Chapter 15. Interim Status Standards for Owners and Operators of Hazardous Waste Transfer, Treatment, Storage, and Disposal Facilities

Article 1. General

66265.1. Purpose, Scope, and Applicability.

(a) The purpose of this chapter is to establish minimum standards that define the acceptable management of hazardous waste during the period of interim status and until certification of final closure or, if the facility is subject to post-closure requirements, until post-closure responsibilities are fulfilled.

(b) The standards of this chapter apply to owners and operators of facilities that transfer, treat, store or dispose of hazardous waste who have fully complied with the requirements for interim status under Health and Safety Code Section 25200.5 and Section 66270.10 of this division until either a permit is issued under Health and Safety Code Section 25200 or until applicable closure and post-closure responsibilities specified in this chapter are fulfilled, and to those owners and operators of facilities in existence on November 19, 1980 who have failed to provide timely notification as required by 42 U.S.C. Section 6930(a) and/or failed to file Part A of the permit application as required by Section 66270.10(e) and (g). These standards apply to all transfer, treatment, storage and disposal of hazardous waste at these

facilities, except as specifically provided otherwise in this chapter or Chapter 11 of this division.

(c) Notwithstanding subsection (b), no facility shall operate under interim status if the owner or operator has failed to file Part A of the permit application as required by Section 66270.10(e) and (g). A facility operating under interim status shall not:

(1) Manage hazardous wastes which are not specified in Part A of the permit application;

(2) Employ processes not described in Part A of the permit application; or

(3) Exceed the design capacities specified in Part A of the permit application.

(d) The requirements of this chapter do not apply to:

(1) A person disposing of hazardous waste by means of ocean disposal subject to a permit issued under the Federal Marine Protection, Research, and Sanctuaries Act (33 U.S.C. Section 1401, et. seq). Such person shall comply with the requirements of this chapter when transferring, treating or storing hazardous waste before it is loaded onto an ocean vessel for incineration or disposal at sea, as provided in subsection (b) of this section.

(2) [Reserved]

(3) The owner or operator of a POTW which transfers, treats, stores, or disposes of hazardous waste;

(4) [Reserved]

(5) [Reserved]

(6) [Reserved]

(7) A generator accumulating waste on-site in compliance with Section 66262.34 of this division, except to the extent the requirements are included in Section 66262.34 of this division;

(8) A farmer disposing of waste pesticides from the farmer's own use in compliance with Section 66262.70 of this division;

(9) [Reserved]

(10) [Reserved]

(11) (A) Except as provided in subsection (d)(11)(B) of this section, a person engaged in treatment or containment activities during immediate response to any of the following situations:

1. A discharge of a hazardous waste;

2. An imminent and substantial threat of a discharge of a hazardous waste;

3. A discharge of a material which, when discharged, becomes a hazardous waste.

(B) An owner or operator of a facility otherwise regulated by this chapter shall comply with all applicable requirements of Articles 3 and 4 of this chapter.

(C) Any person who is covered by subsection (d)(11)(A) of this section and who continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to all applicable requirements of this chapter and Chapter 21 of this division for those activities.

(12) A transporter storing manifested shipments of hazardous waste in containers at a transfer facility, or a transfer facility storing manifested shipments of hazardous waste in containers, for a period of 144 hours or less, and meeting the requirements of Sections 66262.30 and 66263.18.

(13) The addition of absorbent material to waste in a container (as defined in Section 66260.10 of this division) or the addition of waste to the absorbent material in a container provided that these actions occur at the time waste is first placed in the containers; and Sections 66265.17(b), 66265.171, and 66265.172 are complied with.

(14) Persons managing hazardous waste in a hazardous waste management unit not subject to 40 CFR Part 265 (incorporated by reference in Section 66260.11 of this division) pursuant to an

exemption in 40 CFR Section 265.1(c), if the waste managed in that unit is identified as a hazardous waste solely because it exhibits the characteristic of toxicity set forth in Section 66261.24(a)(1) of this division.

(e) The owner or operator of a facility under subsections (d)(1) through (3) of this section shall be subject to the requirements of Chapter 14 of this division to the extent they are included in a permit granted to such a person under 40 CFR Part 122 or under Subchapter H (commencing with Part 220) of Chapter I of 40 CFR.

(f) The following hazardous wastes shall not be managed at facilities subject to regulation under this chapter.

(1) EPA Hazardous Waste Nos. FO20, FO21, FO22, FO23, FO26, or FO27 unless:

(A) The wastewater treatment sludge is generated in a surface impoundment as part of the plant's wastewater treatment system;

(B) The waste is stored in tanks or containers;

(C) The waste is stored or treated in waste piles that meet the requirements of Section 66264.250(c) as well as all other applicable requirements of Article 12 of this chapter.

(D) The waste is burned in incinerators that are certified pursuant to the standards and procedures in Section 66265.352; or

(E) The waste is burned in facilities that thermally treat the waste in a device other than an incinerator and that are certified pursuant to the standards and procedures in Section 66265.383.

(g) The requirements of this chapter apply to owners or operators of all facilities which transfer, treat, store or dispose of hazardous waste referred to in Chapter 18 of this division.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25200.5, 25141, 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.1.

66265.2. Compliance Schedule for Changes During Interim Status.

The owner or operator of a hazardous waste facility who has operated pursuant to a grant of interim status on or before the effective date of this division and is required to comply with the provisions of this chapter, shall submit a request for change(s) in the facility pursuant to Chapter 20, Article 7 of this division to the Department within 180 days of the effective date of this division. The request shall describe the exact change(s) to be made to the facility to comply with the provisions of this chapter. The owner or operator of such a facility shall implement the approved change(s) according to a schedule of compliance established by the Department.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25159 and 25200.5, Health and Safety Code.

66265.4. Enforcement Actions.

In addition to bringing an enforcement action pursuant to Chapter 6.5 of Division 20 commencing with Section 25100 of the Health and Safety Code, the Department may take or secure actions pursuant to Health and Safety Code Section 25358.3.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.

Reference: Sections 25159, 25159.5, 25180.5 through 25196.6 and 25358.3, Health and Safety Code; 40 CFR Section 265.4.

Article 2. General Facility Standards

66265.10. Applicability.

The regulations in this article apply to owners and operators of all hazardous waste facilities, except as Section 66265.1 provides otherwise.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.10.

66265.11. Identification Number.

Every facility owner or operator shall apply to the Department for an Identification Number in accordance with the Department's notification procedures.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.11.

66265.12. Required Notices.

(a) The owner or operator of a facility that has arranged to receive hazardous waste from a foreign source shall notify the Department in writing at least four weeks in advance of the date the waste is expected to arrive at the facility. Notice of subsequent shipments of the same waste from the same foreign source is not required.

(b) The owner or operator of a facility that receives hazardous waste from an off-site source (except where the owner or operator is also the generator) shall inform the generator in writing that the owner or operator has the appropriate interim status for, and will accept, the waste the generator is shipping. The owner or operator shall keep a copy of this written notice as part of the operating record.

(c)(1) Before transferring ownership or operation of a facility during its operating life, or of a disposal facility during the post-closure care period, the owner or operator shall notify the new owner or operator in writing of the requirements of this chapter and Chapter 20 of this division. (Also see Section 66270.72 of this division.)

(2) An owner's or operator's failure to notify the new owner or operator of the requirements of this chapter shall not relieve the new owner or operator of the obligation to comply with all applicable requirements.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.12.

66265.13. General Waste Analysis.

(a) (1) Before an owner or operator transfers, treats, stores, or disposes of any hazardous waste, the owner or operator shall obtain a detailed chemical and physical analysis of a representative sample of the waste. At a minimum, this analysis shall contain all the information which must be known to transfer, treat, store, or dispose of the waste in accordance with the requirements of this chapter and Chapter 18 of this division.

(2) The analysis may include data developed under Chapter 11 of this division, and existing published or documented data on the hazardous waste or on hazardous waste generated from similar processes.

(A) The facility's record of analyses performed on the waste before the effective date of these regulations, or studies conducted on hazardous waste generated from processes similar to that which generated the waste to be managed at the facility, may be included in the data base required to comply with subsection (a) (1) of this section.

(B) The owner or operator of an off-site facility may arrange for the generator of the hazardous waste to supply part or all of the information required by subsection (a) (1) of this section.

(3) If the generator does not supply the information as specified in subsection (a) (2) (B) of this section, and the owner or operator

chooses to accept a hazardous waste, the owner or operator shall obtain the information required to comply with this section.

(4) The analysis shall be repeated as necessary to ensure that it is accurate and up to date. At a minimum, the analysis shall be repeated:

(A) When the owner or operator is notified, or has reason to believe, that the process or operation generating the hazardous waste has changed; and

(B) For off-site facilities, when the results of the inspection required in subsection (a) (5) of this section indicate that the hazardous waste received at the facility does not match the waste designated on the accompanying manifest or shipping paper.

(5) The owner or operator of an off-site facility shall inspect and, if necessary, analyze each hazardous waste movement received at the facility to determine whether it matches the identity of the waste specified on the accompanying manifest or shipping paper.

(b) The owner or operator shall develop and follow a written waste analysis plan which describes the procedures which the owner or operator will carry out to comply with subsection (a) of this section. The owner or operator shall keep this plan at the facility. At a minimum, the plan shall specify:

(1) The parameters for which each hazardous waste will be analyzed and the rationale for the selection of these parameters

(i.e., how analysis for these parameters will provide sufficient information on the waste's properties to comply with subsection (a) of this section);

(2) The test methods which will be used to test for these parameters;

(3) The sampling and sampling management methods which will be used to obtain a representative sample of the waste to be analyzed. The sampling, planning methodology, equipment, sample processing, documentation and custody procedures shall be in accordance with either:

(A) One of the sampling methods described in Appendix I of Chapter 11 of this division; or

(B) An equivalent sampling method.

(4) The frequency with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up to date;

(5) For off-site facilities, the waste analyses that hazardous waste generators have agreed to supply; and

(6) Where applicable, the methods which will be used to meet the additional waste analysis requirements for specific waste management methods as specified in Sections 66265.193, 66265.200, 66265.225,

66265.252, 66265.273, 66265.314, 66265.341, 66265.375, 66265.402, and 66268.7 of this division.

(c) For off-site facilities, the waste analysis plan required in subsection (b) of this section shall also specify the procedures which will be used to inspect and, if necessary, analyze each movement of hazardous waste received at the facility to ensure that it matches the identity of the waste designated on the accompanying manifest or shipping paper. At a minimum, the plan shall describe:

(1) The procedures which will be used to determine the identity of each movement of waste managed at the facility; and

(2) The sampling method which will be used to obtain a representative sample of the waste to be identified, if the identification method includes sampling.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.13.

66265.14. Security.

(a) The owner or operator shall prevent the unknowing entry, and minimize the possibility for the unauthorized entry, of persons or livestock onto the active portion of the facility, unless the owner or operator can demonstrate to the Department that:

(1) Physical contact with the waste, structures, or equipment within the active portion of the facility will not injure unknowing or unauthorized persons or livestock which may enter the active portion of a facility, and

(2) Disturbance of the waste or equipment, by the unknowing or unauthorized entry of persons or livestock onto the active portion of a facility, will not cause a violation of the requirements of this chapter.

(b) Unless the owner or operator has made a successful demonstration under subsection (a) (1) and (2) of this section, a facility shall have:

(1) A 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel) which continuously monitors and controls entry onto the active portion of the facility; or

(2) (A) An artificial or natural barrier (e.g., a fence in good repair or a fence combined with a cliff), which completely surrounds the active portion of the facility; and

(B) A means to control entry, at all times, through the gates or other entrances to the active portion of the facility (e.g., an attendant, television monitors, locked entrance, or controlled roadway access to the facility).

(3) The requirements of subsection (b) (1) or (2) of this section shall be satisfied if the facility or plant within which the active portion is located itself has a surveillance system, or a barrier and a means to control entry, which complies with the requirements of subsection (b) (1) or (2) of this section.

(c) Unless the owner or operator has made a successful demonstration under subsections (a) (1) and (a) (2) of this section, a sign with the legend, "Danger Hazardous Waste Area--Unauthorized Personnel Keep Out," shall be posted at each entrance to the active portion of a facility, and at other locations, in sufficient numbers to be seen from any approach to this active portion. The legend shall be written in English, Spanish and in any other language predominant in the area surrounding the facility, and shall be legible from a distance of at least 25 feet. Existing signs with a legend other than "Danger Hazardous Waste Area--Unauthorized Personnel Keep Out" may be used if the legend on the sign indicates that only authorized personnel are allowed to enter the active portion, and that entry onto the active portion can be dangerous.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.14.

66265.15. General Inspection Requirements.

(a) The owner or operator shall inspect the facility for malfunctions and deterioration, operator errors, and discharges which may be causing or may lead to: (1) release of hazardous waste constituents to the environment; or (2) a threat to human health. The owner or operator shall conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment.

(b) (1) The owner or operator shall develop and follow a written schedule for inspecting all monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment (such as dikes and sump pumps) that are important to preventing, detecting, or responding to environmental or human health hazards.

(2) The owner or operator shall keep this schedule at the facility.

(3) The schedule shall identify the types of problems (e.g., malfunctions or deterioration) which are to be looked for during the inspection (e.g., inoperative sump pump, leaking fitting, eroding dike, etc.).

(4) The frequency of inspection may vary for the items on the schedule. However, it should be based on the rate of possible deterioration of the equipment and the probability of an environmental or human health incident if the deterioration, or

malfunction, or any operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, shall be inspected daily when in use. At a minimum, the inspection schedule shall include the items and frequencies called for in Sections 66265.174, 66265.193, 66265.195, 66265.226, 66265.347, 66265.377, and 66265.403.

(c) The owner or operator shall remedy any deterioration or malfunction of equipment or structures which the inspection reveals on a schedule which ensures that the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, remedial action shall be taken immediately.

(d) The owner or operator shall record inspections in an inspection log or summary. The owner or operator shall keep these records for at least three years from the date of inspection. At a minimum, these records shall include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.15.

66265.16. Personnel Training.

(a) (1) Facility personnel shall successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of this chapter. The owner or operator shall ensure that this program includes all the elements described in the document required under subsection (d) (3) of this section.

(2) This program shall be directed by a person trained in hazardous waste management procedures, and shall include instruction which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed.

(3) At a minimum, the training program shall be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including where applicable:

(A) Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;

(B) Key parameters for automatic waste feed cut-off systems;

(C) Communications or alarm systems;

(D) Response to fires or explosions;

(E) Response to ground-water contamination incidents; and

(F) Shutdown of operations.

(b) Facility personnel shall successfuly complete the program required in subsection (a) of this section within six months after the date of their employment or assignment to a facility, or to a new position at a facility. Employees hired after the effective date of these regulations shall not work in unsupervised positions until they have completed the training requirements of subsection (a) of this section.

(c) Facility personnel shall take part in an annual review of the initial training required in subsection (a) of this section.

(d) The owner or operator shall maintain the following documents and records at the facility:

(1) The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job;

(2) A written job description for each position listed under subsection (d) (1) of this Section. This description may be consistent in its degree of specificity with descriptions for other similar positions in the same company location or bargaining unit, but shall include the requisite skill, education, or other qualifications, and duties of facility personnel assigned to each position;

(3) A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under subsection (d) (1) of this section;

(4) Records that document that the training or job experience required under subsections (a), (b), and (c) of this section has been given to, and completed by, facility personnel.

(e) Training records on current personnel shall be kept until closure of the facility. Training records on former employees shall be kept for at least three years from the date the employee last worked at the facility. Personnel training records may accompany personnel transferred within the same company.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.16.

66265.17. General Requirements for Ignitable, Reactive, or Incompatible Wastes.

(a) The owner or operator shall take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. This waste shall be separated and protected from sources of ignition or reaction including but not limited to: Open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (static, electrical, or mechanical), spontaneous ignition (e.g., from heat-producing chemical reactions), and radiant heat. While ignitable or reactive waste is being handled, the owner or operator shall confine smoking and open flame to specially designated locations. "No Smoking" signs shall be conspicuously placed wherever there is a hazard from ignitable or reactive waste.

(b) Where specifically required by other sections of this chapter, the transfer, treatment, storage, or disposal of ignitable or reactive waste, and the mixture or commingling of incompatible wastes, or incompatible wastes and materials, shall be conducted so that it does not:

(1) Generate extreme heat or pressure, fire or explosion, or violent reaction;

(2) Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment;

(3) Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;

(4) Damage the structural integrity of the device or facility containing the waste; or

(5) Through other like means threaten human health or the environment.

(c) When required to comply with subsection (a) or (b) of this section, the owner or operator shall document that compliance. This documentation may be based on references to published scientific or engineering literature, data from trial tests (e.g., bench scale or pilot scale tests), waste analyses (as specified in Section 66265.13) or the results of the treatment of similar wastes by similar treatment processes and under similar operating conditions.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.17.

66265.18. Location Standards.

(a) The placement of any hazardous waste in a salt dome, salt bed formation, underground mine or cave is prohibited.

(b) A facility located in a 100-year floodplain or within the maximum high tide shall be designed, constructed, operated and maintained to prevent washout of any hazardous waste by a 100-year flood or maximum high tide, unless the owner or operator can demonstrate to the Department's satisfaction that procedures are in effect which will cause the waste to be removed safely, before flood waters can reach the facility, to a location where the wastes will not be vulnerable to flood or tide waters.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.18.

66265.25. Seismic and Precipitation Design Standards.

(a) Except as provided by Section 66265.192, facilities subject to this chapter and all cover systems and drainage control systems required by this chapter shall be designed to function without failure when subjected to capacity, hydrostatic and hydrodynamic loads resulting from a 24-hour probable maximum precipitation storm.

(b) The following shall be designed, constructed and maintained to withstand the maximum credible earthquake without the level of public health and environmental protection afforded by the original design being decreased:

(1) All surface impoundments, waste piles, landfills and land treatment facilities subject to this chapter, and

(2) All covers and cover systems required by this chapter and all containment and control features which will remain after closure at permanent hazardous waste disposal areas.

NOTE: Authority cited: Sections 208 and 25150, Health and Safety Code.
Reference: Section 25150, Health and Safety Code.

Article 3. Preparedness and Prevention

66265.30. Applicability.

The regulations in this article apply to owners and operators of all hazardous waste facilities, except as Section 66265.1 provides otherwise.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.30.

66265.31. Maintenance and Operation of Facility.

Facilities shall be maintained and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.31.

66265.32. Required Equipment.

All facilities shall be equipped with the following, unless it can be demonstrated to the Department that none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified below:

(a) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;

(b) A device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams;

(c) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and

(d) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.32.

66265.33. Testing and Maintenance of Equipment.

All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, shall be tested and maintained as necessary to assure its proper operation in time of emergency.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.33.

66265.34. Access to Communications or Alarm System.

(a) Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation shall have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless the Department has ruled that such a device is not required under Section 66265.32.

(b) If there is ever just one employee on the premises while the facility is operating, the employee shall have immediate access to a device, such as a telephone (immediately available at the scene of operation) or a hand-held two-way radio, capable of summoning external emergency assistance, unless the Department has ruled that such a device is not required under Section 66265.32.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 256.34.

66265.35. Required Aisle Space.

The owner or operator shall maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless it can be demonstrated to the Department that aisle space is not needed for any of these purposes.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.35.

66265.37. Arrangements with Local Authorities.

(a) The owner or operator shall attempt to make the following arrangements, as appropriate, for the type of waste handled at the facility and the potential need for the services of these organizations:

(1) Arrangements to familiarize police, fire departments, emergency response teams, and the local Office of Emergency Services with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to roads inside the facility, and possible evacuation routes;

(2) Where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority;

(3) Agreements with State emergency response teams, emergency response contractors, and equipment suppliers; and

(4) Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.

(b) Where State or local authorities decline to enter into such arrangements, the owner or operator shall document the refusal in the operating record.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.37.

Article 4. Contingency Plan and Emergency Procedures

66265.50. Applicability.

The regulations in this article apply to owners and operators of all hazardous waste facilities, except as Section 66265.1 provides otherwise.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.50.

66265.51. Purpose and Implementation of Contingency Plan.

(a) Each owner or operator shall have a contingency plan for the facility. The contingency plan shall be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.

(b) The provisions of the plan shall be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.51.

66265.52. Content of Contingency Plan.

(a) The contingency plan shall describe the actions facility personnel shall take to comply with Sections 66265.51 and 66265.56 in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.

(b) If the owner or operator has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with 40 CFR Part 112, or 40 CFR Part 1510, or some other emergency or contingency plan, the owner or operator need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this chapter.

(c) The plan shall describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services, pursuant to Section 66265.37.

(d) The plan shall list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator (see Section 66265.55), and this list shall be kept up to date. Where more than one person is listed, one shall be named as primary emergency coordinator and others shall be listed in the order in which they will assume responsibility as alternates.

(e) The plan shall include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required. This list shall be kept up to date. In addition, the plan shall include the location and a physical description of each item on the list, and a brief outline of its capabilities.

(f) The plan shall include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan shall describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes could be blocked by releases of hazardous waste or fires).

(g) The plan shall include the current telephone number of the State Office of Emergency Services.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.52.

66265.53. Copies of Contingency Plan.

A copy of the contingency plan and all revisions to the plan shall be:

(a) Maintained at the facility; and

(b) Submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.53.

66265.54. Amendment of Contingency Plan.

The contingency plan shall be reviewed, and immediately amended, if necessary, whenever:

(a) Applicable regulations are revised;

(b) The plan fails in an emergency;

(c) The facility changes in its design, construction, operation, maintenance, or other circumstances in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;

(d) The list of emergency coordinators changes; or

(e) The list of emergency equipment changes.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5 Health and Safety Code; 40 CFR Section 265.54.

66265.55. Emergency Coordinator.

At all times, there shall be at least one employee either on the facility premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures. This emergency coordinator shall be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person shall have the authority to commit the resources needed to carry out the contingency plan.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5 Health and Safety Code; 40 CFR Section 265.55.

66265.56. Emergency Procedures.

(a) Whenever there is an imminent or actual emergency situation, the emergency coordinator (or the emergency coordinator's designee when the emergency coordinator is on call) shall immediately:

(1) Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and

(2) Notify appropriate State or local agencies with designated response roles if their help is needed.

(b) Whenever there is a release, fire, or explosion, the emergency coordinator shall immediately identify the character, exact source, amount, and areal extent of any released materials. The emergency coordinator may do this by observation or review of facility records or manifests and, if necessary, by chemical analysis.

(c) Concurrently, the emergency coordinator shall assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment shall consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-offs from water or chemical agents used to control fire and heat-induced explosions).

(d) If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health, or the environment, outside the facility, the emergency coordinator shall report the findings as follows:

(1) If the emergency coordinator's assessment indicates that evacuation of local areas may be advisable, the emergency coordinator shall immediately notify appropriate local authorities. The emergency coordinator shall be available to help appropriate officials decide whether local areas should be evacuated; and

(2) The emergency coordinator shall, in every situation, immediately notify the State Office of Emergency Services. The report shall include:

(A) Name and telephone number of reporter;

(B) Name and address of facility;

(C) Time and type of incident (e.g., release, fire);

(D) Name and quantity of material(s) involved, to the extent known;

(E) The extent of injuries, if any; and

(F) The possible hazards to human health, or the environment, outside the facility.

(e) During an emergency, the emergency coordinator shall take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the facility. These measures shall include, where applicable, stopping processes and operations, collecting and containing released waste, and removing or isolating containers.

(f) If the facility stops operations in response to a fire, explosion or release, the emergency coordinator shall monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

(g) Immediately after an emergency, the emergency coordinator shall provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility. Unless the owner or operator can demonstrate, in accordance with Section 66261.3 (c) or (d) of this division, that the recovered material is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and shall manage it in accordance with all applicable requirements of Chapters 12, 13, and 15 of this division.

(h) The emergency coordinator shall ensure that, in the affected area(s) of the facility:

(1) No waste that may be incompatible with the released material is transferred, treated, stored, or disposed of until cleanup procedures are completed; and

(2) All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

(i) The owner or operator shall notify the Department, and appropriate State and local authorities, that the facility is in compliance with subsection (h) of this section before operations are resumed in the affected area(s) of the facility.

(j) The owner or operator shall note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, the owner or operator shall submit a written report on the incident to the Department. The report shall include:

(1) Name, address, and telephone number of the owner or operator;

(2) Name, address, and telephone number of the facility;

(3) Date, time, and type of incident (e.g., fire, explosion);

(4) Name and quantity of material(s) involved;

(5) The extent of injuries, if any;

(6) An assessment of actual or potential hazards to human health or the environment, where this is applicable; and

(7) Estimated quantity and disposition of recovered material that resulted from the incident.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5 Health and Safety Code; 40 CFR Section 265.56.

Article 5. Manifest System, Recordkeeping, and Reporting

66265.70. Applicability.

The regulations in this article apply to owners and operators of both on-site and off-site facilities, except as Section 66265.1 provides otherwise. Sections 66265.71, 66265.72, and 66265.76 do not apply to owners and operators of on-site facilities that do not receive any hazardous waste from off-site sources.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.70.

66265.71. Use of Manifest System.

(a) If a facility receives hazardous waste accompanied by a manifest, the owner or operator, or the facility's agent, shall:

(1) Sign and date each copy of the manifest to certify that the hazardous waste covered by the manifest was received;

(2) Note any significant discrepancies in the manifest (as defined in Section 66265.72 (a)) on each copy of the manifest.

(3) Immediately give the transporter at least one copy of the signed manifest;

(4) Within 30 days after the delivery, send a copy of the manifest to the generator;

(5) Within 30 days of each receipt of hazardous waste submit to the Department a legible copy of each manifest used; and

(6) Retain at the facility a copy of each manifest for at least three years from the date of delivery.

(b) If a facility receives, from a rail or water (bulk shipment) transporter, hazardous waste which is accompanied by a shipping paper containing all the information required on the manifest (excluding the Identification Numbers, generator's certification, and signatures), the owner or operator, or the facility's agent, shall:

(1) Sign and date each copy of the manifest or shipping paper (if the manifest has not been received) to certify that the hazardous waste covered by the manifest or shipping paper was received;

(2) Note any significant discrepancies (as defined in Section 66265.72 (a)) in the manifest or shipping paper (if the manifest has not been received) on each copy of the manifest or shipping paper.

(3) Immediately give the rail or water (bulk shipment) transporter at least one copy of the manifest or shipping paper (if the manifest has not been received);

(4) Within 30 days after the delivery, send a copy of the signed and dated manifest to the generator; however, if the manifest has not been received within 30 days after delivery, the owner or operator, or the facility's agent, shall send a copy of the shipping paper signed and dated to the generator;

(5) Within 30 days of each receipt of hazardous waste submit to the Department a legible copy of each manifest or shipping paper (if the manifest has not been received) used; and

(6) Retain at the facility a copy of the manifest and shipping paper (if signed in lieu of the manifest at the time of delivery) for at least three years from the date of delivery.

(c) Whenever a shipment of hazardous waste is initiated from a facility, the owner or operator of that facility shall comply with the requirements of Chapter 12 of this Division.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.71.

66265.72. Manifest Discrepancies.

(a) Manifest discrepancies are differences between the quantity or type of hazardous waste designated on the manifest or shipping paper, and the quantity or type of hazardous waste a facility actually receives. Significant discrepancies in quantity are:

(1) For bulk waste, variations greater than 10 percent in weight, and

(2) For batch waste, any variation in piece count, such as a discrepancy of one drum in a truckload.

Significant discrepancies in type are obvious differences which can be discovered by inspection or waste analysis, such as waste solvent substituted for waste acid, or toxic constituents not reported on the manifest or shipping paper.

(b) Upon discovering a significant discrepancy, the owner or operator shall attempt to reconcile the discrepancy with the waste generator or transporter (e.g., with telephone conversations). If the discrepancy is not resolved within 15 days after receiving the waste, the owner or operator shall immediately submit to the Department a letter describing the discrepancy and attempts to reconcile it, and a copy of the manifest or shipping paper at issue.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.72.

66265.73. Operating Record.

(a) The owner or operator shall keep a written operating record at the facility.

(b) The following information shall be recorded, as it becomes available, and maintained in the operating record until closure of the facility:

(1) A description and the quantity of each hazardous waste received, and the method(s) and date(s) of its transfer, treatment, storage, or disposal at the facility as required by Appendix I, of this chapter;

(2) The location of each hazardous waste within the facility and the quantity at each location. For disposal facilities, the location and quantity of each hazardous waste shall be recorded on a map or diagram of each cell or disposal area. For all facilities, this information shall include cross-references to specific manifest document numbers, if the waste was accompanied by a manifest;

(3) Records and results of waste analysis and trial tests performed as specified in Sections 66265.13, 66265.193, 66265.225, 66265.252, 66265.273, 66265.314, 66265.341, 66265.375, 66265.402, and 66268.7 of this division.

(4) Summary reports and details of all incidents that require implementing the contingency plan as specified in Section 66265.56 (j);

(5) Records and results of inspections as required by Section 66265.15 (d) (except these data need be kept only three years);

(6) Monitoring, testing, or analytical data when required by Article 6 and sections 66265.90, 66265.94, 66265.191, 66265.193, 66265.195, 66265.278, 66265.280 (d) (1), 66265.347, and 66265.377.

(7) All closure cost estimates under Section 66265.142 and, for disposal facilities, all post-closure cost estimates under Section 66265.144.

(8) Records of the quantities (and date of placement) for each shipment of hazardous waste placed in land disposal units under an extension to the effective date of any land disposal restriction granted pursuant to Section 66268.5, monitoring data required pursuant to a petition under Section 66268.6, or a certification under Section 66268.8, and the applicable notice required by a generator under Section 66268.7 (a).

(9) For an off-site treatment facility, a copy of the notice, and the certification and demonstration if applicable, required by the generator or the owner or operator under Section 66268.7 or Section 66268.8;

(10) For an on-site treatment facility, the information contained in the notice (except the manifest number), and the certification and demonstration if applicable, required by the generator or the owner or operator under Section 66268.7 or 66268.8;

(11) For an off-site land disposal facility, a copy of the notice, and the certification and demonstration if applicable, required by the generator or the owner or operator of a treatment facility under Section 66268.7 or Section 66268.8;

(12) For an on-site land disposal facility, the information contained in the notice (except the manifest number), and the certification and demonstration if applicable, required by the generator or the owner or operator of a treatment facility under Section 66268.7 or Section 66268.8.

(13) For an off-site storage facility, a copy of the notice, and the certification and demonstration if applicable, required by the generator or the owner or operator under Section 66268.7 or 66268.8; and

(14) For an on-site storage facility, the information contained in the notice (except the manifest number), and the certification and demonstration if applicable, required by the generator or the owner or operator of a treatment facility under Section 66268.7 or 66268.8.

(15) For off-site facilities, notices to generators as specified in Section 66265.12 (b).

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159, 25208.4 (c) and 25159.5, Health and Safety Code; 40 CFR Section 265.73.

66265.74. Availability, Retention, and Disposition of Records.

(a) All records, including plans, required under this chapter shall be furnished upon request, and made available at all reasonable times for inspection, by any officer, employee, or representative of USEPA who is duly designated by the Administrator, the Department, the State Water Resources Control Board, or a regional water quality control board.

(b) The retention period for all records required under this chapter is extended automatically during the course of any unresolved enforcement action regarding the facility or as requested by the Department or USEPA Administrator.

(c) A copy of records of waste disposal locations and quantities under Section 66265.73 (b) (2) shall be submitted to the Department, the appropriate regional water quality control board, and local land authority upon closure of the facility (see Section 66265.119).

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.74.

66265.75. Annual Report.

The owner or operator shall prepare and submit single copies of an annual report to the Department and the appropriate regional water quality control board by March 1 of each year. The annual report shall be submitted on forms provided by the Department EPA Form 8700-13A/B, 5-80, (Revised 11-89). The report shall cover facility activities during the previous calendar year and shall include the following information:

(a) The Identification Number, name, and address of the facility;

(b) The calendar year covered by the report;

(c) For off-site facilities, the Identification Number of each hazardous waste generator from which the facility received a hazardous waste during the year; for imported shipments, the report shall give the name and address of the foreign generator;

(d) A description, including any applicable EPA hazardous waste number from Chapter 11, Article 3 or 4 of this division, California Hazardous Waste Number from Chapter 11, Appendix XII of this division, and DOT Hazardous class, and the quantity of each hazardous waste the facility received during the year. Wastes that are classified as non-RCRA wastes shall be described by indicating a generic name of the waste and the phrase "Non-RCRA Hazardous Waste." When possible, the generic name shall be obtained from Chapter 11, Appendix X, subdivision (e) of this division. If the generic name is

not listed in Chapter 11, Appendix X, subdivision (e), the commonly recognized industrial name of the waste shall be used. For off-site facilities, this information shall be listed by Identification Number of each generator;

(e) The method of transfer, treatment, storage, or disposal for each hazardous waste;

(f) Monitoring data under Article 6 of this chapter where required;

(g) The most recent closure cost estimate under Section 66265.142, and, for disposal facilities, the most recent post-closure cost estimate under Section 66265.144; and

(h) For generators who transfer, treat, store, or dispose of hazardous waste on-site, a description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated.

(i) For generators who transfer, treat, store, or dispose of hazardous waste on-site, a description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent such information is available for the years prior to 1984.

(j) The certification signed by the owner or operator of the facility or the facility's authorized representative.

(k) The environmental monitoring data specified in Section 66265.73.

(l) The owner or operator shall certify the following in writing for waste shipped offsite after January 1, 1990. The certification shall be attached to the Annual Report, and include the following:

(1) Whether the hazardous waste shipped offsite has a heating value of 3,000 British Thermal Units per pound of waste or less, and a volatile organic compound (VOC) content of one percent or less by weight; and

(2) If the waste had a heating value or VOC content greater than that specified in Subsection (l)(B)(1), that:

(A) the waste was incinerated or treated by any method that has been authorized by the Department as part of a hazardous waste facility permit issued pursuant to Health and Safety Code Section 25200; or

(B) the waste is exempted from the requirements of Chapter 18, Article 12; or

(C) The waste was recycled; or

(D) The waste was shipped out of California for incineration, treatment, disposal or recycling.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25155.5, 25159, 25159.5 and 25244.4, Health and Safety Code; 40 CFR Section 265.75.

66265.76. Unmanifested Waste Report.

If a facility accepts for transfer, treatment, storage, or disposal any hazardous waste from an off-site source without an accompanying manifest, or without an accompanying shipping paper as described in Section 66263.20 (e) (2) of this division, and if the waste is not excluded from the manifest requirement of this chapter, then the owner or operator shall prepare and submit a single copy of a report to the Department within fifteen days after receiving the waste. The unmanifested waste report shall be submitted in the form of a letter to the Department. Such report shall be designated 'Unmanifested Waste Report' and include the following information:

(a) The Identification Number, name, and address of the facility;

(b) The date the facility received the waste;

(c) The Identification Number, name, and address of the generator and the transporter, if available;

(d) A description and the quantity of each unmanifested hazardous waste the faculity received;

(e) The method of transfer, treatment, storage, or disposal for each hazardous waste;

(f) The certification signed by the owner or operator of the facility or the facility's authorized representative; and

(g) A brief explanation of why the waste was unmanifested, if known.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.76.

66265.77. Additional Reports.

In addition to submitting the annual report and unmanifested waste reports described in Sections 66265.75 and 66265.76, the owner or operator shallalso report to the Department:

(a) Releases, fires, and explosions as specified in Section 66265.56 (j);

(b) Ground-water contamination and monitoring data as specified in Sections 66265.93 and 66265.94;

(c) Facility closure as specified in Section 66265.115; and

(d) As otherwise required by Chapter 15, Articles 6 through 17, of this Division.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.77.

Article 6.Water Quality Monitoring and Response Programs for Interim Status Facilities

66265.90. Applicability.

(a) The regulations in this article apply to owners or operators of facilities specified in Section 66265.1(b). A surface impoundment, waste pile, land treatment unit or landfill that receives or has received hazardous waste after November 19, 1980 shall comply with the requirements of this article for purposes of detecting, characterizing and responding to releases to groundwater, surface water or the unsaturated zone. The Department shall require an owner or operator of a surface impoundment, waste pile, land treatment unit or landfill that ceased receiving hazardous waste by November 19, 1980 to comply with the requirements of this article if the Department determines that constituents in or derived from waste placed in the surface impoundment, waste pile, land treatment unit or landfill may pose a threat to human health or the environment. A surface impoundment, waste pile, land treatment unit or landfill required to comply with the provisions of this article is hereinafter referred to as a "regulated unit".

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25150.5 and 25159, Health and Safety Code.

66265.91. Required Programs and the Water Quality Sampling and Analysis Plan.

(a) An owner or operator subject to this article shall conduct a monitoring and response program for each regulated unit at the facility as follows:

(1) The owner or operator shall institute a detection monitoring program under Section 66265.98 except as required under subsections (a)(2) and (a)(3) of this section;

(2) The owner or operator shall institute an evaluation monitoring program under Section 66265.99 whenever there is statistically significant evidence of a release, pursuant to Section 66265.98(9) or (i) from the regulated unit during a detection monitoring program; and

(3) The owner or operator shall institute an evaluation monitoring program under Section 66265.99 whenever there is significant physical evidence of a release from the regulated unit. Significant physical evidence of a release includes unexplained volumetric changes in surface impoundments, unexplained stress in biological communities, unexplained changes in soil coloration, visible signs of leachate migration, unexplained water table mounding beneath or adjacent to the regulated unit and any other change to the environment that could reasonably be expected to be the result of a release from the regulated unit.

(b) The owner or operator shall develop and follow a water quality sampling and analysis plan that satisfies the requirements of this article. The owner or operator shall submit this plan to the' Department and initiate institute a water quality monitoring program. required by subsection (a) of this section within 180 days of the effective date of these regulations. Until the water quality monitoring program is in full operation, the owner or operator shall continue to monitor in accordance with 40 CFR Part 265, Subpart F. The owner or operator shall submit all modifications to the water quality sampling and analysis plan to the Department and shall maintain a current version of the water quality sampling and analysis plan in the operating record at the facility. The Department shall require the owner or operator to modify the water quality sampling and analysis plan as necessary to protect human health or the environment.

(c) The owner or operator shall specify in the water quality sampling and analysis plan the specific elements of each monitoring and response program. For each regulated unit, the owner or operator shall include in the water quality sampling and analysis plan one or more of the programs identified in subsection (a) of this section as may be necessary to protect human health or the environment and shall specify the circumstances under which each of the programs will be required.

(d) In conjunction with an evaluation monitoring program the owner or operator shall continue to conduct a detection monitoring

program under Section 66265.98 as necessary to provide the best assurance of the detection of subsequent releases from the regulated unit.

NOTE: Authority cited: Sections 208, 25150 and 25259, Health and Safety Code.

Reference: Sections 25150, 25150.5 and 25159, Health and Safety Code.

66265.92. Water Quality Protection Standard.

(a) For each regulated unit, the owner or operator shall establish a water quality protection standard in the water quality sampling and analysis plan. This water quality protection standard shall consist of the list of constituents of concern under Section 66265.93, the concentration limits under Section 66265.94 and the point of compliance and all monitoring points under Section 66265.95. This water quality protection standard shall apply during the active life of the regulated unit and during any compliance period under Section 66265.96.

(b) If an owner or operator is conducting a detection monitoring program in conjunction with an evaluation monitoring program for a regulated unit pursuant to Section 66265.91(d), the owner or operator may establish separate water quality protection standards for each program.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25150.5 and 25159, Health and Safety Code.

66265.93. Constituents of Concern.

For each regulated unit, the owner or operator shall specify in the water quality sampling and analysis plan the constituents of concern to which the water quality protection standard of Section 66265.92 applies. Constituents of concern are the waste constituents, reaction products, and hazardous constituents that are reasonably expected to be in or derived from waste contained in the regulated unit.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.

Reference: Sections 25150, 25150.5 and 25159, Health and Safety Code.

66265.94. Concentration Limits.

(a) For each constituent of concern specified pursuant to Section 66265.93, the owner or operator shall specify in the water quality sampling and analysis plan one of the following for each medium (9roundwater, surface water and the unsaturated zone) monitored pursuant to Section 66265.97:

(1) A concentration limit not to exceed the background value of that constituent as determined under Section 66265.97(e)(11)(A); or

(2) That, at any given time, the concentration limit for that constituent will be equal to the background value of that constituent, as determined pursuant to Section 66265.97(e)(11)(B).

(b) The owner or operator shall only specify different concentration limits for different monitoring points in the same medium where necessary:

(1) To describe background conditions in multiple surface water bodies, multiple aquifers or geochemically dissimiliar zones in the same aquifer; or

(2) Because the statistical method selected for a constituent uses intra-well comparison procedures.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.

Reference: Sections 25150, 25150.5 and 25159, Health and Safety Code.

66265.95. Monitoring Points and the Point of Compliance.

(a) For each regulated unit, the owner or operator shall specify in the water quality sampling and analysis plan the point of compliance at which the water quality protection standard of Section 66265.92 applies and at which monitoring shall be conducted. The point of compliance is a vertical surface, located at the hydraulically downgradient limit of the waste management area, that extends through the uppermost aquifer underlying the regulated unit. For each regulated unit, the owner or operator shall specify monitoring points at the point of compliance and additional monitoring points at locations determined pursuant to Section 66265.97 of this article at which the water quality protection standard under Section 66265.92 of this article applies and at which monitoring shall be conducted.

(b) The waste management area is the limit projected in the horizontal plane of the area on which waste will be placed during the active life of the regulated unit.

(1) The waste management area includes horizontal space taken up by any liner, dike or other barrier designed to contain waste in the regulated unit.

(2) If the facility contains contiguous regulated units, and monitoring along a shared boundary would impair the integrity of a containment or structural feature of any of the units, the waste.

management area may be described by an imaginary line along the outer boundary of the contiguous regulated units if the water quality monitoring program for each unit will enable the earliest possible detection of a release from that regulated unit. This provision only applies to contiguous regulated units that were operating before the effective date of this article.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.

Reference: Sections 25150, 25150.5 and 25159, Health and Safety Code.

66265.96. Compliance Period.

(a) The owner or operator shall specify in the water quality sampling and analysis plan the compliance period for each regulated unit. The compliance period is the number of years equal to the active life of the regulated unit (including the closure period) and constitutes the minimum period of time during which the owner or operator shall conduct a water quality monitoring program subsequent to a release from the regulated unit.

(b) The compliance period begins each time the owner or operator initiates an evaluation monitoring program meeting the requirements of Section 66265.99.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25150.5 and 25159, Health and Safety Code.

66265.97. General Water Quality Monitoring and System Requirements.

(a) The owner or operator shall comply with the requirements of this section for any water quality monitoring program developed to satisfy Sections 66265.98 or 66265.99.

(b) Groundwater Monitoring System.

(1) Except as provided under subsection (e)(3) of this section, the owner or operator shall establish a groundwater monitoring system for each regulated unit. The design of the groundwater monitoring system shall be based upon the information obtained from hydrogeologic investigations of the facility area, including the identification of the uppermost aquifer and aquifers hydraulically interconnected and a determination of groundwater flow rate and direction in each such aquifer. This groundwater monitoring system shall be fully operational within 180 days of the effective date of these regulations. Until such groundwater monitoring system is fully operational, the owner or operator shall continue to comply with 40 CFR Part 265, Subpart F. This groundwater monitoring system shall include:

(A) A sufficient number of background monitoring points (at least one) installed at appropriate locations and depths to yield groundwater samples from the uppermost aquifer that represent the

quality of groundwater that has not been affected by a release from the regulated unit;

(B) For a detection monitoring program under Section 66265.98:

1. A sufficient number of monitoring points (at least three) installed at appropriate locations and depths to yield groundwater samples from the uppermost aquifer that represent the quality of groundwater passing the point of compliance and to allow for the detection of a release from the regulated unit;

2. A sufficient number of monitoring points installed at additional locations and depths to yield groundwater samples from the uppermost aquifer as necessary to provide the best assurance of the earliest possible detection of a release from the regulated unit; and

3. A sufficient number of monitoring points and background monitoring points installed at appropriate locations and depths to yield groundwater samples from other aquifers and from zones of perched water as necessary to provide the best assurance of the earliest possible detection of a release from the regulated unit; and

(C) For an evaluation monitoring program under Section 66265.99:

1. A sufficient number of monitoring points (at least three) installed at appropriate locations and depths to yield groundwater samples from the uppermost aquifer that represent the quality of groundwater passing the point of compliance, and at other locations in the uppermost aquifer as necessary, to provide the data needed to evaluate changes in water quality due to the release from the regulated unit; and

2. A sufficient number of monitoring points and background monitoring points installed at appropriate locations and depths to yield groundwater samples from other aquifers, and zones of perched water as necessary to provide the data needed to evaluate changes in water quality due to the release from the regulated unit.

(2) The groundwater monitoring system may include background monitoring points that are not hydraulically upgradient of the regulated unit if documentation is maintained in the facility operating record that demonstrates that sampling at other monitoring points will provide samples that are representative of the background quality of groundwater or are more representative than those provided by the upgradient monitoring points.

(3) A copy of drillers' logs shall be filed with the Department on Department of Water Resources form DWR 188-Rev 12-86, available from the Department of Water Resources, 3251 S Street, Sacramento, CA 95816-7017, or by phone at (916) 322-7171.

(4) All monitoring wells shall be cased and constructed in a manner that maintains the integrity of the monitoring well bore hole and prevents the bore hole from acting as a conduit for contaminant transport.

(5) The sampling interval of each monitoring well shall be appropriately screened and fitted with an appropriate filter pack to enable collection of representative groundwater samples.

(6) For each monitoring well the annular space (i.e., the space between the bore hole and well casing) above and below the sampling interval shall be appropriately sealed to prevent entry of contaminants from the surface, entry of contaminants from the unsaturated zone, cross contamination of saturated zones and contamination of samples.

(7) All monitoring wells shall be adequately developed to enable. collection of representative groundwater samples.

(c) Surface Water Monitoring System.

(1) The owner or operator shall establish a surface water monitoring system to monitor each surface water body that could be affected by a release from the regulated unit.

(2) Each surface water monitoring system shall include:

(A) A sufficient number of background monitoring points established at appropriate locations and depths to yield samples from each surface water body that represent the quality of the surface water that has not been affected by a release from the regulated unit;

(B) For a detection monitoring program under Section 66265.98, a sufficient number of monitoring points established at appropriate locations and depths to yield samples from each surface water body that provide the best assurance of the earliest possible detection of a release from the regulated unit; and

(C) For an evaluation monitoring program under Section 66265.99, a sufficient number of monitoring points established at appropriate locations and depths to yield samples from each surface water body that provide the data necessary to evaluate changes in water quality due to the release from the regulated unit.

(d) Unsaturated Zone Monitoring System.

(1) Except as otherwise provided in subsection (d)(5) of this section, the owner or operator shall establish an unsaturated zone. monitoring system for each regulated unit.

(2) The unsaturated zone monitoring system shall include:

(A) A sufficient number of background monitoring points established at appropriate locations and depths to yield soil-pore liquid

samples or soil-pore liquid measurements that represent the quality of soil-pore liquid that has not been affected by a release from the regulated unit;

(B) For a detection monitoring program under Section 66265.98, a sufficient number of monitoring points established at appropriate locations and depths to yield soil-pore liquid samples or soil-pore liquid measurements that provide the best assurance of the earliest possible detection of a release from the regulated unit; and

(C) For an evaluation monitoring program under Section 66265.99, a sufficient number of monitoring points established at appropriate locations and depths to yield soil-pore liquid samples or soil-pore liquid measurements as necessary to provide the data needed to evaluate changes in water quality due to the release from the regulated unit.

(3) Background monitoring points shall be installed at a background plot having soil characteristics similar to those of the soil underlying the regulated unit.

(4) The owner or operator shall install liquid recovery types of unsaturated zone monitoring (e.g., the use of lysimeters) unless the owner or operator submits to the Department, and maintains in the facility operating record, evidence that such methods of unsaturated zone monitoring cannot provide an indication of a release from the regulated unit. The owner or operator shall

install complementary or alternative (nonliquid recovery) types of unsaturated zone monitoring as necessary to provide the best assurance of the earliest possible detection of a release from the regulated unit.

(5) The owner or operator may only omit unsaturated zone monitoring from the monitoring program if the owner or operator submits to the Department, and maintains in the facility operating record, evidence that no method for unsaturated zone monitoring can provide any indication of a release from that regulated unit or that installation of unsaturated zone monitoring devices is not feasible.

(6) The owner or operator of a land treatment unit shall comply with the unsaturated zone monitoring and response requirements for that unit in Article 13 of this Chapter, in addition to the unsaturated zone monitoring requirements of this article.

(e) General Monitoring Requirements.

(1) All monitoring systems shall be designed and certified by a registered geologist or a registered civil engineer.

(2) All monitoring wells and all other borings drilled to satisfy the requirements of this article shall be logged during drilling under the direct supervision of a registered geologist. These logs shall be submitted to the Department upon completion of drilling.

(A) Soil shall be described in the geologic log according to the Unified Soil Classification System as presented in Geotechnical Branch Training Manuals Nos. 4, 5 and 6, published by the United States Bureau of Reclamation, January 1986, incorporated by reference in Section 66260.11 of this Division.

(B) Rock shall be described in the geologic log in a manner appropriate for the purpose of the investigation.

(C) Where possible, the depth and thickness of saturated zones shall be recorded in the geologic log.

(3) If a facility contains contiguous regulated units, separate groundwater monitoring systems are not required for each such unit if the water quality monitoring program for each unit will enable the earliest possible detection and measurement of a release from that unit.

(4) The water quality monitoring program shall include consistent sampling and analytical procedures that are designed to ensure that monitoring results provide a reliable indication of water quality at all monitoring points and background monitoring points. At a minimum the program shall include a detailed description of the procedures and techniques for:

(A) Sample collection (e.g., purging techniques, sampling equipment and decontamination of sampling equipment);

(B) Sample preservation and shipment;

(C) Analytical procedures; and

(D) Chain of custody control.

(5) The water quality monitoring program shall include appropriate sampling and analytical methods for groundwater, surface water and the unsaturated zone that accurately measure the concentration of each constituent of concern and the concentration or value of each monitoring parameter.

(6) For each regulated unit, the owner or operator shall collect all data necessary for selecting the appropriate statistical methods pursuant to subsections (e)(7), (e)(8) and (e)(9) of this section and for establishing the background values pursuant to subsection (e)(11) of this section. At a minimum, this data shall include analytical data obtained during quarterly sampling of all background monitoring points for a period of one year, including the times of expected highest and lowest annual elevations of the groundwater surface. For a new regulated unit, this data shall be collected before wastes are discharged at the unit and background soil pore liquid data shall be collected from beneath the unit before the unit is constructed.

(7) Based on data collected pursuant to subsection (e)(6) of this section the owner or operator shall select one of the statistical

methods specified in subsection (e)(8) of this section for each constituent of concern and for each monitoring parameter. These methods shall be specified in the water quality sampling and analysis plan and shall be used in evaluating water quality monitoring data. The specifications for each statistical method shall include a detailed description of the criteria to be used for determining statistically significant evidence of any release from the regulated unit and for determining compliance with the water quality protection standard. Each statistical test specified for a particular constituent of concern or monitoring parameter shall be conducted separately for that constituent of concern or monitoring parameter at each monitoring point. The owner or operator shall maintain sufficient documentation in the facility operating record to demonstrate that use of the selected statistical methods will be protective of human health and the environment and will comply with the performance standards outlined in subsection (e)(9) of this section.

(8) The owner or operator shall specify one of the following statistical methods in the water quality sampling and analysis plan:

(A) A parametric analysis of variance (ANOVA) followed in all instances by a multiple comparisons procedure to identify statistically significant evidence of a release from the regulated unit. The method shall include estimation and testing of the

contrasts between each monitoring point's mean and the background mean value for each constituent of concern or monitoring parameter;

(B) An analysis of variance (ANOVA) based on ranks followed in all instances by a multiple comparisons procedure to identify statistically significant evidence of a release from the regulated unit. The method shall include estimation and testing of the contrasts between each monitoring point's median and the background median values for each constituent of concern or monitoring parameter;

(C) A tolerance or prediction interval procedure in which an interval for each constituent of concern or monitoring parameter is established from the distribution of the background data, and the value for each constituent of concern or monitoring parameter at each monitoring point is compared to the upper tolerance or prediction limit;

(D) A control chart approach that gives control limits for each constituent of concern or monitoring parameter; or

(E) Another statistical test method if sufficient documentation to support selection of the method is submitted to the Department and is maintained in the facility operating record. If the statistical test method includes a procedure to verify that there is statistically significant evidence of a release from the regulated unit, this procedure shall consist of either a single composite

retest (i.e., a statistical analysis of the original data combined with newly-acquired data from the monitoring point at which evidence of a release has been indicated) or shall consist of at least two discrete retests (i.e., statistical analyses which analyze only newly-acquired data from the monitoring point at which evidence of a release has been indicated). The verification procedure shall comply with the following requirements in addition to the statistical performance standards under subsection (e)(9) of this section.

1. If the verification procedure consists of discrete retests, rejection of the null hypothesis for any one of the retests shall be considered confirmation of significant eivdence of a release.

2. The number of additional samples collected and analyzed for use in the verification procedure shall be appropriate for the form of statistical test specified in the water quality sampling and analysis plan for that constituent of concern or monitoring parameter pursuant to subsection (e)(7) of this section. This number shall be greater than or equal to the number of samples specified in the water quality sampling and analysis plan for that constituent of concern or monitoring parameter pursuant to subsection (e)(12)(A) of this section;

3. If resampling at the interval identified for use in the initial statistical test pursuant to subsection (e)(12)(B) of this section would cause the entire resampling effort to take longer than 30

days, the sampling interval for use in the verification procedures shall be reduced to ensure that all samples are collected and submitted for laboratory analysis within 30 calendar days from the time that the owner or operator determines statistically significant evidence of a release pursuant to subsection 66265.98(9) or (i);

4. For a verification procedure containing a composite retest, the statistical verification procedure shall be based on all data obtained from the initial sampling event combined with all data obtained during the resampling event. For a verification procedure containing discrete retests, each shall analyze data obtained during its respective resampling event and no data shall be shared between retests;

5. For a verification procedure consisting of a composite retest, the statistical test method used in the verification procedure shall be the same as the method used in the initial statistical comparison, except that the statistical test used in the verification procedure shall be conducted at a Type I error level of no less than 0.05 for both the experimentwise analysis (if any) and the individual monitoring point comparisons; therefore, if a control chart approach is used to evaluate water quality monitoring data, the upper limit on an X-Bar or R-Chart must be set at no more than 1.645 standard deviations of the statistic plotted for a one-sided statistical comparison or at no more than 1.96 standard

deviations of the statistic plotted for a two-sided statistical comparison:

6. For a verification procedure consistinq of discrete retests,. the statistical method used shall be the same as the method used in the initial statistical comparison. The critical value for the tests shall be chosen so that the Type I error rate for all individual. monitoring point comparisons is the same, whether for an initial test or for a retest, and is equal-to-or-greater than either

$$\frac{\sqrt{1-(.95)^{1/(m \cdot w \cdot s)}} \cdot \sqrt{1/r}}{1-(.99)^{1/s}} \quad \text{or}$$

whichever is larger, where: m = the number of monitoring parameters; w = the number of monitoring points at the waste management unit; s = the number of times that the owner or operator performs statistical analysis within a period of six months, exclusive of retests (i.e., s >= 1); and r = the number of independent retests that are to be conducted at a monitoring point (i.e., r >= 2); and

7. The owner or operator shall report to the Department by certified mail the results of both the initial statistical test and the results of the verification procedure as well as all concentration data collected for use in these tests within seven

days of the last laboratory analysis of the samples collected for the verification procedure.

8. The verification procedure shall only be performed for the constituent(s) which has shown statistically significant evidence of a release, and shall only be performed for that (those) monitoring point at which a release has been indicated.

(9) Each statistical method chosen under subsection (e)(7) of this section shall comply with the following performance standards for each six-month period:

(A) The statistical method used to evaluate water quality monitoring data shall be appropriate for the distribution of the constituent of concern or monitoring parameter to which it is applied and shall be the least likely of the appropriate methods to fail to identify a release from the regulated unit. If the distribution of a constituent of concern or monitoring parameter is inappropriate for a normal theory test, then the data shall be either transformed so that the distribution of the transformed data is appropriate for a normal theory test or a distribution-free theory test shall be used. If the distributions for the constituents of concern or monitoring parameters differ, more than one statistical method may be needed;

(B) If an individual monitoring point comparison procedure is used to compare an individual monitoring point constituent concentration

or monitoring parameter value with a background parameter value or with a concentration limit in the water quality protection standard or with a background monitoring parameter value, the test shall be done at a Type I error level no less than 0.01. If a multiple comparisons procedure is used, the Type I experimentwise error rate shall be no less than 0.05; however, the Type I error of no less than 0.01 for each individual monitoring point comparison shall be maintained. This performance standard does not apply to tolerance intervals, prediction intervals or control charts;

(C) If a control chart approach is used to evaluate water quality. monitoring data, the specific type of control chart and its associated statistical parameter values (e.g., the upper control limit) shall be protective of human health and the environment. Any control charting procedure must have a false-positive rate of no less than 1 percent for each monitoring point charted (e.g., upper control limits on X-bar or R-charts used only once every six months must be set at no more than 2.327 standard deviations of the statistic plotted for * one-sided statistical comparison or at no more than 2.576 standard deviations of the statistic plotted for a two-sided statistical comparison);

(D) If a tolerance interval or a prediction interval is used to evaluate water quality monitoring data, the levels of confidence and, for tolerance intervals, the percentage of the population that the interval must contain shall be protective of human health and the environment. These statistical parameters shall be determined

after considering the number of samples in the background data base, the data distribution, and the range of the concentrations or values for each constituent of concern or monitoring parameter. The coverage of any tolerance interval used must be no more than 95 percent and the confidence coefficient must be no more than 95 percent for a six-month period. Prediction intervals shall be constructed with an experimentwise error rate of no less than 5 percent and an individual monitoring point error rate of no less than 1 percent;

(E) The statistical method shall account for data below the practical quantification quantitation limit with one or more statistical procedures that are protective of human health and the environment. Any practical quantitation limit that is used in the statistical method shall be the lowest concentration (or value) that can be reliably achieved within limits of precision and accuracy specified in the water quality sampling and analysis plan for routine laboratory operating conditions that are available to the facility. The owner or operator shall consider the practical quantification quantitation limits listed in Appendix IX to Chapter 14 for guidance purposes when specifying limits of precision and accuracy in the water quality sampling and analysis plan;

(F) If necessary, the statistical methods shall include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data; and

(G) Any quality control procedure that is approved by the Department for application to water quality data from downgradient monitoring points for a monitored medium shall also be applied to all newly-acquired background data from that medium. Any newly-acquired background monitoring datum that is rejected by an approved quality control procedure shall be maintained in the facility record but shall be excluded from use in statistical comparisons with downgradient water quality data.

(10) Based on the data collected pursuant to subsection (e)(6) of this section and the statistical methods specified pursuant to subsection (e)(7) of this section, the owner or operator shall select and justify the use of a procedure for determining a background value for each constituent of concern and for each monitoring parameter specified in the water quality sampling and analysis plan. One of the following procedures shall be selected for groundwater, surface water and the unsaturated zone:

(A) A procedure for determining the background value for each constituent or parameter that does not display appreciable natural variation; or

(B) A procedure for establishing and updating the background value for a constituent or parameter to reflect changes in the background water quality if the use of contemporaneous or pooled data provides the greatest power to the statistical method for that constituent or parameter.

(11) Using the procedures for determining background values proposed pursuant to subsection (e)(10) of this section, the owner or operator shall specify in the water quality sampling and analysis plan one of the following for each constituent of concern and for each monitoring parameter:

(A) The background value established by the owner or operator using the procedure selected pursuant to subsection (e)(10)(A) of this section; or

(B) A detailed description of the procedure, selected pursuant to subsection (e)(10)(B) of this section, to be used by the owner or operator for establishing and updating the background value.

(12) For each constituent of concern and monitoring parameter listed in the water quality sampling and analysis plan, the owner or operator shall specify in the water quality sampling and analysis plan the sampling methods to be used to establish background values and the sampling methods to be used for monitoring pursuant to this article.

(A) The number and kinds of samples collected shall be appropriate for the form of statistical test employed, following generally accepted statistical principles. The sample size shall be as large as necessary to ensure with reasonable confidence that:

1. For a detection monitoring program, a release from the regulated unit will be detected; and

2. For an evaluation monitoring program, changes in water quality due to a release from the regulated unit will be recognized; and

(B) The sampling method (including sampling frequency and the the interval of time between successive samples)shall be appropriate for the medium from which samples are taken (e.g., groundwater, surface water and soil-pore liquid). The sampling method shall include either:

1. A sequence of at least four samples from each monitoring point, taken at an interval that assures, to the greatest extent technically feasible, that an independent sample is obtained. For groundwater, this interval shall be based upon the rate of groundwater movement in the aquifer and upon the fate and transport . characteristics of the potential contaminants or pollutants. The rate of groundwater movement shall be calculated by reference to the aquifer's effective porosity, hydraulic conductivity and hydraulic gradient; or

2. An alternate sampling method if sufficient documentation is submitted to the Department and is maintained in the facility operating record to support selection of the method.

(13) The groundwater portion of the monitoring program shall include an accurate determination of the groundwater surface elevation and field parameters (temperature, electrical conductivity, turbidity and pH) at each well each time groundwater is sampled.

(14) The owner or operator shall graph all analytical data from each monitoring point and background monitoring point and shall submit these graphs to the Department at least annually. Unless the owner or operator receives written approval from the Department to use an alternate procedure, each graph shall represent data from one monitoring point or background monitoring point for one constituent of concern or monitoring parameter. Graphs shall be at a scale appropriate to show trends or variations in water quality.

(15) In addition to the water quality sampling conducted pursuant to the requirements of this article, the owner or operator shall measure the water level in each well and determine groundwater flow rate and direction in the uppermost aquifer and in any zones of perched water and in any additional aquifers monitored pursuant to subsection (b)(1) of this section at least quarterly, including the times of expected highest and lowest elevations of the water levels in the wells. The owner or operator shall use this data to determine, at least annually, whether the requirements of Section 66265.97(b)(1) are satisfied. If the evaluation shows that the requirements of Section 66265.97(b)(1) are not satisfied the owner or operator shall, as soon as technically feasible, modify the

number, location or depth of the groundwater monitoring wells as necessary to bring the groundwater monitoring system into compliance with the requirements of this article.

(16) Except as provided below, for all background monitoring points in groundwater, the owner or operator must, within 12 months of the effective date of this article, establish background concentrations or values for all constituents listed in Table 1 by sampling quarterly for one year. Results of this sampling shall be submitted to the Department within 15 days after completing each quarterly analysis. If an owner or operator has previously established background for these parameters pursuant to 40 C.F.R. Part 265 by quarterly sampling for at least one year, the owner or operator shall maintain a record of that sampling and analysis in the facility operating record and shall not repeat the sampling and analysis.

Table 1. Background water quality parameters.

Arsenic	Barium
Cadmium	Chloride
Chromium	Coliform Bacteria
Endrin	Fluoride
Gross Alpha	Gross Beta
Iron	Lead
Lindane	Manganese
Mercury	Methoxychlor

Nitrate (as N)	pH
Phenols	Radium
Selenium	Silver
Sodium	Specific Conductance
Sulfate	Toxaphene
2,4-D	2,4,5-TP Silver
Total Organic Carbon	Total Organic Halogen
Turbidity	

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(17) Water quality monitoring data collected in accordance with this article, including actual concentrations or values of all constituents and parameters, all backgroundwater quality data, all statistical evaluations, all water level elevation data and all data used to derive the groundwater flow rate and direction, shall be maintained in the facility operating record throughout the active life of the facility and throughout the postclosure care period. The owner or operator shall submit this data to the Department at least annually. This information shall be submitted no later than March 1 following each calendar year. The Department shall require more frequent reporting where necessary to protect human health or the environment.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.

Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code.

66265.98. Detection Monitoring Program.

(a) An owner or operator required, pursuant to Section 66265.91 of this article, to establish a detection monitoring program for a regulated unit shall, at a minimum, comply with the requirements of this section for that unit.

(b) The owner or operator shall install water quality monitoring systems that are appropriate for detection monitoring and that comply with the provisions of Section 66265.97 of this article.

(c) The owner or operator shall establish a background value pursuant to Section 66265.97(e)(11) for each monitoring parameter specified under subsection (e) of this section and for each constituent of concern specified under Section 66265.97(e)(11) of this article 66265.93.

(d) The owner or operator shall specify the water quality protection standard under Section 66265.92 in the water quality sampling and analysis plan.

(e) The owner or operator shall specify in the water quality sampling plan a list of monitoring parameters for each medium (groundwater, suface water and the unsaturated zone) to be monitored pursuant to Section 66265.97. The list for each medium shall include those physical parameters, hazardous constituents, waste constituents and reaction products that provide a reliable

indication of a release from the regulated unit to that medium. The owner or operator shall specify each list of monitoring parameters in the water quality sampling and analysis plan after considering the following factors:

(1) The types, quantities and concentrations of constituents in wastes managed at the regulated unit;

(2) The expected or demonstrated correlation between the proposed monitoring parameters and the constituents of concern specified for the unit under Section 66265.93;

(3) The mobility, stability and persistence of waste constituents or their reaction products;

(4) The detectability of physical parameters, waste constituents and reaction products;

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

(6) The list of suggested detection monitoring analytes presented in Appendix VI of this chapter.

(f) Except as provided below, the owner or operator shall include in the list of monitoring parameters specified for groundwater

pursuant to subsection (e) of this section each parameter listed in Table 1. The owner or operator may substitute a more appropriate parameter for a parameter listed in Table 1 if the owner or operator receives written approval for the substitution from the Department and documents in the facility operating record that the parameter is not appropriate for use as a monitoring parameter and that monitoring for the substitute parameter is more likely to provide early detection of a release from the regulated unit.

Table 1. Groundwater monitoring parameters.

Chloride	Iron
Manganese	pH
Phenols	Sodium
Specific conductance	Sulfate
Total organic carbon	Total organic halogen;

(g) The owner or operator shall conduct sampling and analyses for the monitoring parameters listed in the water quality sampling and analysis plan. The owner or operator shall specify the frequencies for collecting samples and conducting statistical analyses to determine whether there is statistically significant evidence of a release from the regulated unit for any monitoring parameter specified in the water quality sampling and analysis plan pursuant to subsection (e) of this section. For groundwater, samples from each monitoring point and each background monitoring point shall be

collected at least quarterly during detection monitoring, including the times of expected highest and lowest annual elevations of the groundwater surface. The owner or operator shall conduct more frequent sampling and statistical analyses where necessary to protect human health or the environment. When specifying the frequencies for collecting samples and conducting statistical analyses for groundwater, the owner or operator shall consider the groundwater flow rate and any variation in groundwater flow rate and direction.

(h) In addition to monitoring for the monitoring parameters specified under subsection (e) of this section, the owner or operator shall periodically monitor for all constituents of concern specified in the water quality sampling and analysis plan and determine whether the regulated unit is in compliance with the water quality protection standard there is statistically significant evidence of a release for any constituent of concern using the statistical procedure specified pursuant to Section 66265.97(e)(7) of this article. Whenever the regulated unit is not in compliance with the water quality protection standard, it shall be considered statistically significant evidence of a release from the regulated unit. The owner or operator shall specify in the water quality sampling and analysis plan the frequencies and locations for monitoring pursuant to this subsection after considering the degree of certainty associated with the expected or demonstrated correlation between values for monitoring parameters

and values for the constituents of concern. Monitoring pursuant to this subsection shall be conducted at least every five years.

(i) The owner or operator shall conduct water quality monitoring for each monitoring parameter and each constituent of concern in accordance with Section 66265.97(e)(12) of this article. The owner or operator shall maintain a record of water quality analytical data as measured and in a form necessary for the determination of statistical significance under subsections (h) and (j) of this section.

(j) For each monitoring point, the owner or operator shall determine whether there is statistically significant evidence of a release from the regulated unit for any monitoring parameter specified in the water quality sampling and analysis plan pursuant to subsection (e) of this section at a frequency specified pursuant subsection (g) of this section.

(1) In determining whether statistically significant evidence of a release from the regulated unit exists, the owner or operator shall use the method(s) specified in the water quality sampling and analysis plan under Section 66265.97(e)(7). This method(s) shall be used to compare data collected at the monitoring point(s) with the background water quality data.

(2) The owner or operator shall determine whether there is statistically significant evidence of a release from the regulated

unit at each monitoring point within a reasonable period of time after completion of sampling. The owner or operator shall specify in the water quality sampling and analysis plan what period of time is reasonable, after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of samples.

(3) The provisions of this section shall not preclude the Department from making an independent finding that there is statistically significant evidence of a release from the regulated unit. If the Department makes such a finding, the owner or operator shall comply with the provisions of this section that are required in response to statistically significant evidence of a release from the regulated unit.

(k) If the owner or operator determines pursuant to subsection (h) or (j) of this section that there is statistically significant evidence of a release from the regulated unit for any monitoring parameter or constituent of concern at any monitoring point, the owner or operator:

(1) Shall notify the Department of the finding by certified mail within seven days of such determination. The notification shall identify for each affected monitoring point the monitoring parameters and constituents of concern that have indicated statistically significant evidence of a release from the regulated unit; and

(2) May immediately initiate a procedure to verify that there is statistically significant evidence of a release from the regulated unit for a parameter or constituent which has indicated a release at a monitoring point if that verification procedure has been specified for that constituent or parameter in the water quality sampling and analysis plan pursuant to Section 66265.97(e)(8)(E).

(1) If the resampling pursuant to subsection (k)(2) of this section confirms that there is statistically significant evidence of a release from the regulated unit or if the owner or operator does not resample pursuant to subsection (k)(2) of this section, then the owner or operator shall:

(1) For that regulated unit, immediately sample all monitoring points in the affected medium (groundwater, surface water or the unsaturated zone) and determine the concentration of all constituents of concern;

(2) For that regulated unit, immediately sample all monitoring points in the affected medium (groundwater, surface water or the unsaturated zone) and determine whether constituents in the list of Appendix IX to Chapter 14 are present, and if so, in what concentration(s);

(3) For any Appendix IX constituents found in the analysis pursuant to subsection (1)(2) of this section that are not specified in the list of constituents of concern for that unit, the owner or

operator may resample within one month and repeat the analysis for those constituents. Each constituent detected in both analyses shall be added to the list of constituents of concern specified in the water quality protection standard for evaluation monitoring 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 for the constituents found pursuant to subsection (1)(2) of this section, the constituents found during this initial Appendix IX analysis will be added to the list of constituents of concern specified in the water quality protection standard for evaluation monitoring 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;

(4) For each Appendix IX constituent added to the list of constituents of concern pursuant to subsection (k)(3) of this section, the owner or operator shall:

(A) Collect all data necessary for establishing the background concentration for that constituent and for selecting an appropriate statistical procedure pursuant to Section 66265.97(e)(6);

(B) Select an appropriate statistical procedure pursuant to Section 66265.97(e)(7);

(C) Select a procedure to establish the background concentration for that constituent pursuant to Section 66265.97(e)(10); and

(D) Establish the background concentration pursuant to Section 66265.97(e)(11);

(5) Within 90 days of determining statistically significant evidence of a release, submit to the Department an amended water quality sampling and analysis plan to establish an evaluation monitoring program meeting the provisions of Section 66265.99. The amended plan shall include the following information:

(A) An identification of the concentration of each constituent of concern at each monitoring point as determined during the most recent sampling events, and an identification of the concentration of each Appendix IX constituent at each monitoring point for the regulated unit in the affected medium (groundwater, surface water or the unsaturated zone);

(B) Any proposed changes to the water quality monitoring systems at the facility necessary to meet the requirements of Section 66265.99;

(C) Any proposed additions or changes to the monitoring frequency, sampling and analytical procedures or methods or statistical methods used at the facility necessary to meet the requirements of Section 66265.99.

(D) A detailed description of the measures to be taken by the owner or operator to assess the nature and extent of the release from the regulated unit; and

(E) A schedule of implementation.

(6) Within 180 days of determining statistically significant evidence of a release, submit to the Department an engineering feasibility study for a corrective action program necessary to meet the requirements of Section 66264.100 of Article 6 of Chapter 14. At a minimum, the feasibility study shall contain a detailed description of the corrective action measures that could be taken to achieve background concentrations for all constituents of concern; and

(7) If the owner or operator determines, pursuant to subsection (g) or (i) of this section, that there is statistically significant evidence of a release from the regulated unit at any monitoring point, the owner or operator may demonstrate 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 the groundwater, surface water or the unsaturated zone. The owner or operator may make a demonstration pursuant to this subsection in addition to, or in lieu of, submitting both an amended water quality sampling and analysis plan pursuant to subsection (k)(5) of this section and an engineering feasibility study pursuant to

subsection (k)(6) of this section; however, the owner or operator is not relieved of the requirements specified in subsections (k)(5) and (k)(6) of this section unless the demonstration made under this subsection shows to the satisfaction of the Department that a source other than the regulated unit caused the evidence of a release or that the indication evidence resulted from error in sampling, analysis or evaluation or from natural variation in groundwater, surface water or the unsaturated zone. In making a demonstration pursuant to this subsection, the owner or operator shall:

(A) Within seven days of determining statistically significant evidence of a release, notify the Department by certified mail that the owner or operator intends to make a demonstration under this subsection;

(B) Within 90 days of determining statistically significant evidence of a release, submit a report to the Department that demonstrates that a source other than the regulated unit caused the evidence, or that the evidence resulted from error in sampling, analysis or evaluation, or from natural variation in groundwater, surface water, or the unsaturated zone;

(C) Within 90 days of determining statistically significant evidence of a release, submit to the Department an amended water quality sampling and analysis plan to make any appropriate changes to the detection monitoring program; and

(D) Continue to monitor in accordance with the detection monitoring program established under this section.

(m) If the owner or operator determines that there is significant physical evidence of a release as described in Section 66265.91(a)(3) or that the detection monitoring program does not satisfy the requirements of this section, the owner or operator shall:

(1) Notify the Department by certified mail within 7 days of such determination; and

(2) Within 90 days of such determination, submit an amended water quality sampling and analysis plan to make any appropriate changes to the program.

(n) Any time the Department determines that the detection 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 after receipt of such notification by the Department, submit an amended water quality sampling and analysis plan to make any appropriate changes to the program.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.

Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code.

66265.99. Evaluation Monitoring Program.

(a) An owner or operator required pursuant to Section 66265.91 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 of Article 6 of Chapter 14.

(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 rate of migration of hazardous constituents and the spatial distribution and concentration of each constituent of concern throughout the zone affected by the release. The owner or operator shall complete this assessment as soon as technically feasible and, with 15 days of completion, shall submit to the Department a written report containing an assessment of environmental quality.

(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 66265.98(1)(6). The owner or operator shall submit this engineering feasibility study to the Department as soon as technically feasible.

(d) The owner or operator of any facility required to obtain a permit shall use the data collected pursuant to subsection (b) of this section and the engineering feasibility study submitted pursuant to subsection (c) of this section, to prepare Part B of the permit application under Section 66270.14 of Chapter 20 or to update Part B of the permit application if Part B has been previously submitted. At a minimum, the application shall 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(c), 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 addition to the requirements set forth in subsections (b), (c), and (d) of this section, the owner or operator shall continue to 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 66265.97. These water quality monitoring systems may include all or part of existing monitoring systems;

(2) The owner or operator shall select a list of monitoring parameters for each medium (groundwater, surface water, and the unsaturated zone) to be monitored pursuant to Section 66265.97. The list for each medium shall include all hazardous consistuents 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 owner or operator shall specify each list of monitoring parameters in the water quality sampling and analysis plan after considering the following factors:

(A) The types, quantities and concentrations of constituents in wastes managed at the regulated unit;

(B) Information that demonstrates 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 water quality sampling and analysis plan. The owner or operator shall specify in the water quality sampling and analysis plan the frequencies for collecting samples and for conducting statistical analyses to evaluate changes in water quality due to the release from the regulated unit. For groundwater, samples from each monitoring point and each background monitoring point shall be collected at least quarterly during the compliance period of the regulated unit, including the times of expected highest and lowest annual elevations of the groundwater surface. The owner or operator shall conduct more frequent sampling where necessary to protect human health or the environment. When specifying the frequencies for collecting samples and conducting statistical analyses for groundwater, the owner or operator shall consider the groundwater flow rate and any variation in ground water flow rate and direction.

(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 water quality sampling and analysis plan and evaluate changes in water quality due to the release from the regulated unit. The owner or operator 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. Monitoring pursuant to this subsection shall be conducted at least every five years;

(5) The owner or operator shall conduct water quality monitoring for each monitoring parameter and each constituent of concern in accordance with Section 66265.97(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 in the affected medium (groundwater, surface water or the unsaturated zone) 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). 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 water quality sampling

and analysis plan as constituents of concern, the owner or operator may resample within one month and repeat the analysis for those constituents. 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 owner or operator shall add them to the list of constituents of concern specified in the water quality sampling and analysis plan unless documentation is maintained in the facility operating record that demonstrates that the constiuent 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 owner or operator shall add them to the list of constituents of concern specified in the water quality sampling and analysis plan unless documentation is maintained in the facility operating record that demonstrates that the constituent is not reasonably expected to be in or derived from waste in the regulated unit;

(7) The owner or operator shall evaluate all water quality data obtained pursuant to subsection (e) of this section and all water level data obtained pursuant to Section 66264.97(e)(15) on a quarterly basis to determine the rate and extent of migration of hazardous constituents and to describe the nature of changes in the geometry and geochemistry of the volume affected by the release.

This information shall be reviewed 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; and

(8) The owner or operator shall submit to the Department by March 1, following each calendar year, a report on the results of the evaluation monitoring program including, but not limited to, the calculated rate of migration of hazardous consitutents in groundwater.

(f) The owner or operator may demonstrate 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. Upon a successful demonstration, the Department shall specify that the owner or operator shall reinstitute a detection monitoring program meeting the requirements of Section 66265.98. In making a demonstration under this subsection, the owner or operator shall:

(1) Notify the Department by certified mail in writing 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 apparent noncompliance with the standard evidence resulted from error in sampling, analysis, or evaluation or from natural variation in groundwater, surface water or the unsaturated zone;

(3) Submit to the Department an amended water quality sampling and analysis plan to reinstitute a detection monitoring program for the unit. This amended plan shall include all appropriate changes to the monitoring program; and

(4) Continue to monitor in accordance with the evaluation monitoring program established pursuant to this secton.

(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 amended water quality sampling and analysis plan 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 amended water quality sampling and analysis plan to make appropriate changes to the program.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.

Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code.

Article 7. Closure and Post-Closure

66265.110. Applicability.

Except as Section 66265.1 provides otherwise:

(a) Sections 66265.111 through 66265.115 (which concern closure) apply to the owners and operators of all hazardous waste management facilities; and

(b) Sections 66265.116 through 66265.120 (which concern post-closure care) apply to the owners and operators of:

(1) All hazardous waste disposal facilities;

(2) Waste piles and surface impoundments for which the owner or operator intends to remove the waste at closure to the extent that these sections are made applicable to such facilities in Section 66265.228 or Section 66265.258; and

(3) Tank systems that are required under Section 66265.197 to meet requirements for landfills.

NOTE: Authority cited: Sections 208, 25150, 25159 and 25245, Health and Safety Code.
Reference: Sections 25159, 25159.5, 25245 and 25246, Health and Safety Code; 40 CFR Section 265.110.

66265.111. Closure Performance Standard.

The owner or operator shall close the facility in a manner that:

(a) Minimizes the need for further maintenance, and

(b) Controls, minimizes or eliminates, to the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated rainfall or run-off, or waste decomposition products to the ground or surface waters or to the atmosphere, and

(c) Complies with the closure requirements of this chapter including, but not limited to, the requirements of Sections 66265.197, 66265.228, 66265.258, 66265.280, 66265.310, 66265.351, 66265.381 and 66265.404.

NOTE: Authority cited: Sections 208, 25150, 25159 and 25245, Health and Safety Code.
Reference: Sections 25159, 25159.5 and 25245, Health and Safety Code; 40 CFR Section 265.111.

66265.112. Closure Plan; Amendment of Plan.

(a) Written plan. The owner or operator of a hazardous waste management facility shall have a written closure plan. Until final closure is completed and certified in accordance with Section 66265.115, a copy of the most current plan shall be kept at the facility and furnished to the Department upon request, including request by mail. In addition, for facilities without approved plans, it shall also be provided during site inspections, on the day of inspection, to any officer, employee or representative of the Department who is duly designated by the Director.

(b) Content of plan. The plan shall identify steps necessary to perform partial or final closure of the facility at any point during its active life and to perform final closure of the facility at the end of its active life. The closure plan shall include, at least:

(1) A description of how and when each hazardous waste management unit at the facility will be closed in accordance with Section 66265.111; and

(2) A description of how and when final closure of the facility will be conducted in accordance with Section 66265.111. The description shall identify the maximum extent of the operation which will be unclosed during the active life of the facility; and

(3) An estimate of the maximum inventory of hazardous wastes ever on-site over the active life of the facility and a detailed description of the methods to be used during partial and final closure, including, but not limited to methods for removing, transporting, treating, storing or disposing of all hazardous waste, identification of and the type(s) of off-site hazardous waste management unit(s) to be used, if applicable; and

(4) A detailed description of the steps needed to remove or decontaminate all hazardous waste residues and contaminated containment system components, equipment, structures, and soils during partial and final closure including, but not limited to, procedures for cleaning equipment and removing contaminated soils, methods for sampling and testing surrounding soils, and criteria for determining the extent of decontamination necessary to satisfy the closure performance standard; and

(5) A detailed description of other activities necessary during the partial and final closure period to ensure that all partial closures and final closure satisfy the closure performance standards, including, but not limited to, groundwater monitoring, leachate collection, and run-on and run-off control; and

(6) A schedule for closure of each hazardous waste management unit and for final closure of the facility. The schedule shall include, at a minimum, the total time required to close each hazardous waste management unit and the time required for intervening closure activities which will allow tracking of the progress of partial and

final closure. (For example, in the case of a landfill unit, estimates of the time required to treat or dispose of all hazardous waste inventory and of the time required to place a final cover shall be included); and

(7) An estimate of the expected year of final closure.

(8) All information necessary to enable the Department to prepare an Initial Study for the closure plan, which meets the requirements of Title 14, CCR Section 15063, unless the Department has determined that the closure plan is exempt from the requirements of the California Environmental Quality Act pursuant to Title 14, CCR Section 15061.

(c) Amendment of plan. The owner or operator may amend the closure plan at any time prior to the notification of partial or final closure of the facility. An owner or operator with an approved closure plan shall submit a written request to the Department to authorize a change to the approved closure plan. The written request shall include a copy of the amended closure plan for approval by the Department.

(1) The owner or operator shall amend the closure plan whenever:

(A) Changes in operating plans or facility design affect the closure plan, or

(B) There is a change in the expected year of closure, or

(C) In conducting partial or final closure activities, unexpected events require a modification of the closure plan.

(2) The owner or operator shall amend the closure plan at least 60 days prior to the proposed change in facility design or operation, or no later than 60 days after an unexpected event has occurred which has affected the closure plan. If an unexpected event occurs during the partial or final closure period, the owner or operator shall amend the closure plan no later than 30 days after the unexpected event. These provisions also apply to owners or operators of surface impoundments and waste piles who intended to remove all hazardous wastes at closure, but are required to close as landfills in accordance with Section 66265.310.

(3) An owner or operator with an approved closure plan shall submit the modified plan to the Department at least 60 days prior to the proposed change in facility design or operation, or no later than 60 days after an unexpected event has occurred which has affected the closure plan. If an unexpected event occurs during the partial or final closure period, the owner or operator shall submit the modified plan no later than 30 days after the unexpected event. These provisions also apply to owners or operators of surface impoundments and waste piles who intended to remove all hazardous wastes at closure but are required to close as landfills in accordance with Section 66265.310. If the amendment to the plan is a Class 2 or 3 modification according to the criteria in Section 66270.42, the modification to the plan will be approved according to the procedures in Section 66265.112(d)(4).

(4) The Department may request modifications to the plan under the conditions described in subsection (c)(1) of this section. An owner or operator with an approved closure plan shall submit the modified plan within 60 days of the request from the Department, or within 30 days if the unexpected event occurs during partial or final closure. If the amendment is considered a Class 2 or 3 modification according to the criteria in Section 66270.42, the modification to the plan will be approved in accordance with the procedures in Section 66265.112(d)(4).

(d) Notification of partial closure and final closure.

(1) The owner or operator shall submit the closure plan to the Department at least 180 days prior to the date on which the owner or operator expects to begin closure of the first surface impoundment, waste pile, land treatment, or landfill unit, or final closure if it involves such a unit, whichever is earlier. The owner or operator shall submit the closure plan to the Department at least 180 days prior to the date on which the owner or operator expects to begin final closure of a facility with only tanks or containers used for transfer, treatment or storage, or incinerator units. An owner or operator with an approved closure plan shall notify the Department in writing at least 60 days prior to the date on which the owner or operator expects to begin closure of a surface impoundment, waste pile, landfill, or land treatment unit, or final closure of a facility involving such a unit. An owner or operator with an approved closure plan shall notify the Department in writing at least 45 days prior to the date on which the owner or

operator expects to begin final closure of a facility with only tanks or containers used for transfer, treatment or storage, or incinerator units.

(2) The date when the owner or operator "expects to begin closure" shall be either no later than the date on which any hazardous waste management unit receives the known final volume of hazardous wastes or, if there is a reasonable possibility that the hazardous waste management unit will receive additional hazardous wastes, no later than one year after the date on which the unit received the most recent volume of hazardous waste. The Department shall approve an extension to this one-year limit if the owner or operator of a hazardous waste management unit demonstrates to the satisfaction of the Department that the hazardous waste management unit or facility has the capacity to receive additional hazardous wastes, the owner or operator has taken, and will continue to take, all steps necessary to comply with all interim status requirements, and the extension will not pose a threat to human health and the environment.

(3) The owner or operator shall submit the closure plan to the Department no later than 15 days after:

(A) Termination of interim status except when a permit is issued simultaneously with termination of interim status; or

(B) Issuance of a judicial decree or final order under Health and Safety Code Section 25358.3 or Article 8 of Chapter 6.5 of Division

20 of the Health and Safety Code to cease receiving hazardous wastes or close.

(4) The Department will provide the owner or operator and the public, through a newspaper notice, the opportunity to submit written comments on the plan and request modifications to the plan no later than 30 days from the date of the notice. The Department will also, in response to a request or at the Department's own discretion, hold a public hearing whenever such a hearing might clarify one or more issues concerning a closure plan. The Department will give public notice of the hearing at least 30 days before it occurs. Public notice of the hearing may be given at the same time as notice of the opportunity for the public to submit written comments, and the two notices may be combined. The Department will approve, modify, or disapprove the plan within 90 days of its receipt. If the Department does not approve the plan the Department shall provide the owner or operator with a detailed written statement of reasons for the refusal and the owner or operator shall modify the plan or submit a new plan for approval within 30 days after receiving such written statement. The Department will approve or modify this plan in writing within 60 days. If the Department modifies the plan, this modified plan becomes the approved closure plan.

The Department shall assure that the approved plan is consistent with Sections 66265.111 through 66265.115 and the applicable requirements of Sections 66265.90 et seq., 66265.197, 66265.228, 66265.258, 66265.280, 66265.310, 66265.351, 66265.381, and

66265.404. A copy of the modified plan with a detailed statement of reasons for the modifications shall be mailed to the owner or operator.

NOTE: Authority cited: Sections 208, 25150, 25159 and 25245, Health and Safety Code.

Reference: Sections 25159, 25159.5, 25245 and 25246, Health and Safety Code; 40 CFR Section 265.112; Sections 21080(c), 21080.1, 21080.3, 21082.1, 21100 and 21151, Public Resources Code.

66265.113. Closure; Time Allowed for Closure.

(a) Within 90 days after receiving the final volume of hazardous wastes at a hazardous waste management unit or facility, or within 90 days after approval of the closure plan, whichever is later, the owner or operator shall treat, remove from the unit or facility, or dispose of on-site, all hazardous wastes in accordance with the approved closure plan. The Department shall approve a longer period if the owner or operator demonstrates to the satisfaction of the Department that:

(1) (A) The activities required to comply with this subsection will, of necessity, take longer than 90 days to complete; or

(B) 1. The hazardous waste management unit or facility has the capacity to receive additional hazardous wastes; and

2. There is a reasonable likelihood that a person other than the owner or operator will recommence operation of the hazardous waste management unit or the facility within one year; and

3. Closure of the hazardous waste management unit or facility would be incompatible with continued operation of the site; and

(2) The owner or operator has taken and will continue to take all steps to comply with all applicable interim status requirements and the longer period will not pose a threat to human health and the environment.

(b) The owner or operator shall complete partial and final closure activities in accordance with the approved closure plan and within 180 days after receiving the final volume of hazardous wastes at the hazardous waste management unit or facility, or 180 days after approval of the closure plan, if that is later. The Department shall approve an extension to the closure period if the owner or operator demonstrates that:

(1) (A) The partial or final closure activities will, of necessity, take longer than 180 days to complete; or

(B) 1. The hazardous waste management unit or facility has the capacity to receive additional hazardous wastes; and

2. There is reasonable likelihood that a person other than the owner or operator will recommence operation of the hazardous waste management unit or the facility within one year; and

3. Closure of the hazardous waste management unit or facility would be incompatible with continued operation of the site; and

(2) The owner or operator has taken and will continue to take all steps to prevent threats to human health and the environment from the unclosed but not operating hazardous waste management unit or facility, including compliance with all applicable interim status requirements.

(c) The demonstrations referred to in subsections (a) and (b) of this section shall be made as follows: (1) The demonstrations in subsection (a) shall be made at least 30 days prior to the expiration of the 90-day period in subsection (a); and (2) the demonstrations in subsection (b) shall be made at least 30 days prior to the expiration of the 180-day period in subsection (b).

NOTE: Authority cited: Sections 208, 25150, 25159 and 25245, Health and Safety Code.
Reference: Sections 25159, 25159.5, 25245 and 25246, Health and Safety Code; 40 CFR Section 265.113.

66265.114. Disposal or Decontamination of Equipment, Structures and Soils.

During the partial and final closure periods, all contaminated equipment, structures and soil shall be properly disposed of, or decontaminated by removing all hazardous waste and residues, unless specified otherwise in Sections 66265.197, 66265.228, 66265.258, 66265.280, or 66265.310. By removing all hazardous wastes and residues or hazardous constituents during partial and final closure, the owner or operator may become a generator of hazardous waste and shall handle that hazardous waste in accordance with all applicable requirements of Chapter 12 of this division.

NOTE: Authority cited: Sections 208, 25150, 25159 and 25245, Health and Safety Code.
Reference: Sections 25159, 25159.5, 25245 and 25246, Health and Safety Code; 40 CFR Section 265.114.

66265.115. Certification of Closure.

Within 60 days of completion of closure of each hazardous waste surface impoundment, waste pile, land treatment, and landfill unit, and within 60 days of completion of final closure, the owner or operator shall submit to the Department, by registered mail, a certification that the hazardous waste management unit or facility, as applicable, has been closed in accordance with the specifications in the approved closure plan. The certification shall be signed by the owner or operator and by an independent qualified professional engineer, registered in California. Documentation supporting the independent registered professional engineer's certification shall be furnished to the Department upon request until the Department releases the owner or operator from the financial assurance requirements for closure under Section 66265.143 (h).

NOTE: Authority cited: Sections 208, 25150, 25159 and 25245, Health and Safety Code.
Reference: Sections 25159, 25159.5, 25245 and 25246, Health and Safety Code; 40 CFR Section 265.115.

66265.116. Survey Plat.

No later than the submission of the certification of closure of each hazardous waste disposal unit, an owner or operator shall submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the Department, a survey plat indicating the location and dimensions of landfill cells or other hazardous waste disposal units with respect to permanently surveyed vertical and horizontal benchmarks. This plat shall be prepared and certified by a professional land surveyor, licensed in California. The plat filed with the local zoning authority, or the authority with jurisdiction over local land use shall contain a note, prominently displayed, which states the owner's or operator's obligation to restrict disturbance of the hazardous waste disposal unit in accordance with the applicable regulations of this article.

NOTE: Authority cited: Sections 208, 25150, 25159 and 25245, Health and Safety Code.
Reference: Sections 25159, 25159.5, 25245 and 25246, Health and Safety Code; 40 CFR Section 265.116.

66265.117. Post-Closure Care and Use of Property.

(a) This section pertains to facilities at which all hazardous wastes, waste residues, contaminated materials and contaminated soils will not be removed during closure. Additional requirements for such facilities are cited in Title 23 of the California Code of Regulations.

(b) (1) Post-closure care for each hazardous waste management unit subject to the requirements of Sections 66265.117 through 66265.120 shall begin after completion of closure of the unit and continue for 30 years after that date. It shall consist of at least the following:

(A) Monitoring and reporting in accordance with the requirements of Articles 6, 11, 12, 13, and 14 of this chapter; and

(B) Maintenance and monitoring of waste containment systems in accordance with the requirements of Articles 6, 11, 12, 13, and 14 of this chapter.

(2) Any time preceding closure of a hazardous waste management unit subject to post-closure care requirements or final closure, or any time during the post-closure period for a particular hazardous waste disposal unit, the Department shall:

(A) Shorten the post-closure care period applicable to the hazardous waste management unit, or facility, if all disposal units

have been closed, if the Department finds that the reduced period is sufficient to protect human health and the environment (e.g., leachate or ground-water monitoring results, characteristics of the hazardous waste, application of advanced technology, or alternative disposal, treatment, or re-use techniques indicate that the hazardous waste management unit or facility is secure); or

(B) Extend the post-closure care period applicable to the hazardous waste management unit or facility, if the Department finds that the extended period is necessary to protect human health and the environment (e.g., leachate or groundwater monitoring results indicate a potential for migration of hazardous wastes at levels which may be harmful to human health and the environment).

(c) (1) The Department shall require, at partial and final closure, continuation of any of the security requirements of Section 66265.14 during part or all of the post-closure period when:

(A) Hazardous wastes may remain exposed after completion of partial or final closure; or

(B) Access by the public or domestic livestock may pose a hazard to human health.

(2) To extend any of these requirements during post closure period, the Department will use the procedures of Sections 66265.118(d) and (f).

(d) Post-closure use of property on or in which hazardous wastes remain after partial or final closure shall never be allowed to disturb the integrity of the final cover, liner(s), or any other components of the containment system, or the function of the facility's monitoring systems, unless the Department finds that the disturbance:

(1) Is necessary to the proposed use of the property, and will not increase the potential hazard to human health or the environment; or

(2) Is necessary to reduce a threat to human health or the environment.

(e) All post-closure care activities shall be in accordance with the provisions of the approved post-closure plan as specified in Section 66265.118.

(f) Upon closure of a hazardous waste facility wherein hazardous wastes remain on-site no construction, filling, grading, excavating or mining shall occur without the issuance of a variance by the Department. No variance may be granted which is inconsistent with subsection (d) of this section.

NOTE: Authority cited: Sections 208, 25150, 25159 and 25245, Health and Safety Code.
Reference: Sections 25159, 25159.5, 25245 and 25246, Health and Safety Code; 40 CFR Section 265.117.

66265.118. Post-Closure Plan; Amendment of Plan.

(a) Written plan. The owner or operator of a hazardous waste disposal unit shall have a written post-closure plan. An owner or operator of a surface impoundment or waste pile that intends to remove all hazardous wastes at closure shall prepare a post-closure plan and submit it to the Department within 90 days of the date that the owner or operator or Department determines that the hazardous waste management unit or facility shall be closed as a landfill, subject to the requirements of Sections 66265.117 through 66265.120.

(b) Until final closure of the facility, a copy of the most current post-closure plan shall be kept at the facility and furnished to the Department upon request, including request by mail. In addition, for facilities without approved post-closure plans, it shall also be provided during site inspections, on the day of inspection, to any officer, employee or representative of the Department who is duly designated by the Director. After final closure, the person or office specified in Section 66265.118(c)(3) shall keep an updated and approved post-closure plan during the post-closure period.

(c) For each hazardous waste management unit subject to the requirements of this section, the post-closure plan shall identify the activities that will be carried on after closure of each disposal unit and the frequency of these activities, and include at least:

(1) A description of the planned monitoring activities and frequencies at which they will be performed to comply with Articles 6, 11, 12, 13, and 14 of this chapter during the post-closure care period; and

(2) A description of the planned maintenance activities, and frequencies at which they will be performed, to ensure:

(A) The integrity of the cap and final cover and other containment systems in accordance with the requirements of Articles 11, 12, 13, and 14 of this chapter; and

(B) The function of the monitoring equipment in accordance with the requirements of Articles 6, 11, 12, 13, and 14 of this chapter; and

(3) The name, address, and phone number of the person or office to contact about the hazardous waste disposal unit or facility during the post-closure care period.

(4) All information necessary to enable the Department to prepare an Initial Study for the post-closure plan, which meets the requirements of Title 14, CCR Section 15063, unless the Department has determined that the post-closure plan is exempt from the requirements of the California Environmental Quality Act pursuant to Title 14, CCR Section 15061.

(d) Amendment of plan. The owner or operator may amend the post-closure plan any time during the active life of the facility or during the post-closure care period. An owner or operator with an approved post-closure plan shall submit a written request to the Department to authorize a change to the approved plan. The written request shall include a copy of the amended post-closure plan for approval by the Department.

(1) The owner or operator shall amend the post-closure plan whenever:

(A) Changes in operating plans or facility design affect the post-closure plan, or

(B) Events which occur during the active life of the facility or the post-closure care period, including partial and final closures, affect the post-closure plan.

(2) The owner or operator shall amend the post-closure plan at least 60 days prior to the proposed change in facility design or operation, or no later than 60 days after an unexpected event has occurred which has affected the post-closure plan.

(3) An owner or operator with an approved post-closure plan shall submit the modified plan to the Department at least 60 days prior to the proposed change in facility design or operation, or no more than 60 days after an unexpected event has occurred which has affected the post-closure plan. If an owner or operator of a surface impoundment

or a waste pile, who intended to remove all hazardous wastes at closure in accordance with Section 66265.228(a) or 66265.258(a) is required to close as a landfill in accordance with Section 66265.310, the owner or operator shall submit a post-closure plan within 90 days of the determination by the owner or operator or the Department that the unit shall be closed as a landfill. If the amendment to the post-closure plan is a Class 2 or 3 modification according to the criteria in Section 66270.42, the modification to the plan will be approved according to the procedures in Section 66265.118(f).

(4) The Department shall request modifications to the plan under the conditions described in subsection (d)(1) of this section. An owner or operator with an approved post-closure plan shall submit the modified plan no later than 60 days after the request from the Department. If the amendment to the plan is considered a Class 2 or 3 modification according to the criteria in Section 66270.42, the modifications to the post-closure plan will be approved in accordance with the procedures in Section 66265.118(f). If the Department determines that an owner or operator of a surface impoundment or waste pile who intended to remove all hazardous wastes at closure shall close the facility as a landfill, the owner or operator shall submit a post-closure plan for approval to the Department within 90 days of the determination.

(e) The owner or operator of a facility with hazardous waste management units subject to these requirements shall submit the post-closure plan to the Department at least 180 days before the date the owner or operator expects to begin partial or final closure of

the first hazardous waste disposal unit. The date the owner or operator "expects to begin closure" of the first hazardous waste disposal unit shall be either no later than the date on which the hazardous waste management unit receives the known final volume of hazardous waste or, if there is a reasonable possibility that the hazardous waste management unit will receive additional hazardous wastes, no later than one year after the date on which the unit received the most recent volume of hazardous wastes. The owner or operator shall submit the post-closure plan to the Department no later than 15 days after:

(1) Termination of interim status (except when a permit is issued to the facility simultaneously with termination of interim status); or

(2) Issuance of a judicial decree or final order under Health and Safety Code Section 25358.3 or Article 8 of Chapter 6.5 of Division 20 of the Health and Safety Code to cease receiving wastes or close.

(f) The Department will provide the owner or operator and the public, through a newspaper notice, the opportunity to submit written comments on the post-closure plan and request modifications to the plan no later than 30 days from the date of the notice. The Department will also, in response to a request or at the Department's own discretion, hold a public hearing whenever such a hearing might clarify one or more issues concerning a post-closure plan. The Department will give public notice of the hearing at least 30 days

before it occurs. Public notice of the hearing may be given at the same time as notice of the opportunity for the public to submit written comments, and the two notices may be combined. The Department will approve, modify, or disapprove the plan within 90 days of its receipt. If the Department disapproves the plan, the Department shall provide the owner or operator with a detailed written statement of reasons for the refusal and the owner or operator shall modify the plan or submit a new plan for approval within 30 days after receiving such written statement. The Department will approve or modify this plan in writing within 60 days. If the Department modifies the plan, this modified plan becomes the approved post-closure plan. The Department shall ensure that the approved post-closure plan is consistent with Sections 66265.117 through 66265.120. A copy of the modified plan with a detailed statement of reasons for the modifications shall be mailed to the owner or operator.

(g) The post-closure plan and length of the post-closure care period may be modified any time prior to the end or at the end of the post-closure care period in either of the following two ways:

(1) The owner or operator or any member of the public may petition the Department to extend or reduce the post-closure care period applicable to a hazardous waste management unit or facility based on cause, or alter the requirements of the post-closure care period based on cause.

(A) The petition shall include evidence demonstrating that:

1. The secure nature of the hazardous waste management unit or facility makes the post-closure care requirement(s) unnecessary or supports reduction of the post-closure care period specified in the current post-closure plan (e.g., leachate or groundwater monitoring results, characteristics of the wastes, application of advanced technology, or alternative disposal, treatment, or re-use techniques indicate that the facility is secure), or

2. The requested extension in the post-closure care period or alteration of post-closure care requirements is necessary to prevent threats to human health and the environment (e.g., leachate or groundwater monitoring results indicate a potential for migration of hazardous wastes at levels which may be harmful to human health and the environment).

(B) These petitions will be considered by the Department only when they present new and relevant information not previously considered by the Department. Whenever the Department is considering a petition, the Department will provide the owner or operator and the public, through a newspaper notice, the opportunity to submit written comments within 30 days of the date of the notice. The Department will also, in response to a request or at the Department's own discretion, hold a public hearing whenever a hearing might clarify one or more issues concerning the post-closure plan. The Department will give the public notice of the hearing at least 30 days before it occurs. Public notice of the hearing may be given at the same time as notice of the opportunity for written public comments, and the two notices may be combined). After considering the comments, the

Department will issue a final determination, based upon the criteria set forth in subsection (g)(1)(A) of this section.

(C) If the Department denies the petition, the Department will send the petitioner a brief written response giving a reason for the denial.

(2) The Department may tentatively decide to modify the post-closure plan if the Department deems it necessary to prevent threats to human health and the environment. The Department may propose to extend or reduce the post-closure care period applicable to a hazardous waste management unit or facility based on cause, or alter the requirements of the post-closure care period based on cause.

(A) The Department will provide the owner or operator and the affected public, through a newspaper notice, the opportunity to submit written comments within 30 days of the date of the notice and the opportunity for a public hearing as in subsection (g)(1)(B) of this section. After considering the comments, the Department will issue a final determination.

(B) The Department will base the final determination upon the same criteria as required for petitions under subsection (g)(1)(A) of this section. A modification of the post-closure plan may include, where appropriate, the temporary suspension rather than permanent deletion of one or more post-closure care requirements. At the end of the specified period of suspension, the Department would then

determine whether the requirement(s) should be permanently discontinued or reinstated to prevent threats to human health and the environment.

NOTE: Authority cited: Sections 208, 25150, 25159 and 25245, Health and Safety Code.
Reference: Sections 25159, 25159.5 and 25246, Health and Safety Code; 40 CFR Section 265.118; Sections 21080(c), 21080.1, 21080.3, 21082.1, 21100 and 21151, Public Resources Code.

66265.119. Post-Closure Notices.

(a) No later than 60 days after certification of closure of each hazardous waste disposal unit, the owner or operator shall submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the Department, a record of the type, location, and quantity of hazardous wastes disposed of within each cell or area (not limited to only hazardous waste disposal unit) of the facility. For hazardous wastes disposed of before January 12, 1981, the owner or operator shall identify the type, location and quantity of the hazardous wastes to the best of the owner's or operator's knowledge and in accordance with any records the owner or operator has kept. Any changes in the type, location or quantity of hazardous wastes disposed of within each cell or area of the facility that occur after the survey plat and record of wastes have been filed pursuant to Section 66265.116 shall be reported to the local zoning authority or the authority with jurisdiction over local land use and to the Department.

(b) Within 60 days of certification of closure of the first hazardous waste disposal unit and within 60 days of certification of closure of the last hazardous waste disposal unit, the owner or operator shall:

(1) Record, in accordance with State law, a notation on the deed to the facility property, or on some other instrument which is normally examined during title search, that will in perpetuity notify any potential purchaser of the property that:

(A) The land has been used to manage hazardous wastes; and

(B) Its use is restricted under Article 7 of this chapter; and

(C) The survey plat and record of the type, location, and quantity of hazardous wastes disposed of within each cell or area (not limited to only hazardous waste disposal unit) of the facility required by Sections 66265.116 and 66265.119(a) have been filed with the local zoning authority or the authority with jurisdiction over local land use and with the Department; and

(2) Submit, to the Department, a certification signed by the owner or operator that the notation specified in subsection (b)(1) of this section has been recorded and a copy of the document in which the notation has been placed.

(c) If at any time the owner or operator or any subsequent owner of the land upon which a hazardous waste disposal unit was located wishes to remove hazardous wastes and hazardous waste residues, the liner, if any, and all contaminated structures, equipment, and underlying and surrounding soils, the owner or operator shall request a modification to the approved post-closure plan in accordance with the requirements of Section 66265.118(g). The owner or operator shall demonstrate that the removal of hazardous wastes will satisfy the criteria of Section 66265.117(d). By removing hazardous waste, the owner or operator may become a generator of hazardous waste and shall manage it in accordance with all applicable requirements of this division. If the owner or operator is granted approval to

conduct the removal activities, and the removal activities are completed to the satisfaction of the Department, the owner or operator may request that the Department approve either:

(1) The removal of the notation on the deed to the facility property or other instrument normally examined during title search, or

(2) The addition of a notation to the deed or instrument indicating the removal of the hazardous waste.

NOTE: Authority cited: Sections 208, 25150, 25159 and 25245, Health and Safety Code.
Reference: Sections 25159, 25159.5, 25245 and 25246, Health and Safety Code; 40 CFR Section 265.119.

66265.120. Certification of Completion of Post-Closure Care.

No later than 60 days after the completion of the established post-closure care period for each hazardous waste disposal unit, the owner or operator shall submit to the Department, by registered mail, a certification that the post-closure care period for the hazardous waste disposal unit was performed in accordance with the specifications in the approved post-closure plan. The certification shall be signed by the owner or operator and an independent qualified professional engineer, registered in California. Documentation supporting the independent registered, qualified professional engineer's certification shall be furnished to the Department upon request until the Department releases the owner or operator from the financial assurance requirements for post-closure care under Section 66265.145 (h).

NOTE: Authority cited: Sections 208, 25150, 25159 and 25245, Health and Safety Code.
Reference: Sections 25159, 25159.5, 25245 and 25246, Health and Safety Code; 40 CFR Section 265.120.

Article 8 Financial Requirements

66265.140. Applicability.

(a) The requirements of Sections 66265.142, 66265.143, and 66265.147 through 66265.148 apply to owners or operators of all hazardous waste facilities, as defined in Section 66260.10, except as provided otherwise in this article.

(b) The requirements of Sections 66265.144 and 66265.146 apply only to owners and operators of hazardous waste facilities which are disposal sites and tank systems that are required under Section 66265.197 to meet the requirements for landfills.

(c) States and the Federal government are exempt from the requirements of this subpart.

(d) For purposes of this article, state government shall not include municipal, local, city, county, city-county special district government or any subdivisions thereof.

NOTE: Authority cited: Sections 208, 25150, 25159, 25159.5 and 25245, Health and Safety Code.
Reference: Section 25245, Health and Safety Code; 40 CFR Section 265.140.

66265.141. Definitions as Used in this Article.

(a) The following terms, as defined in Section 66260.10, are used in the specifications for the financial tests for closure, post-closure care, and liability coverage. The definitions are intended to assist in the understanding of these regulations and are not intended to limit the meanings of terms in a way that conflicts with generally accepted accounting practices.

"Assets"

"Current assets"

"Current liabilities"

"Current plugging and abandonment cost estimate"

"Independently audited"

"Liabilities"

"Net working capital"

"Net worth"

"Substantial business relationship"

"Tangible net worth"

(b) In the liability coverage requirements the terms "bodily injury" and "property damage" as defined in Section 66260.10 shall have the meanings given these terms by applicable State law. However, these terms do not include those liabilities which, consistent with standard industry practice, are excluded from coverage in liability policies for bodily injury and property damage. The Department intends the meanings of other terms used in the liability insurance requirements to be consistent with their common meanings within the insurance industry. The definitions given below and defined in Section 66260.10 are intended to assist in the understanding of these regulations and are not intended to limit their meanings in a way that conflicts with general insurance industry usage.

"Accidental occurrence"

"Legal defense costs"

"Nonsudden accidental occurrence"

"Sudden accidental occurrence"

NOTE: Authority cited: Sections 208, 25150, 25159, 25159.5 and 25245, Health and Safety Code.
Reference: Section 25245, Health and Safety Code; 40 CFR 265.141.

66265.142. Cost Estimate for Closure.

(a) The owner or operator shall prepare and submit to the Department a detailed written estimate, in current dollars, of the cost of closing the facility in accordance with the requirements in Sections 66265.111 through 66265.115 and applicable closure requirements of Sections 66265.178, 66265.197, 66265.228, 66265.258, 66265.280, 66265.310, 66265.351, 66265.381 and 66265.404.

(1) The estimate shall be submitted in accordance with Sections 66270.10 and 66270.14. The estimate shall equal the cost of final closure at the point in the facility's active life when the extent and manner of its operation would make closure the most expensive, as indicated by its closure plan (see Section 66265.112(b)); and

(2) The closure cost estimate shall be based on the costs to the owner or operator of hiring a third party to close the facility. A third party is a party who is neither a parent nor a subsidiary of the owner or operator. (See definition of parent corporation in Section 66260.10.) The owner or operator may use costs for on-site disposal if it can be demonstrated that on-site disposal capacity will exist at all times over the life of the facility.

(3) The closure cost estimate shall not incorporate any salvage value that may be realized by the sale of hazardous wastes, facility structures or equipment, land or other facility assets at the time of partial or final closures.

(4) The owner or operator shall not incorporate a zero cost for hazardous waste that might have economic value.

(b) During the active life of the facility, the owner or operator shall adjust the closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with Section 66265.143. For owners and operators using the financial test or corporate guarantee, the closure cost estimate shall be updated for inflation within 30 days after the close of the firm's fiscal year and before submission of updated information to the Department as specified in Section 66265.143(e)(3). The adjustment shall be made by recalculating the closure cost estimate in current dollars, or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its Survey of Current Business, as specified in subsections (b)(1) and (2) of this section. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

(1) The first adjustment is made by multiplying the closure cost estimate by the inflation factor. The result is the adjusted closure cost estimate.

(2) Subsequent adjustments are made by multiplying the latest adjusted closure cost estimate by the latest inflation factor.

(c) During the active life of the facility, the owner or operator shall revise the closure cost estimate no later than 30 days after a revision has been made to the closure plan which increases the cost of closure. If the owner or operator has an approved closure plan, the closure cost estimate shall be revised no later than 30 days after the Department has approved the request to modify the closure plan, if the change in the closure plan increases the cost of closure. The revised closure cost estimate shall be adjusted for inflation as specified in subsection (b) of this section.

(d) The owner or operator shall keep the following at the facility during the operating life of the facility: The latest closure cost estimate prepared in accordance with subsection (a) and (c) of this section and, when this estimate has been adjusted in accordance with subsection (b) of this section, the latest adjusted closure cost estimate.

NOTE: Authority cited: Sections 208, 25150, 25159, 25159.5 and 25245, Health and Safety Code.
Reference: Section 25245, Health and Safety Code; 40 CFR Section 265.142.

66265.143. Financial Assurance for Closure.

An owner or operator of each facility shall establish and demonstrate to the Department financial assurance for closure of the facility. The owner or operator shall choose from the options as specified in subsections a) through (f) of this section.

(a) Closure trust fund.

(1) An owner or operator may satisfy the requirements of this section by establishing a closure trust fund which conforms to the requirements of this subsection and submitting an originally signed duplicate of the trust agreement to the Department. The trustee shall be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or state agency.

(2) The trust agreement shall be completed by utilizing only DHS Form 8100 (revised 1/91) which shall be provided by the Department. The trust agreement shall contain original signatures and shall be accompanied by a formal certification of acknowledgment. Schedule A of the trust agreement shall be updated within 60 days after a change in the amount of the current closure cost estimate covered by the trust agreement.

(3) Payments into the trust fund shall be made annually by the owner or operator over the ten (10) years beginning with the establishment of the trust fund or over the remaining operating life

of the facility as estimated in the closure plan, whichever period is shorter; this period is hereafter referred to as the "pay-in period." The payments into the closure trust fund shall be made as follows:

(A) The first payment shall be at least equal to the current closure cost estimate, except as provided in subsection (g), of this section divided by the number of years in the pay-in period.

(B) Subsequent payments shall be made no later than 30 days after each anniversary date of the first payment. The amount of each subsequent payment must be determined by this formula:

$$\text{Next payment} = \frac{CE - CV}{Y}$$

where CE is the current closure cost estimate, CV is the current value of the trust fund, and Y is the number of years remaining in the pay-in period.

(4) The owner or operator may accelerate payments into the trust fund or deposit the full amount of the current closure cost estimate at the time the fund is established. However, the value of the fund shall be maintained at no less than the value that the fund would have if annual payments were made as specified in subsection (a)(3) of this section.

(5) If the owner or operator establishes a closure trust fund after having used one or more alternate mechanisms specified in this

section, the first payment shall be in at least the amount that the fund would contain if the trust fund were established initially and annual payments made as specified in subsection (a)(3) of this section.

(6) After the pay-in period is completed, whenever the current closure cost estimate changes, the owner or operator shall compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator, within 60 days after the change in the cost estimate, shall either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current closure cost estimate, or obtain other financial assurance as specified in this article to cover the difference.

(7) If the value of the trust fund is greater than the total amount of the current closure cost estimate, the owner or operator may submit a written request to the Department for release of the amount in excess of the current closure cost estimate.

(8) If an owner or operator substitutes other financial assurance as specified in this article for all or part of the trust fund, a written request may be submitted to the Department for release of the amount in excess of the current closure cost estimate covered by the trust fund.

(9) Within 60 days after receiving a request from the owner or operator for release of funds as specified in subsections (a)(7) or

(8) of this section, the Department will instruct the trustee to release to the owner or operator such funds as the Department specifies in writing.

(10) Before final closure occurs, the value of the trust fund shall equal the amount of the current closure cost estimate. If the value of the fund is less than the amount of the current estimate, the owner or operator shall either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current closure cost estimate, or obtain other financial assurance, as specified in this article, to cover the difference.

(11) After beginning partial or final closure, an owner or operator or another person authorized to conduct partial or final closure may request reimbursements for partial or final closure expenditures by submitting itemized bills to the Department. The owner or operator may request reimbursements for partial closure only if sufficient funds are remaining in the trust fund to cover the maximum costs of closing the facility over its remaining operating life. No later than 60 days after receiving bills for partial or final closure activities, the Department shall instruct the trustee to make reimbursements in those amounts as the Department specifies in writing, if the Department determines that the partial or final closure expenditures are in accordance with the approved closure plan, or otherwise justified. If the Department has reason to believe that the maximum cost of closure over the remaining life of the facility will be significantly greater than the value of the trust fund, the Department may withhold reimbursements of such

amounts as deemed prudent until a determination is made, in accordance with subsection (i) of this section, that the owner or operator is no longer required to maintain financial assurance for final closure of the facility. If the Department does not instruct the trustee to make such reimbursements, a detailed written statement of reasons will be provided to the owner or operator.

(12) The Department will agree to termination of the trust when:

(A) An owner or operator substitutes alternate financial assurance as specified in this article; or

(B) The Department releases the owner or operator from the requirements in accordance with subsection (i) of this section.

(b) Surety bond guaranteeing payment into a closure trust fund.

(1) An owner or operator may satisfy the requirements of this section by obtaining a surety bond which conforms to the requirements of this subsection and submitting the bond to the Department. The surety company issuing the bond shall, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury.

(2) The surety bond shall be completed by utilizing only DHS Form 8101 (revised 1/91) which shall be provided by the Department. The surety bond shall contain original signatures and shall be accompanied by the documents specified in this subsection.

(3) The owner or operator who uses a surety bond to satisfy the requirements of this article shall also establish a standby trust fund. Under the terms of the bond, all payments made thereunder shall be deposited by the surety directly into the standby trust fund in accordance with instructions from the Department. This standby trust fund shall meet the requirements specified in subsection (a) of this section, except that:

(A) An originally signed duplicate of the standby trust agreement (DHS Form 8100 revised 1/91) shall be submitted to the Department with the surety bond; and

(B) Until the standby trust fund is funded pursuant to the requirements of this section, the following are not required by these regulations:

1. Payments into the trust fund as specified in subsection (a) of this section;

2. Updating of Schedule A of the trust agreement to show current closure cost estimates as required by subsection (a)(2) of this section;

3. Annual valuations as required by the trust agreement; and

4. Notices of nonpayment as required by the trust agreement.

(4) The bond shall guarantee that the owner or operator shall:

(A) Fund the standby trust fund in an amount equal to the penal sum of the bond before the beginning of final closure of the facility; or

(B) Fund the standby trust fund in an amount equal to the penal sum within 15 days after an administrative order to begin final closure issued by the Department becomes final, or within 15 days after an order to begin final closure is issued by a U.S. district court or other court of competent jurisdiction; or

(C) Provide alternate financial assurance as specified in this article, and obtain the Department's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Department of a notice of cancellation of the bond from the surety.

(5) Under the terms of the bond, the surety shall become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.

(6) The penal sum of the bond shall be in an amount at least equal to the current closure cost estimate, except as provided in subsection (g) of this section.

(7) Whenever the current closure cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, shall either cause the penal sum to be increased to an amount at least equal to the current closure cost

estimate and submit evidence of such increase to the Department, or obtain other financial assurance as specified in this article to cover the increase. Whenever the current closure cost estimate decreases, the penal sum may be reduced to the amount of the current closure cost estimate following written approval by the Department.

(8) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Department. Cancellation shall not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Department, as evidenced by the return receipts.

(9) The owner or operator may cancel the bond if the Department has given prior written consent based on receipt of evidence of alternate financial assurance as specified in this article.

(c) Closure letter of credit.

(1) An owner or operator may satisfy the requirements of this section by obtaining an irrevocable standby letter of credit which conforms to the requirements of this subsection and submitting the letter to the Department. The issuing institution shall be an entity which has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by a Federal or state agency.

(2) The letter of credit shall be completed as specified in DHS Form 8103 (revised 1/92) which shall be provided by the Department. The letter of credit shall contain original signatures and shall be accompanied by the documents specified in this subsection.

(3) An owner or operator who uses a letter of credit to satisfy the requirements of this article shall also establish a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Department shall be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Department. This standby trust fund shall meet the requirements of the trust fund specified in subsection (a) of this section, except that:

(A) An originally signed duplicate of the standby trust agreement (DHS Form 8100 revised 1/91) shall be submitted to the Department with the letter of credit; and

(B) Unless the standby trust fund is funded pursuant to the requirements of this section, the following are not required by these regulations:

1. Payments into the trust fund as specified in subsection (a) of this section;

2. Updating of Schedule A of the trust agreement to show current closure cost estimates as required by subsection (a)(2) of this section;

3. Annual valuations as required by the trust agreement; and

4. Notices of nonpayment as required by the trust agreement.

(4) The letter of credit shall be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution, and date, and providing the following information: The Hazardous Waste Facility Identification Number, name and address of the facility, and the amount of funds assured for closure of the facility by the letter of credit.

(5) The letter of credit shall be irrevocable and issued for a period of at least one (1) year. The letter of credit shall provide that the expiration date will be automatically extended for a period of at least 1 year unless, at least 120 days before the current expiration date, the issuing institution notifies both the owner or operator and the Department by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days shall begin on the date when both the owner or operator and the Department have received the notice, as evidenced by the return receipts.

(6) The letter of credit shall be issued in an amount at least equal to the current closure cost estimate, except as provided in subsection (g) of this section.

(7) Whenever the current closure cost estimate increases to an amount greater than the amount of the letter of credit, the owner or

operator, within 60 days after the increase, shall either cause the amount of the letter of credit to be increased so that it at least equals the current closure cost estimate and submit evidence of such increase to the Department, or obtain other financial assurance as specified in this article to cover the increase. Whenever the current closure cost estimate decreases, the amount of the letter of credit may be reduced to the amount of the current closure cost estimate following written approval by the Department.

(8) Following a determination by the Department that the owner or operator has failed to perform final closure in accordance with the approved closure plan when required to do so, the Department may draw on the letter of credit.

(9) If the owner or operator does not establish alternate financial assurance as specified in this article and obtain written approval of such alternate assurance from the Department within 90 days after receipt by both the owner or operator and the Department of a notice from the issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the Department shall draw on the letter of credit. The Department shall delay drawing on the letter of credit in accordance with the provisions of this paragraph if the issuing institution grants an extension of the term of the credit. During the last 30 days of any such extension the Department shall draw on the letter of credit if the owner or operator has failed to provide alternate financial assurance as specified in this article and obtain written approval of such assurance from the Department.

(10) The Department shall return the letter of credit to the issuing institution for termination when:

(A) An owner or operator substitutes alternate financial assurance as specified in this article; or

(B) The Department releases the owner or operator from the requirements in accordance with subsection (i) of this section.

(d) Closure insurance.

(1) An owner or operator may satisfy the requirements of this section by obtaining closure insurance which conforms to the requirements of this section and submitting a certificate of such insurance to the Department. The owner or operator shall submit to the Department a letter from an insurer stating that the insurer is considering issuance of closure insurance conforming to the requirements of this subsection to the owner or operator. The owner or operator shall submit the certificate of insurance to the Department or establish other financial assurance as specified in this article. At a minimum, the insurer shall be licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more states.

(2) The certificate of insurance shall be completed by utilizing only DHS Form 8104 (revised 1/91) which shall be provided by the Department. The certificate of insurance shall contain original signatures.

(3) The closure insurance policy shall be issued for a face amount at least equal to the current closure cost estimate, except as provided in subsection (g) of this section. The term "face amount" means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer shall not change the face amount, although the insurer's future liability shall be lowered by the amount of the payments.

(4) The closure insurance policy shall guarantee that funds shall be available to close the facility whenever final closure occurs. The policy shall also guarantee that once final closure begins, the insurer shall be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon direction from the Department, to such party or parties as the Department specifies.

(5) After beginning partial or final closure, an owner or operator or any other person authorized to conduct closure may request reimbursements for closure expenditures by submitting itemized bills to the Department. The owner or operator may request reimbursements for partial closure only if the remaining value of the policy is sufficient to cover the maximum costs of closing the facility over its remaining operating life. Within 60 days after receiving bills for closure activities, the Department shall instruct the insurer to make reimbursements in such amounts as the Department specifies in writing if the Department determines that the partial or final closure expenditures are in accordance with the approved closure plan or otherwise justified. If the Department has reason to believe that the maximum cost of closure over the remaining life of

the facility will be significantly greater than the face amount of the policy, a reimbursement of such amounts may be withheld as deemed prudent until a determination, in accordance with subsection (i) of this section, that the owner or operator is no longer required to maintain financial assurance for final closure of the particular facility is made. If the Department does not instruct the insurer to make such reimbursements, the owner or operator shall be provided a detailed written statement of reasons.

(6) The owner or operator shall maintain the policy in full force and effect until the Department consents to termination of the policy by the owner or operator as specified in subsection (d)(10) of this section. Failure to pay the premium, without substitution of alternate financial assurance as specified in this article, shall constitute a significant violation of these regulations, warranting such remedy as the Department deems necessary. Such violation will be deemed to begin upon receipt by the Department of a notice of future cancellation, termination or failure to renew due to nonpayment of the premium, rather than upon the date of expiration.

(7) Each policy shall contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer, provided such consent is not unreasonably refused.

(8) The policy shall provide that the insurer may not cancel, terminate or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy shall, at a minimum,

provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate or fail to renew the policy by sending notice by certified mail to the owner or operator and the Department. Cancellation, termination or failure to renew shall not occur, however, during the 120 days beginning with the date of receipt of the notice by both the Department and the owner or operator, as evidenced by the return receipts. Cancellation, termination or failure to renew shall not occur and the policy shall remain in full force and effect in the event that on or before the date of expiration:

(A) The Department deems the facility abandoned; or

(B) Interim status is terminated or revoked; or

(C) Closure is ordered by the Department or any other state or federal agency or a U.S. district court or other court of competent jurisdiction; or

(D) The owner or operator is named as debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code; or

(E) The premium due is paid.

(9) Whenever the current closure cost estimate increases to an amount greater than the face amount of the policy, the owner or operator, within 60 days after the increase, shall either cause the

face amount to be increased to an amount at least equal to the current closure cost estimate and submit evidence of such increase to the Department, or obtain other financial assurance as specified in this article to cover the increase. Whenever the current closure cost estimate decreases, the face amount may be reduced to the amount of the current closure cost estimate following written approval by the Department.

(10) The Department shall give written consent to the owner or operator that the insurance policy may be terminated when:

(A) An owner or operator substitutes alternate financial assurance as specified in this article; or

(B) The Department releases the owner or operator from the requirements in accordance with subsection (i) of this section.

(e) Financial test and corporate guarantee for closure.

(1) An owner or operator may satisfy the requirements of this section by demonstrating that he or she passes a financial test as specified in this subsection. To pass this test the owner or operator shall meet the criteria of either subsection (e)(1)(A) or (B) of this section:

(A) The owner or operator shall have:

1. Two of the following three ratios: A ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and

2. Net working capital and tangible net worth each at least six times the sum of the current closure and postclosure cost estimates and the current plugging and abandonment cost estimates; and

3. Tangible net worth of at least $10 million; and

4. Assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the current closure and postclosure cost estimates and the current plugging and abandonment cost estimates.

(B) The owner or operator shall have:

1. A current rating for his or her most recent bond issuance of AAA, AA, A or BBB as issued by Standard and Poor's or Aaa, Aa, A or Baa as issued by Moody's; and

2. Tangible net worth at least six times the sum of the current closure and postclosure cost estimates and the current plugging and abandonment cost estimates; and

3. Tangible net worth of at least $10 million; and

4. Assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the current closure and postclosure cost estimates and the current plugging and abandonment cost estimates.

(2) The phrase "current closure and postclosure cost estimates" as used in subsection (e)(1) of this section refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer. The phrase "current plugging and abandonment cost estimates" as used in subsection (e)(1) of this section refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer.

(3) To demonstrate that this test has been met, the owner or operator shall submit the following items to the Department:

(A) A letter signed by the owner's or operator's chief financial officer and worded as specified in DHS Form 8105 (revised 1/91) which shall be provided by the Department. The letter shall be on the owner or operator's official letterhead stationery, and shall contain an original signature; and

(B) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year; and

(C) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:

1. The independent certified public accountant has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

2. In connection with that procedure, no matters came to the independent certified public accountant's attention which caused the accountant to believe that the specified data should be adjusted.

(4) After the initial submission of items specified in subsection (e)(3) of this section, the owner or operator shall send updated information to the Department within 90 days after the close of each succeeding fiscal year. This information shall consist of all items specified in subsection (e)(3) of this section.

(5) If the owner or operator no longer meets the requirements of subsection (e)(1) of this section, the owner or operator shall send notice to the Department of intent to establish alternate financial assurance as specified in this article. The notice shall be sent by certified mail within 90 days after any occurrence that prevents the owner or operator from meeting the requirements. The owner or operator shall provide the alternate financial assurance within 120 days after such occurrence.

(6) The Department may, based on a reasonable belief that the owner or operator may no longer meet the requirements of subsection (e)(1) of this section, require reports of financial condition at any time from the owner or operator in addition to those specified in subsection (e)(3) of this section. If the Department finds, on the basis of such reports or other information, that the owner or operator no longer meets the requirements of subsection (e)(1) of this section, the owner or operator shall provide alternate financial assurance as specified in this article within 30 days after notification of such a finding.

(7) The Department may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his or her report on examination of the owner's or operator's financial statements (see subsection (e)(3)(B) of this section). An adverse opinion or a disclaimer of opinion shall be cause for disallowance. The Department shall evaluate other qualifications on an individual basis. The owner or operator shall provide alternate financial assurance as specified in this article within 30 days after notification of the disallowance.

(8) The owner or operator is no longer required to submit the items specified in subsection (e)(3) of this section when:

(A) An owner or operator substitutes alternate financial assurance as specified in this article; or

(B) The Department releases the owner or operator from the requirements of this section in accordance with subsection (i) of this section.

(9) An owner or operator may meet the requirements of this section by obtaining a written guarantee, hereafter referred to as "corporate guarantee." The guarantor shall be the parent corporation of the owner or operator as defined in Section 66260.10. The guarantor shall meet and comply with the requirements for owners or operators in subsections (e)(1) through (8) of this section and shall comply with the terms of the corporate guarantee. The corporate guarantee shall be completed as specified in DHS Form 8106 (revised 1/91) which shall be provided by the Department. The corporate guarantee shall be on the official letterhead stationery of the parent corporation, shall contain an original signature and the signature shall be formally witnessed or notarized. The corporate guarantee shall accompany the items sent to the Department as specified in subsection (e)(3) of this section. The terms of the corporate guarantee shall provide that:

(A) If the owner or operator fails to perform final closure of a facility covered by the corporate guarantee in accordance with the closure plan and other interim status requirements whenever required to do so, the guarantor shall do so or shall establish a trust fund as specified in subsection (a) of this section in the name of the owner or operator.

(B) The corporate guarantee shall remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the Department. Cancellation shall not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Department, as evidenced by the return receipts.

(C) If the owner or operator fails to provide alternate financial assurance as specified in this article and obtain the written approval of such alternate assurance from the Department within 90 days after receipt by both the owner or operator and the Department of a notice of cancellation of the corporate guarantee from the guarantor, the guarantor shall provide such alternate financial assurance in the name of the owner or operator.

(f) Alternative Financial Mechanism for Closure Costs.

(1) An owner or operator of facilities which manage solely non-RCRA hazardous wastes may establish financial assurance for closure by means of a financial mechanism other than as specified in subsections (a) through (e) of this section, provided that prior to its use the mechanism has been submitted to and approved by the Department. The mechanism shall be at least equivalent to the financial mechanisms specified in subsections (a) through (e) of this section. The Department shall evaluate the equivalency of a mechanism principally in terms of:

(A) Certainty of the availability of funds for the required closure activities; and

(B) The amount of funds that will be made available.

The Department may also consider other factors deemed to be appropriate, and may require the owner or operator to submit additional information as is deemed necessary to make the determination.

(2) The owner or operator shall submit to the Department the proposed mechanism together with a letter requesting that the proposed mechanism be considered acceptable for meeting the requirements of Section 66265.143. The submission shall include the following information:

(A) Name, address and telephone number of issuing institution; and

(B) Hazardous waste facility identification number, name, address and closure cost estimate for each facility; and

(C) The amount of funds for closure to be assured for each facility by the proposed mechanism; and

(D) The terms of the proposed mechanism (period covered, renewal/extension, cancellation).

(3) The Department shall notify the owner or operator in writing of the determination made regarding the proposed mechanism's acceptability in lieu of the financial mechanisms specified in subsections (a) through (e) of this section.

(4) If a proposed mechanism is found acceptable, the owner or operator shall submit a fully executed document to the Department. The document shall contain original signatures and shall be accompanied by a formal certification of acknowledgment.

(5) If a proposed mechanism is found acceptable except for the amount of funds, the owner or operator shall either increase the amount of the mechanism or obtain other financial assurance as specified in subsections (a) through (e) of this section. The amount of funds available through the combination of mechanisms shall at least equal the current closure cost estimate.

(g) Use of multiple financial mechanisms. An owner or operator may satisfy the requirements of this section by establishing more than one financial mechanism per facility. The mechanisms shall be as specified in subsections (a) through (f) of this section, except that it is the combination of mechanisms, rather than the single mechanism, which shall provide financial assurance for an amount at least equal to the current closure cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, the trust fund may be used as the standby trust fund for the other mechanisms. A single standby trust fund may be established for two or more mechanisms. If the owner or operator

demonstrates the required coverage through the use of a combination of financial assurances under this subsection, the owner or operator shall specify at least one such assurance as "primary" coverage and shall specify the other as "excess" coverage. The Department may use any or all of the mechanisms to provide for closure of the facility.

(h) Use of a financial mechanism for multiple facilities. An owner or operator may use one or more of the financial assurance mechanisms specified in subsections 66265.143(a) through (f) to meet the requirements of Section 66265.143 for more than one facility. Evidence of financial assurance submitted to the Department shall include a list showing, for each facility, the Hazardous Waste Facility Identification Number, name, address and the amount of funds for closure assured by the mechanism. The amount of funds available through the mechanism shall be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for each facility. In directing funds available through the mechanism for closure of any of the facilities covered by the mechanism, the Department may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.

(i) Release of the owner or operator from the requirements of this section.

(1) Within 60 days after receiving certifications from the owner or operator and an independent professional engineer, registered in California that final closure has been completed in accordance with

the approved closure plan, the Department shall notify the owner or operator in writing that or she is no longer required by this article to maintain financial assurance for final closure of the facility, unless the Department has reason to believe that final closure has not been in accordance with the approved closure plan. The Department shall provide the owner or operator a detailed written statement of any such reason to believe that closure has not been in accordance with the approved closure plan.

(2) When transfer of ownership or operational control of a facility occurs, and the new owner or operator has demonstrated to the satisfaction of the Department that he or she is complying with the financial requirements of this article, the Department shall notify the previous owner or operator in writing that they are no longer required to maintain financial assurance for closure of that particular facility.

NOTE: Authority cited: Sections 208, 25150, 25159, 25159.5 and 25245, Health and Safety Code.
Reference: Section 25245, Health and Safety Code; 40 CFR Section 264.143.

66265.144. Cost Estimate for Post-Closure Care.

(a) The owner or operator of a hazardous waste disposal unit shall prepare and submit to the Department a detailed written estimate, in current dollars, of the annual cost of postclosure monitoring and maintenance of the facility in accordance with the applicable postclosure regulations in Sections 66265.117 through 66265.120, 66265.228, 66265.258, 66265.280 and 66265.310.

(1) The postclosure cost estimate must be based on the costs to the owner or operator of hiring a third party to conduct postclosure care activities. A third party is a party who is neither a parent nor subsidiary of the owner or operator. (See definition of parent corporation in Section 66260.10).

(2) The postclosure cost estimate is calculated by multiplying the annual postclosure cost estimate by the number of years of postclosure care required under Section 66265.117.

(b) During the active life of the facility, the owner or operator shall adjust the postclosure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with Section 66265.145. For owners or operators using the financial test or corporate guarantee, the postclosure care cost estimate shall be updated for inflation no later than 30 days after the close of the firm's fiscal year and before submission of updated information to the Department as specified in Section 66265.145(d)(5). The adjustment shall be made

by recalculating the postclosure cost estimate in current dollars or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its Survey of Current Business. As specified in subsections (b)(1) and (b)(2) of this section. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

(1) The first adjustment is made by multiplying the postclosure cost estimate by the inflation factor. The result is the adjusted postclosure cost estimate.

(2) Subsequent adjustments are made by multiplying the latest adjusted postclosure cost estimate by the latest inflation factor.

(c) During the active life of the facility, the owner or operator shall revise the postclosure cost estimate no later than 30 days after a revision to the postclosure plan which increases the cost of postclosure care. If the owner or operator has an approved postclosure plan, the postclosure cost estimate shall be revised no later than 30 days after the Department has approved the request to modify the plan, if the change in the postclosure plan increases the cost of postclosure care. The revised postclosure cost estimate shall be adjusted for inflation as specified in subsection (b) of this section.

(d) The owner or operator shall keep the following at the facility during the operating life of the facility: the latest

postclosure cost estimate prepared in accordance with subsections (a) and (c) of this section and, when this estimate has been adjusted in accordance with subsection (b) of this section, the latest adjusted postclosure cost estimate.

NOTE: Authority cited: Sections 208, 25150, 25159, 25159.5 and 25245, Health and Safety Code.
Reference: Section 25245, Health and Safety Code; 40 CFR Section 265.144.

66265.145. Financial Assurance for Postclosure Care.

An owner or operator of a facility with a hazardous waste disposal unit shall establish and demonstrate to the Department financial assurance for postclosure care of the disposal unit(s). The owner or operator shall choose from the options as specified in subsections (a) through (h) of this section.

(a) Postclosure trust fund.

(1) An owner or operator may satisfy the requirements of this section by establishing a postclosure trust fund which conforms to the requirements of this subsection and submitting an originally signed duplicate of the trust agreement to the Department. The trustee shall be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or state agency.

(2) The trust agreement shall be completed by utilizing only DHS Form 8100 (revised 1/91) which shall be provided by the Department. The trust agreement shall contain original signatures and shall be accompanied by a formal certification of acknowledgment. Schedule A of the trust agreement shall be updated within 60 days after a change in the amount of the current postclosure cost estimate covered by the agreement.

(3) Payments into the trust fund shall be made annually by the owner or operator over the ten (10) years beginning with the

establishment of the trust fund or over the remaining operating life of the facility as estimated in the closure plan, whichever period is shorter; this period is hereafter referred to as the "pay-in period." The payments into the postclosure trust fund shall be made as follows:

(A) The first payment shall be at least equal to the current postclosure cost estimate, except as provided in subsection (f) of this section, divided by the number of years in the pay-in period.

(B) Subsequent payments shall be made no later than 30 days after each anniversary date of the first payment. The amount of each subsequent payment shall be determined by this formula:

$$\text{Next payment} = \frac{CE - CV}{Y}$$

where CE is the current postclosure cost estimate, CV is the current value of the trust fund, and Y is the number of years remaining in the pay-in period.

(4) The owner or operator may accelerate payments into the trust fund or deposit the full amount of the current postclosure cost estimate at the time the fund is established. However, the value of the fund shall be maintained at no less than the value that the fund would have if annual payments were made as specified in subsection (a)(3) of this section.

(5) If the owner or operator establishes a postclosure trust fund after having used one or more alternate mechanisms specified in this article, the first payment shall be in at least the amount that the fund would contain if the trust fund were established initially and annual payments made as specified in subsection (a)(3) of this section.

(6) After the pay-in period is completed, whenever the current postclosure cost estimate changes during the operating life of the facility, the owner or operator shall compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator, within 60 days after the change in the cost estimate, shall either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current postclosure cost estimate, or obtain other financial assurance as specified in this article to cover the difference.

(7) During the operating life of the facility, if the value of the trust fund is greater than the total amount of the current postclosure cost estimate, the owner or operator may submit a written request to the Department for release of the amount in excess of the current postclosure cost estimate.

(8) If an owner or operator substitutes other financial assurance as specified in this article for all or part of the trust fund, the owner or operator may submit a written request to the Department for

release of the amount in excess of the current postclosure cost estimate covered by the trust fund.

(9) Within 60 days after receiving a request from the owner or operator for release of funds as specified in subsection (a)(7) or (8) of this section, the Department will instruct the trustee to release to the owner or operator such funds as the Department specifies in writing.

(10) Before final postclosure occurs, the value of the trust fund shall equal the amount of the current postclosure cost estimate. If the value of the fund is less than the amount of the current estimate, the owner or operator shall either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current postclosure cost estimate, or obtain other financial assurance, as specified in this article, to cover the difference.

(11) During the period of postclosure care, the Department shall approve a release of funds if the owner or operator demonstrates to the satisfaction of the Department that the value of the trust fund exceeds the remaining cost of postclosure care.

(12) An owner or operator or any other person authorized to conduct postclosure care may request reimbursements for postclosure expenditures by submitting itemized bills to the Department. Within 60 days after receiving bills for postclosure care activities, the Department will instruct the trustee to make reimbursements in those

amounts as the Department specifies in writing, if the Department determines that the postclosure expenditures are in accordance with the approved postclosure plan or otherwise justified. If the Department does not instruct the trustee to make such reimbursements, the owner or operator shall be provided a detailed written statement of reasons.

(13) The Department will agree to termination of the trust when:

(A) An owner or operator substitutes alternate financial assurance as specified in this article; or

(B) The Department releases the owner or operator from the requirements in accordance with subsection (i) of this section.

(b) Surety bond guaranteeing payment into a postclosure trust fund.

(1) An owner or operator may satisfy the requirements of this section by obtaining a surety bond which conforms to the requirements of this subsection and submitting the bond to the Department. The surety company issuing the bond shall, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury.

(2) The surety bond shall be completed by utilizing only DHS Form 8101 (revised 1/91) which shall be provided by the Department. The

surety bond shall contain original signatures and shall be accompanied by the documents specified in this subsection.

(3) The owner or operator who uses a surety bond to satisfy the requirements of this article shall also establish a standby trust fund. Under the terms of the bond, all payments made thereunder shall be deposited by the surety directly into the standby trust fund in accordance with instructions from the Department. This standby trust fund must meet the requirements specified in subsection (a) of this section, except that:

(A) An originally signed duplicate of the trust agreement (DHS Form 8100 revised 1/91) shall be submitted to the Department with the surety bond; and

(B) Until the standby trust fund is funded pursuant to the requirements of this section, the following are not required by these regulations:

1. Payments into the trust fund as specified in subsection (a) of this section;

2. Updating of Schedule A of the trust agreement to show current postclosure cost estimates as required by subsection (a)(2) of this section;

3. Annual valuations as required by the trust agreement; and

4. Notices of nonpayment as required by the trust agreement.

(4) The bond shall guarantee that the owner or operator shall:

(A) Fund the standby trust fund in an amount equal to the penal sum of the bond before the beginning of final closure of the facility; or

(B) Fund the standby trust fund in an amount equal to the penal sum within 15 days after an administrative order to begin final closure issued by the Department becomes final, or within 15 days after an order to begin final closure is issued by a U.S. district court or other court of competent jurisdiction; or

(C) Provide alternate financial assurance as specified in this article, and obtain the Department's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Department of a notice of cancellation of the bond from the surety.

(5) Under the terms of the bond, the surety shall become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.

(6) The penal sum of the bond shall be in an amount at least equal to the current postclosure cost estimate, except as provided in subsection (g) of this section.

(7) Whenever the current postclosure cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, shall either cause the penal sum to be increased to an amount at least equal to the current postclosure cost estimate and submit evidence of such increase to the Department, or obtain other financial assurance as specified in this article to cover the increase. Whenever the current postclosure cost estimate decreases, the penal sum may be reduced to the amount of the current postclosure cost estimate following written approval by the Department.

(8) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Department. Cancellation shall not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Department, as evidenced by the return receipts.

(9) The owner or operator may cancel the bond if the Department has given prior written consent based on receipt of evidence of alternate financial assurance as specified in this article.

(c) Postclosure letter of credit.

(1) An owner or operator may satisfy the requirements of this section by obtaining and submitting to the Department, an irrevocable standby letter of credit which conforms to the requirements of this subsection. The issuing institution shall be an entity which has the

authority to issue letters of credit and whose letter of credit operations are regulated and examined by a Federal or state agency.

(2) The letter of credit shall be completed as specified in the DHS Form 8103 (revised 1/91) which shall be provided by the Department. The letter of credit shall contain original signatures and shall be accompanied by the documents specified in this subsection.

(3) An owner or operator who uses a letter of credit to satisfy the requirements of this article shall also establish a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Department shall be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Department. This standby trust fund must meet the requirements of the trust fund specified in subsection (a) of this section, except that:

(A) An originally signed duplicate of the trust agreement (DHS Form 8100 revised 1/91) shall be submitted to the Department with the letter of credit; and

(B) Unless the standby trust fund is funded pursuant to the requirements of this section, the following are not required by these regulations:

1. Payments into the trust fund as specified in subsection (a) of this section;

2. Updating of Schedule A of the trust agreement to show current postclosure cost estimates as required by subsection (a)(2) of this section;

3. Annual valuations as required by the trust agreement; and

4. Notices of nonpayment as required by the trust agreement.

(4) The letter of credit shall be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution and date, and providing the following information: The Hazardous Waste Facility Identification Number, name and address of the facility and the amount of funds assured for postclosure care of the facility by the letter of credit.

(5) The letter of credit shall be irrevocable and issued for a period of at least one (1) year. The letter of credit shall provide that the expiration date will be automatically extended for a period of at least one (1) year unless, at least 120 days before the current expiration date, the issuing institution notifies both the owner or operator and the Department by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days shall begin on the date when both the owner or operator and the Department have received the notice, as evidenced by the return receipts.

(6) The letter of credit shall be issued in an amount at least equal to the current postclosure cost estimate, except as provided in subsection (g) of this section.

(7) Whenever the current postclosure cost estimate increases to an amount greater than the amount of the letter of credit during the operating life of the facility, the owner or operator, within 60 days after the increase, shall either cause the amount of the letter of credit to be increased so that it at least equals the current postclosure cost estimate and submit evidence of such increase to the Department, or obtain other financial assurance as specified in this article to cover the increase. Whenever the current postclosure cost estimate decreases during the operating life of the facility, the amount of the letter of credit may be reduced to the amount of the current postclosure cost estimate following written approval from the Department.

(8) During the period of postclosure care, the Department may approve a decrease in the amount of the letter of credit if the owner or operator demonstrates to the Department that the amount exceeds the remaining cost of postclosure care.

(9) Following a determination by the Department that the owner or operator has failed to perform postclosure care in accordance with the approved postclosure plan and other permit requirements, the Department may draw on the letter of credit.

(10) If the owner or operator does not establish alternate financial assurance as specified in this article and obtain written approval of such alternate assurance from the Department within 90 days after receipt by both the owner or operator and the Department of a notice from the issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the Department shall draw on the letter of credit. The Department shall delay drawing on the letter of credit in accordance with the provisions of this paragraph, if the issuing institution grants an extension of the term of the credit. During the last 30 days of any such extension the Department shall draw on the letter of credit if the owner or operator has failed to provide alternate financial assurance as specified in this article and obtain written approval of such assurance from the Department.

(11) The Department shall return the letter of credit to the issuing institution for termination when:

(A) An owner or operator substitutes alternate financial assurance as specified in this article; or

(B) The Department releases the owner or operator from the requirements in accordance with subsection (i) of this section.

(d) Postclosure insurance.

(1) An owner or operator may satisfy the requirements of this section by obtaining postclosure insurance which conforms to the

requirements of this subsection and submitting a certificate of such insurance to the Department. The owner or operator shall submit to the Department a letter from an insurer stating that the insurer is considering issuance of postclosure insurance conforming to the requirements of this section to the owner or operator. The owner or operator shall submit the certificate of insurance to the Department or establish other financial assurance as specified in this article. At a minimum, the insurer shall be licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more states.

(2) The certificate of insurance shall be completed by utilizing DHS Form 8104 (revised 1/91) which shall be provided by the Department. The certificate of insurance shall contain original signatures.

(3) The postclosure insurance policy shall be issued for a face amount at least equal to the current postclosure cost estimate, except as provided in subsection (g) of this section. The term "face amount" means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer shall not change the face amount, although the insurer's future liability shall be lowered by the amount of the payments.

(4) The postclosure insurance policy shall guarantee that funds shall be available to provide postclosure care of the facility whenever the postclosure period begins. The policy shall also guarantee that once postclosure care begins the insurer shall be

responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the Department, to such party or parties as the Department specifies.

(5) An owner or operator or any other person authorized to perform postclosure care may request reimbursement for postclosure care expenditures by submitting itemized bills to the Department. Within 60 days after receiving bills for postclosure care activities, the Department will instruct the insurer to make reimbursements in those amounts as the Department specifies in writing, if the Department determines that the postclosure expenditures are in accordance with the approved postclosure plan or otherwise justified. If the Department does not instruct the insurer to make such reimbursements, a detailed written statement of reasons will be provided to the owner or operator.

(6) The owner or operator shall maintain the policy in full force and effect until the Department consents to termination of the policy by the owner or operator as specified in subsection (d)(11) of this section. Failure to pay the premium, without substitution of alternate financial assurance as specified in the article, shall constitute a significant violation of these regulations, warranting such remedy as the Department deems necessary. Such violation shall be deemed to begin upon receipt by the Department of a notice of future cancellation, termination or failure to renew due to nonpayment of the premium, rather than upon the date of expiration.

(7) Each policy shall contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer, provided such consent is not unreasonably refused.

(8) The policy shall provide that the insurer may not cancel, terminate or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy shall, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate or fail to renew the policy by sending notice by certified mail to the owner or operator and the Department. Cancellation, termination or failure to renew shall not occur, however, during the 120 days beginning with the date of receipt of the notice by both the Department and the owner or operator, as evidenced by the return receipts. Cancellation, termination or failure to renew shall not occur and the policy shall remain in full force and effect in the event that on or before the date of expiration:

(A) The Department deems the facility abandoned; or

(B) Interim status is terminated or revoked; or

(C) Closure is ordered by the Department or any other state or federal agency or a U.S. district court or other court of competent jurisdiction; or

(D) The owner or operator is named as debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code; or

(E) The premium due is paid.

(9) Whenever the current postclosure cost estimate increases to an amount greater than the face amount of the policy during the operating life of the facility, the owner or operator, within 60 days after the increase, shall either cause the face amount to be increased to an amount at least equal to the current postclosure cost estimate and submit evidence of such increase to the Department, or obtain other financial assurance as specified in this article to cover the increase. Whenever the current postclosure cost estimate decreases during the operating life of the facility, the face amount may be reduced to the amount of the current postclosure cost estimate following written approval by the Department.

(10) Commencing on the date that liability to make payments pursuant to the policy accrues, the insurer shall thereafter annually increase the face amount of the policy. Such increase shall be equivalent to the face amounts of the policy, less any payments made, multiplied by an amount equivalent to 85 percent of the most recent investment rate or of the equivalent coupon-issue yield announced by the U.S. Treasury for 26-week Treasury securities.

(11) The Department will give written consent to the owner or operator that the insurance policy may be terminated when:

(A) An owner or operator substitutes alternate financial assurance as specified in this article; or

(B) The Department releases the owner or operator from the requirements of this section in accordance with subsection (i) of this section.

(e) Financial test and corporate guarantee for postclosure care.

(1) An owner or operator may satisfy the requirements of this section by demonstrating that he or she passes a financial test as specified in this section. To pass this test the owner or operator shall meet the criteria either of subsection (e)(1)(A) or (B) of this section:

(A) The owner or operator shall have:

1. Two of the following three ratios: a ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and

2. Net working capital and tangible net worth each at least six times the sum of the current closure and postclosure cost estimates and the current plugging and abandonment cost estimates; and

3. Tangible net worth of at least $10 million; and

4. Assets in the United States amounting to at least 90 percent of total assets or at least six times the sum of the current closure and postclosure cost estimates and the current plugging and abandonment cost estimates.

(B) The owner or operator shall have:

1. A current rating for his or her most recent bond issuance of AAA, AA, A or BBB as issued by Standard and Poor's or Aaa, Aa, A or Baa as issued by Moody's; and

2. Tangible net worth at least six times the sum of the current closure and postclosure cost estimates and the current plugging and abandonment cost estimates; and

3. Tangible net worth of at least $10 million; and

4. Assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the current closure and postclosure cost estimates and the current plugging and abandonment cost estimates.

(2) The phrase "current closure and postclosure cost estimates" as used in subsection (e)(1) of this section refers to the cost estimates required to be shown in paragraphs 1 through 4 of the letter from the owner's or operator's chief financial officer. The phrase "current plugging and abandonment cost estimates" as used in subsection (e)(1) of this section refers to the cost estimates

required to be shown in paragraphs 1 through 4 of the letter from the owner's or operator's chief financial officer.

(3) To demonstrate that this test can be met, the owner or operator shall submit the following items to the Department:

(A) A letter signed by the owner's or operator's chief financial officer and worded as specified in DHS Form 8110 (revised 1/91) which shall be provided by the Department. The letter shall be on the owner or operator's official letterhead stationery, and shall contain an original signature, and

(B) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year; and

(C) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:

1. The independent certified public accountant has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

2. In connection with that procedure, no matters came to the independent certified public accountant's attention which caused him or her to believe that the specified data should be adjusted.

(5) After the initial submission of items specified in subsection (e)(3) of this section, the owner or operator shall send updated information to the Department within 90 days after the close of each succeeding fiscal year. This information shall consist of all three items specified in subsection (e)(3) of this section.

(6) If the owner or operator no longer meets the requirements of subsection (e)(1) of this section, notice shall be sent to the Department of intent to establish alternate financial assurance as specified in this article. The notice shall be sent by certified mail within 90 days after any occurrence that prevents the owner or operator from meeting the requirements. The owner or operator shall provide the alternate financial assurance within 120 days after any such occurrence.

(7) The Department may, based on a reasonable belief that the owner or operator may no longer meet the requirements of subsection (e)(1) of this section, require reports of financial condition at any time from the owner or operator in addition to those specified in subsection (e)(3) of this section. If the Department finds, on the basis of such reports or other information, that the owner or operator no longer meets the requirements of subsection (e)(1) of this section, the owner or operator shall provide alternate financial assurance as specified in this article within 30 days after notification of such a finding.

(8) The Department may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified

public accountant in his or her report on examination of the owner's or operator's financial statements (see subsection (e)(3)(B) of this section). An adverse opinion or a disclaimer of opinion shall be cause for disallowance. The Department will evaluate other qualifications on an individual basis. The owner or operator shall provide alternate financial assurance as specified in this article within 30 days after notification of the disallowance.

(9) During the period of postclosure care, the Department may approve a decrease in the current postclosure cost estimate for which this test demonstrates financial assurance if the owner or operator demonstrates to the Department that the amount of the cost estimate exceeds the remaining cost of postclosure care.

(10) The owner or operator is no longer required to submit the items specified in subsection (e)(3) of this section when:

(A) An owner or operator substitutes alternate financial assurance as specified in this article; or

(B) The Department releases the owner or operator from the requirements in accordance with subsection (i) of this section.

(11) An owner or operator may meet the requirements of this section by obtaining a written guarantee, hereafter referred to as "corporate guarantee." The guarantor shall be the parent corporation as defined in Section 66260.10, of the owner or operator. The guarantor shall meet the requirements for owners or operators in

subsection (e)(1) through (9) of this section and shall comply with the terms of the corporate guarantee. The corporate guarantee shall be completed as specified in DHS Form 8106 (revised 1/91) which shall be provided by the Department. The corporate guarantee shall accompany the items sent to the Department as specified in subsections (e)(3) of this section. The terms of the corporate guarantee shall provide that:

(A) If the owner or operator fails to perform postclosure care of a facility covered by the corporate guarantee in accordance with the postclosure plan and other interim status requirements whenever required to do so, the guarantor shall do so or establish a trust fund as specified in subsection (a) of this section in the name of the owner or operator.

(B) The corporate guarantee shall remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the Department. Cancellation shall not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Department as evidenced by the return receipts.

(C) If the owner or operator fails to provide alternate financial assurance as specified in this article and obtain the written approval of such alternate assurance from the Department within 90 days after receipt by both the owner or operator and the Department of a notice of cancellation of the corporate guarantee

from the guarantor, the guarantor shall provide such alternate financial assurance in the name of the owner or operator.

(f) Alternative Financial Mechanism for Postclosure Care.

(1) The owner or operator may establish financial assurance for postclosure care for facilities which manage solely non-RCRA hazardous waste by means of a financial mechanism other than as specified in subsections (a) through (e) of this section, provided that prior to its use the mechanism has been submitted to and approved by the Department. The mechanism shall be at least equivalent to the financial mechanisms specified in subsections (a) through (f) of this section and Section 66265.146. The Department shall evaluate the equivalency of a mechanism principally in terms of:

(A) Certainty of the availability of funds for the required postclosure care activities; and

(B) The amount of funds that will be made available.

The Department may also consider other factors deemed to be appropriate, and may require the owner or operator to submit additional information as is deemed necessary to make the determination.

(2) The owner or operator shall submit to the Department the proposed mechanism together with a letter requesting that the

proposed mechanism be considered acceptable for meeting the requirements of this section. The submission shall include the following information:

(A) Name, address and phone number of the issuing institution; and

(B) Hazardous waste facility identification number, name, address and postclosure cost estimate for each facility; and

(C) The amount of funds for postclosure care to be assured for each facility by the proposed mechanism; and

(D) The terms of the proposed mechanism (period covered, renewal/extension, cancellation).

(3) The Department shall notify the owner or operator in writing of the determination made regarding the proposed mechanism's acceptability in lieu of the financial assurance mechanisms specified in subsections (a) through (e) of this section.

(4) If a proposed mechanism is found acceptable, the owner or operator shall submit a fully executed document to the Department. The document shall contain original signatures and shall be accompanied by a formal certification of acknowledgment.

(5) If a proposed mechanism is found acceptable except for the amount of funds, the owner or operator shall either increase the

amount of the mechanism or obtain other financial assurance as specified in subsections (a) through (f) of this section. The amount of funds available through the combination of mechanisms shall at least equal the current postclosure cost estimate.

(g) Use of multiple financial mechanisms. An owner or operator may satisfy the requirements of this section by establishing more than one financial mechanism per facility. The mechanisms shall be as specified in subsections (a) through (f) of this section, except that it is the combination of mechanisms, rather than the single mechanism, which shall provide financial assurance for an amount at least equal to the current postclosure cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, he or she may use the trust fund as the standby trust fund for the other mechanisms. A single standby trust fund may be established for two or more mechanisms. If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances under this subsection, the owner or operator shall specify at least one such assurance as "primary" coverage and shall specify the other as "excess" coverage. The Department may use any or all of the mechanisms to provide for postclosure care of the facility.

(h) Use of a financial mechanism for multiple facilities for postclosure care. An owner or operator may use one or more of the financial assurance mechanisms specified in subsections (a) through (f) of this section and Section 66265.146 to meet the requirements of this section for more than one facility. Evidence of financial

assurance submitted to the Department shall include a list showing, for each facility, the Hazardous Waste Facility Identification Number, name, address and the amount of funds for postclosure care assured by the mechanism. The amount of funds available through the mechanism shall be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for each facility. In directing funds available through the mechanism for postclosure care of any of the facilities covered by the mechanism, the Department may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.

(i) Release of the owner or operator from Financial Assurance requirements for postclosure care.

(1) Within 60 days after receiving certifications from the owner or operator and an independent registered professional engineer that all postclosure care requirements have been completed in accordance with the approved postclosure plan, the Department, at the request of the owner or operator, will notify the owner or operator in writing that he or she is no longer required by this section to maintain financial assurance for postclosure care of that unit, unless the Department has reason to believe that postclosure care has not been in accordance with the approved postclosure plan. The Department shall provide the owner or operator a detailed written statement of any such reason to believe that postclosure care has not been in accordance with the approved postclosure plan.

(2) When transfer of ownership or operational control of a facility occurs, and the new owner or operator has demonstrated to the satisfaction of the Department that the owner or operator is complying with the financial requirements of this article, the Department shall notify the previous owner or operator in writing that they are no longer required to maintain financial assurance for postclosure care of that particular facility.

NOTE: Authority cited: Sections 208, 25150, 25159, 25159.5 and 25245, Health and Safety Code.
Reference: Section 25245, Health and Safety Code; 40 CFR Section 265.145.

66265.146. Use of a Mechanism for Financial Assurance of Both Closure and Post-Closure Care.

An owner or operator may satisfy the requirements for financial assurance for both closure and post-closure care for one or more facilities by using a trust fund, surety bond, letter of credit, insurance, financial test, or corporate guarantee or alternative mechanism, that meets the specifications for the mechanism in both Sections 66265.143 and 66265.145. The amount of funds available through the mechanism shall be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for financial assurance of closure and of post-closure care.

NOTE: Authority cited: Sections 208, 25150, 25159, 25159.5 and 25245, Health and Safety Code.
Reference: Section 25245, Health and Safety Code; 40 CFR Section 265.146.

66265.147. Liability Requirements.

(a) Coverage for sudden accidental occurrences. An owner or operator of each hazardous waste transfer, treatment, storage or disposal facility or a group of such facilities, shall demonstrate to the Department financial responsibility for bodily injury and property damage to third parties caused by sudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator shall have and maintain liability coverage for sudden accidental occurrences in the amount of at least $1 million per facility per occurrence with an annual aggregate of at least $2 million per facility, exclusive of legal defense costs. This liability coverage may be demonstrated, as specified in subsections (a)(1), (2), (3), (4), (5), (6) or (7) of this section:

(1) An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in subsection (f) of this section.

(2) An owner or operator may meet the requirements of this section by passing a financial test or using the guarantee for liability coverage as specified in subsections (g) and (h) of this section.

(3) An owner or operator may meet the requirements of this section by obtaining a letter of credit for liability coverage as specified in subsection (i) of this section.

(4) An owner or operator may meet the requirements of this section by obtaining a payment bond for liability coverage as specified in subsection (j) of this section.

(5) An owner or operator may meet the requirements of this section by obtaining a trust fund for liability coverage as specified in subsection (k) of this section.

(6) An owner or operator may meet the requirements of this section by obtaining an alternative financial mechanism, as described in subsection (l) of this section.

(7) An owner or operator may demonstrate the required liability coverage through use of combinations of insurance, financial test, guarantee, letter of credit, payment bond and trust fund, except that the owner or operator may not combine a financial test covering part of the liability coverage requirement with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor. The amounts of coverage demonstrated shall total at least the minimum amounts required by this section. If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances under this subsection, the owner or operator shall specify at least one such assurance as "primary" coverage and shall specify the other assurance as "excess" coverage.

(8) An owner or operator shall notify the Department in writing within 30 days (i) whenever a claim for bodily injury or property

damages caused by the operation of a hazardous waste transfer, treatment, storage or disposal facility is made against the owner or operator or an instrument providing financial assurance for liability coverage under this section and (ii) whenever the amount of financial assurance for liability coverage under this section provided by a financial instrument authorized by subsections (a)(1) through (a)(7) of this section is reduced.

(b) Coverage for nonsudden accidental occurrences. An owner or operator of a surface impoundment as defined in Section 66260.10, landfill as defined in Section 66260.10, or land treatment facility as defined in Section 66260.10 which is used to manage hazardous waste, or a group of such facilities, shall demonstrate to the Department financial responsibility for bodily injury and property damage to third parties caused by nonsudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator shall have and maintain liability coverage for nonsudden accidental occurrences in the amount of at least $3 million per occurrence per facility, as defined in Section 66260.10 with an annual aggregate of at least $6 million per facility, exclusive of legal defense costs. An owner or operator who must meet the requirements of this section may combine the required per-occurrence coverage levels for sudden and nonsudden accidental occurrences into a single per-occurrence level, and combine the required annual aggregate coverage levels for sudden and nonsudden accidental occurrences into a single annual aggregate level. Owners or operators who combine coverage levels for sudden and nonsudden accidental occurrences shall maintain liability coverage in the

amount of at least $4 million per occurrence per facility and $8 million per facility annual aggregate. This liability coverage may be demonstrated as specified in subsections (b)(1), (2), (3), (4), (5), (6) or (7) of this section.

(1) An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in subsection (f) of this section.

(2) An owner or operator may meet the requirements of this section by passing a financial test or using the guarantee for liability coverage as specified in sections (g) and (h) of this section.

(3) An owner or operator may meet the requirements of this section by obtaining a letter of credit for liability coverage as specified in subsection (i) of this section.

(4) An owner or operator may meet the requirements of this section by obtaining a payment bond for liability coverage as specified in subsection (j) of this section.

(5) An owner or operator may meet the requirements of this section by obtaining a trust fund for liability coverage as specified in subsection (k) of this section.

(6) An owner or operator may meet the requirements of this section by obtaining an alternative financial mechanism, as described in subsection (1) of this section.

(7) An owner or operator may demonstrate the required liability coverage through use of combinations of insurance, financial test, guarantee, letter of credit, payment bond and trust fund, except that the owner or operator may not combine a financial test covering part of the liability coverage requirements with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor. The amounts of coverage demonstrated shall total at least the minimum amounts required by this section. If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances under this subsection, the owner or operator shall specify at least one such assurance as "primary" coverage and shall specify the other assurance as "excess" coverage.

(8) An owner or operator shall notify the Department in writing within 30 days (i) whenever a claim for bodily injury or property damages caused by the operation of a hazardous waste transfer, treatment, storage, or disposal facility is made against the owner or operator or an instrument providing financial assurance for liability coverage under this section and (ii) whenever the amount of financial assurance for liability coverage under this section provided by a financial instrument authorized by subsections (b)(1) through (b)(7) of this section is reduced.

(c) Request for variance. If an owner or operator can demonstrate to the satisfaction of the Department that the levels of financial responsibility required by subsection (a) or (b) of this section or Section 67450.5 are not consistent with the degree and duration of risk associated with transfer, treatment, storage, or disposal at the facility or group of facilities, the owner or operator may obtain a variance from the Department. The request for a variance shall be submitted in writing to the Department. If granted, the variance shall take the form of an adjusted level of required liability coverage, such level to be based on the Department's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. The Department may require an owner or operator who requests a variance to provide such technical and engineering information as is deemed necessary by the Department to determine a level of financial responsibility other than that required by subsection (a) or (b) of this section or Section 67450.5. The Department will process a variance request as if it were a permit modification request under Section 66270.41(a)(5) of this division and subject to the procedures of Section 66271.4 of this division. Notwithstanding any other provision, the Department may hold a public hearing at its discretion or whenever it finds, on the basis of requests for a public hearing, a significant degree of public interest is expressed in a tentative decision to grant a variance.

(d) Adjustments by the Department. If the Department determines that the levels of financial responsibility required by subsections (a) or (b) of this section or Section 67450.5 are not consistent with

the degree and duration of risk associated with transfer, treatment, storage or disposal at the facility or group of facilities, the Department may adjust the level of financial responsibility required under subsections (a) or (b) of this section or Section 67450.5 as may be necessary to protect human health and the environment. This adjusted level shall be based on the Department's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. In addition, if the Department determines that there is a significant risk to human health and the environment from nonsudden accidental occurrences resulting from the operations of a facility that is not a surface impoundment, landfill or land treatment facility, the Department shall require that an owner or operator of the facility comply with subsection (b) of this section. An owner or operator shall furnish to the Department, within a reasonable time, any information which the Department requests to determine whether cause exists for such adjustments of level or type of coverage. The Department shall process an adjustment of the level of required coverage as if it were a permit modification under Section 66270.41(a)(5) of this division and subject to the procedures of 66271.4 of this division. Notwithstanding any other provision, the Department may hold a public hearing at its discretion or whenever, on the basis of requests for a public hearing, a significant degree of public interest is expressed in a tentative decision to adjust the level or type of required coverage.

(e) Period of coverage. Within 60 days after receiving certifications from the owner or operator and an independent

registered professional engineer that final closure has been completed in accordance with the approved closure plan, the Department shall notify the owner or operator in writing that he or she is no longer required by this section to maintain liability coverage for that facility, unless the Department has reason to believe that closure has not been in accordance with the approved closure plan.

(f) Liability Insurance.

(1) An owner or operator may demonstrate the required liability coverage by having liability insurance, as specified in this section, and submitting evidence of such insurance to the Department.

(2) At a minimum, the insurer shall be licensed to transact the business of insurance, or be eligible to provide insurance as an excess or surplus lines insurer, in one or more states.

(3) Each insurance policy shall be amended by attachment of the Hazardous Waste Facility Liability Endorsement (DHS Form 8108) or evidenced by a Certificate of Liability Insurance (DHS Form 8107). If requested by the Department, the owner or operator shall provide a copy of the insurance policy; the copy of the insurance policy shall contain original signatures.

(A) The wording of the liability endorsement shall conform to the wording specified in Section 66264.151(i), and the document shall be completed by utilizing only DHS Form 8108 which shall be provided by

the Department. The liability endorsement shall contain original signatures and shall be submitted to the Department pursuant to subsection (c)(1) of this section.

(B) The certificate of insurance shall be completed by utilizing only DHS Form 8107 (revised 1/91) which shall be provided by the Department. The certificate of insurance shall contain original signatures and shall be submitted to the Department pursuant to subsection (f)(1) of this section.

(4) An owner or operator of a new facility shall submit the liability endorsement or certificate of insurance to the Department at least 60 days before the date on which hazardous waste is first received for transfer, treatment, storage or disposal. The insurance shall be effective before this initial receipt of hazardous waste.

(g) Financial test for liability coverage.

(1) An owner or operator may satisfy the requirements of this section by demonstrating that he or she passes a financial test as specified in this subsection. To pass this test the owner or operator shall meet the criteria of subsection (g)(1)(A) or (B) of this section:

(A) The owner or operator shall have:

1. Net working capital and tangible net worth each at least six times the amount of liability coverage to be demonstrated by this test; and

2. Tangible net worth of at least $10 million; and

3. Assets in the United States amounting to either: (1) At least 90 percent of total assets; or (2) at least six times the amount of liability coverage to be demonstrated by this test.

(B) The owner or operator shall have:

1. A current rating for his or her most recent bond issuance of AAA, AA, A or BBB as issued by Standard and Poor's, or Aaa, Aa, A or Baa as issued by Moody's; and

2. Tangible net worth of at least $10 million; and

3. Tangible net worth at least six times the amount of liability coverage to be demonstrated by this test; and

4. Assets in the United States amounting to either: (1) At least 90 percent of total assets; or (2) at least six times the amount of liability coverage to be demonstrated by this test.

(2) The phrase "amount of liability coverage" as used in subsection (g) (1) of this section refers to the annual aggregate

amounts for which coverage is required under subsections (a) and (b) of this section and Section 67450.5.

(3) To demonstrate that this test can be met, the owner or operator shall submit the following items to the Department:

(A) A letter signed by the owner's or operator's chief financial officer and worded as specified in DHS Form 8109 (revised 1/91) which shall be provided by the Department. The letter shall be on the official letterhead stationery of the owner or operator, and shall contain an original signature. An owner or operator may use the financial test to demonstrate both assurance for closure or postclosure care, as specified by Sections 66264.143(f), 66264.145(f), 66265.143(e), 66265.145(e) and Section 67450.5, 67450.13 and liability coverage. If an owner or operator is using the financial test to demonstrate both forms of financial responsibility, a separate letter is not required. AS SPECIFIED IN SECTIONS 66264.147(a), 66264.147(b), 66265.147(a), 66265.147(b) 67450.14 AND 67450.15.

(B) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year.

(C) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:

1. The independent certified public accountant has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end

financial statements for the latest fiscal year with the amounts in such financial statements; and

2. In connection with that procedure, no matters came to the independent certified public accountant's attention which caused him or her to believe that the specified data should be adjusted.

(4) After the initial submission of items specified in subsection (g)(3) of this section, the owner or operator shall send updated information to the Department within 90 days after the close of each succeeding fiscal year. This information shall consist of all three items specified in subsection (g)(3) of this section.

(5) If the owner or operator no longer meets the requirements of subsection (g)(1) of this section, liability coverage shall be obtained for the entire amount of coverage as described in this section by use of the financial mechanisms described in this section. Notice shall be sent to the Department of the owner's or operator's intent to obtain the required insurance; notice shall be sent by either registered mail or by certified mail within 90 days after any occurrence that prevents the owner or operator from meeting the test requirements. Evidence of liability coverage shall be submitted to the Department within 90 days after any occurrence that prevents the owner or operator from meeting the requirements.

(6) The Department may, based on a reasonable belief that the owner or operator no longer meets the requirements of subsection (g)(1) of this section, require reports of financial condition at any

time from the owner or operator in addition to those specified in subsection (g)(3) of this section. If the Department finds, on the basis of such reports or other information, that the owner or operator no longer meets the requirements of subsection (g)(1) of this section, the owner or operator shall provide alternate financial assurance for closure and postclosure care and evidence of the required liability coverage as specified in this article within 30 days after notification of such a finding.

(7) The Department may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his or her report on examination of the owner's or operator's financial statements (see subsection (g)(3)(B) of this section). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The Department will evaluate other qualifications on an individual basis. The owner or operator shall provide evidence of liability coverage for the entire amount required as specified in this article within 30 days after notification of disallowance.

(8) During the period of postclosure care, the Department shall approve a decrease in the current postclosure cost estimate for which this test demonstrates financial assurance if the owner or operator demonstrates to the Department that the amount of the cost estimate exceeds the remaining cost of postclosure care.

(9) The owner or operator is no longer required to submit the items specified in subsection (g)(3) of this section when:

(A) An owner or operator substitutes alternate financial assurance for closure and postclosure care and evidence of liability coverage as specified in this article; or

(B) The Department releases the owner or operator from the requirements of this section in accordance with Sections 66265.143(i), 66265.143(i) and 66265.147(f).

(h) Guarantee for liability coverage.

(1) Subject to subsection (h)(2) of this section, an owner or operator may meet the requirements of this section by obtaining a written corporate guarantee, hereafter referred to as "corporate guarantee." The guarantor shall be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a "substantial business relationship" with the owner or operator. The guarantor shall meet the requirements for owners or operators in subsections (g)(1) through (g)(9) of this section. The wording of the corporate guarantee shall conform to the wording specified and provided by the Department. A certified copy of the corporate guarantee shall accompany the items sent to the Department as specified in subsection (g)(3) of this section. One of these items must be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, this letter shall describe the value received in consideration of the corporate guarantee. If the guarantor is a firm with a "substantial business relationship" with

the owner or operator, this letter shall describe this "substantial business relationship" and the value received in consideration of the corporate guarantee. The term of the corporate guarantee shall provide that:

(A) If the owner or operator fails to satisfy a judgment based on a determination of liability for bodily injury or property damage to third parties caused by sudden or nonsudden accidental occurrences (or both as the case may be), arising from the operation of facilities covered by this guarantee, or fails to pay an amount agreed to in settlement of claims arising from or alleged to arise from such injury or damage, the guarantor shall do so up to the limits of coverage.

(B) The corporate guarantee shall remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the Department. This corporate guarantee shall not be terminated unless and until the Department approves alternate liability coverage complying with Section 66264.147 and/or Section 66265.147.

(2)(A) In the case of corporations incorporated in states other than California, a guarantee may be used to satisfy the requirements of this section only if the Attorney General or Insurance Commissioner of the State in which the guarantor is incorporated, has submitted a written statement to the Department that a corporate guarantee executed as described in this section is a legally valid and enforceable obligation in that State.

(B) In the case of corporations incorporated outside the United States, a corporate guarantee may be used to satisfy the requirements of this section only if (A) the non-U.S. corporation has identified a registered agent for service of process in each State in which a facility covered by the corporate guarantee is located and in the State in which it has its principal place of business, and if (B) the Attorney General or Insurance Commissioner of each State in which a facility covered by the corporate guarantee is located and the State in which the guarantor corporation has its principal place of business, has submitted a written statement to the Department that a corporate guarantee executed as described in this section and Section 66264.151(h)(2) is a legally valid and enforceable obligation in that State.

(i) Letter of credit for liability coverage:

(1) An owner or operator may satisfy the requirements of this section by obtaining an irrevocable standby letter of credit that conforms to the requirements of this subsection and submitting a copy of the letter of credit to the Department.

(2) The financial institution issuing the letter of credit must be an entity that has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by a Federal or state agency.

(3) The letter of credit shall be worded as specified in DHS Form 8103 (revised 1/91) which shall be provided by the Department.

(j) Payment bond for liability coverage:

(1) An owner or operator may satisfy the requirements of this section by obtaining a payment bond that conforms to the requirements of this subsection and submitting a copy of the bond to the Department.

(2) The surety company issuing the bond shall be among those listed as acceptable sureties on Federal bonds in the most recent Circular 570 of the U.S. Department of the Treasury.

(3) The payment bond shall be completed by utilizing DHS Form 8112 (revised 1/91) which shall be provided by the Department.

(4) A payment bond may be used to satisfy the requirements of this section only if the Attorney General or Insurance Commissioner of the state in which the surety is incorporated, has submitted a written statement to the Department that a payment bond executed as described in this section and is a legally valid and enforceable obligation in that State.

(k) Trust fund for liability coverage:

(1) An owner or operator may satisfy the requirements of this section by establishing a trust fund that conforms to the requirements of this subsection and submitting an originally signed duplicate of the trust agreement to the Department.

(2) The trustee shall be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or state agency.

(3) The trust fund for liability coverage shall be funded for the full amount of the liability coverage to be provided by the trust fund before it may be relied upon to satisfy the requirements of this section. If at any time after the trust fund is created the amount of funds in the trust fund is reduced below the full amount of the liability coverage to be provided, the owner or operator, by the anniversary date of the establishment of the fund, shall either add sufficient funds to the trust fund to cause its value to equal the full amount of liability coverage to be provided, or obtain other financial assurance as specified in this section to cover the difference. For purposes of this subsection, "the full amount of the liability coverage to be provided" means the amount of coverage for sudden and/or nonsudden occurrences required to be provided by the owner or operator by this section, less the amount of financial assurance for liability coverage that is being provided by other financial assurance mechanisms being used to demonstrate financial assurance by the owner or operator.

(4) The trust agreement shall be completed by utilizing DHS Form 8100 (revised 1/91) which shall be provided by the Department.

(1) Liability Coverage--Alternative Mechanism. (1) An owner or operator of facilities which manage solely non-RCRA hazardous waste may demonstrate the required liability coverage by means of a

mechanism other than as specified in subsections (a) and (b) of this section , provided that prior to its use the proposed mechanism has been submitted to and approved by the Department. The mechanism shall be at least equivalent to the mechanisms specified in subsections (a) and (b) of this section. The Department shall evaluate the equivalency of a mechanism principally in terms of:

(A) Certainty of the availability of funds for the required liability coverage; and

(B) The amount of funds that will be made available.

The Department may also consider other factors deemed to be appropriate, and may require the owner or operator to submit additional information as is deemed necessary to make the determination.

(2) The owner or operator shall submit to the Department the proposed mechanism together with a letter requesting that the alternate mechanism be considered acceptable for meeting the requirements of subsections (a) and (b) of this section and Section 67450.5. The submission shall include the following information:

(A) The name, address and phone number of the issuing institution; and

(B) Hazardous waste facility identification number, name, address and the amount of liability coverage to be provided for each facility; and

(C) The terms of the proposed mechanism (period of coverage, renewal/extension, cancellation).

(3) The Department shall notify the owner or operator in writing of the determination made regarding the proposed mechanism's acceptability in lieu of the other mechanisms specified in subsections (a) and (b) of this section.

(4) If a proposed mechanism is found acceptable, the owner or operator shall submit a fully executed document to the Department. The document shall contain original signatures and shall be accompanied by a formal certification of acknowledgment.

(5) If a proposed mechanism is found acceptable except for the amount of coverage, the owner or operator shall either increase the coverage or obtain other liability coverage as specified in subsections (a) and (b) of this section. The amount of coverage available through the combination of mechanisms shall at least equal the amounts required by subsections (a) and (b) of this section.

NOTE: Authority cited: Sections 208, 25150, 25159, 25159.5 and 25245, Health and Safety Code.
Reference: Section 25245, Health and Safety Code; 40 CFR Section 265.147.

66265.148. Incapacity of Owners or Operators, Guarantors, or Financial Institutions.

(a) An owner or operator shall notify the Department by certified mail of the commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming the owner or operator as debtor, within 10 days after commencement of the proceeding. A guarantor of a guarantee as specified in Section 66265.143 (e) and 66265.145 (e) shall make such a notification if named as debtor, as required under the terms of the guarantee.

(b) An owner or operator who fulfills the financial assurance or liability coverage requirements by obtaining a trust fund, surety bond, letter of credit, or insurance policy shall be deemed to be without the required financial assurance or liability coverage in the event of bankruptcy of the trustee or issuing institution, or a suspension or revocation of the authority of the trustee institution to act as trustee or of the institution issuing the surety bond, letter of credit, or insurance policy to issue such instruments. The owner or operator shall establish other financial assurance or liability coverage within 60 days after such an event.

NOTE: Authority cited: Sections 208, 25150, 25159, 25159.5 and 25245, Health and Safety Code.
Reference: Section 25245, Health and Safety Code; 40 CFR Section 265.148.

Article 9. Use and Management of Containers

66265.170. Applicability.

The regulations in this article apply to owners and operators of all hazardous waste facilities that transfer or store containers of hazardous waste, except as Section 66265.1 provides otherwise.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.170.

66265.171. Condition of Containers.

If a container holding hazardous waste is not in good condition (e.g., severe rusting, apparent structural defects), or if it begins to leak, the owner or operator shall transfer the hazardous waste from this container to a container that is in good condition, or manage the waste in some other way that complies with the requirements of this chapter.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.171.

66265.171. Condition of Containers.

If a container holding hazardous waste is not in good condition (e.g., severe rusting, apparent structural defects), or if it begins to leak, the owner or operator shall transfer the hazardous waste from this container to a container that is in good condition, or manage the waste in some other way that complies with the requirements of this chapter.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.171.

66265.172. Compatibility of Waste with Containers.

The owner or operator shall use a container made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous waste to be transferred or stored, so that the ability of the container to contain the waste is not impaired.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.172.

66265.173. Management of Containers.

(a) A container holding hazardous waste shall always be closed during transfer and storage, except when it is necessary to add or remove waste.

(b) A container holding hazardous waste shall not be opened, handled, transferred or stored in a manner which may rupture the container or cause it to leak. Re-use of containers for transportation shall comply with the requirements of the U.S. Department of Transportation regulations, including those set forth in 49 CFR Section 173.28.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.173.

66265.174. Inspections.

The owner or operator shall inspect areas used for container storage or transfer, at least weekly, looking for leaking containers and for deterioration of containers and the containment system caused by corrosion or other factors.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.174.

66265.175 [Reserved]

66265.176. Special Requirements for Ignitable or Reactive Waste.

Containers holding ignitable or reactive waste shall be located at least 15 meters (50 feet) from the facility's property line.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.176.

66265.177. Special Requirements for Incompatible Wastes.

(a) Incompatible wastes, or incompatible wastes and materials (see Appendix V for examples) shall not be placed in the same container, unless Section 66265.17 (b) is complied with.

(b) Hazardous waste shall not be placed in an unwashed container that previously held an incompatible waste or material (see Appendix V for examples).

(c) A container holding a hazardous waste that is incompatible with any waste or other materials transferred or stored nearby in other containers, piles, open tanks, or surface impoundments shall be separated from the other materials or protected from them by means of a dike, berm, wall, or other device.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.177.

Article 10. Tank Systems

66265.190. Applicability.

The regulations of this article apply to owners and operators of facilities that use tank systems for transferring, storing or treating hazardous waste, except as otherwise provided in subsections (a) and (b) of this section or in Section 66265.1 of this chapter.

(a) Tank systems that are used to transfer, store or treat hazardous waste containing no free liquids and that are situated inside a building with an impermeable floor are exempted from the requirements of Section 66265.193 of this article. To demonstrate the absence or presence of free liquids in the stored/treated waste, EPA Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Publication No. SW-846) shall be used.

(b) Tank systems, including sumps, as defined in Section 66260.10, that serve as part of a secondary containment system to collect or contain releases of hazardous wastes are exempted from the requirements in Section 66265.193(a).

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.190.

66265.191. Assessment of Existing Tank System's Integrity.

(a) For each tank system which was in existence on or before July 14, 1986, that does not have secondary containment meeting the requirements of Section 66265.193, the owner or operator shall determine that the tank system is not leaking or is unfit for use. Except as provided in subsection (c) of this section, the owner or operator shall obtain and keep on file at the facility a written assessment reviewed and certified by an independent, qualified, professional engineer, registered in California, in accordance with Section 66270.11(d), that attests to the tank system's integrity by the dates indicated below:

(1) January 12, 1988, for tanks containing RCRA hazardous wastes, unless the owner/operator is a conditionally exempt small quantity generator as defined in 40 CFR Section 261.5, or a 100 to 1000 kg per month generator as defined in 40 CFR Section 265.201; or

(2) One year after the effective date of these regulations, for tanks containing only non-RCRA hazardous wastes, and tanks containing RCRA hazardous wastes, if the owner/operator is a conditionally exempt small quantity generator or is a 100 to 1000 kg per month generator.

(b) This assessment shall determine that the tank system is adequately designed and has sufficient structural strength and compatibility with the waste(s) to be transferred, stored or treated

to ensure that it will not collapse, rupture, or fail. At a minimum, this assessment shall consider the following:

(1) Design standard(s), if available, according to which the tank and ancillary equipment were constructed;

(2) Hazardous characteristics of the waste(s) that have been or will be handled;

(3) Existing corrosion protection measures;

(4) Documented age of the tank system, if available, (otherwise, an estimate of the age); and

(5) Results of a leak test, internal inspection, or other tank integrity examination such that:

(A) For non-enterable underground tanks, this assessment shall consist of a leak test that is capable of taking into account the effects of temperature variations, tank end deflection, vapor pockets, and high water table effects,

(B) For other than non-enterable underground tanks and for ancillary equipment, this assessment shall be either a leak test, as described above, or an internal inspection and/or other tank integrity examination certified by an independent, qualified, professional engineer, registered in California, in accordance with

Section 66270.11(d) that addresses cracks, leaks, corrosion, and erosion.

(c) For tank systems that transfer, store or treat materials that become hazardous wastes subsequent to the dates indicated below, this assessment shall be conducted within 12 months after the date that the waste becomes a hazardous waste:

(1) July 14, 1986, for tanks containing RCRA hazardous wastes, unless the owner/operator is a conditionally exempt small quantity generator as defined in 40 CFR Section 261.5, or is a 100 to 1000 kg per month generator as defined in 40 CFR Section 265.201; or

(2) The effective date of these regulations, for tanks containing non-RCRA hazardous wastes only, and tanks containing RCRA hazardous wastes, if the owner/operator is a conditionally exempt small quantity generator or is a 100 to 1000 kg per month generator.

(d) If, as a result of the assessment conducted in accordance with subsection (a) of this section, a tank system is found to be leaking or unfit for use, the owner or operator shall comply with the requirements of Section 66265.196.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.191.

66265.192. Design and Installation of New Tank Systems or Components.

(a) Owners or operators of new tank systems or components shall ensure that the foundation, structural support, seams, connections, and pressure controls (if applicable) are adequately designed and that the tank system has sufficient structural strength, compatibility with the waste(s) to be transferred, stored or treated, and corrosion protection so that it will not collapse, rupture, or fail. The owner or operator shall obtain a written assessment reviewed and certified by an independent, qualified, professional engineer, registered in California in accordance with Section 66270.11 (d) attesting that the system has sufficient structural integrity, is acceptable for the transferring, storing and treating of hazardous waste, and that the tanks and containment system are suitably designed to achieve the requirements of this article. This assessment shall be obtained prior to placing the tank system in service, and shall be kept on file at the facility. This assessment shall also include, at a minimum, the following information:

(1) Design standard(s) according to which the tank(s) and ancillary equipment are or will be constructed.

(2) Hazardous characteristics of the waste(s) to be handled.

(3) For new tank systems or components in which the external shell of a metal tank or any external metal component of the tank system is or will be in contact with the soil or with water, a determination by a corrosion expert of:

(A) Factors affecting the potential for corrosion, including but not limited to:

1. Soil moisture content;

2. Soil pH;

3. Soil sulfides level;

4. Soil resistivity;

5. Structure to soil potential;

6. Influence of nearby underground metal structures (e.g., piping);

7. Stray electric current; and,

8. Existing corrosion-protection measures (e.g., coating, cathodic protection), and

(B) The type and degree of external corrosion protection that are needed to ensure the integrity of the tank system during the use of the tank system or component, consisting of one or more of the following:

1. Corrosion-resistant materials of construction such as special alloys or fiberglass-reinforced plastic;

2. Corrosion-resistant coating (such as epoxy or fiberglass) with cathodic protection (e.g., impressed current or sacrificial anodes); and

3. Electrical isolation devices such as insulating joints and flanges.

(4) For underground tank system components that are likely to be affected by vehicular traffic, a determination of design or operational measures that will protect the tank system against potential damage; and

(5) Design considerations to ensure that:

(A) Tank foundations will maintain the load of a full tank;

(B) Tank systems will be anchored to prevent flotation or dislodgement where the tank system is placed in a saturated zone, or is located within a seismic fault zone; and

(C) Tank systems will withstand the effects of frost heave.

(b) The owner or operator of a new tank system shall ensure that proper handling procedures are adhered to in order to prevent damage to the system during installation. Prior to covering, enclosing, or placing a new tank system or component in use, an independent, qualified installation inspector or an independent, qualified, professional engineer, registered in California, either of whom is trained and experienced in the proper installation of tank systems,

shall inspect the system or component for the presence of any of the following items:

(1) Weld breaks;

(2) Punctures;

(3) Scrapes of protective coatings;

(4) Cracks;

(5) Corrosion;

(6) Other structural damage or inadequate construction or installation. All discrepancies shall be remedied before the tank system is covered, enclosed, or placed in use.

(c) New tank systems or components and piping that are placed underground and that are backfilled shall be provided with a backfill material that is a noncorrosive, porous, homogeneous substance and that is carefully installed so that the backfill is placed completely around the tank and compacted to ensure that the tank and piping are fully and uniformly supported.

(d) All new tanks and ancillary equipment shall be tested for tightness prior to being covered, enclosed or placed in use. If a tank system is found not to be tight, all repairs necessary to remedy the leak(s) in the system shall be performed prior to the tank system being covered, enclosed, or placed in use.

(e) Ancillary equipment shall be supported and protected against physical damage and excessive stress due to settlement, vibration, expansion or contraction.

(f) The owner or operator shall provide the type and degree of corrosion protection necessary, based on the information provided under subsection (a) (3) of this section, to ensure the integrity of the tank system during use of the tank system. The installation of a corrosion protection system that is field fabricated shall be supervised by an independent corrosion expert to ensure proper installation.

(g) The owner or operator shall obtain and keep on file at the facility written statements by those persons required to certify the design of the tank system and supervise the installation of the tank system in accordance with the requirements of subsections (b) through (f) of this section to attest that the tank system was properly designed and installed and that repairs, pursuant to subsection (b) and (d) of this section were performed. These written statements shall also include the certification statement as required in Section 66270.11 (d) of this division.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.192.

66265.193. Containment and Detection of Releases.

(a) In order to prevent the release of hazardous waste or hazardous constituents to the environment, secondary containment that meets the requirements of this section shall be provided (except as provided in subsections (f) and (g) of this section):

(1) For all new tank systems or components, prior to their being put into service;

(2) For all tank systems which were in existence on or before July 14, 1986, which HAS BEEN used to transfer, store or treat EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, and F027, within two years after the dates indicated below:

(A) January 12, 1987, for tanks containing RCRA hazardous wastes, unless the owner/operator is a conditionally exempt small quantity generator as defined in 40 CFR Section 261.5, or is a 100 to 1000 kg per month generator as defined in 40 CFR Section 265.201; or

(B) The effective date of these regulations, for tanks containing RCRA hazardous wastes, if the owner/operator is a conditionally exempt small quantity generator or is a 100 to 1000 kg per month generator.

(3) For those tank systems of known and documentable age, which were in existence on or before July 14, 1986, within two years after

the dates indicated below, or when the tank systems have reached 15 years of age, whichever comes later:

(A) January 12, 1987, for tanks containing RCRA hazardous wastes, unless the owner/operator is a conditionally exempt small quantity generator as defined in 40 CFR Section 261.5, or is a 100 to 1000 kg per month generator as defined in 40 CFR Section 265.201; or

(B) The effective date of these regulations, for tanks containing only non-RCRA hazardous wastes, and tanks containing RCRA hazardous wastes, if the owner/operator is a conditionally exempt small quantity generator or is a 100 to 1000 kg per month generator.

(4) For those existing tank systems which were in existence on or before July 14, 1986, containing RCRA hazardous wastes (unless the owner/operator is a conditionally exempt small quanitity generator as defined in 40 CFR Section 261.5, or is a 100 to 1000 kg per month generator as defined in 40 CFR 265.201) for which the age cannot be documented, within eight years of January 12, 1987; but if the age of the facility is greater than seven years as of January 12, 1987, secondary containment shall be provided by the time the facility reaches 15 years of age, or within two years of January 12, 1987, whichever comes later;

(5) For tank systems which are in existence on or before the effective date of these regulations containing only non-RCRA hazardous wastes (and those containing RCRA hazardous wastes, if the owner or operator is a conditionally exempt small quantity generator

or is a 100 to 1000 kg per month generator) for which the age cannot be documented, within eight years from effective date of these regulations; but if the age of the facility is greater than seven years as of the effective date of these regulations, secondary containment shall be provided by the time the facility reaches 15 years of age, or within two years from effective date of these regulation, whichever comes later; and

(6) For tank systems that transfer, store or treat materials that become hazardous wastes subsequent to the dates indicated below, within the time intervals required in subsections (a)(1) through (a)(5) of this section, except that the date that a material becomes a hazardous waste shall be used in place of the dates indicated below:

(A) January 12, 1987, for tanks containing RCRA hazardous wastes, unless the owner/operator is a conditionally exempt small quantity generator as defined in 40 CFR Section 261.5, or is a 100 to 1000 kg per month generator as defined in 40 CFR Section 265.201; or

(B) The effective date of these regulations, for tanks containing only non-RCRA hazardous wastes, and tanks containing RCRA hazardous wastes, if the owner/operator is a conditionally exempt small quantity generator or is a 100 to 1000 kg per month generator.

(b) Secondary containment systems shall be:

(1) Designed, installed, and operated to prevent any migration of wastes or accumulated liquid out of the system to the soil, ground water, or surface water at any time during the use of the tank system; and

(2) Capable of detecting and collecting releases and accumulated liquids until the collected material is removed.

(c) To meet the requirements of subsection (b) of this section, secondary containment systems shall be at a minimum:

(1) Constructed of or lined with materials that are compatible with the waste(s) to be placed in the tank system and shall have sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrological forces), physical contact with the waste to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation (including stresses from nearby vehicular traffic);

(2) Placed on a foundation or base capable of providing support to the secondary containment system and resistance to pressure gradients above and below the system and capable of preventing failure due to settlement, compression, or uplift;

(3) Provided with a leak detection system that is designed and operated so that it will detect the failure of either the primary and secondary containment structure or any release of hazardous waste or accumulated liquid in the secondary containment system within

24 hours, or at the earliest practicable time if the existing detection technology or site conditions will not allow detection of a release within 24 hours;

(4) Sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation. Spilled or leaked waste and accumulated precipitation shall be removed from the secondary containment system within 24 hours, or in as timely a manner as is possible to prevent harm to human health or the environment, if removal of the released waste or accumulated precipitation cannot be accomplished within 24 hours.

(A) If the collected material is a hazardous waste under Chapter 11 of this division, it shall be managed as a hazardous waste in accordance with all applicable requirements of Chapters 2 through 15 of this division.

(B) If the collected material is discharged through a point source to waters of the United States, the owner or operator shall comply with the requirements of Sections 301, 304, and 402 of the Federal Clean Water Act (33 U.S.C. Sections 1311, 1314 and 1342, respectively), as amended.

(C) If the collected material is discharged to Publicly Owned Treatment Works (POTWs), the owner or operator shall comply with the requirements of Section 307 of the Federal Clear Water Act, as amended.

(D) If the collected material is released to the environment, the owner or operator shall comply with the applicable reporting requirements of 40 CFR Part 302.

(d) Secondary containment for tanks shall include one or more of the following devices:

(1) A liner (external to the tank);

(2) A vault;

(3) A double-walled tank; or

(4) An equivalent device as approved by the Department.

(e) In addition to the requirements of subsections (b), (c), and (d) of this section, secondary containment systems shall satisfy the following requirements:

(1) External liner systems shall be:

(A) Designed or operated to contain 100 percent of the capacity of the largest tank within its boundary;

(B) Designed or operated to prevent run-on and infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on and infiltration. Such additional capacity shall be sufficient to

contain run-on and infiltration of precipitation from a 25-year, 24-hour rainfall event;

(C) Free of cracks or gaps; and

(D) Designed and installed to completely surround the tank and to cover all surrounding earth likely to come into contact with the waste if released from the tank(s) (i.e., capable of preventing lateral as well as vertical migration of the waste).

(2) Vault systems shall be:

(A) Designed or operated to contain 100 percent of the capacity of the largest tank within its boundary;

(B) Designed or operated to prevent run-on and infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on and infiltration. Such additional capacity shall be sufficient to contain run-on and infiltration of precipitation from a 25-year, 24-hour rainfall event;

(C) Constructed with chemical-resistant water stops in place at all joints (if any);

(D) Provided with an impermeable interior coating or lining that is compatible with the waste being transferred, stored or treated and that will prevent migration of waste into the concrete;

(E) Provided with a means to protect against the formation of and ignition of vapors within the vault, if the waste being transferred, stored or treated:

1. Meets the definition of ignitable waste under Section 66262.21 of this division, or

2. Meets the definition of reactive waste under Section 66261.23 of this division and may form an ignitable or explosive vapor; and

(F) Provided with an exterior moisture barrier or be otherwise designed or operated to prevent migration of moisture into the vault if the vault is subject to hydraulic pressure.

(3) Double-walled tanks shall be:

(A) Designed as an integral structure (i.e., an inner tank within an outer shell) so that any release from the inner tank is contained by the outer shell;

(B) Protected, if constructed of metal, from both corrosion of the primary tank interior and the external surface of the outer shell; and

(C) Provided with a built-in, continuous leak detection system capable of detecting a release within 24 hours or at the earliest practicable time, if the owner or operator can demonstrate to the Department, and the Department concurs, that the existing leak

detection technology or site conditions will not allow detection of a release within 24 hours.

(f) Ancillary equipment shall be provided with full secondary containment (e.g., trench, jacketing, double-walled piping) that meets the requirements of subsections (b) and (c) of this section except for:

(1) Aboveground piping (exclusive of flanges, joints, valves, and connections) that are visually inspected for leaks on a daily basis;

(2) Welded flanges, welded joints, and welded connections that are visually inspected for leaks on a daily basis;

(3) Sealless or magnetic coupling pumps and sealless valves, that are visually inspected for leaks on a daily basis; and

(4) Pressurized aboveground piping systems with automatic shut-off devices (e.g., excess flow check valves, flow metering shutdown devices, loss of pressure actuated shut-off devices) that are visually inspected for leaks on a daily basis.

(g) The owner or operator may obtain a variance from the requirements of this section for existing above-ground tanks in place, if the Department finds, as a result of a demonstration by the owner or operator, either that alternative design and operating practices, together with location characteristics, will prevent the migration of hazardous waste or hazardous constituents into the

ground water or surface water at least as effectively as secondary containment during the active life of the tank system, or that in the event of a release that does migrate to ground water or surface water, no substantial present or potential hazard will be posed to human health or the environment. New underground tank systems may not, per a demonstration in accordance with subsection (g)(2) of this section, be exempted from the secondary containment requirements of this section. Application for a variance as allowed in this subsection does not waive compliance with the requirements of this article for new tank systems.

(1) In deciding whether to grant a variance based on a demonstration of equivalent protection of ground water and surface water, the Department will consider:

(A) The nature and quantity of the waste;

(B) The proposed alternate design and operation;

(C) The hydrogeologic setting of the facility, including the thickness of soils between the tank system and ground water; and

(D) All other factors that would influence the quality and mobility of the hazardous constituents and the potential for them to migrate to ground water or surface water.

(2) In deciding whether to grant a variance, based on a demonstration of no substantial present or potential hazard, the Department will consider:

(A) The potential adverse effects on ground water, surface water, and land quality taking into account:

1. The physical and chemical characteristics of the waste in the tank system, including its potential for migration,

2. The hydrogeological characteristics of the facility and surrounding land,

3. The potential for health risks caused by human exposure to waste constituents,

4. The potential for damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents, and

5. The persistence and permanence of the potential adverse effects;

(B) The potential adverse effects of a release on ground-water quality, taking into account:

1. The quantity and quality of ground water and the direction of ground-water flow,

2. The proximity and withdrawal rates of water in the area,

3. The current and future uses of ground water in the area, and

4. The existing quality of ground water, including other sources of contamination and their cumulative impact on the ground-water quality;

(C) The potential adverse effects of a release on surface water quality, taking into account:

1. The quantity and quality of ground water and the direction of ground-water flow,

2. The patterns of rainfall in the region,

3. The proximity of the tank system to surface waters,

4. The current and future uses of surface waters in the area and any water quality standards established for those surface waters, and

5. The existing quality of surface water, including other sources of contamination and the cumulative impact on surface-water quality; and

(D) The potential adverse effects of a release on the land surrounding the tank system, taking into account:

1. The patterns of rainfall in the region, and

2. The current and future uses of the surrounding land.

(3) The owner or operator of a tank system, for which a variance from secondary containment has been granted in accordance with the requirements of subsection (g)(1) of this section, at which a release of hazardous waste has occurred from the primary tank system but has not migrated beyond the zone of engineering control (as established in the variance), shall:

(A) Comply with the requirements of Section 66265.196, except subsection (e); and

(B) Decontaminate or remove contaminated soil to the extent necessary to:

1. Enable the tank system, for which the variance was granted, to resume operation with the capability for the detection of and response to releases at least equivalent to the capability it had prior to the release, and

2. Prevent the migration of hazardous waste or hazardous constituents to ground water or surface water; and

(C) If contaminated soil cannot be removed or decontaminated in accordance with subsection (g)(3)(B) of this section, comply with the requirements of Section 66265.197(b);

(4) The owner or operator of a tank system, for which a variance from secondary containment has been granted in accordance with the requirements of subsection (g)(1) of this section, at which a release of hazardous waste has occurred from the primary tank system and has migrated beyond the zone of engineering control (as established in the variance), shall:

(A) Comply with the requirements of Section 66265.196(a), (b), (c), (d) and (e); and

(B) Prevent the migration of hazardous waste or hazardous constituents to ground water or surface water, if possible, and decontaminate or remove contaminated soil. If contaminated soil cannot be decontaminated or removed, or if ground water has been contaminated, the owner or operator shall comply with the requirements of Section 66265.197(b);

(C) If repairing, replacing, or reinstalling the tank system, provide secondary containment in accordance with the requirements of subsections (a) through (f) of this section or reapply for a variance from secondary containment and meet the requirements for new tank systems in Section 66265.192 if the tank system is replaced. The owner or operator shall comply with these requirements even if contaminated soil can be decontaminated or removed, and ground water or surface water has not been contaminated.

(h) The following procedures shall be followed in order to request a variance from secondary containment:

(1) The Department shall be notified in writing by the owner or operator that the facility intends to conduct and submit a demonstration for a variance from secondary containment as allowed in subsection (g) of this section at least 24 months prior to the date that secondary containment is required to be provided in accordance with subsection (a) of this section.

(2) As part of the notification, the owner or operator shall also submit to the Department a description of the steps necessary to conduct the demonstration and a timetable for completing each of the steps. The demonstration shall address each of the factors listed in subsection (g)(1) or subsection (g)(2) of this section.

(3) The demonstration for a variance shall be completed and submitted to the Department within 180 days after notifying the Department of intent to conduct the demonstration.

(4) The Department will inform the public, through a newspaper notice, of the availability of the demonstration for a variance. The notice shall be placed in a daily or weekly major local newspaper of general circulation and shall provide at least 30 days from the date of the notice for the public to review and comment on the demonstration for a variance. The Department also will hold a public hearing, in response to a request or at the Department's own discretion, whenever such a hearing might clarify one or more issues concerning the demonstration for a variance. Public notice of the hearing will be given at least 30 days prior to the date of the hearing and may be given at the same time as notice of the

opportunity for the public to review and comment on the demonstration. These two notices may be combined.

(5) The Department will approve or disapprove the request for a variance within 90 days of receipt of the demonstration from the owner or operator and will notify in writing the owner or operator and each person who submitted written comments or requested notice of the variance decision. If the demonstration for a variance is incomplete or does not include sufficient information, the 90-day time period will begin when the Department receives a complete demonstration, including all information necessary to make a final determination. If the public comment period in subsection (h)(4) of this section is extended, the 90-day time period will be similarly extended.

(i) All tank systems, until such time as secondary containment meeting the requirements of this section is provided, shall comply with the following:

(1) For non-enterable underground tanks, a leak test that meets the requirements of Section 66265.191(b)(5) shall be conducted at least annually;

(2) For other than non-enterable underground tanks and for all ancillary equipment, an annual leak test, as described in paragraph (i)(1) of this section, or an internal inspection or other tank integrity examination by an independent, qualified, professional engineer, registered in California, that addresses cracks, leaks,

corrosion, and erosion shall be conducted at least annually. The owner or operator shall remove the stored waste from the tank, if necessary, to allow the condition of all internal tank surfaces to be assessed.

(3) The owner or operator shall maintain on file at the facility a record of the results of the assessments conducted in accordance with subsections (i)(1) and (i)(2) of this section.

(4) If a tank system or component is found to be leaking or unfit for use as a result of the leak test or assessment in subsections (i)(1) and (i)(2) of this section, the owner or operator shall comply with the requirements of Section 66265.196.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.193.

66265.194. General Operating Requirements.

(a) Hazardous wastes or treatment reagents shall not be placed in a tank system if they could cause the tank, its ancillary equipment, or the secondary containment system to rupture, leak, corrode, or otherwise fail.

(b) The owner or operator shall use appropriate controls and practices to prevent spills and overflows from tank or secondary containment systems. These include at a minimum:

(1) Spill prevention controls (e.g , check valves, dry discount couplings);

(2) Overfill prevention controls (e.g , level sensing devices, high level alarms, automatic feed cutoff, or bypass to a standby tank); and

(3) Maintenance of sufficient freeboard in uncovered tanks to prevent overtopping by wave or wind action or by precipitation. Uncovered tanks shall be operated to ensure at least 60 centimeters (2 feet) of freeboard, unless the tank is equipped with a containment structure (e.g., dike or trench), a drainage control system or a diversion structure (e.g., standby tank) with a capacity that equals or exceeds the volume of the top 60 centimeters (2 feet) of the tank.

(c) The owner or operator shall comply with the requirements of Section 66265.196 if a leak or spill occurs in the tank system.

(d) Transfer, treatment or storage of hazardous waste in tanks shall comply with Section 66265.17 (b).

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.194.

66265.195. Inspections.

(a) The owner or operator shall inspect, where present, at least once each operating day:

(1) Overfill/spill control equipment (e.g., waste-feed cutoff systems, bypass systems, and drainage systems) to ensure that it is in good working order;

(2) The aboveground portions of the tank system, if any, to detect corrosion or releases of waste;

(3) Data gathered from monitoring equipment and leak-detection equipment, (e.g., pressure and temperature gauges, monitoring wells) to ensure that the tank system is being operated according to its design;

(4) The construction materials and the area immediately surrounding the externally accessible portion of the tank system including secondary containment structures (e.g., dikes) to detect erosion or signs of releases of hazardous waste (e.g., wet spots, dead vegetation); and

(5) For uncovered tanks, the level of waste in the tank, to ensure compliance with Section 66265.194(b)(3).

(b) The owner or operator shall inspect cathodic protection systems, if present, according to, at a minimum, the following schedule to ensure that they are functioning properly:

(1) The proper operation of the cathodic protection system shall be confirmed within six months after initial installation, and annually thereafter; and

(2) All sources of impressed current shall be inspected and/or tested, as appropriate, at least bimonthly (i.e., every other month).

(c) The owner or operator shall document in the operating record of the facility an inspection of those items in subsections (a) and (b) of this section.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.195.

66265.196. Response to Leaks or Spills and Disposition of Leaking or Unfit-for-Use Tank Systems.

A tank system or secondary containment system from which there has been a leak or spill, or which is unfit for use, shall be removed from service immediately, and the owner or operator shall satisfy the following requirements:

(a) General emergency procedures. The owner or operator shall comply with applicable requirements of Section 66265.56.

(b) Cessation of use; prevention of flow or addition of wastes. The owner or operator shall immediately stop the flow of hazardous waste into the tank system or secondary containment system and inspect the system to determine the cause of the release.

(c) Removal of waste from tank system or secondary containment system.

(1) If the release was from the tank system, the owner or operator shall, within 24 hours after detection of the leak or, if the owner or operator demonstrates that that is not possible, at the earliest practicable time remove as much of the waste as is necessary to prevent further release of hazardous waste to the environment and to allow inspection and repair of the tank system to be performed.

(2) If the release was to a secondary containment system, all released materials shall be removed within 24 hours or in as timely a

manner as is possible to prevent harm to human health and the environment.

(d) Containment of visible releases to the environment. The owner or operator shall immediately conduct a visual inspection of the release and, based upon that inspection:

(1) Prevent further migration of the leak or spill to soils or surface water; and

(2) Remove, and properly dispose of, any visible contamination of the soil or surface water.

(e) Notifications, reports.

(1) Any release to the environment, except as provided in subsection (e) (2) of this section, shall be reported to the Department within 24 hours of detection.

(2) A leak or spill of hazardous waste is exempted from the requirements of subsection (e) of this section, but is not exempted from the requirements of Section 66265.56, if it is:

(A) Less than or equal to a quantity of one (1) pound, and

(B) Immediately contained and cleaned-up.

(3) Within 30 days of detection of a release to the environment, a report containing the following information shall be submitted to the Department:

(A) Likely route of migration of the release;

(B) Characteristics of the surrounding soil (soil composition, geology, hydrogeology, climate);

(C) Results of any monitoring or sampling conducted in connection with the release, (if available). If sampling or monitoring data relating to the release are not available within 30 days, these data shall be submitted to the Department as soon as they become available.;

(D) Proximity to downgradient drinking water, surface water, and population areas; and

(E) Description of response actions taken or planned.

(f) Provision of secondary containment, repair, or closure.

(1) Unless the owner or operator satisfies the requirements of subsections (f) (2) through (4) of this section, the tank system shall be closed in accordance with Section 66265.197.

(2) If the cause of the release was a spill that has not damaged the integrity of the system, the owner/operator may return the system

to service as soon as the released waste is removed and repairs, if necessary, are made.

(3) If the cause of the release was a leak from the primary tank system into the secondary containment system, the system shall be repaired prior to returning the tank system to service.

(4) If the source of the release was a leak to the environment from a component of a tank system without secondary containment, the owner/operator shall provide the component of the system from which the leak occurred with secondary containment that satisfies the requirements of Section 66265.193 before it can be returned to service, unless the source of the leak is an aboveground portion of a tank system. If the source is an aboveground component that can be inspected visually, the component shall be repaired and may be returned to service without secondary containment as long as the requirements of subsection (g) of this section are satisfied. If a component is replaced to comply with the requirements of this subsection, that component shall satisfy the requirements for new tank systems or components in Sections 66265.192 and 66265.193. Additionally, if a leak has occurred in any portion of a tank system component that is not readily accessible for visual inspection (e.g., the bottom of an inground or onground tank), the entire component shall be provided with secondary containment in accordance with Section 66265.193 prior to being returned to use.

(g) Certification of major repairs. If the owner or operator has repaired a tank system in accordance with subsection (f) of this section, and the repair has been extensive (e.g., installation of an

internal liner; repair of a ruptured primary containment or secondary containment vessel), the tank system shall not be returned to service unless the owner/operator has obtained a certification by an independent, qualified, professional engineer, registered in California, in accordance with Section 66270.11 (d), that the repaired system is capable of handling hazardous wastes without release for the intended life of the system. This certification shall be submitted to the Department within seven days after returning the tank system to use.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.196.

66265.197. Closure and Post-Closure Care.

(a) At closure of a tank system, the owner or operator shall remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated soils, and structures and equipment contaminated with waste, and manage them as hazardous waste, unless Section 66261.3 (d) of this division applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for tank systems shall meet all of the requirements specified in Articles 7 and 8 of this chapter.

(b) If the owner or operator demonstrates that not all contaminated soils can be practicably removed or decontaminated as required in subsection (a) of this section, then the owner or operator shall close the tank system and perform post-closure care in accordance with the closure and post-closure care requirements that apply to landfills (Section 66265.310). In addition, for the purposes of closure, post-closure, and financial responsibility, such a tank system is then considered to be a landfill, and the owner or operator shall meet all of the requirements for landfills specified in Articles 7 and 8 of this chapter.

(c) If an owner or operator has a tank system which does not have secondary containment that meets the requirements of Section 66265.193 (b) through (f) and which has not been granted a variance from the secondary containment requirements in accordance with Section 66265.193 (g), then:

(1) The closure plan for the tank system shall include both a plan for complying with subsection (a) of this section and a contingent plan for complying with subsection (b) of this section.

(2) A contingent post-closure plan for complying with subsection (b) of this section shall be prepared and submitted as part of the permit application.

(3) The cost estimates calculated for closure and post-closure care shall reflect the costs of complying with the contingent closure plan and the contingent post-closure plan, if these costs are greater than the costs of complying with the closure plan prepared for the expected closure under subsection (a) of this section.

(4) Financial assurance shall be based on the cost estimates in subsection (c) (3) of this section.

(5) For the purposes of the contingent closure and post-closure plans, such a tank system is considered to be a landfill, and the contingent plans shall meet all of the closure, post-closure, and financial responsibility requirements for landfills under Articles 7 and 8 of this chapter.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.197.

66265.198. Special Requirements for Ignitable or Reactive Wastes.

(a) Ignitable or reactive waste shall not be placed in a tank system, unless:

(1) The waste is treated, rendered, or mixed before or immediately after placement in the tank system so that:

(A) The resulting waste, mixture, or dissolved material no longer meets the definition of ignitable or reactive waste under Sections 66261.21 or 66261.23; and

(B) Section 66265.17 (b) is complied with; or

(2) The waste is transferred, stored or treated in such a way that it is protected from any material or conditions that may cause the waste to ignite or react; or

(3) The tank system is used solely for emergencies.

(b) The owner or operator of a facility where ignitable or reactive waste is transferred, stored or treated in tanks shall comply with the requirements for the maintenance of protective distances between the waste management area and any public ways, streets, alleys, or an adjoining property line that can be built upon as required in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code," (1977 or 1981), (incorporated by reference, see Section 66260.11).

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.198.

66265.199. Special Requirements for Incompatible Wastes.

(a) Incompatible wastes, or incompatible waste and materials, shall not be placed in the same tank system, unless Section 66265.17 (b) is complied with.

(b) Hazardous waste shall not be placed in a tank system that has not been decontaminated and that previously held an incompatible waste or material, unless Section 66265.17 (b) is complied with.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.199.

66265.200. Waste Analysis and Trial Tests.

In addition to performing the waste analysis required by Section 66265.13, the owner or operator shall, whenever a tank system is to be used to treat chemically or to store a hazardous waste that is substantially different from waste previously treated or stored in that tank system; or to treat chemically a hazardous waste with a substantially different process than any previously used in that tank system:

(a) Conduct waste analyses and trial treatment or storage tests (e.g., bench-scale or pilot-plant scale tests); or

(b) Obtain written, documented information on similar waste under similar operating conditions to show that the proposed treatment or storage will meet the requirements of Sections 66265.194 (a) and (d).

Note: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.200.

Article 11. Surface Impoundments

66265.220. Applicability.

The regulations in this article apply to owners and operators of facilities that use surface impoundments to treat, store, or dispose of hazardous waste, except as Section 66265.1 provides otherwise.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.220.

66265.221. Design Requirements

(a) The owner or operator of a surface impoundment shall install two or more liners and leachate collection system in accordance with Section 66264.221(c), with respect to each new unit, replacement of an existing unit or lateral expansion of an existing unit that is within the area identified in the Part A permit application, and with respect to RCRA hazardous waste received beginning May 8, 1985 and non-RCRA hazardous waste received beginning January 1, 1989.

(b) The owner or operator of each unit referred to in subsection (a) of this section shall notify the Department at least sixty (60) days prior to receiving waste. The owner or operator of each facility submitting notice shall file a Part B application within six months of the receipt of such notice.

(c) Subsection (a) of this section will not apply if the owner or operator demonstrates to the Department, and the Department finds for such surface impoundment, that alternative design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituent into the groundwater or surface water at least as effectively as such liners and leachate collection systems.

(d) The double liner requirement set forth in subsection (a) of this section may be waived by the Department for any monofill, if:

(1) The monofill contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand, and such wastes do not contain constituents which would render the wastes hazardous for reasons other than exceeding the soluble threshold limit concentration as described in Section 66261.24; and

(2) (A) 1. The monofill has at least one liner for which there is no evidence that such liner is leaking. For the purposes of this paragraph the term "liner" means a liner designed, constructed, installed and operated to prevent hazardous waste from passing into the liner at any time during the active life of the facility, or a liner designed, constructed, installed and operated to prevent hazardous waste from migrating beyond the liner to adjacent subsurface soil, groundwater or surface water at any time during the active life of the facility. In the case of any surface impoundment which has been exempted from the requirements of subsection (a) of this section on the basis of a liner designed, constructed, installed and operated to prevent hazardous waste from passing beyond the liner, at the closure of such impoundment the owner or operator must remove or decontaminate all waste residues, all contaminated liner material, and contaminated soil to the extent practicable. If all contaminated soil is not removed or decontaminated, the owner of operator of such impoundment must comply with appropriate postclosure requirements, including but not limited to ground-water monitoring and corrective action;

2. The monofill is located more than one-quarter mile from an underground source of drinking water as defined in Section 66260.10; and

3. The monofill is in compliance with generally applicable groundwater monitoring requirements for facilities with permits; or

(A) The owner or operator demonstrates that the monofill is located, designed and operated so as to assure that there will be no migration of any hazardous constituent into groundwater or surface water at any future time.

(e) In the case of any unit in which the liner and leachate collection system has been installed pursuant to the requirements of subsection (a) of this section and in good faith compliance with subsection (a) of this section no liner or leachate collection system which is different from that which was so installed pursuant to subsection (a) of this section will be required for such unit by the Department when issuing the first permit to such facility, except that the Department will not be precluded from requiring installation of a new liner when the Department has reason to believe that any liner installed pursuant to the requirements of subsection (a) of this section is leaking.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25159, 25159.5 and 25208.5 Health and Safety Code; 40 CFR Section 265.221.

66265.222. General Operating Requirements.

(a) A surface impoundment shall maintain enough freeboard to prevent any overtopping of the dike by overfilling, wave action, or a storm. Except as provided in subsection (b) of this section, there must be at least 60 centimeters (two feet) of freeboard.

(b) A freeboard level less than 60 centimeters (two feet) may be maintained if the owner or operator obtains certification by a qualified engineer, registered in California, that alternate design features or operating plans will, to the best of the engineer's knowledge and opinion, prevent overtopping of the dike. The certification, along with a written identification of alternate design features or operating plans preventing overtopping, shall be maintained at the facility.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.222.

66265.223. Containment System.

All earthen dikes shall have a protective cover, such as grass, shale, or rock, to minimize wind and water erosion and to preserve their structural integrity.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.223.

66265.224 [Reserved]

66265.225. Waste Analysis and Trial Tests.

(a) In addition to the waste analyses required by Section 66265.13, whenever a surface impoundment is to be used to:

(1) Chemically treat a hazardous waste which is substantially different from waste previously treated in that impoundment; or

(2) Chemically treat hazardous waste with a substantially different process than any previously used in that impoundment; the owner or operator shall, before treating the different waste or using the different process:

(A) Conduct waste analyses and trial treatment tests (e.g., bench scale or pilot plant scale tests); or

(B) Obtain written, documented information on similar treatment of similar waste under similar operating conditions; to show that this treatment will comply with Section 66265.17 (b).

(b) As required by Section 66265.13, the waste analysis plan shall include analyses needed to comply with Sections 66265.229 and 66265.230. As required by Section 66265.73, the owner or operator must place the results from each waste analysis and trial test, or the documented information, in the operating record of the facility.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.225.

66265.226. Inspections.

(a) The owner or operator shall inspect:

(1) The freeboard level at least once each operating day to ensure compliance with Section 66265.222, and

(2) The surface impoundment, including dikes and vegetation surrounding the dike, at least once a week to detect any leaks, deterioration, or failures in the impoundment.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.226.

66265.227 [Reserved]

66265.228. Closure and Postclosure Care.

(a) At closure, the owner or operator shall:

(1) Remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless Section 66261.3 (d) applies; or

(2) Close the impoundment and provide postclosure care for a landfill under Article 7 and Section 66265.310 of this chapter, including the following:

(A) Eliminate free liquids by removing liquid wastes or solidifying the remaining wastes and waste residues;

(B) Stabilize remaining wastes to a bearing capacity sufficient to support the final cover; and

(C) Cover the surface impoundment with a final cover designed and constructed to:

1. Minimize the downward entry of water into the closed impoundment throughout a period of at least 100 years;

2. Function with minimum maintenance;

3. Promote drainage and minimize erosion or abrasion of the cover;

4. Accommodate settling and subsidence so that the cover's integrity is maintained;

5. Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present;

6. Accommodate lateral and vertical shear forces generated by the maximum credible earthquake so that the integrity of the cover is maintained;

7. Preclude ponding of rainfall and surface run-on over the closed area; and

8. Conform to the provisions of subsection (e) through (r) of Section 66264.228, except that the Department shall grant a variance from any requirement which the owner or operator demonstrates to the satisfaction of the Department is not necessary to protect public health, water quality or other environmental quality.

(b) In addition to the requirements of Article 7 and Section 66265.310 of this chapter, during the postclosure care period, the owner or operator of a surface impoundment in which wastes, waste residues or contaminated materials remain after closure in accordance with the provisions of subsection (a)(2) of this section shall:

(1) Maintain the integrity and effectiveness of the final cover, including making repairs to the cover as necessary to correct the effects of settling, subsidence, erosion or other events;

(2) Maintain and monitor the groundwater monitoring system and comply with all other applicable requirements of Article 6 of Chapter 14; and

(3) Prevent run-on and run-off from eroding or otherwise damaging the final cover.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.228.

66265.229. Special Requirements for Ignitable or Reactive Waste.

Ignitable or reactive waste shall not be placed in a surface impoundment unless the waste and the impoundment satisfy all applicable requirements of Chapter 18 of this Division, and:

(a) The waste is treated, rendered, or mixed before or immediately after placement in the impoundment so that:

(1) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under Sections 66261.21 or 66261.23 of this chapter; and

(2) Section 66265.17 (b) is complied with; or

(b) (1) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react; and

(2) The owner or operator obtains a certification from a qualified chemist or engineer, registered in California that to the best of the chemist's or engineer's knowledge and opinion, the design features or operating plans of the facility will prevent ignition or reaction; and

(3) The certification and the basis for it are maintained at the facility; or

(c) The surface impoundment is used solely for emergencies.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.229.

66265.230. Special Requirements for Incompatible Wastes.

Incompatible wastes, or incompatible wastes and materials, (see Appendix V for examples) shall not be placed in the same surface impoundment, unless Section 66265.17(b) is complied with.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.230.

Article 12. Waste Piles

66265.250. Applicability.

The regulations in this article apply to owners and operators of facilities that treat or store hazardous waste in piles, except as Section 66265.1 provides otherwise. Alternatively, a pile of hazardous waste may be managed as a landfill under Article 14.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.250.

66265.251. Protection from Wind.

The owner or operator of a pile containing hazardous waste which could be subject to dispersal by wind shall cover or otherwise manage the pile so that wind dispersal is controlled.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code, 40 CFR Section 265.251.

66265.252. Waste Analysis.

(a) In addition to the waste analyses required by Section 66265.13, the owner or operator shall analyze a representative sample of waste from each incoming movement before adding the waste to any existing pile, unless (1) The only wastes the facility receives which are amenable to piling are compatible with each other, or (2) the waste received is compatible with the waste in the pile to which it is to be added. The analysis conducted shall be capable of differentiating between the types of hazardous waste the owner or operator places in piles, so that mixing of incompatible waste does not inadvertently occur. The analysis shall include a visual comparison of color and texture.

(b) As required by Section 66265.13 of this Chapter, the waste analysis plan shall include analyses needed to comply with Sections 66265.256 and 66265.257. As required by Section 66265.73, the owner or operator shall place the results of this analysis in the operating record of the facility.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.252.

66265.253. Containment.

If leachate or run-off from a pile is a hazardous waste, then either:

(a) (1) The pile shall be placed on an impermeable base that is compatible with the waste under the conditions of treatment or storage;

(2) The owner or operator shall design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the pile during peak discharge from at least a 25-year storm;

(3) The owner or operator shall design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm; and

(4) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems shall be emptied or otherwise managed expeditiously to maintain design capacity of the system; or

(b) (1) The pile shall be protected from precipitation and run-on by some other means; and

(2) No liquids or wastes containing free liquids shall be placed in the pile.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.253.

66265.254. Design Requirements.

The owner or operator of a waste pile is subject to the requirements for liners and leachate collection systems or equivalent protection provided in Section 66264.251 of this chapter, with respect to each new unit, replacement of an existing unit, or lateral expansion of an existing unit that is within the area indentified in the Part A permit application, and with respect to RCRA hazardous waste received beginning May 8, 1985, and non-RCRA hazardous waste received after the effective date of these regulations.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.254.

66265.256. Special Requirements for Ignitable or Reactive Waste.

(a) Ignitable or reactive wastes shall not be placed in a pile, unless the waste and pile satisfy all applicable requirements of Chapter 18 of this Division, and:

(1) Addition of the waste to an existing pile (i) results in the waste or mixture no longer meeting the definition of ignitable or reactive waste under Sections 66261.21 or 66261.23 of this chapter, and (ii) complies with Section 66265.17 (b); or

(2) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.256.

66265.257. Special Requirements for Incompatible Wastes.

(a) Incompatible wastes, or incompatible wastes and materials, (see Appendix V for examples) shall not be placed in the same pile, unless Section 66265.17 (b) is complied with.

(b) A pile of hazardous waste that is incompatible with any waste or other material stored nearby in other containers, piles, open tanks, or surface impoundments shall be separated from the other materials, or protected from them by means of a dike, berm, wall, or other device.

(c) Hazardous waste shall not be piled on the same area where incompatible wastes or materials were previously piled, unless that area has been decontaminated sufficiently to ensure compliance with Section 66265.17 (b).

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.257.

66265.258. Closure and Post-Closure Care.

(a) At closure, the owner or operator shall remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless 66261.3 (d) of this chapter applies; or

(b) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in subsection (a) of this section, the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, the owner or operator shall close the facility and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills. (Section 66265.310).

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safty Code.
Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.258.

Article 13. Land Treatment

66265.270. Applicability.

The regulations in this article apply to owners and operators of hazardous waste land treatment facilities, except as Section 66265.1 provides otherwise.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.270.

66265.272. General Operating Requirements.

(a) Hazardous waste shall not be placed in or on a land treatment facility unless the waste can be made less hazardous or nonhazardous by degradation, transformation, or immobilization processes occurring in or on the soil.

(b) The owner or operator shall design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portions of the facility during peak discharge from at least a 25-year storm.

(c) The owner or operator shall design, construct, operate, and maintain a run-off management system capable of collecting, controlling and managing a water volume at least equivalent to a 24-hour, 25-year storm.

(d) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems shall be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

(e) If the treatment zone contains particulate matter which may be subject to wind dispersal, the owner or operator shall manage the unit to control wind dispersal.

(f) (1) Unless granted a variance pursuant to subsection (f)(2) of this section, or exempted pursuant to subsection (h) of this

section, every new land treatment unit at a new or existing facility, every land treatment unit which replaces an existing land treatment unit, and every laterally expanded portion of an existing land treatment unit is required to be equipped with two or more liners and a leachate collection system meeting the requirements established in Section 66264.301(c) for new landfills.

(2) The Department shall grant a variance from the requirements of subsection (f)(1) or subsection (g) of this section if the owner or operator demonstrates to the Department and the Department finds all of the following:

(A) The land treatment unit was an existing land treatment unit as of January 1, 1988, and no hazardous constituents identified in Appendix VIII to Chapter 11 of this division have migrated from the treatment zone of the land treatment unit into the vadose zone or into the waters of the State, and no other hazardous constituents have migrated from the land treatment unit into the vadose zone or into the waters of the State in concentrations which pollute or threaten to pollute the vadose zone or the waters of the State. In making this demonstration the owner or operator shall take a sufficient number of core samples in, beneath and surrounding the treatment zone of the land treatment unit to characterize the chemical constituents in the treatment zone, in the immediate area of the vadose zone surrounding the treatment zone, and in the area of the vadose zone beneath the treatment zone and shall submit ground water monitoring data sufficient in scope to demonstrate that there has been no migration of hazardous constituents in the vadose zone or

into the waters of the State. The owner or operator, as an alternative to taking these core samples, may use the data obtained from any land treatment demonstration required by the department pursuant to Section 66264.272 if the data were obtained not more than two years prior to the application for the variance and were sufficient in scope to demonstrate that there has been no migration of hazardous constituents into the vadose zone or into the waters of the state.

(B) Notwithstanding the date that the land treatment unit commenced operations, the design and operating practices will prevent the migration of hazardous constituents identified in Appendix VIII to Chapter 11 of this division from the treatment zone of the land treatment unit into the vadose zone or into the waters of the state and no other hazardous constituents have migrated from the land treatment unit into the vadose zone or into the waters of the state in concentrations which pollute or threaten to pollute the vadose zone or the waters of the state.

(C) Notwithstanding the date that the land treatment unit commenced operations, the design and operating practices provide for rapid detection and removal or remediation of any hazardous consistuents that migrate from the treatment zone of the land treatment unit into the vadose zone or the waters of the state in concentrations that pollute or threaten to pollute the vadose zone or the waters of the state.

(3) (A) The Department shall renew a variance only in those cases where an owner or operator demonstrates to the Department and the Department finds, both of the following:

1. No hazardous constituents have migrated from the treatment zone of the land treatment unit into the vadose zone or into the waters of the state in concentrations which pollute or threaten to pollute the vadose zone or the waters of the state.

2. Continuing the operation of the land treatment unit does not pose a significant threat of hazardous constituents migrating from the land treatment unit into the vadose zone or into the waters of the state in concentrations which pollute or threaten to pollute the vadose zone or the waters of the state.

(B) In making the demonstration for the renewal of a variance pursuant to this subsection, the owner or operator may use field tests, laboratory analysis, or operating data.

(4) A variance or a renewal of a variance may be issued for a period not to exceed three years.

(5) Neither the requirements of this section nor the variance provisions of subsection (f)(2) shall relieve the owner or operator from responsibility to comply with all other existing laws and regulations pertinent to land treatment units.

(g) Unless granted a variance pursuant to subsection (f)(2) or exempted under subsection (h) of this section, after January 1, 1990, no person shall discharge hazardous waste into a land treatment unit which has not been equipped with liners and a leachate collection and removal system which satisfy the requirements of subsection (f)(1) of this section.

(h) Land treatment of soil contaminated only with non-RCRA hazardous waste which has been excavated as part of a removal or remedial action at any hazardous substance release site is exempt from the requirements of subsection (f) of this section if all of the following apply:

(1) The Department determines that the land treatment does not pose a threat to public health or safety or the environment.

(2) The land treatment is conducted pursuant to a plan approved by the Department or a cleanup and abatement order issued by a regional water quality control board.

(3) The land treatment is not conducted at an offsite commercial facility.

(4) The land treatment is used only for purposes of removal or remedial action and, upon completion of the land treatment portion of the removal or remedial action, the land treatment unit is closed.

(i) For purposes of this section, the terms "removal", "remedial action", "hazardous substance" and "release" shall be defined in accordance with Article 2 (commencing with Section 25310) of Chapter 6.8 Division 20 of the Health and Safety Code.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25159, 25159.5, 25209.2, 25209.3 and 25209.5 Health and Safety Code; 40 CFR Section 265.272.

66265.273. Waste Analysis.

In addition to the waste analyses required by Section 66265.13, before placing a hazardous waste in or on a land treatment facility, the owner or operator shall:

(a) Determine the concentrations in the waste of any substances which equal or exceed the maximum concentrations contained in Section 66261.24, that cause a waste to exhibit the toxicity characteristic; and

(b) For any waste listed in Article 4 of Chapter 11 of this division, determine the concentrations of any substances which caused the waste to be listed as a hazardous waste.

(c) Chapter 11 of this division specifies the substances for which a waste is listed as a hazardous waste. As required by Section 66265.13, the waste analysis plan shall include analyses needed to comply with Sections 66265.281 and 66265.282. As required by Section 66265.73, the owner or operator shall place the results from each waste analysis, or the documented information, in the operating record of the facility.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.273.

66265.276. Food Chain Crops.

(a) An owner or operator of a hazardous waste land treatment facility on which food chain crops are being grown, or have been grown and will be grown in the future, shall notify the Department within 60 days after the effective date of this part.

(b)(1) Food chain crops shall not be grown on the treated area of a hazardous waste land treatment facility unless the owner or operator can demonstrate, based on field testing, that any arsenic, lead, mercury or other constituents identified under Section 66265.273(b):

(A) Will not be transfered to the food portion of the crop by plant uptake or direct contact, and will not otherwise be ingested by food chain animals (e.g., by grazing); or

(B) Will not occur in greater concentrations in the crops grown on the land treatment facility than in the same crops grown on untreated soils under similar conditions in the same region.

(2) The information necessary to make the demonstration required by subsection (b)(1) of this section must be kept at the facility and must, at a minimum:

(A) Be based on tests for the specific waste and application rates being used at the facility; and

(B) Include descriptions of crop and soil characteristics, sample selection criteria, sample size determination, analytical methods and statistical procedures.

(c) Food chain crops shall not be grown on a land treatment facility receiving waste that contains cadmium unless all requirements of subsections (c)(1)(A) through (C) of this Section or all requirements of subsections (c)(2)(A) through (D) of this Section are met.

(1)(A) The pH of the waste and soil mixture is 6.5 or greater at the time of each waste application, except for waste containing cadmium at concentrations of 2 mg/kg (dry weight) or less;

(B) The annual application of cadmium from waste does not exceed 0.5 kilograms per hectare (kg/ha) on land used for production of tobacco, leafy vegetables or root crops grown for human consumption. For other food chain crops, the annual cadmium application rate does not exceed:

Time period	Annual Cd application rate (kg/ha)
Present to June 30, 1984	2.0
July 1, 1984 to December 31, 1986	1.25
Beginning January 1, 1987	0.5

(C) The cumulative application of cadmium from waste does not exceed the levels in either paragraph (c)(1)(C)(i) or (ii) of this Section.

(i)

Soil caption exchange capacity (meq/100g)	Maximum cumulative application (kg/ha) Back-ground soil pH less than 6.5	Back-ground soil pH greater than 6.5
Less than 5	5	5
5 to 15	5	10
Greater than 15	5	20

(ii) For soils with a background pH of less than 6.5, the cumulative cadmium application rate does not exceed the levels below:

Provided, that the pH of the waste and soil mixture is adjusted to and maintained at 6.5 or greater whenever food chain crops are grown.

Soil caption exchange capacity (meq/100g)	Maximum cumulative application (kg/ha)
Less than 5	5
5 to 15	10
Greater than 15	20

(2)(A) The only food chain crop produced is animal feed.

(B) The pH of the waste and soil mixture is 6.5 or greater at the time of waste application or at the time the crop is planted, whichever occurs later and this pH level is maintained whenever food chain crops are grown.

(C) There is a facility operating plan which demonstrates how the animal feed will be distributed to preclude ingestion by humans. The facility operating plan describes the measures to be taken to safeguard against possible health hazards from cadmium entering the food chain, which may result from alternative land uses.

(D) Future property owners are notified by a stipulation in the land record or property deed which states that the property has received waste at high cadmium application rates and that food chain

crops must not be grown except in compliance with paragraph (c)(2) of this section.

(d) As required by Section 66265.73, if an owner or operator grows food chain crops on his land treatment facility, he shall place the information developed in this section in the operating record of the facility.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.

Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.276.

66265.278. Vadose Zone (Zone of Aeration) Monitoring.

(a) The owner or operator shall have in writing, and shall implement, a vadose zone monitoring plan which is designed to:

(1) Detect the vertical migration of hazardous waste and hazardous waste constituents under the active portion of the land treatment facility, and

(2) Provide information on the background concentrations of the hazardous waste and hazardous waste constituents in similar but untreated soils nearby; this background monitoring shall be conducted before or in conjunction with the monitoring required under subsection (a)(1) of this section.

(b) The vadose zone monitoring plan shall include, at a minimum:

(1) Soil monitoring using soil cores, and

(2) Soil-pore water monitoring using devices such as lysimeters.

(c) To comply with subsection (a)(1) of this section, the owner or operator shall demonstrate in the vadose zone monitoring plan that:

(1) The depth at which soil and soil-pore water samples are to be taken is below the depth to which the waste is incorporated into the soil;

(2) The number of soil and soil-pore water samples to be taken is based on the variability of:

(A) The hazardous waste constituents (as identified in Sections 66265.273(a) and (b) in the waste and in the soil; and

(B) The soil type(s); and

(3) The frequency and timing of soil and soil-pore water sampling is based on the frequency, time, and rate of waste application, proximity to ground water, and soil permeability.

(d) The owner or operator shall keep at the facility his vadose zone monitoring plan, and the rationale used in developing this plan.

(e) The owner or operator shall analyze the soil and soil-pore water samples for the hazardous waste constituents that were found in the waste during the waste analysis under Sections 66265.273(a) and (b).

(f) As required by Section 66265.73, all data and information developed by the owner or operator under this section shall be placed in the operating record of the facility.

(g) Except as provided in Section 66265.272(h) no person shall place or dispose of hazardous waste in a land treatment unit if any of the following conditions exist:

(1) Hazardous constituents have migrated from the land treatment unit into the vadose zone beneath or surrounding the treatment zone or into the waters beneath or surrounding the treatment zone.

(2) There is evidence that a hazardous constituent in the waste discharged to the land treatment unit has not been or will not be completely degraded, transformed or immobilized in the treatment zone.

(3) There is a significant potential for hazardous constituents to migrate from the land treatment unit into a potential source of drinking water.

(h) The owner or operator shall periodically, at the request of the Department, and at least annually, submit information required by the Department to assure that the conditions set forth in subsections (g)(1) and (g)(2) of this section are not present. The information to be submitted to the Department to demonstrate compliance with subsection (g) of this section shall include, but is not limited to, a sufficient number of soil core samples in, beneath, and surrounding the treatment zone of the land treatment unit to detect any constituents of concern.

(i) If the owner or operator determines pursuant to subsection (a) of this section, that there has been a statistically significant increase in the concentration of a hazardous constituent below the treatment zone, or that either of the conditions set forth in subsections (g)(1) or (g)(2) of this section are detected and

confirmed, or that conditions exist that render the owner or operator unable to continue to satisfy the variance requirements of Section 66265.272(f)(2), the owner or operator shall:

(1) Within 72 hours, report to the Department describing the full extent of the owner's or operator's findings, including the identification of all constituents which have shown a statistically significant increase.

(j) Upon receiving notice pursuant to subsection (i) of this section, or upon independent confirmation by the Department, the Department shall order the owner or operator to cease operating the land treatment unit. The owner or operator shall not resume operating the land treatment unit and shall close the land treatment unit unless one of the following actions is taken:

(1) The owner or operator completes appropriate removal or remedial actions to the satisfaction of the Department, and the owner or operator submits to the Department, and the Department approves, an application for a permit or a variance modification to modify the operating practices at the facility to maximize the success of degradation, immobilization, or transformation processes in the treatment zone; or

(2) The owner or operator completes appropriate removal or remedial actions, submits to the Department, and the Department approves, an application for a permit or a variance modification to modify the operating practices at the facility to maximize the

success of degradation, immobilization, or transformation processes in the treatment zone, and equips the land treatment unit with liners, and a leachate collection and removal system that satisfy the requirements of Section 66265.272(f)(1).

(k) All actions taken by an owner or operator pursuant to subsections (j)(1) or (j)(2) of this section shall be completed within a time period specified by the Department, which shall not exceed 18 months after the Department receives notice pursuant to subsection (i)(1) of this section. If the actions are not completed within this time period, the land treatment unit shall be closed, unless granted an extension by the Department due to exceptional circumstances beyond the control of the owner and operator.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25159, 25159.5 and 25209.4 Health and Safety Code; 40 CFR Section 265.278.

66265.279. Recordkeeping.

The owner or operator shall include hazardous waste application dates and rates in the operating record required under Section 66265.73.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.279.

66265.280. Closure and Post-Closure.

(a) In the closure plan under Section 66265.112 and the post-closure plan under Section 66265.118, the owner or operator shall address the following objectives and indicate how they will be achieved:

(1) Prevention of the migration of hazardous waste and hazardous waste constituents from the treated area into the ground water;

(2) Prevention of the release of contaminated run-off from the facility into surface water;

(3) Prevention of the release of airborne particulate contaminants caused by wind erosion; and

(4) Compliance with Section 66265.276 concerning the growth of food-chain crops.

(b) The owner or operator shall consider at least the following factors in addressing the closure and post-closure care objectives of subsection (a) of this section:

(1) Type and amount of hazardous waste and hazardous waste constituents applied to the land treatment facility;

(2) The mobility and the expected rate of migration of the hazardous waste and hazardous waste constituents;

(3) Site location, topography, and surrounding land use, with respect to the potential effects of pollutant migration (e.g., proximity to ground water, surface water and drinking water sources);

(4) Climate, including amount, frequency, and pH of precipitation;

(5) Geological and soil profiles and surface and subsurface hydrology of the site, and soil characteristics, including cation exchange capacity, total organic carbon, and pH;

(6) Vadose zone monitoring information obtained under Section 66265.278; and

(7) Type, concentration, and depth of migration of hazardous waste constituents in the soil as compared to their background concentrations.

(c) The owner or operator shall consider at least the following methods in addressing the closure and post-closure care objectives of subsection (a) of this section:

(1) Removal of contaminated soils;

(2) Placement of a final cover, considering:

(A) Functions of the cover (e.g., infiltration control, erosion and run-off control, and wind erosion control); and

(B) Characteristics of the cover, including material, final surface contours, thickness, porosity and permeability, slope, length of run of slope, and type of vegetation on the cover; and

(3) Monitoring of ground water.

(d) In addition to the requirements of Article 7 of this chapter, during the closure period the owner or operator of a land treatment facility shall:

(1) Continue vadose zone monitoring in a manner and frequency specified in the closure plan, except that soil pore liquid monitoring may be terminated 90 days after the last application of waste to the treatment zone;

(2) Maintain the run-on control system required under Section 66265.272(b);

(3) Maintain the run-off management system required under Section 66265.272(c); and

(4) Control wind dispersal of particulate matter which may be subject to wind dispersal.

(e) For the purpose of complying with Section 66265.115, when closure is completed the owner or operator may submit to the Department certification both by the owner or operator and by an independent qualified soil scientist, or an independent California

Certified Engineering Geologist, in lieu of an independent California registered professional engineer, that the facility has been closed in accordance with the specifications in the approved closure plan.

(f) In addition to the requirements of Section 66265.117, during the post-closure care period the owner or operator of a land treatment unit shall:

(1) Continue soil-core monitoring by collecting and analyzing samples in a manner and frequency specified in the post-closure plan;

(2) Restrict access to the unit as appropriate for its post-closure use;

(3) Control wind dispersal of hazardous waste.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.280.

66265.281. Special Requirements for Ignitable or Reactive Waste.

The owner or operator shall not apply ignitable or reactive waste to the treatment zone unless the waste and treatment zone meet all applicable requirements of Chapter 18 of this Division, and:

(a) The waste is immediately incorporated into the soil so that:

(1) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under Sections 66261.21 or 66261.23 of this chapter; and

(2) Section 66264.17(b) is complied with; or

(b) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.281.

66265.282. Special Requirements for Incompatible Wastes.

Incompatible wastes, or incompatible wastes and materials (see Appendix V for examples), shall not be placed in the same land treatment area, unless Section 66265.17 (b) is complied with.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.282.

Article 14. Landfills

66265.300. Applicability.

The regulations in this article apply to owners and operators of facilities that dispose of hazardous waste in landfills, except as Section 66265.1 provides otherwise. A waste pile used as a disposal facility is a landfill and is governed by this article.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.300.

66265.301. Design Requirements.

(a) The owner or operator of a landfill shall install two or more liners and leachate collection systems above and between such liners in accordance with Section 66264.301(c), with respect to each new unit, replacement of an existing unit, or lateral expansion of an existing unit that is within the area identified in the Part A permit application, and with respect to RCRA hazardous waste received beginning May 8, 1985 and non-RCRA hazardous waste received after the effective date of these regulations.

(b) The owner or operator of each unit referred to in subsection (a) of this section shall notify the Department at least sixty days prior to receiving waste. The owner or operator of each facility submitting notice shall file a Part B application within six months of the receipt of such notice.

(c) Subsection (a) of this section will not apply if the owner or operator demonstrates to the Department, and the Department finds for such landfill, that alternative design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituent into the ground water or surface water at least as effectively as such liners and leachate collection systems.

(d) The double liner requirement set forth in subsection (a) of this section shall be waived by the Department for any monofill, if:

(1) The monofill contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand, and such wastes do not contain constituents which would render the wastes hazardous for reasons other than exceeding the soluble threshold limit concentration as described in Section 66261.24; and

(2) (A) 1. The monofill has at least one liner for which there is no evidence that such liner is leaking;

2. The monofill is located more than one-quarter mile from an underground source of drinking water as defined in Section 66260.10; and

3. The monofill is in compliance with generally applicable groundwater monitoring requirements for facilities with hazardous waste facility permits or

(B) The owner or operator demonstrates to the satisfaction of the Department that the monofill is located, designed and operated so as to assure that there will be no migration of any hazardous constituent into ground water or surface water at any future time.

(e) In the case of any unit in which the liner and leachate collection system has been installed pursuant to the requirements of subsection (a) of this Section, and in good faith compliance with subsection (a) of this Section no liner or leachate collection system which is different from that which was so installed pursuant to subsection (a) of this section will be required for such unit by the

Department when issuing the first permit to such facility, except that the Department will not be precluded from requiring installation of a new liner when the Department has reason to believe that any liner installed pursuant to the requirements of subsection (a) of this section is leaking.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.301.

66265.302. General Operating Requirements.

(a) The owner or operator shall design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the landfill during peak discharge from at least a 25-year storm.

(b) The owner or operator shall design, construct, operate and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

(c) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

(d) The owner or operator of a landfill containing hazardous waste which is subject to dispersal by wind shall cover or otherwise manage the landfill so that wind dispersal of the hazardous waste is controlled.

(e) As required by Section 66265.13, the waste analysis plan must include analyses needed to comply with Sections 66265.312, 66265.313, and 66265.314. As required by Section 66265.73, the owner or operator shall place the results of these analyses in the operating record of the facility.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.302.

66265.309. Surveying and Recordkeeping.

The owner or operator of a landfill shall maintain the following items in the operating record required in Section 66265.73:

(a) On a map, the exact location and dimensions, including depth, of each cell with respect to permanently surveyed benchmarks with horizontal and vertical controls; and

(b) The contents of each cell and the approximate location of each hazardous waste type within each cell.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.309.

66265.310. Closure and Postclosure Care.

(a) At final closure of the landfill or upon closure of any cell, the owner or operator shall cover the landfill or cell with a final cover designed and constructed to:

(1) Prevent the downward entry of water into the closed landfill throughout a period of at least 100 years;

(2) Function with minimum maintenance;

(3) Promote drainage and minimize erosion or abrasion of the cover;

(4) Accommodate settling and subsidence so that the cover's integrity is maintained;

(5) Have a permeability less than the permeability of any bottom liner system or natural subsoils present;

(6) Accommodate lateral and vertical shear forces generated by the maximum credible earthquake so that the integrity of the cover is maintained;

(7) Preclude ponding of rainfall, surface run-off or run-on over the closed area;

(8) Conform to the provisions of subsections (e) through (r) of Section 66264.228, except that the Department shall grant a variance from any requirement of subsections (e) through (r) which the owner or operator demonstrates to the satisfaction of the Department is not necessary to protect public health, water quality or other environmental quality. .pp (b) After final closure, the owner or operator shall comply with all postclosure requirements contained in Sections 66265.117 through 66265.120 including maintenance and monitoring throughout the postclosure care period. The owner or operator shall:

(1) Close the facility in a manner that will minimize: any chance of postclosure release of hazardous waste or discarded hazardous material; facilitate postclosure maintenance, monitoring and emergency response; and require minimum maintenance of containment structures, leachate collection systems and surface drainage collection or diversion systems.

(2) Maintain the integrity and effectiveness of the final cover, including making repairs to the cover as necessary to correct the effects of settling, subsidence, erosion or other events;

(3) Maintain and monitor the groundwater monitoring system and comply with all other applicable requirements of Article 6 of Chapter 14;

(4) Prevent run-on and run-off from eroding or otherwise damaging the final cover; and

(5) Protect and maintain surveyed benchmarks used in complying with Section 66265.309.

(c) If liquid has been disposed of at the site in containers, in bulk or in a moist semisolid that will drain when the weight of overburden is applied, the owner or operator shall do one of the following before closing the facility:

(1) Demonstrate to the satisfaction of the department that incompatible wastes do not commingle and that nongaseous constituents of waste cannot migrate from the site; or

(2) Provide measures to prevent incompatible waste from mixing after closure and to prevent migration of nongaseous waste constituents from the site after closure.

(d) The owner or operator shall consider at least the following factors in addressing the closure and postclosure care objectives of subsection (a) of this section:

(1) Type and amount of hazardous waste and hazardous waste constituents in the landfill.

(2) The mobility and the expected rate of migration of the hazardous waste and hazardous waste constituents.

(3) Site location, topography and surrounding land use, with respect to the potential effects of pollutant migration (e.g., proximity to groundwater, surface water and drinking water sources);

(4) Climate, including amount, frequency and pH of precipitation;

(5) Characteristics of the cover, including material, final surface contours, thickness, porosity and permeability, slope, length of run of slope and type of vegetation on the cover; and

(6) Geological and soil profiles and surface and subsurface hydrology of the site.

(e) In addition to the requirements of Section 66265.117, during the postclosure care period, the owner or operator of a hazardous waste landfill shall:

(1) Maintain the function and integrity of the final cover as specified in the approved closure plan;

(2) Maintain and monitor the leachate collection, removal and treatment system (if there is one present in the landfill) to prevent excess accumulation of leachate in the system;

(3) Maintain and monitor the gas collection and control system (if there is one present in the landfill) to control the vertical and horizontal escape of gases;

(4) Protect and maintain surveyed benchmarks; and

(5) Restrict access to the landfill as appropriate for its postclosure use.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.310.

66265.312. Special Requirements for Ignitable or Reactive Waste.

(a) Except as provided in subsection (b) of this section, and in Section 66265.316, ignitable or reactive waste shall not be placed in a landfill, unless the waste and landfill meets all applicable requirements of Chapter 18 of this Division, and the waste is treated, rendered, or mixed before or immediately after placement in a landfill so that:

(1) The resulting waste, mixture, or dissolution or material no longer meets the definition of ignitable or reactive waste under Sections 66261.21 or 66261.23; and

(2) Section 66265.17 (b) is complied with.

(b) Except for prohibited wastes which remain subject to treatment standards in Article 4 of Chapter 18 of this Division, solid ignitable wastes in containers may be landfilled without meeting the requirements of subsection (a) of this section provided that the wastes are disposed in such a way that they are protected from any material or conditions which may cause them to ignite. At a minimum, ignitable wastes shall be disposed in non-leaking containers which are carefully handled and placed so as to avoid heat, sparks, rupture, or any other condition that might cause ignition of the wastes; shall be covered daily with soil or other non-combustible material to minimize the potential for ignition of the wastes; and shall not be disposed in cells that contain or will contain other

wastes which may generate heat sufficient to cause ignition of the waste.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.312.

66265.313. Special Requirements for Incompatible Wastes.

Incompatible wastes, or incompatible wastes and materials, (see Appendix V for examples) shall not be placed in the same landfill cell, unless Section 66265.17(b) is complied with.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.313.

66265.314. Special Requirements for Bulk and Containerized Liquids.

(a) Effective February 2, 1985, the placement of bulk or noncontainerized liquid hazardous waste or hazardous waste containing free liquids (whether or not absorbents have been added) in any landfill is prohibited.

(b) Containers holding free liquids shall not be placed in a landfill unless:

(1) All freestanding liquid: (i) has been removed by decanting, or other methods; (ii) has been mixed with absorbent or solidified so that freestanding liquid is no longer observed; or (iii) has been otherwise eliminated; or

(2) All freestanding liquid (i) has been removed by decanting, or other methods, (ii) has been mixed with absorbent or solidified so that freestanding liquid is no longer observed or (iii) had been otherwise eliminated; or

(3) The container is very small, such as an ampule; or

(4) The container is designed to hold free liquids for use other than storage, such as a battery or capacitor; or

(5) The container is a lab pack as defined in Section 66265.316 and is disposed of in accordance with Section 66265.316.

(c) To demonstrate the absence or presence of free liquids in either a containerized or a bulk waste, the facility shall use Method 9095 (as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" - EPA Publication SW-846 Third Edition), except that the representative sample size shall be 100 milliliters and a 400 micron standard conical filter shall be used in lieu of the 60 mesh filter described in Method 9095.

(d) Effective November 8, 1985, the placement of any liquid which is not a hazardous waste in a landfill is prohibited unless the owner or operator of such landfill demonstrates to the Department, or the Department determines, that:

(1) The only reasonably available alternative to the placement in such landfill is placement in a landfill or unlined surface impoundment, whether or not permitted or operating under interim status, which contains, or may reasonably be anticipated to contain, hazardous waste; and

(2) Placement in such owner or operator's landfill will not present a risk of contamination of any underground source of drinking water (as that term is defined in Section 66260.10).

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25159, 25159.5 and 25179.5 Health and Safety Code; 40 CFR Section 265.314.

66265.315. Special Requirements for Containers.

Unless they are very small, such as an ampule, containers shall be either:

(a) At least 90 percent full when placed in the landfill; or

(b) Crushed, shredded, or similarly reduced in volume to the maximum practical extent before burial in the landfill.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.315.

66265.316. Disposal of Small Containers of Hazardous Waste in Overpacked Drums (Lab Packs).

Small containers of hazardous waste in overpacked drums (lab packs) may be placed in a landfull if the following requirements are met:

(a) Hazardous waste shall be packaged in non-leaking inside containers. The inside containers shall be of a design and constructed of a material that will not react dangerously with, be decomposed by, or be ignited by the waste held therein. Inside containers shall be tightly and securely sealed. The inside containers shall be of the size and type specified in the Department of Transportation (DOT) hazardous materials regulations (49 CFR Parts 173, 178 and 179), if those regulations specify a particular inside container for the waste.

(b) The inside containers shall be overpacked in an open head DOT-specification metal shipping container (49 CFR Parts 178 and 179) of no more than 416-liter (110 gallon) capacity and surrounded by, at a minimum, a sufficient quantity of absorbent material to completely absorb all of the liquid contents of the inside containers. The metal outer container shall be full after packing with inside containers and absorbent material.

(c) The absorbent material used shall not be capable of reacting dangerously with, being decomposed by, or being ignited by the

contents of the inside containers, in accordance with Section 66265.17 (b).

(d) Incompatible wastes, as defined in Section 66260.10, shall not be placed in the same outside container.

(e) Reactive waste, other than cyanide- or sulfide-bearing waste as defined in Section 66261.23 (a) (5), shall be treated or rendered non-reactive prior to packaging in accordance with subsections (a) through (d) of this section. Cyanide- and sulfide-bearing reactive waste may be packaged in accordance with subsections (a) through (d) of this section without first being treated or rendered non-reactive provided that the cyanide concentration is less than 1000 mg/l.

(f) Such disposal is in compliance with the requirements of Chapter 18 of this Division. Persons who incinerate lab packs according to the requirements of Section 66268.42(c)(1) may use fiber drums in place of metal outer containers. Such fiber drums must meet the DOT specifications in 49 CFR 173.12 and be overpacked according to the requirements in Subsection (b) of this Section.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.316.

66265.317. Special Requirements for Nonliquid Waste.

(a)(1) Effective October 12, 1991, all nonliquid hazardous waste, bulk or containerized, must contain less than 50 percent moisture by weight prior to disposal in a hazardous waste landfill.

(a)(2) The requirements in (a)(1) must be met by treatment as defined in Health and Safety Code Section 25179.3(j).

The moisture content shall be determined by pulverizing the entire sample coarsely on a clean surface by hand, using rubber gloves. Twenty-five to 50 grams shall be placed in a prepared evaporating dish and weighed. The sample shall then be placed in an oven at 103 to 105 degrees centigrade for 1 hour. The dish shall be cooled in a desiccator to 20 degrees centigrade for 1 hour and then reweighed. The cycle of drying, cooling, and weighing shall be repeated until a constant weight is obtained or until the weight loss is less than 4 percent of the previous weight.

(b) The calculation in subsection (a) shall be in accordance with the following formula:

Percent Moisture = [(A-B)/(A-C)] X 100

Where:

A = Weight of evaporating dish and original sample, grams

B = Weight of evaporating dish and oven dried sample, grams

C = Weight of evaporating dish, grams.

(c) Lab Packs as defined in Section 66264.316 are exempt from Section 66264.317(a).

NOTE: Authority cited: Section 208, 25179.5, Health and Safety Code.
Reference: Sections 25159, 25159.5, 25179.5(b) and 25179.9 Health and Safety Code.

Article 15-Incinerators

66265.340. Applicability.

(a) The regulations in this article apply to owners or operators of facilities that incinerate hazardous waste, except as Section 66264.1 provides otherwise. The following facility owners or operators are considered to incinerate hazardous waste:

(1) Owners or operators of hazardous waste incinerators (as defined in Section 66260.10); and

(2) Owners or operators who burn hazardous waste in boilers or in industrial furnaces.

(b) Owners and operators of incinerators burning hazardous waste are exempt from all of the requirements of this article except Section 66265.351 (Closure), provided that the owner or operator has documented, in writing, that the waste would not reasonably be expected to contain any of the hazardous constituents listed in, Appendix VIII to Chapter 11 of this division, and such documentation is retained at the facility, if the waste to be burned is:

(1) Listed as a hazardous waste in Article 4 of Chapter 11 of this division solely because it is ignitable (Hazard Code I), corrosive (Hazard Code C), or both; or

(2) Listed as a hazardous waste in Article 4 of Chapter 11 of this division solely because it is reactive (Hazard Code R) for characteristics other than those listed in Section 66261.23(a)(4) and (a)(5), and will not be burned when other hazardous wastes are present in the combustion zone; or

NA

(3) A hazardous waste solely because it possesses the characteristic of ignitability, corrosivity, or both, as determined by the tests for characteristics of hazardous wastes; or NA

(4) A hazardous waste solely because it possesses the reactivity characteristics described by Section 66261.23(a)(1), (a)(2), (a)(3), (a)(6), (a)(7), (a)(8), and will not be burned when other hazardous wastes are present in the combustion zone. NA

NOTE: Authority cited: Sections 208 and 25159, Health and Safety Code.
Reference: Sections 25159.5 and 25200, Health and Safety Code, and 40 CFR Section 265.340.

FUEL (X) (I)
WASTE OIL (X)
X = TOXIC

66265.341. Waste Analysis.

(a) In addition to the waste analyses required by Section 66265.13, the owner or operator shall sufficiently analyze any waste which that owner or operator has not previously burned in that owner or operator's incinerator to enable himthat owner or operator to establish steady state (normal) operating conditions (including waste and auxiliary fuel feed and air flow) and to determine the type of pollutants which might be emitted. At a minimum, the analysis shall determine:

(1) Heating value of the waste;

(2) Halogen content and sulfur content in the waste; and

(3) Concentrations in the waste of lead and mercury, unless the owner or operator has written, documented data that show that the element is not present.

(b) As required by Section 66265.73, the owner or operator must place the results from each waste analysis, or the documented information, in the operating record of the facility.

NOTE: Authority cited: Sections 208 and 25159, Health and Safety Code.
Reference cited: Sections 25159.5 and 25200, Health and Safety Code, and 40 CFR Section 265.341.

66265.342 [Reserved]

66265.343 [Reserved]

66265.344 [Reserved]

66265.347. Monitoring and Inspections.

(a) The owner or operator shall conduct, as a minimum, the following monitoring and inspections when incinerating hazardous waste:

(1) Existing instruments which relate to combustion and emission control shall be monitored at least every 15 minutes. Appropriate corrections to maintain steady state combustion conditions shall be made immediately either automatically or by the operator. Instruments which relate to combustion and emission control would normally include those measuring waste feed, auxiliary fuel feed, air flow, incinerator temperature, scrubber flow, scrubber pH, and relevant level controls.

(2) The complete incinerator and associated equipment (pumps, valves, conveyors, pipes, etc.) shall be inspected at least daily for leaks, spills, and fugitive emissions, and all emergency shutdown controls and system alarms must be checked to assure proper operation.

NOTE: Authority cited: Sections 208 and 25159, Health and Safety Code.
Reference: Sections 25159.5 and 25200, Health and Safety Code, and 40 CFR Section 265.347.

66265.348 [Reserved]

66265.349 [Reserved]

66265.350 [Reserved]

66265.351. Closure.

At closure, the owner or operator shall remove all hazardous waste and hazardous waste residues (including but not limited to ash, scrubber waters, and scrubber sludges) from the incinerator site.

At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with Section 66261.3(d) of this division, that the residue removed from that owner or operator's incinerator is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and shall manage it in accordance with all applicable requirements of this division.

NOTE: Authority cited: Sections 208 and 25159, Health and Safety Code.
Reference cited: Sections 25159.5 and 25200, Health and Safety Code, and 40 CFR Section 264.351.

66265.352. Interim Status Incinerators Burning Particular Hazardous Wastes.

(a) Owners or operators of incinerators subject to this article may burn EPA Hazardous Wastes FO20, FO21, FO22, FO23, FO26, or FO27 if they receive a certification from the USEPA Assistant Administrator for Solid Waste and Emergency Response that they can meet the performance standards of Article 15 of Chapter 14 of this division when they burn these wastes.

(b) The following standards and procedures will be used in determining whether to certify an incinerator:

(1) The owner or operator will submit an application to the USEPA Assistant Administrator for Solid Waste and Emergency Response containing applicable information in Sections 66270.19 and 66270.62 demonstrating that the incinerator can meet the performance standards in Article 15 of Chapter 14 of this division when they burn these wastes.

(2) The USEPA Assistant Administrator for Solid Waste and Emergency Response will issue a tentative decision as to whether the incinerator can meet the performance standards in Article 15 of Chapter 14 of this division. Notification of this tentative decision will be provided by newspaper advertisement and radio broadcast in the jurisdiction where the incinerator is located. The USEPA Assistant Administrator for Solid Waste and Emergency Response will accept comment on the tentative decision for 60 days. The USEPA

Assistant Administrator for Solid Waste and Emergency Response also may hold a public hearing upon request or at the Assistant Administrator's discretion.

(3) After the close of the public comment period, the USEPA Assistant Administrator for Solid Waste and Emergency Response will issue a decision whether or not to certify the incinerator.

NOTE: Authority cited: Sections 208 and 25159, Health and Safety Code.
Reference: Sections 25159.5 and 25200, Health and Safety Code, and 40 CFR Section 265.352.

66265.353-66265.369 [Reserved]

Article 16-Thermal Treatment

66265.370. Other Thermal Treatment.

The regulations in this article apply to owners or operators of facilities that thermally treat hazardous waste in devices other than enclosed devices using controlled flame combustion, except as Section 66265.1 provides otherwise. Thermal treatment in enclosed devices using controlled flame combustion is subject to the requirements of Article 15 of this chapter if the unit is an incinerator.

NOTE: Authority cited: Sections 208 and 25159, Health and Safety Code.
Reference cited: Sections 25159.5 and 25200, Health and Safety Code, and 40 CFR Section 265.370.

66265.373. General Operating Requirements.

Before adding hazardous waste, the owner or operator shall bring his thermal treatment process to steady state (normal) conditions of operation-including steady state operating temperature using auxiliary fuel or other means, unless the process is a noncontinuous (batch) thermal treatment process which requires a complete thermal cycle to treat a discrete quantity of hazardous waste.

NOTE: Authority cited: Sections 208 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5 and 25200, Health and Safety Code and 40 CFR Section 265.373.

66265.375. Waste Analysis.

(a) In addition to the waste analyses required by Section 66265.13, the owner or operator must sufficiently analyze any waste which he has not previously treated in that owner's or operator's thermal process to enable that owner or operator to establish steady state (normal) or other appropriate (for a non-continuous process) operating conditions (including waste and auxiliary fuel feed) and to determine the type of pollutants which might be emitted. At a minimum, the analysis must determine:

(1) Heating value of the waste;

(2) Halogen content and sulfur content in the waste; and

(3) Concentrations in the waste of lead and mercury, unless the owner or operator has written, documented data that show that the element is not present.

(b) As required by Section 66265.73, the owner or operator must place the results from each waste analysis, or the documented information, in the operating record of the facility.

NOTE: Authority cited: Sections 208 and 25159, Health and Safety Code.
Reference: Sections 25159.5 and 25200, Health and Safety Code and 40 CFR Section 265.375.

66265.377. Monitoring and Inspections.

(a) The owner or operator shall conduct, as a minimum, the following monitoring and inspections when thermally treating hazardous waste:

(1) Existing instruments which relate to temperature and emission control (if an emission control device is present) shall be monitored at least every 15 minutes. Appropriate corrections to maintain steady state or other appropriate thermal treatment conditions shall be made immediately either automatically or by the operator. Instruments which relate to temperature and emission control would normally include those measuring waste feed, auxiliary fuel feed, treatment process temperature, and relevant process flow and level controls.

(2) The stack plume (emissions), where present, shall be observed visually at least hourly for normal appearance (color and opacity). The operator shall immediately make any indicated operating corrections necessary to return any visible emissions to their normal appearance.

(3) The complete thermal treatment process and associated equipment (pumps, valves, conveyors, pipes, etc.) shall be inspected at least daily for leaks, spills, and fugitive emissions, and all emergency shutdown controls and system alarms must be checked to assure proper operation.

NOTE: Authority cited: Sections 208 and 25159, Health and Safety Code.
Reference: Sections 25159.5 and 25200, Health and Safety Code; 40 CFR Section 265.377.

66265.381. Closure.

At closure, the owner or operator shall remove all hazardous waste and hazardous waste residues (including, but not limited to, ash) from the thermal treatment process or equipment. At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with Section 66261.3(c) or (d), that any waste removed from that owner or operator's thermal treatment process or equipment is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and shall manage it in accordance with all applicable requirements of this division.

NOTE: Authority cited: Sections 208 and 25159, Health and Safety Code.
Reference cited: Sections 25159.5 and 25200, Health and Safety Code, and 40 CFR Section 265.381.

66265.382. Open Burning; Waste Explosives.

Open burning of hazardous waste is prohibited except for the open burning and detonation of waste explosives. Waste explosives include waste which has the potential to detonate and bulk military propellants which cannot safely be disposed of through other modes of treatment. Detonation is an explosion in which chemical transformation passes through the material faster than the speed of sound (0.33 kilometers/second at sea level). Owners or operators choosing to open burn or detonate waste explosives shall do so in accordance with the following table and in a manner that does not threaten human health or the environment.

Pounds of waste explosives or propellants	Minimum distance from open burning or detonation to the property of others
0 to 100	204 meters (670 feet).
101 to 1,000	380 meters (1,250 feet).
1,001 to 10,000	530 meters (1,730 feet).
10,001 to 30,000	690 meters (2,260 feet).

NOTE: Authority cited: Sections 208 and 25159, Health and Safety Code.
Reference cited: Sections 25159.5 and 25200, Health and Safety Code; 40 CFR Section 265.382.

66265.383. Interim Status Thermal Treatment Devices Burning Particular Hazardous Waste.

(a) Owners or operators of thermal treatment devices subject to this subpart may burn EPA Hazardous Wastes FO20, FO21, FO22, FO23, FO26, or FO27 if they receive a certification from the USEPA Assistant Administrator for Solid Waste and Emergency Response that they can meet the performance standards of Article 15 of Chapter 14 of this division when they burn these wastes.

(b) The following standards and procedures will be used in determining whether to certify a thermal treatment unit:

(1) The owner or operator will submit an application to the USEPA Assistant Administrator for Solid Waste and Emergency Response containing the applicable information in Section 66270.19 and 66270.62 demonstrating that the thermal treatment unit can meet the performance standard in Article 15 of Chapter 14 of this division when they burn these wastes.

(2) The USEPA Assistant Administrator for Solid Waste and Emergency Response will issue a tentative decision as to whether the thermal treatment unit can meet the performance standards in Article 15 of Chapter 14 of this division. Notification of this tentative decision will be provided by newspaper advertisement and radio broadcast in the jurisdiction where the thermal treatment device is located. The USEPA Assistant Administrator for Solid Waste and Emergency Response will accept comment on the tentative decision for 60 days. The USEPA Assistant Administrator for Solid Waste and

Emergency Response also may hold a public hearing upon request or at the Assistant Administrator's discretion.

(3) After the close of the public comment period, the USEPA Assistant Administrator for Solid Waste and Emergency Response will issue a decision whether or not to certify the thermal treatment unit.

NOTE: Authority cited: Sections 208 and 25159, Health and Safety Code.
Reference: Sections 25159.5 and 25200, Health and Safety Code, and 40 CFR, Section 265.383.

Article 17. Chemical, Physical, and Biological Treatment

66265.400. Applicability.

The regulations in this article apply to owners and operators of facilities which treat hazardous wastes by chemical, physical, or biological methods in other than tanks, surface impoundments, and land treatment facilities, except as Section 66265.1 provides otherwise. Chemical, physical, and biological treatment of hazardous waste in tanks, surface impoundments, and land treatment facilities shall be conducted in accordance with Articles 10, 11, and 13, respectively.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.400.

66265.401. General Operating Requirements.

(a) Chemical, physical, or biological treatment of hazardous waste shall comply with Section 66265.17 (b).

(b) Hazardous wastes or treatment reagents shall not be placed in the treatment process or equipment if they could cause the treatment process or equipment to rupture, leak, corrode, or otherwise fail before the end of its intended life.

(c) Where hazardous waste is continuously fed into a treatment process or equipment, the process or equipment shall be equipped with a means to stop this inflow (e.g., a waste feed cut-off system or by-pass system to a standby containment device).

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.401.

66265.402. Waste Analysis and Trial Tests.

(a) In addition to the waste analysis required by Section 66265.13, the owner or operator shall comply with subsection (b) of this section, whenever:

(1) A hazardous waste which is substantially different from waste previously treated in a treatment process or equipment at the facility is to be treated in that process or equipment, or

(2) A substantially different process than any previously used at the facility is to be used to chemically treat hazardous waste.

(b) The owner or operator shall, before treating the different waste or using the different process or equipment:

(1) Conduct waste analyses and trial treatment tests (e.g., bench scale or pilot plant scale tests); or

(2) Obtain written, documented information on similar treatment of similar waste under similar operating conditions; to show that this proposed treatment will meet all applicable requirements of Sections 66265.401 (a) and (b).

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
References: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.402.

66265.403. Inspections.

(a) The owner or operator of a treatment facility shall inspect, where present:

(1) Discharge control and safety equipment (e.g., waste feed cut-off systems, by-pass systems, drainage systems, and pressure relief systems) at least once each operating day, to ensure that it is in good working order;

(2) Data gathered from monitoring equipment (e.g., pressure and temperature gauges), at least once each operating day, to ensure that the treatment process or equipment is being operated according to its design;

(3) The construction materials of the treatment process or equipment, at least weekly, to detect corrosion or leaking of fixtures or seams; and

(4) The construction materials of, and the area immediately surrounding, discharge confinement structures (e.g., dikes), at least weekly, to detect erosion or obvious signs of leakage (e.g., wet spots or dead vegetation).

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.403.

66265.404. Closure.

At closure, all hazardous waste and hazardous waste residues shall be removed from treatment processes or equipment, discharge control equipment, and discharge confinement structures. In addition, owners and operators of incinerators shall comply with the requirements of Section 66265.351. At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with Section 66261.3 (d) or (e) of this division, that any waste removed from the treatment process or equipment is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and shall manage it in accordance with all applicable requirements of Chapters 12, 13, and 15 of this division.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.404.

66265.405. Special Requirements for Ignitable or Reactive Waste.

Ignitable or reactive waste shall not be placed in a treatment process or equipment unless:

(a) The waste is treated, rendered, or mixed before or immediately after placement in the treatment process or equipment so that

(1) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under Section 66261.21 or 66261.23 of this division, and

(2) Section 66265.17 (b) is complied with; or

(b) The waste is treated in such a way that it is protected from any material or conditions which may cause the waste to ignite or react.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.405.

66265.406. Special Requirements for Incompatible Wastes.

(a) Incompatible wastes, or incompatible wastes and materials, (see Appendix V for examples) shall not be placed in the same treatment process or equipment, unless Section 66265.17 (b) is complied with.

(b) Hazardous waste shall not be placed in unwashed treatment equipment which previously held an incompatible waste or material, unless Section 66265.17 (b) is complied with.

Note: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 265.406.

Article 18. Environmental Monitoring of Air and Soil-Pore Gas for Interim Status Facilities

66265.710. Applicability to Interim Status Facilities.

(a) Sections 66265.710 through 66265.714 of this chapter apply to owners or operators of interim status facilities that treat, store, recycle or dispose of hazardous waste in a surface impoundment, waste pile, land treatment unit or landfill (hereinafter referred to as a regulated unit), except as Section 66265.1 and subsection (b) of this section provide otherwise. The owner or operator of a regulated unit that receives hazardous waste after February 2, 1985 shall install, operate and maintain an environmental monitoring system which meets the requirements of Section 66265.711 and shall comply with Sections 66265.712 through 66265.714. This environmental monitoring program shall be carried out during the active life of the regulated unit, and for units where hazardous waste will remain after closure, during the post-closure care period as well.

(b) All or part of the environmental monitoring requirements of this article shall be waived if the owner or operator demonstrates to the satisfaction of the Department that hazardous waste will not migrate from the regulated unit during the active life of the unit (including the closure period) and the post-closure care period and that any waste remaining in the unit does not pose a threat to human health and the environment. These demonstrations shall be in writing, and shall be kept at the facility. The demonstration that gas, vapor or airborne solids will not migrate shall be certified by

an independent, qualified chemical engineer. The demonstration that liquid will not migrate shall be certified by an independent, certified engineering geologist or professional civil engineer registered in California and shall establish the following:

(1) The potential for migration of hazardous waste or hazardous waste constituents from the regulated unit via transport through soil, water or air.

(2) The potential for migration of hazardous waste or hazardous waste constituents from the regulated unit to ground water, by an evaluation of;

(A) A water balance of precipitation, evapotranspiration, runoff and infiltration.

(B) Unsaturated zone characteristics (i.e., geologic materials, physical properties and depth to ground water).

NOTE: Authority cited: Sections 208 and 25150, Health and Safety Code.
Reference: Sections 25150 (a), 25159, 25159.5 and 25245, Health and Safety.

66265.711. Environmental Monitoring System for Interim Status Facilities.

The owner or operator of a regulated unit that contains hazardous waste, or discarded hazardous material, that contains a volatile toxic substance, or a hazardous material that can become airborne, or that can decompose or react to form a volatile toxic substance or toxic gas, shall provide for representative sampling and analysis of air upwind and at the disposal area and of air in the vapor space at vapor and gas monitoring wells, established by the owner or operator to the satisfaction of the Department. Such monitoring shall be conducted throughout the active life and the post-closure care period of the facility. Vapor and gas monitoring wells shall be covered with collection chambers. The owner or operator shall provide inside the collection chambers probes or equivalent methodologies that actively sense the concentration of substances specified pursuant to Section 66265.712(b). If necessary to protect human health or the environment, the owner or operator shall provide instrumentation that provides continuous recording of concentrations of substances in open air and in atmosphere at vapor wells.

NOTE: Authority cited: Sections 208 and 25150, Health and Safety Code.
Reference: Sections 25150 (a), 25159, 25159.5 and 25245, Health and Safety Code.

66265.712. Sampling and Analysis for Interim Status Facilities.

(a) The owner or operator shall develop and follow an environmental sampling and analysis plan that satisfies the requirements of this article. The owner or operator shall submit this plan to the Department within 90 days of the effective date of these regulations. The owner or operator shall submit all modifications to the environmental sampling and analysis plan to the Department and shall maintain an updated version of the environmental sampling and analysis plan in the operating record at the facility. The Department shall require the owner or operator to modify the environmental sampling and analysis plan as necessary to protect human health or the environment.

(b) Samples will be analyzed for those substances specified in the environmental sampling and analysis plan. Unless the Department approves an alternate list of monitoring parameters, the owner or operator shall analyze the samples to determine the concentration of all constituents that cause waste at the regulated unit to be hazardous waste. The owner or operator shall specify for the regulated unit the location and frequency of monitoring and the type of statistical test that will be used. The owner or operator shall submit a report to the Department that indicates the results of the analysis and the concentrations of constituents in the air and soil-pore gas sampled. The report shall be submitted to the Department within 30 days of the date and time analyses are completed.

NOTE: Authority cited: Sections 208 and 25150, Health and Safety Code.
Reference: Sections 25150 (a), 25159, 25159.5 and 25245, Health and Safety Code.

66265.713. Preparation, Evaluation and Response for Interim Status Facilities.

(a) Within one year after the effective date of this section, the owner or operator shall prepare a comprehensive environmental monitoring program capable of determining:

(1) Whether hazardous waste or hazardous waste constituents have migrated from the facility in air or in soil-pore gas.

(2) The rate and extent of migration of hazardous waste or hazardous waste constituents in air and in soil-pore gas.

(3) The concentrations of hazardous waste or hazardous waste constituents in air and in soil-pore gas.

(b) If the owner or operator determines through the environmental monitoring pursuant to Section 66265.712, or the comprehensive environmental monitoring pursuant to subsection (a) of this section, that hazardous waste or hazardous waste constituents have migrated from the regulated unit through air or soil-pore gas, the owner or operator shall, within 15 days of such determination, develop and submit to the Department a specific plan, certified by a qualified certified engineering geologist or qualified geologist or geotechnical engineer or civil engineer registered in California, for an environmental quality assessment program at the facility.

(c) The plan to be submitted under subsection (b) of this section shall specify:

(1) The number, location and depth of sampling stations.

(2) Sampling and analytical methods for those hazardous wastes or hazardous waste constituents in the regulated unit.

(3) Evaluation procedures, including any use of previously gathered information on the chemical characteristics of soil, soil-pore gas, and air.

(4) A schedule of implementation.

(d) The owner or operator shall implement the environmental quality assessment plan which satisfies the requirements of subsection (c) of this section and, at a minimum, determine:

(1) The rate and extent of migration of the hazardous waste or hazardous waste constituents in air or in soil-pore gas.

(2) The concentrations of the hazardous waste or hazardous waste constituents in air and in soil-pore gas.

(e) The owner or operator shall make the first determination under subsection (d) of this section as soon as technically feasible and, within 15 days after that determination, submit to the

Department a written report containing an assessment of the environmental quality.

(f) If the owner or operator determines to the satisfaction of the Department, based on the results of the first determination under subsection (d) of this section, that no hazardous waste or hazardous waste constituents have migrated from the regulated unit, then the owner or operator may reinstate the indicator evaluation program described in Section 66265.712. If the owner or operator reinstates the indicator evaluation program, the owner or operator shall so notify the Department in the report submitted under subsection (e) of this section.

(g) If the owner or operator determines, based on the first determination under subsection (d) of this section, that hazardous waste or hazardous waste constituents have migrated from the facility, then the owner or operator:

(1) Shall continue to make the determinations required under subsection (d) of this section on a quarterly basis until final closure of the facility, if the environmental quality assessment plan was implemented prior to final closure of the facility; or

(2) May cease to make the determinations required under subsection (d) of this section, if the environmental quality assessment plan was implemented during the post-closure care period.

(h) Notwithstanding any other provision of this article, any environmental quality assessment to satisfy the requirements of Section 66265.713(d) which is initiated prior to final closure of the facility shall be completed and reported in accordance with Section 66265.713(e).

NOTE: Authority cited: Sections 208 and 25150, Health and Safety Code.
Reference: Sections 25150 (a), 25159, 25159.5 and 25245, Health and Safety Code.

66265.714. Recordkeeping and Reporting at Interim Status Facilities.

(a) Unless the owner or operator provides monitoring that satisfies the requirements of Section 66265.713 (d), the owner or operator shall report monitoring information to the Department at least annually, including the concentrations or values of the parameters in accordance with Section 66265.712 for each sampling station.

(b) If the owner or operator provides monitoring that satisfies the requirements of Section 66265.713 (d), the owner or operator shall:

(1) Keep records of the analyses and evaluations specified in the plan, which satisfies the requirements of Section 66265.713 (c), throughout the active life of the facility and, for disposal facilities, throughout the post-closure care period as well.

(2) Annually, until final closure of the facility, submit to the Department a report containing the results of the environmental quality assessment program which includes, but is not limited to, the calculated (or measured) rate of migration of hazardous waste or hazardous waste constituents in soil, soil-pore gas, and in air during the reporting period. This report shall be submitted as part of the annual report required under Section 66265.75.

NOTE: Authority cited: Sections 208 and 25150, Health and Safety Code.
Reference: Sections 25150 (a), 25159, 25159.5 and 25245, Health and Safety Code.

Appendix I-Recordkeeping Instructions

The recordkeeping provisions of Section 66265.73 specify that an owner or operator shall keep a written operating record at the facility. This appendix provides additional instructions for keeping portions of the operating record. See Section 66265.73(b) for additional recordkeeping requirements.

The following information shall be recorded, as it becomes available, and maintained in the operating record until closure of the facility in the following manner:

Records of each hazardous waste received, transferred, treated, stored, or disposed of at the facility which include the following:

(1) A description by its common name and any applicable EPA Hazardous Waste Number or California Hazardous Waste Number from Chapter 11 of this division which apply to the waste. The waste description also shall include the waste's physical form, i.e., liquid, sludge, solid, or contained gas. If the waste is not listed in Chapter 11, Article 4 or Appendix XII of this division, the description also shall include the process that produced it (for example, solid filter cake from production of ---, EPA Hazardous Waste Number W051).

Each hazardous waste listed in Chapter 11, Article 4, of this division, and each hazardous waste characteristic defined in Chapter 11, Article 3, of this division, has a four-digit EPA

Hazardous Waste Number and/or a three-digit California Hazardous Waste Number assigned to it. This number shall be used for recordkeeping and reporting purposes. Where a hazardous waste contains more than one listed hazardous waste, or where more than one hazardous waste characteristic applies to the waste, the waste description shall include all applicable EPA and California Hazardous Waste Numbers.

(2) The estimated or manifest-reported weight, or volume and density, where applicable, in one of the units of measure specified in Table 1; and

TABLE 1

Unit of measure	Symbol/1/	Density
Pounds	P	
Short tons (2000 lbs)	T	
Gallons (U.S.)	G	P/G
Cubic yards	Y	T/Y
Kilograms	K	
Tonnes (1000 kg)	M	
Liters	L	K/L
Cubic meters	C	M/C

/1/-Single digit symbols are used here for data processing purposes.

(3) The method(s) (by handling code(s) as specified in Table 2) and date(s) of treatment, storage, or disposal.

Table 2-Handling Codes for Treatment, Storage, and Disposal Methods

Enter the handling code(s) listed below that most closely represents the technique(s) used at the facility to treat, store, or dispose of each quantity of hazardous waste received.

1. Storage

S01 Container (barrel, drum, etc.)
S02 Tank
S03 Waste pile
S04 Surface impoundment
S05 Other (specify)

2. Treatment

(a) Thermal Treatment

T06 Liquid injection incinerator
T07 Rotary kiln incinerator
T08 Fluidized bed incinerator
T09 Multiple hearth incinerator
T10 Infrared furnace incinerator
T11 Molten salt destructor
T12 Pyrolysis
T13 Wet air oxidation
T14 Calcination
T15 Microwave discharge
T16 Cement kiln
T17 Lime kiln
T18 Other (specify)

(b) Chemical Treatment

T19 Absorption mound
T20 Absorption field
T21 Chemical fixation
T22 Chemical oxidation
T23 Chemical precipitation
T24 Chemical reduction
T25 Chlorination
T26 Chlorinolysis
T27 Cyanide destruction
T28 Degradation
T29 Detoxification
T30 Ion exchange
T31 Neutralization
T32 Ozonation
T33 Photolysis
T34 Other (specify)

(c) Physical Treatment:

(1) Separation of components

T35 Centrifugation
T36 Clarification
T37 Coagulation
T38 Decanting
T39 Encapsulation
T40 Filtration
T41 Flocculation
T42 Flotation
T43 Foaming
T44 Sedimentation
T45 Thickening
T46 Ultrafiltration
T47 Other (specify)

(2) Removal of Specific Components

T48 Absorption-molecular sieve
T49 Activated carbon
T50 Blending
T51 Catalysis
T52 Crystallization
T53 Dialysis
T54 Distillation
T55 Electrodialysis
T56 Electrolysis
T57 Evaporation
T58 High gradient magnetic separation
T59 Leaching
T60 Liquid ion exchange
T61 Liquid-liquid extraction
T62 Reverse osmosis
T63 Solvent recovery
T64 Stripping
T65 Sand filter
T66 Other (specify)

(d) Biological Treatment

T67 Activated sludge
T68 Aerobic lagoon
T69 Aerobic tank
T70 Anaerobic lagoon
T71 Composting
T72 Septic tank
T73 Spray irrigation
T74 Thickening filter
T75 Tricking filter
T76 Waste stabilization pond
T77 Other (specify)
T78-79 [Reserved]

3. Disposal

D80 Underground injection
D81 Landfill
D82 Land treatment

D83 Ocean disposal
D84 Surface impoundment (to be closed as a landfill)
D85 Other (specify)

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Part 265, Appendix I.

Appendix V-Examples of Potentially Incompatible Waste

Many hazardous wastes, when mixed with other waste or materials at a hazardous waste facility, can produce effects which are harmful to human health and the environment, such as (1) heat or pressure, (2) fire or explosion, (3) violent reaction, (4) toxic dusts, mists, fumes, or gases, or (5) flammable fumes or gases.

Below are examples of potentially incompatible wastes, waste components, and materials, along with the harmful consequences which result from mixing materials in one group with materials in another group. The list is intended as a guide to owners or operators of transfer, treatment, storage, and disposal facilities, and to enforcement and permit granting officials, to indicate the need for special precautions when managing these potentially incompatible waste materials or components.

This list is not intended to be exhaustive. An owner or operator shall, as the regulations require, adequately analyze his wastes so that he can avoid creating uncontrolled substances or reactions of the type listed below, whether they are listed below or not.

It is possible for potentially incompatible wastes to be mixed in a way that precludes a reaction (e.g., adding acid to water rather than water to acid) or that neutralizes them (e.g., a strong acid mixed with a strong base), or that controls substances produced (e.g., by generating flammable gases in a closed tank equipped so that ignition cannot occur, and burning the gases in an incinerator).

In the lists below, the mixing of a Group A material with a Group B material may have the potential consequence as noted.

Group 1-A	Group 1-B
Acetylene sludge	Acid sludge
Akaline caustic liquids	Acid and water
Alkaline cleaner	Battery acid
Alkaline corrosive liquids	Chemical cleaners
Alkaline corrosive battery fluid	Electrolyte, acid
Caustic wastewater	Etching acid liquid or solvent
Lime sludge and other corrosive alkalies	
Lime wastewater	Pickling liquor and other corrosive acids
Lime and water	Spent acid
Spent caustic	Spent mixed acid
	Spent sulfuric acid

Potential consequences: Heat generation; violent reaction.

Group 2-A	Group 2-B
Aluminum	Any waste in Group 1-A or 1-B
Beryllium	
Calcium	
Lithium	
Magnesium	
Potassium	
Sodium	
Zinc powder	
Other reactive metals and metal hydrides	

Potential consequences: Fire or explosion; generation of flammable hydrogen gas.

Group 3-A	Group 3-B
Alcohols	Any concentrated waste in Groups 1-A or 1-B
Water	Calcium
	Lithium
	Metal hydrides
	Potassium
	SO_2Cl_2, $SOCl_2$, PCl_3, CH_3SiCl_3
	Other water-reactive waste

Potential consequences: Fire, explosion, or heat generation; generation of flammable or toxic gases.

Group 4-A	Group 4-B
Alcohols	Concentrated Group 1-A or 1-B wastes
Aldehydes	Group 2-A wastes
Halogenated hydrocarbons	
Nitrated hydrocarbons	
Unsaturated hydrocarbons	
Other reactive organic compounds and solvents	

Potential consequences: Fire, explosion, or violent reaction.

Group 5-A	Group 5-B
Spent cyanide and sulfide solutions	Group 1-B wastes

Potential consequences: Generation of toxic hydrogen cyanide or hydrogen sulfide gas.

Group 6-A	Group 6-B
Chlorates	Acetic acid and other organic acids
Chlorine	Concentrated mineral acides
Chlorites	Group 2-A wastes
Chromic acid	Group 4-A wastes
Hyphochlorites	Other flammable and combustible wastes
Nitrates	
Nitric acid, fuming	
Perchlorates	
Permanganates	
Peroxides	
Other strong oxidizers	

Potential consequences: Fire, explosion, or violent reaction.

Source: "Law, Regulations, and Guidelines for Handling of Hazardous Waste." California Department of Health, February 1975.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 208, 25159 and 25159.5, Health and Safety Code; 40 CFR Part 265, Appendix V.

Appendix VI-Suggested Detection Monitoring Analytes

This list is intended as a guide to owners or operators of treatment, storage and disposal facilities, and to enforcement and permit granting officials, to assist in the selection of appropriate monitoring parameters for specification in the water quality sampling and analysis plan. The Department is not requiring that all facilities use this list, but the Department believes that these are the best leak indicators for the majority of units, especially if the unit contains a variety of wastes. This list is called Leak Detection Analytes and is made up of volatile organics, hazardous metals and pH (hydrogen ion).

Investigations by USEPA's Environmental Monitoring Systems Laboratory in Las Vegas, Nevada, and others, have shown that most (as high as 70 percent) of the compounds leaking from RCRA sites are volatile organics. This preponderance of volatiles is not surprising since these compounds would be more likely to move quickly and easily through the environment given their volatility. Therefore, it is logical to conclude that volatile organics would be among the best indicators for early detection of a release.

The rest of the Leak Detection Analytes list is made up of those metals that are amenable to the basic inductively coupled plasma (icp) scan and pH. The metals were chosen because they make up the second most common group of substances that leak from

hazardous waste land disposal units, and therefore, are also expected to be excellent leak indicators. pH was chosen because of its all around utility in environmental monitoring and data interpretation. pH was also chosen because of its ability to indicate leaks that otherwise might not be indicated because no single substance has exceeded a detectable level.

Leak Detection Analytes

Volatile Organics	Metals
Acetone	Antimony
Acrolein	Barium
Acrylonitrile	Beryllium
Allyl chloride	Cadmium
Benzene	Chromium
Bromodichloromethane	Cobalt
Bromoform	Copper
Carbon disulfide	Lead
Carbon tetracholoride	Nickel
Chlorobenzene	Selenium
Chloroethane	Thallium
Chloroform	Vanadium
Chloroprene	Zinc
Dibromochloromethane	
1,2-Dibromo-3-chloropropane	pH

1,2-Dibromoethane

trans-1,4-Dichloro-2-butene

Dichlorodifluorom#thane

1,1-Dichloroethane

1,2-Dichloroethane

trans-1,2-Dichloroethylene

1,2-Dichloropropane

trans-1,3-Dichloropropene

cis-1,3-Dichloropropene

Ethyl methacrylate

2-Hexanone

Methacrylonitrile

Methyl bromide

Methyl chloride

Methylene bromide

Methylene chloride

Methyl ethyl ketone

Methyl iodide

Methyl methacrylate

4-Methyl-2-pentanone

Pentachloroethane

2-Picoline

Propionitrile

Pyridine

Styrene

1,1,1,2-Tetrachloroethane

1,1,2,2-Tetrachloroethane

Tetrachloroethylene

Toluene

1,1,1-Trichloroethane

1,1,2-Trichloroethane

Trichloroethylene

Trichlorofluoromethane

1,2,3-Trichloropropane

Vinyl acetate

Vinyl chloride

Xylene

NOTE: Authority cited: Section 208, 25150 and 25159, Health and Safety Code.

Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code; 40 CFR, Part 264, Appendix IX