beryllium, and chromium in all feed streams, including hazardous waste, fuels, and industrial furnace feed stocks shall not exceed values derived from the screening limits specified in appendix I of this chapter. The feed rate of each of these metals is limited to a level such that the sum of the ratios of the actual feed rate to the feed rate screening limit specified in appendix I shall not exceed 1.0, as provided by the following equation: Click here to view image where: n=number of carcinogenic metals AFR=actual feed rate to the device for metal "i" FRSL=feed rate screening limit provided by appendix I of this chapter for metal "i". (B) The feed rate screening limits for the carcinogenic metals are based on either: 1. An hourly rolling average; or 2. An averaging period of 2 to 24 hours as defined in section 66266.102(e)(6)(B) with an instantaneous feed rate limit not to exceed 10 times the feed rate that would be allowed on an hourly rolling average basis. (3) TESH. (A) The terrain-adjusted effective stack height is determined according to the following equation: TESH=Ha+H1-Tr where: Ha=Actual physical stack height. H1=Plume rise as determined from appendix VI of this chapter as a function of stack flow rate and stack gas exhaust temperature. Tr=Terrain rise within five kilometers of the stack. (B) The stack height (Ha) may not exceed good engineering practice as specified in 40 CFR 51.100(ii). (C) If the TESH for a particular facility is not listed in the table in the appendices, the nearest lower TESH listed in the table shall be used. If the TESH is four meters or less, a value of four meters shall be used. (4) Terrain type. The screening limits are a function of

whether the facility is located in noncomplex or complex terrain. A device located where any part of the surrounding terrain within 5 kilometers of the stack equals or exceeds the elevation of the physical stack height (Ha) is considered to be in complex terrain and the screening limits for complex terrain apply. Terrain measurements are to be made from U.S. Geological Survey 7.5-minute topographic maps of the area surrounding the facility. (5) Land use. The screening limits are a function of whether the facility is located in an area where the land use is urban or rural. To determine whether land use in the vicinity of the facility is urban or rural, procedures provided in appendices IX or X of this chapter shall be used. (6) 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 of metals emissions under a hazardous waste facility permit or interim status controls shall comply with the screening limits for all such units assuming all hazardous waste is fed into the device with the worst-case stack based on dispersion characteristics. The worst-case stack is determined from the following equation as applied to each stack: $K=HVT$ Where: K = a parameter accounting for relative influence of stack height and plume rise; H = physical stack height (meters); V = stack gas flow rate (m^3/second); and T = exhaust temperature (°K). The stack with the lowest value of K is the worst-case stack. (7) Criteria for facilities not eligible for screening limits. If any criteria below are met, the Tier I and Tier II screening limits do not apply. Owners and operators of such facilities shall comply with either the Tier III standards provided by subsection (d) of this section or with the adjusted Tier I feed rate screening limits provided by subsection (e) of this section. (A) The device is located in a narrow valley less than one kilometer wide; (B) The device has a stack taller than 20 meters and is located such that the terrain rises to the physical height within one kilometer of

the facility; (C) The device has a stack taller than 20 meters and is located within five kilometers of shoreline of a large body of water such as an ocean or a large lake; (D) The physical stack height of any stack is less than 2.5 times the height of any building within five building heights or five projected building widths of the stack and the distance from the stack to the closest boundary is within five building heights or five projected building widths of the associated building; or (E) The Director determines that standards based on site-specific dispersion modeling are required. (8) Implementation. The feed rate of metals in each feedstream shall be monitored to ensure that the feed rate screening limits are not exceeded.

(1)

Noncarcinogenic metals. The feed rates of antimony, barium, lead, mercury, thallium, and silver in all feed streams, including hazardous waste, fuels, and industrial furnace feed stocks shall not exceed the screening limits specified in appendix I of this chapter.

(A) The feed rate screening limits for antimony, barium, mercury, thallium, and silver are based on either: 1. An hourly rolling average as defined in section 66266.102(e)(6)(A)2.; or 2. An instantaneous limit not to be exceeded at any time. (B) The feed rate screening limit for lead is based on one of the following: 1. An hourly rolling average as defined in section 66266.102(e)(6)(A)2.; 2. An averaging period of 2 to 24 hours as defined in section 66266.102(e)(6)(B) with an instantaneous feed rate limit not to exceed 10 times the feed rate that would be allowed on an hourly rolling average basis; or 3. An instantaneous limit not to be exceeded at any time.

(A)

The feed rate screening limits for antimony, barium, mercury, thallium, and silver are based on either: 1. An hourly rolling average as defined in section 66266.102(e)(6)(A)2.; or 2. An instantaneous limit not to be exceeded at any time.

1.

An hourly rolling average as defined in section 66266.102(e)(6)(A)2.; or

2.

An instantaneous limit not to be exceeded at any time.

(B)

The feed rate screening limit for lead is based on one of the following: 1. An hourly rolling average as defined in section 66266.102(e)(6)(A)2.; 2. An averaging period of 2 to 24 hours as defined in section 66266.102(e)(6)(B) with an instantaneous feed rate limit not to exceed 10 times the feed rate that would be allowed on an hourly rolling average basis; or 3. An instantaneous limit not to be exceeded at any time.

1.

An hourly rolling average as defined in section 66266.102(e)(6)(A)2.;

2.

An averaging period of 2 to 24 hours as defined in section 66266.102(e)(6)(B) with an instantaneous feed rate limit not to exceed 10 times the feed rate that would be allowed on an hourly rolling average basis; or

3.

An instantaneous limit not to be exceeded at any time.

(2)

Carcinogenic metals. (A) The feed rates of arsenic, cadmium, beryllium, and chromium in all feed streams, including hazardous waste, fuels, and industrial furnace feed stocks shall not exceed values derived from the screening limits specified in appendix I of this chapter. The feed rate of each of these metals is limited to a level such that the sum of the ratios of the actual feed rate to the feed rate screening limit specified in appendix I shall not exceed 1.0, as provided by the following equation: Click here to view image where: n=number of carcinogenic metals AFR=actual feed rate to the device for metal "i" FRSL=feed rate screening limit provided by appendix I of

this chapter for metal "i". (B) The feed rate screening limits for the carcinogenic metals are based on either: 1. An hourly rolling average; or 2. An averaging period of 2 to 24 hours as defined in section 66266.102(e)(6)(B) with an instantaneous feed rate limit not to exceed 10 times the feed rate that would be allowed on an hourly rolling average basis.

(A)

The feed rates of arsenic, cadmium, beryllium, and chromium in all feed streams, including hazardous waste, fuels, and industrial furnace feed stocks shall not exceed values derived from the screening limits specified in appendix I of this chapter. The feed rate of each of these metals is limited to a level such that the sum of the ratios of the actual feed rate to the feed rate screening limit specified in appendix I shall not exceed 1.0, as provided by the following equation: Click here to view image where: n=number of carcinogenic metals AFR=actual feed rate to the device for metal "i" FRSL=feed rate screening limit provided by appendix I of this chapter for metal "i".

(B)

The feed rate screening limits for the carcinogenic metals are based on either: 1. An hourly rolling average; or 2. An averaging period of 2 to 24 hours as defined in section 66266.102(e)(6)(B) with an instantaneous feed rate limit not to exceed 10 times the feed rate that would be allowed on an hourly rolling average basis.

1.

An hourly rolling average; or

2.

An averaging period of 2 to 24 hours as defined in section 66266.102(e)(6)(B) with an instantaneous feed rate limit not to exceed 10 times the feed rate that would be allowed on an hourly rolling average basis.

(3)

TESH. (A) The terrain-adjusted effective stack height is determined according to the following equation: TESH=Ha+H1-Tr where: Ha=Actual physical stack height. H1=Plume rise as determined from appendix VI of this chapter as a function of stack flow rate and stack gas exhaust temperature. Tr=Terrain rise within five kilometers of the stack. (B) The stack height (Ha) may not exceed good engineering practice as specified in 40 CFR 51.100(ii). (C) If the TESH for a particular facility is not listed in the table in the appendices, the nearest lower TESH listed in the table shall be used. If the TESH is four meters or less, a value of four meters shall be used.

(A)

The terrain-adjusted effective stack height is determined according to the following equation: TESH=Ha+H1-Tr where: Ha=Actual physical stack height. H1=Plume rise as determined from appendix VI of this chapter as a function of stack flow rate and stack gas exhaust temperature. Tr=Terrain rise within five kilometers of the stack.

(B)

The stack height (Ha) may not exceed good engineering practice as specified in 40 CFR 51.100(ii).

(C)

If the TESH for a particular facility is not listed in the table in the appendices, the nearest lower TESH listed in the table shall be used. If the TESH is four meters or less, a value of four meters shall be used.

(4)

Terrain type. The screening limits are a function of whether the facility is located in noncomplex or complex terrain. A device located where any part of the surrounding terrain within 5 kilometers of the stack equals or exceeds the elevation of the physical stack height (Ha) is considered to be in complex terrain and the screening limits for complex terrain apply. Terrain measurements are to be made from U.S. Geological

Survey 7.5-minute topographic maps of the area surrounding the facility.

(5)

Land use. The screening limits are a function of whether the facility is located in an area where the land use is urban or rural. To determine whether land use in the vicinity of the facility is urban or rural, procedures provided in appendices IX or X of this chapter shall be used.

(6)

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 of metals emissions under a hazardous waste facility permit or interim status controls shall comply with the screening limits for all such units assuming all hazardous waste is fed into the device with the worst-case stack based on dispersion characteristics. The worst-case stack is determined from the following equation as applied to each stack: K=HVT Where: K = a parameter accounting for relative influence of stack height and plume rise; H = physical stack height (meters); V = stack gas flow rate (m3/second); and T = exhaust temperature (°K). The stack with the lowest value of K is the worst-case stack.

(7)

Criteria for facilities not eligible for screening limits. If any criteria below are met, the Tier I and Tier II screening limits do not apply. Owners and operators of such facilities shall comply with either the Tier III standards provided by subsection (d) of this section or with the adjusted Tier I feed rate screening limits provided by subsection (e) of this section. (A) The device is located in a narrow valley less than one kilometer wide; (B) The device has a stack taller than 20 meters and is located such that the terrain rises to the physical height within one kilometer of the facility; (C) The device has a stack taller than 20 meters and is located within five kilometers of shoreline of a large body

of water such as an ocean or a large lake; (D) The physical stack height of any stack is less than 2.5 times the height of any building within five building heights or five projected building widths of the stack and the distance from the stack to the closest boundary is within five building heights or five projected building widths of the associated building; or (E) The Director determines that standards based on site-specific dispersion modeling are required.

(A)

The device is located in a narrow valley less than one kilometer wide;

(B)

The device has a stack taller than 20 meters and is located such that the terrain rises to the physical height within one kilometer of the facility;

(C)

The device has a stack taller than 20 meters and is located within five kilometers of shoreline of a large body of water such as an ocean or a large lake;

(D)

The physical stack height of any stack is less than 2.5 times the height of any building within five building heights or five projected building widths of the stack and the distance from the stack to the closest boundary is within five building heights or five projected building widths of the associated building; or

(E)

The Director determines that standards based on site-specific dispersion modeling are required.

(8)

Implementation. The feed rate of metals in each feedstream shall be monitored to ensure that the feed rate screening limits are not exceeded.

(c)

Tier II emission rate screening limits. Emission rate screening limits are specified in appendix I as a function of terrain-adjusted effective stack height and terrain and land use in the vicinity of the facility. Criteria for facilities that are not eligible to comply with the screening limits are provided in subsection (b)(7) of this section. (1) Noncarcinogenic metals. The emission rates of antimony, barium, lead, mercury, thallium, and silver shall not exceed the screening limits specified in appendix I of this chapter. (2) Carcinogenic metals. The emission rates of arsenic, cadmium, beryllium, and chromium shall not exceed values derived from the screening limits specified in appendix I of this chapter. The emission rate of each of these metals is limited to a level such that the sum of the ratios of the actual emission rate to the emission rate screening limit specified in appendix I shall not exceed 1.0, as provided by the following equation: Click here to view image where: n=number of carcinogenic metals AER=actual emission rate for metal "i" ERSL=emission rate screening limit provided by appendix I of this chapter for metal "i". (3) Implementation. The emission rate limits shall be implemented by limiting feed rates of the individual metals to levels 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 averaging periods are the same as provided by subsections (b)(1)(A) and (B) and (b)(2)(B) of this section. The feed rate of metals in each feedstream shall be monitored to ensure that the feed rate limits for the feedstreams specified under sections 66266.102 or 66266.103 are not exceeded. (4) Definitions and limitations. The definitions and limitations provided by subsection (b) of this section for the following terms also apply to the Tier II emission rate screening limits provided by subsection (c) of this section: 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. (5) Multiple stacks. (A) Owners and operators of facilities with more than one onsite stack from a boiler, industrial furnace, incinerator, or other thermal treatment unit subject to controls on metals emissions under a hazardous waste facility permit or interim status controls shall comply with the emissions screening limits for any such stacks assuming all hazardous waste is fed into the device with the worst-case stack based on dispersion characteristics. (B) The worst-case stack is determined by procedures provided in subsection (b)(6) of this section. (C) For each metal, the total emissions of the metal from those stacks shall not exceed the screening limit for the worst-case stack.

(1)

Noncarcinogenic metals. The emission rates of antimony, barium, lead, mercury, thallium, and silver shall not exceed the screening limits specified in appendix I of this chapter.

(2)

Carcinogenic metals. The emission rates of arsenic, cadmium, beryllium, and chromium shall not exceed values derived from the screening limits specified in appendix I of this chapter. The emission rate of each of these metals is limited to a level such that the sum of the ratios of the actual emission rate to the emission rate screening limit specified in appendix I shall not exceed 1.0, as provided by the following equation: Click here to view image where: n=number of carcinogenic metals AER=actual emission rate for metal "i" ERSL=emission rate screening limit provided by appendix I of this chapter for metal "i".

(3)

Implementation. The emission rate limits shall be implemented by limiting feed rates of the individual metals to levels 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 averaging periods are the same as provided by subsections (b)(1)(A) and (B) and (b)(2)(B) of this section. The feed rate of metals in each feedstream shall be monitored to ensure that the feed rate limits for the feedstreams specified under sections 66266.102 or 66266.103 are not exceeded.

(4)

Definitions and limitations. The definitions and limitations provided by subsection (b) of this section for the following terms also apply to the Tier II emission rate screening limits provided by subsection (c) of this section: 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.

(5)

Multiple stacks. (A) Owners and operators of facilities with more than one onsite stack from a boiler, industrial furnace, incinerator, or other thermal treatment unit subject to controls on metals emissions under a hazardous waste facility permit or interim status controls shall comply with the emissions screening limits for any such stacks assuming all hazardous waste is fed into the device with the worst-case stack based on dispersion characteristics. (B) The worst-case stack is determined by procedures provided in subsection (b)(6) of this section. (C) For each metal, the total emissions of the metal from those stacks shall not exceed the screening limit for the worst-case stack.

(A)

Owners and operators of facilities with more than one onsite stack from a boiler, industrial furnace, incinerator, or other thermal treatment unit subject to controls on metals emissions under a hazardous waste facility permit or interim status controls shall comply with the emissions screening limits for any such stacks assuming all hazardous waste is fed into the device with the worst-case stack based on dispersion characteristics.

(B)

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

(C)

For each metal, the total emissions of the metal from those stacks shall not exceed the screening limit for the worst-case stack.

(d)

Tier III and Adjusted Tier I site-specific risk assessment. The requirements of this subsection apply to facilities complying with either the Tier III or Adjusted Tier I controls except where specified otherwise.(1) General. Conformance with the Tier III metals controls shall be demonstrated by emissions testing to determine the emission rate for each metal. In addition, conformance with either the Tier III or Adjusted Tier I metals controls shall be demonstrated by air dispersion modeling to predict the maximum annual average off-site ground level concentration for each dispersion modeling to predict the maximum annual average off-site ground level concentration for each metal, and a demonstration that acceptable ambient levels are not exceeded. (2) Acceptable ambient levels. Appendices IV and V of this chapter list the acceptable ambient levels for purposes of this rule. Reference air concentrations (RACs) are listed for the noncarcinogenic metals and 10-5 risk-specific doses (RSDs) are listed for the carcinogenic metals. The RSD for a metal is the acceptable ambient level for that metal provided that only one of the four carcinogenic metals is emitted. If more than one carcinogenic metal is emitted, the acceptable ambient level for the carcinogenic metals is a fraction of the RSD as described in subsection (d)(3) of this section. (3) Carcinogenic metals. For the carcinogenic metals, arsenic, cadmium, beryllium, and chromium, the sum of the ratios of the predicted

maximum annual average off-site ground level concentrations (except that on-site concentrations shall be considered if a person resides on site) to the risk-specific dose (RSD) for all carcinogenic metals emitted shall not exceed 1.0 as determined by the following equation: Click here to view image where: n=number of carcinogenic metals (4) Noncarcinogenic metals. For the noncarcinogenic metals, the predicted maximum annual average off-site ground level concentration for each metal shall not exceed the reference air concentration (RAC). (5) 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 metals emissions under a hazardous waste facility permit or interim status controls shall conduct emissions testing (except that facilities complying with Adjusted Tier I controls need not 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. (6) Implementation. Under Tier III, the metals controls shall be implemented by limiting feed rates of the individual metals to levels 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 averaging periods are the same as provided by subsections (b)(1) (A) and (B) and (b)(2)(B) of this section. The feed rate of metals in each feedstream shall be monitored to ensure that the feed rate limits for the feedstreams specified under sections 66266.102 or 66266.103 are not exceeded.

(1)

General. Conformance with the Tier III metals controls shall be demonstrated by emissions testing to determine the emission rate for each metal. In addition, conformance with either the Tier III or Adjusted Tier I metals controls shall be

demonstrated by air dispersion modeling to predict the maximum annual average off-site ground level concentration for each dispersion modeling to predict the maximum annual average off-site ground level concentration for each metal, and a demonstration that acceptable ambient levels are not exceeded.

(2)

Acceptable ambient levels. Appendices IV and V of this chapter list the acceptable ambient levels for purposes of this rule. Reference air concentrations (RACs) are listed for the noncarcinogenic metals and 10-5 risk-specific doses (RSDs) are listed for the carcinogenic metals. The RSD for a metal is the acceptable ambient level for that metal provided that only one of the four carcinogenic metals is emitted. If more than one carcinogenic metal is emitted, the acceptable ambient level for the carcinogenic metals is a fraction of the RSD as described in subsection (d)(3) of this section.

(3)

Carcinogenic metals. For the carcinogenic metals, arsenic, cadmium, beryllium, and chromium, the sum of the ratios of the predicted maximum annual average off-site ground level concentrations (except that on-site concentrations shall be considered if a person resides on site) to the risk-specific dose (RSD) for all carcinogenic metals emitted shall not exceed 1.0 as determined by the following equation: Click here to view image where: n=number of carcinogenic metals

(4)

Noncarcinogenic metals. For the noncarcinogenic metals, the predicted maximum annual average off-site ground level concentration for each metal shall not exceed the reference air concentration (RAC).

(5)

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 metals emissions under a hazardous waste facility permit or interim status controls shall conduct emissions testing (except that facilities complying with Adjusted Tier I controls need not 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.

(6)

Implementation. Under Tier III, the metals controls shall be implemented by limiting feed rates of the individual metals to levels 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 averaging periods are the same as provided by subsections (b)(1) (A) and (B) and (b)(2)(B) of this section. The feed rate of metals in each feedstream shall be monitored to ensure that the feed rate limits for the feedstreams specified under sections 66266.102 or 66266.103 are not exceeded.

(e)

Adjusted Tier I feed rate screening limits. The owner or operator may adjust the feed rate screening limits provided by appendix I of this chapter to account for site-specific dispersion modeling. Under this approach, the adjusted feed rate screening limit for a metal is determined by back-calculating from the acceptable ambient levels provided by appendices IV and V 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. The feed rate screening limits for carcinogenic metals are implemented as prescribed in subsection (b)(2) of this section.

(f)

Alternative implementation approaches. (1) The Director may approve on a case-by-case basis approaches to implement the Tier II or Tier III metals emission

limits provided by subsections (c) or (d) of this section alternative to monitoring the feed rate of metals in each feedstream. (2) The emission limits provided by subsection (d) of this section shall be determined as follows: (A) For each noncarcinogenic metal, by back-calculating from the RAC provided in appendix IV of this chapter to determine the allowable emission rate for each metal using the dilution factor for the maximum annual average ground level concentration predicted by dispersion modeling in conformance with subsection (h) of this section; and (B) For each carcinogenic metal by: 1. Back-calculating from the RSD provided in appendix V of this chapter to determine the allowable emission rate for each metal if that metal were the only carcinogenic metal emitted using the dilution factor for the maximum annual average ground level concentration predicted by dispersion modeling in conformance with subsection (h) of this section; and 2. If more than one carcinogenic metal is emitted, selecting an emission limit for each carcinogenic metal not to exceed the emission rate determined by subsection (f)(2)(B)1. of this section such that the sum for all carcinogenic metals of the ratios of the selected emission limit to the emission rate determined by that subsection does not exceed 1.0.

(1)

The Director may approve on a case-by-case basis approaches to implement the Tier II or Tier III metals emission limits provided by subsections (c) or (d) of this section alternative to monitoring the feed rate of metals in each feedstream.

(2)

The emission limits provided by subsection (d) of this section shall be determined as follows: (A) For each noncarcinogenic metal, by back-calculating from the RAC provided in appendix IV of this chapter to determine the allowable emission rate for each metal using the dilution factor for the maximum annual average ground level

concentration predicted by dispersion modeling in conformance with subsection (h) of this section; and (B) For each carcinogenic metal by: 1. Back-calculating from the RSD provided in appendix V of this chapter to determine the allowable emission rate for each metal if that metal were the only carcinogenic metal emitted using the dilution factor for the maximum annual average ground level concentration predicted by dispersion modeling in conformance with subsection (h) of this section; and 2. If more than one carcinogenic metal is emitted, selecting an emission limit for each carcinogenic metal not to exceed the emission rate determined by subsection (f)(2)(B)1. of this section such that the sum for all carcinogenic metals of the ratios of the selected emission limit to the emission rate determined by that subsection does not exceed 1.0.

(A)

For each noncarcinogenic metal, by back-calculating from the RAC provided in appendix IV of this chapter to determine the allowable emission rate for each metal using the dilution factor for the maximum annual average ground level concentration predicted by dispersion modeling in conformance with subsection (h) of this section; and

(B)

For each carcinogenic metal by: 1. Back-calculating from the RSD provided in appendix V of this chapter to determine the allowable emission rate for each metal if that metal were the only carcinogenic metal emitted using the dilution factor for the maximum annual average ground level concentration predicted by dispersion modeling in conformance with subsection (h) of this section; and 2. If more than one carcinogenic metal is emitted, selecting an emission limit for each carcinogenic metal not to exceed the emission rate determined by subsection (f)(2)(B)1. of this section such that the sum for all carcinogenic metals of the ratios of the selected emission limit to the emission rate determined by that subsection does not exceed 1.0.

1.

Back-calculating from the RSD provided in appendix V of this chapter to determine the allowable emission rate for each metal if that metal were the only carcinogenic metal emitted using the dilution factor for the maximum annual average ground level concentration predicted by dispersion modeling in conformance with subsection (h) of this section; and

2.

If more than one carcinogenic metal is emitted, selecting an emission limit for each carcinogenic metal not to exceed the emission rate determined by subsection (f)(2)(B)1. of this section such that the sum for all carcinogenic metals of the ratios of the selected emission limit to the emission rate determined by that subsection does not exceed 1.0.

(g)

Emission testing- (1) General. Emission testing for metals shall be conducted using Method 0060, Determinations of Metals in Stack Emissions, U.S. EPA Publication SW-846, third edition and Updates, as incorporated by reference in Section 66260.11 of this Division. (2) Hexavalent chromium. Emissions of chromium are assumed to be hexavalent chromium unless the owner or operator conducts emissions testing to determine hexavalent chromium emissions using procedures prescribed in Method 0061, Determination of Hexavalent Chromium Emissions from Stationary Sources, U.S. EPA Publication SW-846, Third Edition and Updates, as incorporated by reference in Section 66260.11 of this Division.

(1)

General. Emission testing for metals shall be conducted using Method 0060, Determinations of Metals in Stack Emissions, U.S. EPA Publication SW-846, third edition and Updates, as incorporated by reference in Section 66260.11 of this Division.

(2)

Hexavalent chromium. Emissions of chromium are assumed to be hexavalent

chromium unless the owner or operator conducts emissions testing to determine hexavalent chromium emissions using procedures prescribed in Method 0061, Determination of Hexavalent Chromium Emissions from Stationary Sources, U.S. EPA Publication SW-846, Third Edition and Updates, as incorporated by reference in Section 66260.11 of this Division.

(h)

Dispersion modeling. Dispersion modeling required under this section shall be conducted according to methods recommended in appendix W of part 51 of 40 CFR ("Guideline on Air Quality Models (revised)" (1986) and its supplements), the "Hazardous Waste Combustion Air Quality Screening Procedure", provided in appendix IX of this chapter, or in Screening Procedures for Estimating Air Quality Impact of Stationary Sources, Revised (incorporated by reference in section 66260.11) to predict the maximum annual average off-site ground level concentration. However, on-site concentrations shall be considered when a person resides on-site.

(i)

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.