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Title 22@ Social Security

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Division 4.5@ Environmental Health Standards for the Management of Hazardous Waste

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Chapter 14@ Standards for Owners and Operators of Hazardous Waste Transfer, Treatment, Storage, and Disposal Facilities

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Article 6@ Water Quality Monitoring and Response Programs for Permitted Facilities

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Section 66264.99@ Evaluation Monitoring Program

66264.99 Evaluation Monitoring Program

(a)

An owner or operator required pursuant to section 66264.91 to establish an evaluation monitoring program for a regulated unit shall, at a minimum, comply with the requirements of this section for that unit. The evaluation monitoring program shall be used to assess the nature and extent of the release from the regulated unit and to design a corrective action program meeting the requirements of section 66264.100.

(b)

The owner or operator shall collect and analyze all data necessary to assess the nature and extent of the release from the regulated unit. This assessment shall include a determination of the spatial distribution and concentration of each constituent of concern throughout the zone affected by the release. The owner or operator shall complete and submit this assessment to the Department within 90 days of establishing an evaluation monitoring program.

(c)

Based on the data collected pursuant to subsections (b) and (e) of this section, the owner or operator shall update the engineering feasibility study required under section 66264.98(k)(6). The owner or operator shall submit this engineering feasibility study to the Department within 90 days of establishing an evaluation monitoring program.

(d)

Based on the data collected pursuant to subsections (b) and (e) of this section and on the engineering feasibility study submitted pursuant to subsection (c) of this section, the owner or operator shall submit an application for a permit modification to establish a corrective action program meeting the requirements of section 66264.100. The owner or operator shall submit this application for a permit modification to the Department within 90 days of establishing an evaluation monitoring program. The application shall at a minimum include the following information: (1) a detailed assessment of the nature and extent of the release from the regulated unit; (2) a proposed water quality protection standard, including any proposed concentration limits greater than background under section 66264.94, and all data necessary to justify each such limit; (3) a detailed description of proposed corrective action measures that will be taken to achieve compliance with the water quality protection standard proposed for a corrective action program; and (4) a plan for a water quality monitoring program that will demonstrate the effectiveness of the proposed corrective action.

(1)

a detailed assessment of the nature and extent of the release from the regulated unit;

(2)

a proposed water quality protection standard, including any proposed concentration limits greater than background under section 66264.94, and all data necessary to justify each such limit;

(3)

a detailed description of proposed corrective action measures that will be taken to achieve compliance with the water quality protection standard proposed for a corrective action program; and

(4)

a plan for a water quality monitoring program that will demonstrate the effectiveness of the proposed corrective action.

(e)

In conjunction with the assessment conducted pursuant to subsection (b) of this section, and while awaiting final approval of the application for a permit modification submitted pursuant to subsection (d) of this section, the owner or operator shall monitor groundwater, surface water and the unsaturated zone to evaluate changes in water quality resulting from the release from the regulated unit. In conducting this monitoring, the owner or operator shall comply with the following requirements: (1) the owner or operator shall install water quality monitoring systems that are appropriate for evaluation monitoring and that comply with the provisions of section 66264.97. These water quality monitoring systems may include all or part of existing monitoring systems; (2) the owner or operator shall propose for approval by the Department a list of monitoring parameters for each medium (groundwater, surface water and the unsaturated zone) to be monitored pursuant to section 66264.97. The list for each medium shall include all hazardous constituents that have been detected in that medium and shall include those physical parameters, waste constituents and reaction products that provide a reliable indication of changes in water quality resulting from the release from the regulated unit to that medium. The Department shall specify each list of monitoring parameters in the facility permit after considering the following factors: (A) the types, quantities and concentrations of constituents in wastes managed at the regulated unit; (B) information that demonstrates, to the satisfaction of the Department, a sufficient correlation between the proposed monitoring parameters and the constituents of concern

specified for the unit; (C) the mobility, stability and persistence of waste constituents or their reaction products; (D) the detectability of physical parameters, waste constituents and reaction products; and (E) the background values and the coefficients of variation of proposed monitoring parameters in groundwater, surface water and the unsaturated zone; (3) the owner or operator shall conduct sampling and analyses for the monitoring parameters listed in the facility permit pursuant to subsection (e)(2) of this section. The Department shall specify in the facility permit the frequencies for collecting samples and for conducting statistical analyses pursuant to section 66264.97(e)(12) to evaluate changes in water quality due to the release from the regulated unit. For groundwater, sampling shall be scheduled to include the times of expected highest and lowest annual elevations of the groundwater surface unless the owner or operator can demonstrate to the satisfaction of the Department that alternative sampling times are appropriate; (4) in addition to monitoring for the monitoring parameters specified pursuant to subsection (e)(2) of this section, the owner or operator shall periodically monitor for all constituents of concern specified in the facility permit and evaluate changes in water quality due to the release from the regulated unit. The Department shall specify the frequencies for monitoring pursuant to this subsection after considering the degree of certainty associated with the demonstrated correlation between values for monitoring parameters and values for the constituents of concern; (5) the owner or operator shall conduct water quality monitoring for each monitoring parameter and each constituent of concern in accordance with section 66264.97(e)(12). The owner or operator shall maintain a record of water quality analytical data as measured and in a form necessary for the evaluation of changes in water quality due to the release from the regulated unit; (6) the owner or operator shall analyze samples from all

monitoring points affected by a release from the regulated unit for all constituents contained in Appendix IX to chapter 14 at least annually to determine whether additional hazardous constituents are present and, if so, at what concentration(s). The owner or operator may propose to modify the number of monitoring points and specific Appendix IX analytes based on site-specific conditions and previous Appendix IX sampling results. If the Department approves the proposal, it shall be incorporated into the monitoring and response program. If the owner or operator finds Appendix IX constituents in the groundwater, surface water or the unsaturated zone that are not already identified in the permit as constituents of concern, the owner or operator may resample within one month and repeat the analysis for those constituents. Resampling may occur within a different time frame provided the owner or operator receives written approval from the Department. If the second analysis confirms the presence of new constituents, the owner or operator shall report the concentration of these additional constituents to the Department by certified mail within seven days after the completion of the second analysis and the Department shall add them to the list of constituents of concern specified in the facility permit unless the owner or operator demonstrates to the satisfaction of the Department that the constituent is not reasonably expected to be in or derived from waste in the regulated unit. If the owner or operator does not resample, then the owner or operator shall report the concentrations of these additional constituents to the Department by certified mail within seven days after completion of the initial analysis and the Department shall add them to the list of constituents of concern specified in the facility permit unless the owner or operator demonstrates to the satisfaction of the Department that the constituent is not reasonably expected to be in or derived from waste in the regulated unit; and (7) while awaiting final approval of the application for a

permit modification to establish a corrective action program, the owner or operator shall evaluate all water quality data obtained pursuant to subsection (e) of this section with respect to the design criteria for the corrective action program. If the evaluation indicates that the plan for corrective action is insufficient, the owner or operator shall: (A) notify the Department by certified mail within seven days of such determination; and (B) within 90 days of such determination, submit for approval by the Department any appropriate changes to the application for a permit modification.

(1)

the owner or operator shall install water quality monitoring systems that are appropriate for evaluation monitoring and that comply with the provisions of section 66264.97. These water quality monitoring systems may include all or part of existing monitoring systems;

(2)

the owner or operator shall propose for approval by the Department a list of monitoring parameters for each medium (groundwater, surface water and the unsaturated zone) to be monitored pursuant to section 66264.97. The list for each medium shall include all hazardous constituents that have been detected in that medium and shall include those physical parameters, waste constituents and reaction products that provide a reliable indication of changes in water quality resulting from the release from the regulated unit to that medium. The Department shall specify each list of monitoring parameters in the facility permit after considering the following factors: (A) the types, quantities and concentrations of constituents in wastes managed at the regulated unit; (B) information that demonstrates, to the satisfaction of the Department, a sufficient correlation between the proposed monitoring parameters and the constituents of concern specified for the unit; (C) the mobility, stability and persistence of waste

constituents or their reaction products; (D) the detectability of physical parameters, waste constituents and reaction products; and (E) the background values and the coefficients of variation of proposed monitoring parameters in groundwater, surface water and the unsaturated zone;

(A)

the types, quantities and concentrations of constituents in wastes managed at the regulated unit;

(B)

information that demonstrates, to the satisfaction of the Department, a sufficient correlation between the proposed monitoring parameters and the constituents of concern specified for the unit;

(C)

the mobility, stability and persistence of waste constituents or their reaction products;

(D)

the detectability of physical parameters, waste constituents and reaction products; and

(E)

the background values and the coefficients of variation of proposed monitoring parameters in groundwater, surface water and the unsaturated zone;

(3)

the owner or operator shall conduct sampling and analyses for the monitoring parameters listed in the facility permit pursuant to subsection (e)(2) of this section. The Department shall specify in the facility permit the frequencies for collecting samples and for conducting statistical analyses pursuant to section 66264.97(e)(12) to evaluate changes in water quality due to the release from the regulated unit. For groundwater, sampling shall be scheduled to include the times of expected highest and lowest annual elevations of the groundwater surface unless the owner or operator can

demonstrate to the satisfaction of the Department that alternative sampling times are appropriate;

(4)

in addition to monitoring for the monitoring parameters specified pursuant to subsection (e)(2) of this section, the owner or operator shall periodically monitor for all constituents of concern specified in the facility permit and evaluate changes in water quality due to the release from the regulated unit. The Department shall specify the frequencies for monitoring pursuant to this subsection after considering the degree of certainty associated with the demonstrated correlation between values for monitoring parameters and values for the constituents of concern;

(5)

the owner or operator shall conduct water quality monitoring for each monitoring parameter and each constituent of concern in accordance with section 66264.97(e)(12). The owner or operator shall maintain a record of water quality analytical data as measured and in a form necessary for the evaluation of changes in water quality due to the release from the regulated unit;

(6)

the owner or operator shall analyze samples from all monitoring points affected by a release from the regulated unit for all constituents contained in Appendix IX to chapter 14 at least annually to determine whether additional hazardous constituents are present and, if so, at what concentration(s). The owner or operator may propose to modify the number of monitoring points and specific Appendix IX analytes based on site-specific conditions and previous Appendix IX sampling results. If the Department approves the proposal, it shall be incorporated into the monitoring and response program. If the owner or operator finds Appendix IX constituents in the groundwater, surface water or the unsaturated zone that are not already identified in the permit as

constituents of concern, the owner or operator may resample within one month and repeat the analysis for those constituents. Resampling may occur within a different time frame provided the owner or operator receives written approval from the Department. If the second analysis confirms the presence of new constituents, the owner or operator shall report the concentration of these additional constituents to the Department by certified mail within seven days after the completion of the second analysis and the Department shall add them to the list of constituents of concern specified in the facility permit unless the owner or operator demonstrates to the satisfaction of the Department that the constituent is not reasonably expected to be in or derived from waste in the regulated unit. If the owner or operator does not resample, then the owner or operator shall report the concentrations of these additional constituents to the Department by certified mail within seven days after completion of the initial analysis and the Department shall add them to the list of constituents of concern specified in the facility permit unless the owner or operator demonstrates to the satisfaction of the Department that the constituent is not reasonably expected to be in or derived from waste in the regulated unit; and

(7)

while awaiting final approval of the application for a permit modification to establish a corrective action program, the owner or operator shall evaluate all water quality data obtained pursuant to subsection (e) of this section with respect to the design criteria for the corrective action program. If the evaluation indicates that the plan for corrective action is insufficient, the owner or operator shall: (A) notify the Department by certified mail within seven days of such determination; and (B) within 90 days of such determination, submit for approval by the Department any appropriate changes to the application for a permit modification.

(A)

notify the Department by certified mail within seven days of such determination; and

(B)

within 90 days of such determination, submit for approval by the Department any appropriate changes to the application for a permit modification.

(f)

If the owner or operator demonstrates to the satisfaction of the Department that a source other than the regulated unit caused the evidence of a release or that the evidence is an artifact caused by an error in sampling, analysis or statistical evaluation, or by natural variation in groundwater, surface water or the unsaturated zone, the owner or operator shall submit an application for a permit modification to reinstitute a detection monitoring program meeting the requirements of section 66264.98. This application shall include specifications for all appropriate changes to the monitoring program. In making a demonstration under this subsection, the owner or operator shall: (1) notify the Department by certified mail that the owner or operator intends to make a demonstration pursuant to this subsection; (2) submit a report to the Department that demonstrates that a source other than the regulated unit caused the evidence of a release or that the evidence resulted from error in sampling, analysis or evaluation, or from natural variation in groundwater, surface water or the unsaturated zone; and (3) continue to monitor in accordance with the evaluation monitoring program established pursuant to this section until the permit is modified.

(1)

notify the Department by certified mail that the owner or operator intends to make a demonstration pursuant to this subsection;

(2)

submit a report to the Department that demonstrates that a source other than the regulated unit caused the evidence of a release or that the evidence resulted from error in sampling, analysis or evaluation, or from natural variation in groundwater, surface water or the unsaturated zone; and

(3)

continue to monitor in accordance with the evaluation monitoring program established pursuant to this section until the permit is modified.

(g)

The Department shall require interim corrective action measures where necessary to protect human health or the environment.

(h)

If the owner or operator determines that the evaluation monitoring program does not satisfy the requirements of this section, the owner or operator shall, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.

(i)

Any time the Department determines that the evaluation monitoring program does not satisfy the requirements of this section, the Department shall send written notification of such determination to the owner or operator by certified mail, return receipt requested. The owner or operator shall, within 90 days of such notification by the Department, submit an application for a permit modification to make appropriate changes to the program.