Delaware Regulations Governing Hazardous Waste, July 28, 1983

Part 3 of 3

Part 265 – Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities

Part 122 – The Hazardous Waste Permit Program

Part 124 – Procedures for Decision-Making

PART 265--INTERIM STATUS STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

Subpart A--General

Section

Subpart B--General Facility Standards

Subpart C--Preparedness and Prevention

Subpart D--Contingency Plan and Emergency Procedures.

Subpart E--Manifest System, Recordkeeping, and Reporting

Subpart F--Ground-Water Monitoring

Subpart G--Closure and Post-Closure

Subpart H--Financial Requirements

Subpart I—Use and Management of Containers

Subpart J—Tanks

Subpart K—Surface Impoundments

Subpart L—Waste Piles

Subpart M—Land Treatment

Subpart N—Landfills

Subpart O—Incinerators

Subpart P-Thermal Treatment

Subpart Q-Chemical, Physical, and Biological Treatment

Subpart A—General

§265.1 Purpose, scope, and applicability.

(a) The purpose of this part is to establish minimum national standards which define the acceptable management of hazardous waste during the period of interim status.

(b) The standards in this part apply to owners and operators of facilities which treat, store, or dispose of hazardous waste who have fully complied with the requirements for interim stutus under 7 Del.C. §307(g) and §122.70 of these Regulations, until final administr ative disposition of their permit application is made.

These standards apply to all treatment, storage, or disposal of hazardous waste at these facilites after the effective date of these regulations, except as specifically provided otherwise in this part or Part 261 of these Regulations.

(c) The requirements of this part do not apply to:

(1) A person disposing of hazardous waste by means of ocean disposal subject to an existing permit issued under the Marine Protection, Research, and Sanctuaries Act;

[Comment: These part 265 regulations do apply to the treatment or storage of hazardous waste before it is loaded onto an ocean vessel for incineration or disposal at sea, as provided in paragraph (b) of this section.]

(2) A person disposing of hazardous waste by means of underground injection subject to an existing permit issued under an Underground Injection Control (UIC) program approved or promulgated under the Safe Drinking Water Act;

[Comment: These Part 265 regulations do apply to the aboveground treatment or storage of hazardous waste before it is injected underground.]

(3) The owner or operator of a POTW which treats, stores, or disposes of hazardous waste:
[Comment: The owner or operator of a facility under paragraph (c)(3) of this section is subject to the requirements of Part 264 of these Regulations to the extent they are included in a permit by rule granted to such a person under §122.60 of these Regulations.]

(4) the owner or operator of a facility permitted, licensed, or registered by the State to manage municipal or industrial solid waste, if the only hazardous waste the facility treats, stores, or disposes of is excluded from regulation under this Part by §261.5 of these Regulations;

(5) The owner or operator of a facility which treats or stores hazardous waste, which treatment or storage meets the criteria in §261.6 (a) of these Regulations, except to the extent that §261.6 (b) of these Regulations provides otherwise;

(6) A generator accumulation waste on-site in compliance with §262.34 of these Regulations, except to the extent the requirements are included in §262.34 of these

Regulations;

(7) A farmer disposing of waste peticides from his own use in compliance with §262.51 of these Regulations;

(8) The owner or operator of a totally enclosed treatment facility, as defined in §260.10;

(9) The owner or operator of an elementary neutralization unit or a wastewater treatment unit as defined in §260.10 of these regulations.

(10) (i) Except as provided in paragraph (c)(11)(ii) of this Section, a person engaged in treatment or containment activities during immediate response to any of the following situations:

(A) A discharge of a hazardous waste;

(B) An imminent and substantial threat of a discharge of a hazardous waste;

(C) A discharge of a material which, when discharged, becomes a hazardous waste.

(ii) An owner or operator of a facility otherwise regulated by this Part must comply with all applicable requirements of Subparts C and D.

(iii) Any person who is covered by paragraph (c)(11)(i) 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 Part and Parts 122-124 of these Regulations for those activities.

[Comments: This paragraph only applies to activities taken in immediate response activities are completed, the regulations of this Chapter apply fully to the management of any spill residue or debris which is a hazardous waste under Part 261.]

(11) A transporter storing manifested shipments of hazardous waste in containers meeting the requirements of 262.30 at a transfer facility for a period of ten days or less.

(12) The addition of absorbent material to waste in a container (as defined in 260.10 of these regulations) 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 §265.17(b), §265.171, and §265.172 are complied with.

§265.2-265.3 [Reserved]

§265.4 Imminent hazard action.

Notwithstanding any other provisions of these regulations, enforcement actions may be brought pursuant to 7 Del. C. 6308.

Subpart B-General Facility Standards

§265.10 Applicability

The regulations in this Subpart apply to owners and operators of all hazardous waste facilities, except as 265.1 provides otherwise.

§265.11 Identification Number

Every facility owner or operator must apply to DNREC for an EPA identification number on "State of Delaware Notification of Hazardous Waste Activity Form" and DNREC Form 8700-12 in accordance with the notification procedures.

§265.12 Required notices.

(a) The owner or operator of a facility that has arranged to receive

hazardous waste from a foreign source must notify the Secretary in writing at least four weeks in advance of the date of 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) 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 must notify the new owner or operator in writing of the requirements of this part and Part 122 of these Regulations.

[Comments: An owner's or operator's failure to notify the new owner or operator of the requirements of this part in no way relieves the new owner or operator of his obligation to comply with all applicable requirements.]

§265.13 General waste analysis.

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

(2) The analyis may include data developed under Part 261 of these Regulations, and existing published or documented data on the hazardous waste or on waste generated from similar processes.

[Comment: For example, 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 posesses similar to that which generated the waste to be managed at the facility, may be included in the data base required to comply with paragraph (a) (1) of this section. 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 paragraph (a) (1) of this section. If the generator does not supply the information, and the owner or operator chooses to accept a hazardous waste, the owner or operator is responsible for obtaining the information required to comply with this section.]

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

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

(ii) For off-site facilities when the results of the inspection required in paragraph (a)(4) 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.

(4) The owner or operator of an off-site facility must 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 must develop and follow a written waste analysis plan which describes the procedures which he will carry out to comply with paragraph (a) of this Section. He must keep this plan at the facility. At a minumum, the plan must 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 paragraph (a) of this Section);

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

(3) The sampling method which will be used to obtain a representative sample of the waste to be analyzed. A representative sample may be obtained using either:

(i) One of the sampling methods described in Appendix I of Part 261 of these Regulations; or

(ii) 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 §265.193, §265.225, §265.252, §265.273, §265.345, 265.375 and §265.402.

(c) For off-site facilities, the waste analysis plan required in paragraph (b) of this Section must 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 must 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.

§265.14 Security.

(a) The owner or operator must prevent the unknowing entry, and minimize the possibility for the unauthorized entry, of persons or livestock onto the active portion of his facility, unless:

(1) Physical contact with the waste, structures, or equipment with 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 the Part.

(b) Unless exempt under paragraphs (a)(1) and (a)(2) of this Section, a facility must have:

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

(2)(i) 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

(ii) 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).

[Comment: The requirements of paragraph (b) of this Section are 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 paragraph (b)(1) or (b)(2) of this Section.]

(c) Unless exempt under paragraphs (a)(1) and (a)(2) of this Section, a sign with the legend, "Danger-Unauthorized Personnel Keep Out," must 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 must be written in English and in any other language predominant in the area surrounding the facility (e.g., facilities in counties bordering the Canadian province of Quebec must post signs in French; facilities in counties bordering Mexico must post signs in Spanish), and must be legible from a distance of at least 25 feet. Existing signs with a legend other than "Danger-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.

[Comment: See §265.117 (b) for discussion of security requirements at disposal facilities during the post-closure care period.]

§265.15 General inspection requirements.

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

(2) He must keep this schedule at the facility.

(3) The schedule must 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, must be inspected daily when in use. At a minimum, the inspection schedule must include the items and frequencies called for in §265.174, §265.194, §265.226, §265.347, §265.377 and §265.403.

(c) The owner or operator must 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 must be taken immediately.

(d) The owner or operator must record inspections in an inspection log or summary. He must keep the records for at least three years from the date of inspection. At a minimum, these records must 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.

§265.16 Personnel training.

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

(2) This program must be directed by a person trained in hazardous waste management procedures, and must include instruction which teaches facilty 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 must 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:

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

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

(iii) Communications or alarm systems;

(iv) Response to fires or explosions;

(v) Response to ground-water contamination incidents and

(vi) Shutdown of operations.

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

(c) Facility personnel must take part in an annual review of the initial training required in paragraph (a) of this Section.

(d) The owner or operator must 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 paragraph (d)(1) of this Section. This description may be consistent in its degree of specificity with description for other similar positions in the same company location or bargaining unit, but must 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 paragraph (d)(1) of this Section.

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

(e) Training records on current personnel must be kept until closure of the facility. Training records on former employees must 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.

§265.17 General requirements for ignitable, reactive, or incompatible wastes.

(a) The owner or operator must take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. This waste must 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 must confine smoking and open flame to specially designated locations. "No Smoking" signs must be conspicuously placed wherever there is a hazard from ignitable or reactive waste.

(b) Where specifically required by other Sections of this Part, the treatment, storage, or disposal of ignitable or reactive waste, and the mixture or commingling of incompatible wastes, or incompatible wastes and materials, must 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;

(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.

§265.18-265.29 [Reserved]

Subpart C-Preparedness and Prevention

§265.30 Applicability.

The regulations in this Subpart apply to owners and operators of all hazardous waste facilities, except as 265.1 provides otherwise.

§265.31 Maintenance and operation of facility.

Facilities must be maintained and operated to minimize the possibility of any 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.

§265.32 Required equipment.

All facilities must be equipped

with the following, unless 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 chemical 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.

§265.33 Testing and maintenance of equipment.

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

§265.34 Access to communications or alarm system.

(a) Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless such a device is not required under §265.32.

(b) If there is even just one employee on the premises while the facility is operating, he must 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 such a device is not required under §265.32.

§265.35 Required aisle space.

The owner or operator must 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 aisle space is not needed for any of these purposes.

§265.36 [Reserved]

§265.37 Arrangements with local authorities.

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

(1) Arrangements to familiarize police, fire departments, and emergency response teams 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 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 must document the refusal in the operation record.

Subpart D-Contingency Plan and Emergency Procedures

§265.50 Applicability.

The regulations in this subpart apply to owners and operators of all hazardous waste facilities, except as §265.1 provides otherwise.

§265.51 Purpose and implementation of contingency plan.

(a) Each owner or operator must have a contingency plan for his facility. The contingency plan must 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 must 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.

§265.52 Content of contingency plan.

(a) The contingency plan must describe the actions facility personnel must take to comply with §265.51 and §265.56 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 accorance with 40 CFR Part 112 or some other emergency or contingency plan, he need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this Part.

(c) The plan must 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 §265.37.

(d) The plan must list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator (see §265.55), and this list must be kept up to date. Where more than one person is listed, one must be named as primary emergency coordinator and others must be listed in the order in which they will assume responsibility as alternates.

(e) The plan must 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 must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list and a brief outline of its

capabilites.

(f) The plan must include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan must 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).

§265.53 Copies of contingency plan.

A copy of the contingency plan and all revisions to the plan must 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.

§265.54 Amendment of contingency plan.

The contingency plan must be reviewed, and immedately 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 constituents, or changes the responses necessary in an emergency;

(d) The list of emergency coordinators changes; or

(e) The list of emergency equipment changes.

§265.55 Emergency coordinator.

At all times, there must 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 must 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 must have the authority to commit the resources needed to carry out the contingency plan.

[Comment: The emergency coordinator's responsibilities are more fully spelled out in §265.56. Applicable responsibilities for the emergency coordinator vary, depending on factors such as type and variety of waste(s) handled by the facility, and type and complexity of the facility.]

§265.56 Emergency procedures.

(a) Whenever there is an imminent or actual emergency situation, the emergency coordinator (or his designee when the emergency coordinator is on call) must immediately;

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

(2) Within the first hour, notify DNREC at (302) 736-4781 and other appropriate state and local agencies with designated response roles. The facility will during this notification identify the following:

(i) Name and telephone number of reporter;

(ii) Name and address of facility;

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

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

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

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

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

(c) Concurrently, the emergency coordinator must assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment must 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, he must report his findings as follows:

(1) If his assessment indicates that evacuation of local areas may be advisable, he must immediately notify appropriate local authorities. He must be available to help appropriate officials decide whether local areas should be evacuated; and

(2) He must immediately notify either the government official designated as the on-scene coordinator for that geographical area (in the applicable regional contingency plan under 40 CFR Part 1510, or the National Response Center (using their 24 hour toll free number 800-424-8802) and the Department of Natural Resources and Environmental Control of Delaware (using the nos. (302) 736-4781 or (302)-736-4580). The report must include:

(i) Name and telephone number of reporter.

(ii) Name and address of facility.

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

(iv) Name and quantity of material(s) involved, to the extent known.

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

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

(e) During an emergency, the emergency coordinator must 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 must include, where applicable, stopping processes and operations, collection 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 must 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 must 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.

[Comment: Unless the owner or operator can demonstrate, in accordance with §261.3(c) or (d) of these Regulations, that the recovered material is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of Parts 262, 263, and 265 of these Regulations.]

(h) The emergency coordinator must insure that in the affected area(s) of the facility:

(1) No waste that may be incompatible with the released material is 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 must notify the Secretary and appropriate State and local authorities, that the facility is in compliance with paragraph (h) of this Section before operations are resumed in the affected area(s)of the facility.

(j) The owner or operator must 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, he must submit a written report on the incident to the Secretary. The report must 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.

Subpart E-Manifest System, Recordkeeping, and Reporting

§265.70 Applicability.

The regulations in this Subpart apply to owners and operators of both on-site and off-site facilities, except as §265.1 provides otherwise. Sections 265.71, 265.72, and 265.76 do not apply to owners and operators of on-site that do not receive any hazardous waste from off-site sources.

§265.71 Use of Manifest System

(a) If a facility receives hazardous waste accompanied by a manifest, the owner or operator, or his agent, must:

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

(2) Note any significant discrepancies in the manifest (as defined in §265.72 (a) on each copy of

the manifest;

[Comment: DNREC does not intend that the owner or operator of a facility whose procedures under 265.13(c) include waste analysis must perform that analysis before signing the manifest and giving it to the transporter. Section 265.72 (b), however, requires reporting an unreconciled descrepancy discovered during later analysis).

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

(4) Within thirty (30) days after the delivery, send a copy of the manifest to the generator and to the State(s) in which the generator and facility are located; and

(5) 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 EPA identification numbers generator's certification, and signatures), the owner or operator, or his agent, must:

(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 265.72(a)) in the manifest or shipping paper (if the manifest has not been received) on each copy of the manifest or shipping paper;

[Comment: DNREC does not intend that the owner or operator of a facility whose procedures under 265.13(c) include waste analysis must perform that analysis before signing the shipping paper and giving it to the transporter. Section 265.72(b), however, requires reporting an unreconciled discrepancy discovered during later analysis.]

(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 thirty (30) days after the delivery send a copy of the signed and dated manifest/shipping paper to the generator and to the State(s) in which the generator and the facility are located; however, if the manifest has not been received within 30 days after delivery, the owner or operator, or his agent, must send a copy of the shipping paper signed and dated to the generator and to the State(s) in which the generator and facility are located; and

[Comment: Section 262.23(c) of these regulations requires the generator to send at least four (4) copies of the manifest to the facility when hazardous waste is sent by the rail or water (bulk shipment).]

(5) 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 must comply with the requirements of Part 262 of these regulations.

[Comment: The provisions of §262.34 are applicable to the on-site accumulation of hazardous waste by generators. Therefore, the provisions of §262.34 only apply to owners or operators who are shipping hazardous

waste which they generated at that facility.]

§265.72 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 must 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 must immediately submit to the Secretary a letter describing the discrepancy and attempts to reconcile it, and a copy of the manifest or shipping paper at issue.

§265.73 Operating record.

(a) The owner or operator must keep a written operation record at his facility.

(b) The following information must 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 treatment, storage, or disposal at the facility as required by Appendix I;

(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 must be recorded on a map or diagram of each cell or disposal area. For all facilities, this information must include cross-references to specific manifest document numbers, if the waste was accompanied by a manifest; [Comment: See §§265.119, 265.279, and 265.309 for related requirements.]

(3) Records and results of waste analysis and trial tests performed as specified in §§265.13, 265.193, 265.225, 265.252, 265.273, 265.341, 265.375, and 265.402;

(4) Summary reports and details of all incidents that require implementing the contingency plan as specified in §265.56(j);

(5) Records and results of inspections as required by §265.15(d) (except these data need be kept only three years);

(6) Monitoring, testing, or analytical data where required by §§265.90, 265.94, 265.276, 265.278, 265.280(d)(1), 265.347, and 265.377; and,

[Comment: As required by §265.94, monitoring data at disposal facilities must be kept throughout the post-closure period.]

(7) All closure cost estimates under §265.142 and, for disposal facilities, all post-closure cost estimates under §265.144.

§265.74 Availability, retention, and disposition of records.

(a) All records, including plans, required under this part must be furnished upon request, and made

available at all reasonable times for inspection, by any officer, employee, or representative of DNREC who is duly designated by the Secretary.

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

(c) A copy of records of waste disposal locations and quantities under §265.73(b)(2) must be submitted to the Secretary and local land authority upon closure of the facility (See §265.119).

§265.75 Annual report.

The owner or operator must prepare and submit a single copy of annual report to the Secretary by March 1 of each year. The report form and instructions in Appendix II must be used for this report. The annual report must cover facility activities during the previous calendar year and must include the following information:

(a) The EPA identification number, name, and address of the facility;

(b) The calendar year covered by the report;

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

(d) A description and the quantity of each hazardous waste the facility received during the year. For off-site facilities, this information must be listed by EPA identification number of each generator;

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

(f) Monitoring data under 265.94(a)(2)(ii) and (iii), and (b)(2), where required;

(g) The most recent closure cost estimate under §265.142, and, for disposal facilities, the most recent post-closure cost estimate under §265.144; and

(h) The certification signed by the owner or operator of the facility or his authorized representative.

(i) The requirements of annual reporting for treatment/storage/disposal facilities, as specified in this section are deleted for calendar year 1980.

§265.76 Unmanifested waste report.

If a facility accepts for 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 §263.20(e)(2) of these Regulations, and if the waste is not excluded from the manifest requirement by §261.5 of these Regulations, then the owner or operator must prepare and submit a single copy of a report to the Secretary within 15 days after receiving the waste. The report form and instructions in Appendix II must be used for this report. The report must include the following information:

(a) The EPA identification number, name, and address of the facility;

(b) The date the facility received the waste;

(c) The EPA 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 facility received;

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

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

(g) A brief explanation of why the waste was unmanifested, if known. [Comment: Small quantities of hazardous waste are excluded from regulation under this Part and do not require a manifest. Where a facility receives unmanifested hazardous wastes, DNREC suggests that the owner or operator obtain from each generator a certification that the waste qualifies for exclusion. Otherwise, DNREC suggests that the owner or operator file an unmanifested waste report for the hazardous waste movement.]

§265.77 Additional reports.

In addition to submitting the annual report and unmanifested waste reports described in §§275.75 and 265.76, the owner or operator must also report to the Secretary:

(a) Releases, fires, and explosions as specified in §265.56(j);

(b) Ground-water contamination and monitoring data as specified in §265.93 and §265.94; and

(c) Facility closure as specified in §265.115.

Subpart F - Ground Water Monitoring

§265.90 Applicability

(a) The owner or operator of a surface impoundment, landfill, or land treatment facility which is used to manage hazardous waste must implement a groundwater monitoring program capable of determining the facility's impact on the quality of ground water in at least the uppermost aquifer underlying the facility, except as Section 265.1 and paragraph (d) of this section provide otherwise.

(b) Except as paragraphs (d) and (e) of this Section provide otherwise, the owner or operator must install, operate, and maintain a ground-water monitoring system which meets the requirements of §265.91, and must comply with §§265.92-265.94. This groundwater monitoring program must be carried out during the active life of the facility, and for disposal facilities, during the post-closure care period as well. In the case of a surface impoundment used for storage/treatment of hazardous waste, groundwater monitoring after the active life of the facility, may be required if deemed necessary by the Secretary.

(c) By June 30, 1983, the owner or operator of a surface impoundment, landfill or land treatment facility which is used to manage hazardous waste must submit to the Department a hydrogeologic report, except as paragraph (d) of this section provides otherwise. The report must be certified by a "qualified engineer" or "qualified geologist". (See Section 260.10 for definitions of "qualified engineer" and "qualified geologist"). This report shall include at a minimum the following:

(1) A definition of the geology of the site and surrounding area. This shall include:

(i) A description of the various lithologic units including grain size distribution, shape and color to a depth which includes at least the uppermost confined aquifer underlying the site; and

(ii) Isopach and

structure contour maps and cross-sections showing these various lithostratigraphic units;

(2) A description of the ground water movement in at least the water table and uppermost confined aquifers underlying the site and the surrounding area including:

(i) The rate and direction of flow, both horizontally and vertically; and

(ii) A potentiometric surface map and cross-section of each aquifer;

(iii) A map showing the difference in hydraulic head between the water table and uppermost confined aquifers.

(3) A description of the hydrologic characteristics of the lithostratigraphic units to a depth which includes at least the uppermost confined aquifers underlying the site and the surrounding area such as, but not limited to, hydraulic conductivity, porosity, aquifer thickness, transmissivity, and storage coefficient;

(4) A description of the chemical quality of the ground water of at least the water table and uppermost confined aquifers underlying the site and surrounding area to include the paramenters specified in Section 265.92(b)(1), (b)(2), (b)(3) and any other parameters specified by the Department depending on the composition of the waste (a description of the chemical quality of nearby surface water may be required if deemed necessary by the Department);

(5) A prediction of the potential movement of any contaminants that may enter the ground water underlying the site and the surrounding area including the rate, extent and direction, both horizontal and vertical migration and the potential impact on ground water and if applicable on surface water.

(6) An estimate of the amount of leachate which may be generated at the site. This shall be done using methods described in the following publications: "Hydrologic Simulation on Solid Waste Disposal Sites", U.S. Environmental Protection Agency, Office of Water and Waste Management, SW-868, September 1980; or the "Use of the Water Balance Method for Prediction of Leachate Generation from Solid Waste Disposal Sites", U.S.Environmental Protection Agency, Office of Solid Waste Management Program, SW-168, October, 1975; or an equivalent method approved by the EPA.

(7) A description of the groundwater and, if applicable, surface water monitoring program used to detect and determine any contaminant migration at the site and surrounding area.

(8) A proposal for future monitoring including additional monitoring wells and if applicable surface water monitoring stations, parameters for analysis and monitoring schedule.

(d) All or part of the ground water monitoring requirements of this section may be waived if the owner or operator can demonstrate that there is a low potential for migration of hazardous waste or hazardous waste constituents from the facility via the uppermost aquifer to water supply wells (domestic, industrial or agricultural) or to surface water. This demonstration must be in writing, and must be kept at the facility by the effective date of these amendments and also must be submitted to the Department for approval within fifteen days of the effective date of these amendments. This demonstration must be certified by a "qualified engineer" or "qualified geologist" except in defining the geology and geologic materials in (d)(1)(ii) and (d)(2)(i)

which must be certified by a "qualified geologist". Where a demonstration under this section was prepared prior to the effective date of these amendments and was not certified in accordance with the above revised requirements, the owner or operator shall submit a demonstration which complies with these additional certification requirements within ninety (90) days of the effective date of these amendments. This demonstration must establish the following:

(1) The potential for migration of hazardous waste or hazardous waste constituents from the facility to the uppermost aquifer, by an evaluation of:

(i) A water balance of precipitation, evapotranspiration, runoff, and infiltration; and

(ii) Unsaturated zone characteristics (i.e., geology and geologic materials, physical properties, and depth to ground water); and

(2) The potential for hazardous waste or hazardous waste constituents which enter the uppermost aquifer to migrate to a water supply well or surface water, by an evaluation of:

(i) Saturated zone characteristics (i.e., geology and geologic materials, physical properties, and rate of ground water flow); and

(ii) The proximity of the facility to water supply wells or surface water.

(e) If an owner or operator assumes (or knows) that ground water monitoring of indicator parameters in accordance with §265.91 and §265.92 would show statistically significant increases (or decreases in the case of pH) when evaluated under §265.93 (b), he may, install, operate, and maintain an alternate ground water monitoring system (other than the one described in §265.91 and §265.92). If the owner or operator decides to use an alternate ground water monitoring system he must:

(1) By the effective date of these amendments, submit to the Secretary a specific plan, certified by a "qualified engineer" or "qualified geologist" which satisfies the requirements of §265.93(d)(3) for an alternate ground water monitoring system;

(2) Not later than the effective date of these amendments, initiate the determinations specified in 265.93(d)(4).

(3) Prepare and submit a written report in accordance with §265.93 (d)(5);

(4) Continue to make the determination specified in §265.93(d)(4) on a quarterly basis until final closure of the facility; and

(5) Comply with the recordkeeping and reporting requirements in §265.94(b).

(f) The ground-water monitoring requirements of this Subpart may be waived with respect to any surface impoundment that (1) is used to neutralize wastes which are hazardous solely because they exhibit the corrosivity characteristic under §261.22 of these Regulations or are listed as hazardous wastes in Subpart D of Part 261 of these Regulations only for this reason, and (2) contains no other hazardous wastes, if the owner or operator can demonstrate that there is no potential for migration of hazardous wastes from the impoundment. The demonstration must establish, based upon consideration of the characteristics of the wastes and impoundment, that the corrosive wastes will be neutralized to the extent that they no longer meet the corrosivity

characteristic before they can migrate out of the impoundment. The demonstration must be in writing and must be certified by a qualified professional.

§265.91 Groundwater Monitoring System

(a) A ground water monitoring system must be capable of yielding ground water samples for analysis and must consist of:

(1) Monitoring wells (at least one) installed hydraulically upgradient (i.e., in the direction of increasing static head) from the limit of the waste management area. Their number, locations, and depths must be sufficient to yield groundwater samples that are:

(i) Representative of background groundwater quality in at least the uppermost aquifer near the facility; and

(ii) Not affected by the facility;

(2) Monitoring wells (at least three) installed hydraulically downgradient (i.e., in the direction of decreasing static head) at the limit of the waste management area. Their number, locations, and depths must ensure that they immediately detect any statistically significant amounts of hazardous waste or hazardous waste constituents that migrate from the waste management area to at least the uppermost aquifer; and

(3) Additional wells in the upper and deeper aquifers may need to be installed, if the Department deems it necessary on evaluation of the hydrogeologic report.

(b) Separate monitoring systems for each waste management component of a facility are not required provided that the provisions for sampling upgradient and downgradient water quality will detect any discharge from the waste management area.

(1) In the case of a facility consisting of only one surface impoundment, landfill, or land treatment area, the waste management area is described by the waste boundary (perimeter).

(2) In the case of a facility consisting of more than one surface impoundment, landfill, or land treatment area, the waste management area is described by an imaginary boundary zone which circumscribes the several waste management components.

(c) All monitoring wells must be cased in a manner that maintains the integrity of the monitoring well bore hole. This casing must be screened or perforated, and packed with gravel or sand where necessary, to enable sample collection at depths where appropriate aquifer flow zones exist. The annular space (i.e., the space between the bore hole and well casing) above the sampling depth must be sealed with a suitable material (e.g., cement grout or bentonite slurry) to prevent contamination of samples and the ground water.

(d) Prior to installation of a monitoring well, the owner or operator of a facility must obtain a permit from the Department in accordance with 7 Del. C. Chapter 60 6003(a)(3). Also installation of monitoring well should be conducted by a licensed driller in accordance with 7 Del. C. Chapter 60 6023(a)(1).

§265.92 Sampling and Analysis

(a) The owner or operator must obtain and analyze samples from the installed ground-water monitoring system. The owner or operator must develop and follow a ground-water sampling and analysis plan. He must keep this plan at the facility. The plan must include procedures and techniques for:

(1) Sample collection;

(2) Sample preservation and shipment;

(3) Analytical procedures; and

(4) Chain of custody control.

[Comment: See "Procedures Manual for Ground-water Monitoring at Solid Waste Disposal Facilities," EPA-530/SW-611, August 1977 and "Methods for Chemical Analysis of Water and Wastes," EPA-600/4-79-020, March 1979 for discussion of sampling and analysis procedures.]

(b) The owner or operator must determine the concentration or value of the following parameters in ground water samples in accordance with paragraphs (c) and (d) of this section:

(1) Parameters characterizing the suitability of the ground water as a drinking water supply, as specified in Appendix III.

(2) Parameters establishing groundwater quality:

(i) Chloride

(ii) Iron

(iii) Manganese

(iv) Phenols

(v) Sodium

(vi) Sulfate

[Comment: These parameters are to be used as a basis for comparison in the event a ground water quality assessment is required under §265.93(d).]

(3) Parameters used as indicators of ground-water contamination:

(i) pH

(ii) Specific Conductance

(iii) Total Organic Carbon

(iv) Total Organic Halogen

(c)(1) For all monitoring wells, the owner or operator must establish initial background concentrations or values of all parameters specified in paragraph (b) of this Section. He must do this quarterly for one year.

(2) For each of the indicator parameters specified in paragraph (b)(3) of this Section, at least four replicate measurements must be obtained for each sample and the initial background arithmetic mean and variance must be determined by pooling the replicate measurements for the respective parameter concentrations or values in samples obtained from upgradient wells during the first year.

(d) After the first year, all monitoring wells must be sampled and the samples analyzed with the following frequencies:

(1) Samples collected to establish ground-water quality must be obtained and analyzed for the parameters specified in paragraph (b)(2) of this section at least semi-annually.

(2) Samples collected to indicate ground-water contamination must be obtained and analyzed for the parameters specified in paragraph (b)(3) of this Section at least semi-annually.

(3) Samples collected for any specific parameters, designated by the Department other than those provided in (b)(1), (b)(2) and (b)(3) of this section must be obtained and

analyzed at least semi-annually.

(4) Samples collected to characterize the suitability of the groundwater as a drinking water supply, must be obtained and analyzed for the parameters specified in Appendix III of the regulations, at least annually.

(e) Prior to taking sample, elevation of the ground water surface at each monitoring well must be determined each time a sample is obtained.

§265.93 Preparation, Evaluation and Response

(a) By the effective date of these amendments, the owner or operator must prepare an outline of a ground-water quality assessment program. The outline must describe a more comprehensive ground-water monitoring program (than that described in §§265.91 and 265.92) capable of determining:

(1) Whether hazardous waste or hazardous waste constituents have entered the ground water;

(2) The rate and extent of migration of hazardous waste or hazardous waste constituents in the ground water; and

(3) The concentrations of hazardous waste or hazardous waste constituents in the ground water.

(b) For each indicator parameter specified in §265.92(b)(3), and other specific parameters designated by the Department, as addressed in §265.92 (d)(3), the owner or operator must calculate the arithmetic mean and variance, based on at least four replicate measurements on each sample, for each well monitored in accordance with §265.92(d)(2) and (d)(3), and compare these results with its initial background arithmetic mean. The comparison must consider individually each of the wells in the monitoring system, and must use the Student's t-test at the 0.01 level of significance (see Appendix IV) to determine statistically significant increases (and decreases, in the case of pH) over initial background.

(c)(1) If the comparisons for the upgradient wells made under paragraph (b) of this Section show a significant increase (or pH decrease) the owner or operator must submit this information in accordance with §265.94(a)(2)(ii).

(2) If the comparisons for downgradient wells made under paragraph (b) of this Section show a significant increase (or pH decrease), the owner or operator must then immediately obtain additional ground water samples from those downgradient wells where a significant difference was detected. Split the samples in two, and obtain analyses of all additional samples to determine whether the significant difference was a result of laboratory error.

(d)(1) If the analyses performed under paragraph (c)(2) of this Section confirm the significant increases (or pH decrease), the owner or operator must provide written notice to the Secretary - within seven days of the date of such confirmation - that the facility may be affecting ground-water quality.

(2) Within 15 days after the notification under paragraph (d)(1) of this Section, the owner or operator must develop and submit to the Secretary a specific plan, based on the outline required under paragraph (a) of this Section and certified by a 'qualified engineer' or 'qualified geologist' for a ground-water quality assessment program at the facility.

(3) The plan to be submitted under §265.90(e)(1) or paragraph (d)(2) of this Section must specify:

(i) The number,

location, and depth of wells;

(ii) Sampling and analytical methods for those hazardous wastes or hazardous waste constituents in the facility;

(iii) Evaluation procedures, including any use of previously gathered ground-water quality information; and

(iv) A schedule of implementation.

(4) The owner or operator must implement the ground water quality assessment plan which satisfies the requirements of paragraph (d)(3) of this Section, and, at a minumum, determine:

(i) The rate and extent of migration of the hazardous waste or hazardous waste constituents in the ground water; and

(ii) The concentrations of the hazardous waste or hazardous waste constituents in the ground water.

(5) The owner or operator must make his first determination under paragraph (d)(4) of this Section as soon as technically feasible, and, within 15 days after that determination, submit to the Secretary a written report containing an assessment of the ground water quality.

(6) If the owner or operator determines, based on the results of the first determination under paragraph (d)(4) of this Section, that no hazardous waste or hazardous waste constituents from the facility have entered the ground water, then he may reinstate the indicator evaluation program described in §265.92 and paragraph (b) of this Section. If the owner or operator reinstates the indicator evaluation program, he must so notify the Secretary in the report submitted under paragraph (d)(5) of this Section.

(7) If the owner or operator determines, based on the first determination under paragraph (d)(4) of this Section, that hazardous waste or hazardous waste constituents from the facility have entered the ground water, then he:

(i) Must, within 180 days of this determination, submit to the Department a plan including measures to mitigate and prevent and if necessary further monitor the spread of hazardous waste or hazardous waste constituents off site. Subsequent to written approval of the plan or portions thereof by the Department, the plan must be implemented by the owner or operator of the facility in accordance with the timetable specified by the Department. Depending on the contents of the mitigation plan, including the nature of the mitigation measures, the plan must be prepared and implemented by a "qualified engineer" and/or "qualified geologist", as appropriate. The mitigation plan must include the following as a minumum:

(1) Analysis of the concentration and extent of migration of the hazardous waste or hazardous waste constituents and potential problems associated with this condition. This must include an isopach map and cross-section showing the extent of migration of hazardous waste or hazardous waste constituents, if any.

(2) A detailed technical plan including the proposed procedure for containing and removing the condition of contamination.

(3) A schedule for implementation of the plan.

(4) An assessment of the potential impact of the mitigation program on the quality and quantity of ground-water and surface water.

(5) A proposed monitoring

program to detect and determine the impact of the mitigation plan on ground water and surface water at the site.

(ii) Must continue to make the determinations required under paragraph (d)(4) of this Section on a quarterly basis until final closure of the facility, if the ground water quality assessment plan was implemented prior to final closure of the facility; or

(iii) May cease to make the determinations required under paragraph (d)(4) of this Section, if the ground water quality assessment plan was implemented during the post-closure care period.

(e) Notwithstanding any other provision of this Subpart, any ground water quality assessment to satisfy the requirements of §265.93(d)(4) which is initiated prior to final closure of the facility must be completed and reported in accordance with §265.93(d)(5).

(f) Unless the ground water is monitored to satisfy the requirements of §265.93(d)(4), at least annually the owner or operator must evaluate the data on ground water surface elevations obtained under §265.92(e) to determine whether the requirements under §265.91(a) for locating the monitoring wells continues to be satisfied. If the evaluation shows that §265.91(a) is no longer satisfied, the owner or operator must immediately modify the number, location, or depth of the monitoring wells to bring the ground-water monitoring system into compliance with this requirement.

§265.94 Recordkeeping and Reporting

(a) Unless the ground water is monitored to satisfy the requirements of §265.93(d)(4), the owner or operator must:

(1) Keep records of the analyses required in §265.92(c) and (d), the associated ground water surface elevations required in §265.92(e), and the evaluations required in §265.93(b) throughout the active life of the facility, and, for disposal facilities, throughout the post-closure care period as well; and

(2) Report the following ground-water monitoring information to the Secretary:

(i) During the first year when initial background concentrations are being established for the facility: Concentrations or values of the parameters listed in 265.92(b) for each ground water monitoring well within 15 days after completing each quarterly analysis. The owner or operator must separately identify for each monitoring well any parameters whose concentration or value has been found to exceed the maximum contaminant levels listed in Appendix III.

(ii) Semi-annually: concentrations or values of the parameters listed in Section §265.92(b)(3) and other specific parameters designated by the Department as addressed in §265.93(d)(3), for each groundwater monitoring well, along with the required evaluations for these parameters under §265.93(b). The owner or operator must separately identify any significant differences from initial background found in the upgradient wells, in accordance with §265.93(c)(1). The data shall be submitted to the Department within fifteen (15) days of completing the analysis.

(iii) Semi-annually: the concentrations or values of the parameters listed in Section §265.92(b)(2) and annually the concentrations or values of the parameters listed in §265.92(b)(1). The data shall be submitted to the Department within fifteen (15) days of completing the analysis.

(iv) The ground water surface elevations as measured under §265.92(e) shall be included along with the corresponding data, submitted under §265.94 (a)(2)(i), (ii) and (iii).

(v) As part of the annual report required under §265.75: results of the evaluation of ground water surface elevations under §265.93(f), and a description of the response to that evaluation, where applicable.

(b) If the ground water is monitored to satisfy the requirements of §265.93(d)(4), the owner or operator must:

(1) Keep records of the analyses and evaluations specified in the plan, which satisfies the requirements of §265.93(d)(3), throughout the active life of the facility, and, for disposal facilities, throughout the post-closure care period as well; and

(2) Annually, until final closure of the facility, submit to the Secretary a report containing the results of his ground-water quality assesment program which includes, but is not limited to, the calculated (or measured) rate of migration of hazardous waste or hazardous waste constituents in the ground water during the reporting period. This report must be submitted as part of the annual report required in §265.75.

Subpart G - Closure and Post-Closure

§265.110 Applicability

Except as §265.1 provides otherwise:

(a) §265.111-265.115 (which concern closure) apply to the owners and operators of all hazardous waste management facilities; and

(b) §265.117-265.120 (which concern post-closure care) apply to the owners and operators of all hazardous waste disposal facilities.

§265.111 Closure Performance Standard

The owner or operator must close his 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 waste constituents, leachate, contaminated rainfall, or waste decomposition to the ground or surface waters or to the atmosphere.

§265.112 Closure Plan; amendment of plan

(a) By the effective date of these amendments, the owner or operator must have a written closure plan. He must keep a copy of the closure plan and all revisions to the plan at the facility until closure is completed and certified in accordance with §265.115. This plan must identify the steps necessary to completely or partially close the facility at any point during its intended operating life and to completely close the facility at the end of its intended operating life. The closure plan must include, at least:

(1) A description of how and when the facility will be partially closed, if applicable, and finally closed. The description must identify the maximum extent of the operation which will be unclosed during the life of the facility, and how the requirements of §§265.111, 265.113, 265.114, and 265.115 and the applicable closure requirements of §§265.197, 265.228, 265.280, 265.310, 265.351, 265.381, and 265.404 will be

met;

(2) An estimate of the maximum inventory of wastes in storage and in treatment at any time during the life of the facility;

(3) A description of the steps needed to decontaminate facility equipment during closure; and

(4) An estimate of the expected year of closure and the schedule for final closure. The schedule must include, at a minimum, the total time required to close the facility and the time required for intervening closure activities which will allow tracking of the progress of closure. (For example, in the case of a landfill, estimates of the time required to treat and dispose of all waste inventory and of the time required to place a final cover must be included.)

(b) The owner or operator may amend his closure plan at any time during the active life of the facility. (The active life of the facility is that period during which wastes are periodically received.) The owner or operator must amend the plan whenever changes in operating plans or facility design affect the closure plan, or whenever there is a change in the expected year of closure of the facility. The plan must be amended within 60 days of the changes.

(c) The owner or operator must submit his closure plan to the Secretary at least 180 days before the date he expects to begin closure. The owner or operator must submit his closure plan to the Secretary no later then 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 compliance order under 7 Del. C. 6309 to cease receiving wastes or close.

[Comment: The date when closure commences should be within 30 days after the date on which the owner or operator expects to receive the final volume of wastes.]

(d) The Secretary 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 of the plan within 30 days of the date of the notice. He will also, in response to a request or at his own discretion, hold a public hearing when ever such a hearing might clarify one or more issues concerning a closure plan. The Secretary 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 Secretary will approve, modify, or disapprove the plan within 90 days of its receipt. If the Secretary does not approve the plan, the owner or operator must modify the plan or submit a new plan for approval within 30 days. The Secretary will approve or modify this plan in writing within 60 days. If the Secretary modifies the plan, this modified plan becomes the approved closure plan. The Secretary's decision must assure that the approved closure plan is consistent with §§265.111, 265.113, 265.114 and 265.115 and the applicable requirements of §§265.197, 265.228, 265.280, 265.310, 265.351, 265.381 and 265.404. A copy of this modified plan must be mailed to the owner or operator.

§265.113 Closure; Time Allowed for Closure

(a) Within 90 days after receiving the final volume of hazardous wastes, or 90 days after approval of the closure plan, if that is later, the

owner or operator must treat, remove from the site, or dispose of on-site all hazardous wastes in accordance with the approved closure plan. The Secretary may approve a longer period using the procedures under §265.112(d) if the owner or operator demonstrates that:

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

(ii)(A) The facility has the capacity to receive additional wastes;

(B) There is a reasonable likelihood that a person other than the owner or operator will recommence operation of the site; and

(C) Closure of the facilily would be incompatible with continued operation of the site; and

(2) He has taken and will continue to take all steps to prevent threats to human health and the environment.

(b) The owner or operator must complete closure activities in accordance with the approved closure plan and within 180 days after receiving the final volume of wastes or 180 days after approval of the closure plan, if that is later. The Secretary may approve a longer closure period using the procedures under §265.112(c) if the owner or operator demonstrates that:

(1)(i) The closure activities will, of necessity, take him longer than 180 days to complete; or

(ii)(A) The facility has the capacity to receive additional wastes;

(B) There is a reasonable likelihood that a person other than the owner or operator will recommence operation of the site:

(C) Closure of the facility would be incompatible with continued operation of the site; and

(2) He has taken and will continue to take all steps to prevent threats to human health and the environment from the unclosed but inactive facility.

[Comment: Under paragraphs (a)(1)(ii) and (b)(1)(ii) of this Section, if operation of the facility is recommenced, the Secretary may defer completion of closure activities until the new operation is terminated.]

§265.114 Disposal or Decontamination of Equipment

When closure is completed, all facility equipment and structures must have been properly disposed of, or decontaminated by removing all hazardous waste and residues.

§265.115 Certification of Closure

When closure is completed, the owner or operator must submit to the Secretary certification both by the owner or operator and by an independent registered professional engineer in Delaware that the facility has been closed in accordance with the specifications in the approved closure plan.

§265.116 (Reserved)

§265.117 Post-closure Care and use of Property

(a) Post-closure care must continue for 30 years after the date of completing closure and must consist of at least the following:

(1) Groundwater monitoring and reporting in accordance with the requirements of Subpart F, and

(2) Maintenance of monitoring and waste containment systems as specified in §§265.91,

265.223, 265.228, 265.280, and 265.310, where applicable.

(b) The Secretary may require continuation of any of the security requirements of §265.14 for 30 years after the date closure has been completed when:

(1) Waste may remain exposed after completion of closure; or

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

In extending any of these requirements the Secretary will use the procedures of §265.118(c).

(c) Post-closure use of property on or in which hazardous wastes remain after closure must never be allowed to disturb the integrity of the final cover, liner(s), or any other components of any containment system, or the function of the facility's monitoring systems, unless the owner or operator can demonstrate to the Secretary, either in the post-closure plan or by petition, through the procedures in §265.118 (c) or (f), as appropriate, 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 the threat to human health or the environment.

(d) All post-closure activities must be performed in accordance with the provisions of the approved post-closure plan as specified in §265.118.

§265.118 Post-closure plan; Amendment of Plan

(a) By the effective date of these amendments, the owner or operator of a disposal facility must have a written post-closure plan. He must keep a copy of the post-closure plan and all revisions to the plan at the facility until the post-closure care period begins. The post-closure plan must identify the activities which will be carried on after closure and the frequency of these activities, and include at least:

(1) A description of the planned groundwater monitoring activities and frequencies at which they will be performed to comply with Subpart F during the post-closure period;

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

(i) The integrity of the cap and final cover or other containment structures as specified in §§265.223, 265.228, 265.280, and 265.310, where applicable; and

(ii) The function of the facility monitoring equipment as specified in §265.91; and

(3) The name, address, and phone number of the person or office to contact about the disposal facility during the post-closure care period. This person or office must keep an updated post-closure plan during the post-closure care period.

(b) The owner or operator may amend his post-closure plan at any time during the active life of the disposal facility. The owner or operator must amend his plan any time changes in operating plans or facility design, or events which occur during the active life of the facility, affect his post-closure plan. The plan must be amended within 60 days after the changes or events occur.

(c) The owner or operator of a disposal facility must submit his post-closure plan to the Secretary at least 180 days before the date he

expects to begin closure. The date when he "expects to begin closure" should be immediately after the date on which he expects to receive the final volume of wastes. The owner or operator must submit his closure plan to the Secretary 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 compliance order under 7 Del. C. 6309 to cease receiving wastes or close.

[Comment: The date when closure commences should be within 30 days after the date on which the owner or operator expects to receive the final volume of wastes.]

(d) The Secretary will provide the owner or operator and the public through a public newspaper notice the opportunity to submit written comments on the plan and request modifications of the plan including modification of the 30 year post-closure period required in §265.117 within 30 days of the date of the notice. He may also, in response to a request or at his own discretion, hold a public hearing whenever a hearing might clarify one or more issues concerning the post-closure plan. The Secretary 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.) The Secretary will approve, modify, or disapprove the plan within 90 days of its receipt. If the Secretary does not approve the plan, the owner or operator must modify the plan or submit a new plan for approval within 30 days. The Secretary will approve or modify the plan in writing within 60 days. If the Secretary modifies the plan, this modified plan becomes the approved post-closure plan. The Secretary must base his decision upon the criteria required of petitions under paragraph (f)(1)(i) of this Section. A copy of this modified plan must be mailed to the owner or operator.

(e) The owner or operator may amend his post-closure plan during the post-closure care period. The owner or operator must amend his plan any time changes in monitoring or maintenance plans or events which occur during the post-closure care period affect the post-closure plan. The owner or operator must petition the Secretary within 60 days of the changes or events, under the procedures of paragraph (f) of this Section, to allow the plan to be modified.

(f) The post-closure plan (or period) may be modified during the post-closure care period 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 Secretary to extend or reduce the post-closure care period based on cause, or alter the requirements of the post-closure care period based on cause.

(i) The petition must include evidence demonstrating that:

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

(B) 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.

(ii) These petitions will be considered by the Secretary only when they present new and relevant information not previously considered by the Secretary. Whenever the Secretary is considering a petition, he 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. He will also, in response to a request or at his own discretion, hold a public hearing whenever a hearing might clarify one or more issues concerning the post-closure plan. The Secretary 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, he will issue a final determination, based upon the criteria set forth in subparagraph (1).

(iii) If the Secretary denies the petition, he will send the petitioner a brief written response giving a reason for the denial.

(2) The Secretary may tentatively decide to modify the post-closure plan if he deems it necessary to prevent threats to human health and the environment. He may propose to extend or reduce the post-closure care period based on cause or alter the requirements of the post-closure care period based on cause.

(i) The Secretary 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 subparagraph (a)(1)(ii) of this Section. After considering the comments, he will issue a final determination.

(ii) The Secretary will base his final determination upon the same criteria as required for petitions under paragraph (f)(1)(i) of this Section.

[Comment: 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 Secretary would then determine whether the requirement(s) should be permanently discontinued or reinstated to prevent threats to human health and the environment.]

§265.119 Notice to Local Land Authority

Within 90 days after closure is completed, the owner or operator of a disposal facility must submit to the local land authority and to the Secretary, a survey plat indicating the location and dimensions of landfill cells or other disposal areas with respect to permanently surveyed benchmarks. This plat must be prepared and certified by a professional land surveyor. The plat filed with the local land authority must contain a note, prominently displayed, which states the owner's or operator's obligation to restrict disturbance of the site as specified in 265.117(c). In addition, the owner or operator must submit to the Secretary and to the local land authority a record of the type, location, and quantity of hazardous wastes disposed of within each cell or area of the facility. The owner or operator must identify the type, location, and quantity of hazardous wastes disposed of within each cell or area of the facility. For wastes disposed of before these regulations were promulgated, the owner or operator must identify the type, location, and quantity of the wastes to the best of his knowledge and in

accordance with any records he has kept.

§265.120 Notice in Deed to Property

The owner of the property on which a disposal facility is located must 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: (1) the land has been used to manage hazardous waste, and (2) its use is restricted under 265.117(c).

Subpart H-Financial Requirements

§265.140 Applicability.

(a) The requirements of §§265.142, 265.143, and 265.147 through 265.151 apply to owners and operators of all hazardous waste facilities, except as provided otherwise in this section or in §265.1.

(b) The requirements of §§265.144, 265.145, and 265.146 apply only to owners and operators of disposal facilities.

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

§265.141 Definitions.

(a) "Closure plan" means the plan for closure prepared in accordance with the requirements of §265.112.

(b) "Current closure cost estimate" means the most recent of the estimates prepared in accordance with §265.142 (a), (b), and (c).

(c) "Current post-closure cost estimate" means the most recent of the estimates prepared in accordance with §265.144 (a), (b), (c).

(d) "Parent corporation" means a corporation which directly owns at least 50 percent of the voting stock of the corporation which is the facility owner or operator; the latter corporation is deemed a "subsidiary" of the parent corporation.

(e) "Post-closure plan" means the plan for post-closure care prepared in accordance with the requirements of §§265.117 through 265.120.

(f) The following terms 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" means all existing and all probable future economic benefits obtained or controlled by a particular entity.

"Current assets" means cash or other assets or resources commonly identified as those which are reasonably expected to be realized in cash or sold or consumed during the normal operating cycle of the business.

"Current liabilities" means obligations whose liquidation is reasonably expected to require the use of existing resources properly classifiable as current assets or the creation of other current liabilities.

"Independently audited" refers to an audit performed by an independent certified public accountant in accordance with generally accepted auditing standards.

"Liabilities" means probable future sacrifices of economic benefits arising from present obligations to transfer assets or provide services to other entities in the furture as a result of past transactions or events.

"Net working capital" means current assets minus current liabilities.

"Net worth" means total assets minus total liabilities and is equivalent to owner's equity.

"Tangible net worth" means the tangible assets that remain after deducting liabilities; such assets would not include intangibles such as goodwill and rights to patents or royalties.

(g) In the liability insurance requirements the terms "bodily injury" and "property damage" 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 agency intends the meaning of other terms used in the liability insurance requirements to be consistent with their common meanings within the insurance industry. The definitions given below of several of the terms are intended to assist in the understanding of these Regulations and are not 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" means an accident, including continuous or repeated exposure to conditions, which results in bodily injury or property damage neither expected nor intended from the stand point of the insured.

"Legal defense costs" means any expenses that an insurer incurs in defending against claims of third parties brought under the terms and conditions of an insurance policy.

"Nonsudden accidental occurrence" means an occurrence which takes place over time and involves continuous or repeated exposure.

"Sudden accidental occurrence" means an occurrence which is not continuous or repeated in nature.

§265.142 Cost estimate for facility closure.

(a) On May 19, 1981, the owner or operator must prepare a written estimate, in current dollars, of the cost of closing the facility in accordance with the closure plan as specified in the §265.112. The closure cost estimate must equal the cost of closure at the point in the facility's operating life when the extent and manner of its operation would make closure the most expensive, as indicated by its closure plan.

(b) The owner or operator must adjust the closure cost estimate for inflation within 30 days after each anniversary of the date on which the first closure cost estimate was prepared. The adjustment must be made as specified in paragraphs (b)(i) and (b)(ii) of this section, using an inflation factor derived from the annual Implicit Price Deflator for Gross National Product and published by the U.S. Department of Commerce in its Survey of Current Business. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

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

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

(c) The owner or operator must revise the closure cost estimate whenever a change in the closure plan increases the cost of closure. The revised closure cost estimate must be adjusted for inflation as specified in §275.142(b).

(d) The owner or operator must keep the following at the facility during the operating life of the facility: the latest closure cost estimate prepared in accordance with §265.142 (a) and (c) and, when this estimate has been adjusted in accordance with §265.142(b), the latest

adjusted closure cost estimate.

§265.143 Financial assurance for facility closure.

By the effective date of these regulations, an owner or operator of each facility must establish financial assurance for closure of the facility. He must choose from the options as specified in paragraphs (a) through (e) 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 paragraph and submitting an originally signed duplicate of the trust agreement to the Secretary. The trustee must 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 wording of the trust agreement must be identical to the wording specified in §264.151(a)(1), and the trust agreement must be accompanied by a formal certification of acknowledgment (for example, see §264.151(a)(2)). Schedule A of the trust agreement must be updated within 60 days after a change in the amount of the current closure cost estimate covered by the agreement.

(3) Payments into the trust fund must be made annually by the owner or operator over the 20 years beginning with the effective date of these regulations or over the remaining operation 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 must be made as follows:

(i) The first payment must be made by the effective date of these regulations, except as provided in paragraph (a)(5) of this section. The first payment must be at least equal to the current closure cost estimate, except as provided in §265.143 (f), divided by the number of years in the pay-in period.

(ii) Subsequent payments must 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 he may deposit the full amount of the current closure cost estimate at the time the fund is established. However, he must maintain the value of the fund at no less than the value that the fund would have if annual payments were made as specified in paragraph (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, his first payment must 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 paragraph (a)(3) of this section.

(6) After the pay-in period is completed, whenever the current closure cost estimate changes, the owner or operator must 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, must 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 section 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 Secretary 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 section for all or part of the trust fund, he may submit a written request to the Secretary 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 paragraph (a)(7) or (8) of this section, the Secretary will instruct the trustee to release to the owner or operator such funds as the Secretary specifies in writing.

(10) After beginning final closure, an owner or operator or any other person authorized to perform closure may request reimbursement for closure expenditures by submitting itemized bills to the Secretary. Within 60 days after receiving bills for closure activities, the Secretary will determine whether the closure expenditures are in accordance with the closure plan or otherwise justified, and if so, he will instruct the trustee to make reimbursement in such amounts as the Secretary specifies in writing. If the Secretary has reason to believe that the cost of closure will be significantly greater than the value of the trust fund, he may withhold reimbursement of such amounts as he deems prudent until he determines, in accordance with §265.143(h), that the owner or operator is no longer required to maintain financial assurance for closure.

(11) The Secretary will agree to termination of the trust when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Secretary releases the owner or operator from the requirements of this section in accordance with §265.143(h).

(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 paragraph and submitting the bond to the Secretary. The surety company issuing the bond must, 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 wording of the surety bond must be identical to the wording specified in §264.151(b).

(3) The owner or operator who uses a surety bond to satisfy the requirements of this section must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the Secretary. This standby trust fund must meet the requirements specified in §265.143(a), except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Secretary with the surety bond; and

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

regulations:

(A) Payments into the trust fund as specified in §265.143(a);

(B) Updating of Schedule A of the trust agreement (see §264.151(a)) to show current closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

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

(i) 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

(ii) Fund the standby trust fund in an amount equal to the penal sum within 15 days after an order to begin closure is issued by the Secretary or an U.S. district court or other court of competent jurisdiction; or

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

(5) Under the terms of the bond, the surety will 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 must be in an amount at least equal to the current closure cost estimate, except as provided in §265.143(f).

(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, must 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 Secretary, or obtain other financial assurance as specified in this section 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 Secretary.

(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 Secretary. Cancellation may 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 Secretary, as evidenced by the return receipts.

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

(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 paragraph and submitting the letter to the Secretary. The issuing institution must 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 wording of the letter of credit must be identical to the wording specified in §264.151(d).

(3) An owner or operator who uses a letter of credit to satisfy the requirements of this section must also

establish a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Secretary will be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Secretary. This standby trust fund must meet the requirements of the trust fund specified in §265.143(a), except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Secretary with the letter of credit; and

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

(A) Payments into the trust fund as specified in §265.143(a);

(B) Updating of Schedule A of the trust agreement (see §264.151(a)) to show current closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The letter of credit must 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 EPA 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 must be irrevocable and issued for a period of at least 1 year. The letter of credit must 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 Secretary by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days will begin on the date when both the owner or operator and the Secretary have received the notice, as evidenced by the return receipts.

(6) The letter of credit must be issued in an amount at least equal to the current closure cost estimate except as provided in §265.143(f).

(7) Whenever the current closure cost estimate increases to an amount greater than the amount of the credit, the owner or operator, within 60 days after the increase, must either cause the amount of the credit to be increased so that it at least equals the current closure cost estimate and submit evidence of such increase to the Secretary, or obtain other financial assurance as specified in this section to cover the increase. Whenever the current closure cost estimate decreases, the amount of the credit may be reduced to the amount of the current closure cost estimate following written approval by the Secretary.

(8) Following a determination pursuant to Section 3008 of RCRA that the owner or operator has failed to perform final closure in accordance with the closure plan and other interim status requirements when required to do so, the Secretary may draw on the letter of credit.

(9) If the owner or operator does not establish alternate financial assurance as specified in this section and obtain written approval of such alternate assurance from the Secretary within 90 days after receipt by both the owner or operator and the Secretary of the notice from the issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the Secretary will draw on the letter of credit. The Secretary may delay the drawing if the issuing institution grants an extension

of the term of the credit. During the last 30 days of any such extension the Secretary will draw on the letter of credit if the owner or operator has failed to provide alternate financial assurance as specified in this section and obtain written approval of such assurance from the Secretary.

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

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Secretary releases the owner or operator from the requirements of this section in accordance with §265.143(h).

(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 paragraph and submitting a certificate of such insurance to the Secretary. By the effective date of these regulations the owner or operator must submit to the Secretary a letter from an insurer stating that the insurer is considering issuance of closure insurance conforming to the requirements of this paragraph to the owner or operator. Within 90 days after the effective date of these regulations, the owner or operator must submit the certificate of insurance to the Secretary or establish other financial assurance as specified in this section. At a minimum, the insurer must be licensed to transact the business of insurance, or eligible to provide insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(2) The wording of the certificate of insurance must be identical to the wording specified in §264.151(e).

(3) The closure insurance policy must be issued for a face amount at least equal to the current closure cost estimate, except as provided in §265.143(f). The term "face amount" means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer will not change the face amount, although the insurer's future liability will be lowered by the amount of the payments.

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

(5) After beginning final closure, an owner or operator or any other person authorized to perform closure may request reimbursement for closure expenditures by submitting itemized bills to the Secretary. Within 60 days after receiving bills for closure activities, the Secretary will determine whether the closure expenditures are in accordance with the closure plan or otherwise justified, and if so, he will instruct the insurer to make reimbursement in such amounts as the Secretary specifies in writing. If the Secretary has reason to believe that the cost of closure will be significantly greater than the face amount of the policy, he may withhold reimbursement of such amounts as he deems prudent until he determines, in accordance with §265.143(h), that the owner or operator is no longer required to maintain financial assurance for closure of the facility.

(6) The owner or operator must maintain the policy in full force and effect until the Secretary consents to termination of the policy

by the owner or operator as specified in paragraph (d)(10) of this section. Failure to pay the premium, without substitution of alternate financial assurance as specified in this section will constitute a significant violation of these regulations, warranting such remedy as the Secretary deems necessary. Such violation will be deemed to begin upon receipt by the Secretary 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 must 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 must 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 must, 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 Secretary. Cancellation, termination, or failure to renew may not occur, however, during the 120 days beginning with the date of receipt of the notice by both the Secretary and the owner or operator, as evidenced by the return receipts. Cancellation, termination, or failure to renew may not occur and the policy will remain in full force and effect in the event that on or before the date of expiration:

(i) The Secretary deems the facility abandoned; or

(ii) Interim status is terminated or revoked; or

(iii) Closure is order by the Secretary or a U.S. district court or other court of competent jurisdiction; or

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

(v) 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, must 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 Secretary, or obtain other finanical assurance as specified in this section to cover the increase. Whenever the current closure cost estimate decreases, the face amount of the current closure cost estimate following written approval by the Secretary.

(10) The Secretary will give written consent to the owner or operator that he may terminate the insurance policy when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Secretary releases the owner or operate or from the requirements of this section in accordance with §265.143(h).

(e) Financial test and corporate guarantee for closure. (1) An owner or operator may satisfy the requirements of this section by demonstrating that he passes a financial test as specified in this paragraph. To pass this test the owner or operator must meet the criteria of either paragraph (e)(1)(i)

or (e)(1)(ii) of this section:

(i) The owner or operator must have:

(A) 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

(B) Net working capital and tangible net worth each at least six times the sum of the current closure and post-closure cost estimates; and

(C) Tangible net worth of at least $10 million; and

(D) Assets in the United States amounting to at least 90 percent of his total assets or at least six times the sum of the current closure and post-closure cost estimates.

(ii) The owner or operator must have:

(A) A current rating for his 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

(B) Tangible net worth at least six times the sum of the current closure and post-closure cost estimates; and

(C) Tangible net worth of at least $10 million; and

(D) Assets located in the United States amounting to at least 90 percent of his total assets or at least six times the sum of the current closure and post-closure cost estimates.

(2) The phrase "current closure and post-closure cost estimates" as used in paragraph (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 (§264.151(f)).

(3) To demonstrate that he meets this test, the owner or operator must submit the following items to the Secretary:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in §264.151(f); and

(ii) 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

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

(A) He 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

(B) In connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted.

(4) The owner or operator may obtain an extension of the time allowed for submission of the documents specified in paragraph (e)(3) of this section if the fiscal year of the owner or operator ends during the 90 days prior to the effective date of these regulations and if the year-end financial statements for that fiscal year will be audited by an independent certified public accountant. The extension will end no later than 90 days after the end of the owner's or operator's fiscal year. To obtain the

extension, the owner's or operator's chief financial officer must send, by the effective date of these regulations, a letter to the Secretary and to the EPA Regional Administrator of each Region in which the owner's or operator's facilities to be covered by the financial test are located outside the State. This letter from the chief financial officer must:

(i) Request the extension;

(ii) Certify that he has grounds to believe that the owner or operator meets the criteria of the financial test;

(iii) Specify for each facility to be covered by the test the EPA Identification Number, name, address, and current closure and post-closure cost estimates to be covered by the test;

(iv) Specify the date ending the owner's or operator's last complete fiscal year before the effective date of these regulations;

(v) Specify the date, no later than 90 days after the end of such fiscal year, when he will submit the documents specified in paragraph (e)(3) of this section; and

(vi) Certify that the year-end financial statements of the owner or operator for such fiscal year will be audited by an independent certified public accountant.

(5) After the initial submission of items specified in paragraph (e)(3) of this section, the owner or operator must send updated information to the Secretary within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in paragraph (e)(3) of this section.

(6) If the owner or operator no longer meets the requirements of paragraph (e)(1) of this section, he must send notice to the Secretary of intent to establish alternate financial assurance as specified in this section. The notice must be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements. The owner or operator must provide the alternate financial assurance within 120 days after the end of such fiscal year.

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

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

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

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Secretary releases the owner or operator from the requirements of this section in accordance with §265.143(h).

(10) An owner or operator may meet the requirements of this section by obtaining a written guarantee, hereafter referred to as "corporate guarantee." The guarantor must be the parent corporation of the owner or operator. The guarantor must meet the requirements for owners or operators in paragraphs (e)(1) through (e)(8) of this section and must comply with the terms of the corporate guarantee. The wording of the corporate guarantee must be identical to the wording specified in §264.151(h). The corporate guarantee must accompany the items sent to the Secretary as specified in paragraph (e)(3) of this section. The terms of the corporate guarantee must provide that:

(i) 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 will do so or establish a trust fund as specified in §265.143(a) in the name of the owner or operator;

(ii) The corporate guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the Secretary. Cancellation may 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 Secretary, as evidenced by the return receipts;

(iii) If the owner or operator fails to provide alternace financial assurance as specified in this section and obtain the written approval of such alternate assurance from the Secretary within 90 days after receipt by both the owner or operator and the Secretary of a notice of cancel lation of the corporate guarantee from the guarantor, the guarantor will provide such alternate financial assurance in the name of the owner or operator.

(f) 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. These mechanisms are limited to trust funds, surety bonds, letters of credit, and insurance. The mechanisms must be as specified in paragraphs (a) through (d), respectively, of this section, except that it is the combination of mechanisms, rather than the single mechanism, which must 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, he 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. The Secretary may use any or all of the mechanisms to provide for closure of the facility.

(g) Use of a financial mechanism for multiple facilities. An owner or operator may use a financial assurance mechanism specified in this section to meet the requirements of this section for more than one facility. Evidence of financial assurance submitted to the Secretary must include a list showing, for each facility, the EPA identification, number, name, address, and the amount of funds for closure assured by the mechanism. If the facilities covered by the mechanism are outside the State, identical evidence of financial assurance must be submitted to and maintained with the Secretary and Regional Administrator of

appropriate EPA Regions. The amount of funds available through the mechanism must 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 finds available through the mechanism for closure of any of the facilities covered by the mechanism, the Secretary 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.

(h) Release of the owner or operator from the requirements of this section. Within 60 days after receiving certifications from the owner or operator and an independent registered professional engineer that closure has been accomplished in accordance with the closure plan, the Secretary will notify the owner or operator in writing that he is no longer required by this section to maintain financial assurance for closure of the particular facility, unless the Secretary has reason to believe that closure has not been in accordance with the closure plan.

§265.144 Cost estimate for post-closure monitoring and maintenance.

(a) On May 19, 1981, the owner or operator of a disposal facility must perpare a written estimate, in current dollars, of the annual cost of post-closure monitoring and maintenance of the facility in accordance with the applicable post-closure regulations in §§265.117 through 265.120. The post-closure cost estimate is calculated by multiplying the annual post-closure cost estimate by the number of years of post-closure care required under Subpart G of Part 265.

(b) During the operating life of the facility, the owner or operator must adjust the post-closure cost estimate for inflation within 30 days after each anniversary of the date on which the first post-closure cost estimate was prepared. The adjustment must be made as specified in paragraphs (b)(1) and (2) of this section, using an inflation factor derived from the annual Implicit Price Deflator for Gross National Product as published by the U. S. Department of Commerce in its Survey of Current Business. 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 post-closure cost estimate by the inflation factor. The result is the adjusted post-closure cost estimate.

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

(c) The owner or operator must revise the post-closure cost estimate during the operating life of the facility whenever a change in the post-closure plan increases the cost of post-closure care. The revised post-closure cost estimate must be adjusted for inflation as specified in in §265.144(b).

(d) The owner or operator must keep the following at the facility during the operating life of the facility: the latest post-closure cost estimate prepared in accordance with §265.144 (a) and (c) and, when this estimate has been adjusted in accordance with §265.144(b), the latest adjusted post-closure cost estimate.

§265.145 Financial assurance for post-closure monitoring and maintenance.

Within 120 days of the effective date of these regulations, and owner or operator of each disposal facility must establish financial assurance for post-closure care of the facility. He must choose from the options as

specified in paragraphs (a) through (e) of this section.

(a) Post-closure trust fund.

(1) An owner or operator may satify the requirements of this section by establishing a post-closure trustfund which conforms to the requirements of this paragraph and submitting an originally signed duplicate of the trust agreement to the Secretary. The trustee must 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 wording of the trust agreement must be identical to the wording specified in §264.151(a)(1), and the trust agreement must be accompanied by a formal certification of knowledgment (for example, see §264.151(a)(2)). Schedule A of the trust agreement must be updated within 60 days after a change in the amount of the current post-closure cost estimate covered by the agreement.

(3) Payments into the trust fund must be made annually by the owner or operator over the 20 years beginning with the effective date of these regulations 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 post-closure trust fund must be made as follows:

(i) The first payment must be made by the effective date of these regulations, except as provided in paragraph (a)(5) of this section. The first payment must be at least equal to the current post-closure cost estimate, except as provided in §265.145(f), divided by the number of years in the pay-in period.

(ii) Subsequent payments must 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 post-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 he may deposit the full amount of the current post-closure cost estimate at the time the fund is established. However, he must maintain the value of the fund at no less than the value that the fund would have if annual payments were made as specified in paragraph (a)(3) of this section.

(5) If the owner or operator establishes a post-closure trust fund after having used one or more alternate mechanisms specified in this section, his first payment must 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 paragraph (a)(3) of this section.

(6) After the pay-in period is completed, whenever the current post-closure cost estimate changes during the operating life of the facility, the owner or operator must 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, must either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current post-closure cost estimate, or obtain other financial assurance as specified in this section 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 post-closure cost estimate, the owner or operator may submit a written request to the Secretary for release of the amount in excess of the current post-closure cost estimate.

(8) If an owner or operator substitutes other financial assurance as specified in this section for all or part of the trust fund, he may submit a written request to the Secretary for release of the amount in excess of the current post-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 paragraph (a)(7) or (8) of this section, the Secretary will instruct the trustee to release to the owner or operator such funds as the Secretary specifies in writing.

(10) During the period of post-closure care, the Secretary may approve a release of funds if the owner or operator demonstrates to the Secretary that the value of the trust fund exceeds the remaining cost of post-closure care.

(11) An owner or operator or any other person authorized to perform post-closure care may request reimbursement for post-closure expenditures by submitting itemized bills to the Secretary. Within 60 days after receiving bills for post-closure activities, the Secretary will determine whether the post-closure expenditures are in accordance with the post-closure plan or otherwise justified, and if so, he will instruct the trustee to make reimbursement in such amounts as the Secretary specifies in writing.

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

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Secretary releases the owner or operator from the requirements of this section in accordance with §265.145(h).

(b) Surety bond guaranteeing payment into a post-closure trust fund. (1) An owner or operator may satisfy the requirements of this section by obtaining a surety bond which conforms to requirements of this paragraph and submitting the bond to the Secretary. The surety company issuing the bond must, 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 wording of the surety bond must be identical to the wording specified in §264.151(b).

(3) The owner or operator who uses a surety bond to satisfy the requirements of this section must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the Secretary. This standby trust fund must meet the requirements specified in §265.145(a), except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Secretary with the surety bond; and

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

(A) Payments into the trust fund as specified in §265.145(a);

(B) Updating of Schedule A of the trust agreement (see §264.151(a)) to

show current post-closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

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

(i) 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

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

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

(5) Under the terms of the bond, the surety will 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 must be in an amount at least equal to the current post-closure cost estimate, except as provided in §265.145(f).

(7) Whenever the current post-closure cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current post-closure cost estimate and submit evidence of such increase to the Secretary, or obtain other financial assurance as specified in this section to cover the increase. Whenever the current post-closure cost estimate decreases, the penal sum may be reduced to the amount of the current post-closure cost estimate following written approval by the Secretary.

(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 Secretary. Cancellation may 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 Secretary as evidenced by the return receipts.

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

(c) Post-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 paragraph and submitting the letter to the Secretary. The issuing institution must 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 wording of the letter of credit must be identical to the wording specified in §264.151(d).

(3) An owner or operator who uses a letter of credit to satisfy the requirements of this section must also establish a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Secretary will be deposited by the issuing institution directly into the standby trust fund in accordance with

instructions from the Secretary. This standby trust fund must meet the requirements of the trust fund specified in §265.145(a), except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Secretary with the letter of credit; and

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

(A) Payments into the trust fund as specified in §265.145(a);

(B) Updating of Schedule A of the trust agreement (see §264.151(a)) to show current post-closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The letter of credit must 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 EPA Identification Number, name, and address of the facility, and the amount of funds assured for post-closure care of the facility by the letter of credit.

(5) The letter of credit must be irrevocable and issued for a period of at least 1 year. The letter of credit must 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 Secretary by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days will begin on the date when both the owner or operator and the Secretary have received the notice as evidenced by the return receipts.

(6) The letter of credit must be issued in an amount at least equal to the current post-closure cost estimate, except as provided in §265.145(f).

(7) Whenever the current post-closure cost estimate increases to an amount greater than the amount of the credit during the operating life of the facility, the owner or operator, within 60 days after the increase, must either cause the amount of the credit to be increased so that it at least equals the current post-closure cost estimate and submit evidence of such increase to the Secretary, or obtain financial assurance as specified in this section to cover the increase. Whenever the current post-closure cost estimate decreases during the operating life of the facility, the amount of the credit may be reduced to the amount of the current post-closure cost estimate following written approval by the Secretary.

(8) During the period of post-closure care, the Secretary may approve a decrease in the amount of the letter of credit if the owner or operator demonstrates to the Secretary that the amount exceeds the remaining cost of post-closure care.

(9) Following a determination pursuant to 7 Del. C. Section 6305 that the owner or operator has failed to perform post-closure care in accordance with the post-closure plan and other interim status requirements, the Secretary may draw on the letter of credit.

(10) If the owner or operator does not establish alternate financial assurance as specified in this section and obtain written approval of such alternate assurance from the Secretary within 90 days after receipt by both the owner or operator and the Secretary of a notice from the issuing

institution that it has decided not to extend the letter of credit beyond the current expiration date, the Secretary will draw on the letter of credit. The Secretary may delay the drawing if the issuing institution grants an extension of the term of the credit. During the last 30 days of any such extension the Secretary will draw on the letter of credit if the owner or operator has failed to provide alternate financial assurance as specified in this section and obtain written approval of such assurance from the Secretary.

(11) The Secretary will return the letter of credit to the issuing institution for termination when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Secretary releases the owner or operator from the requirements of this section in accordance with §265.145(h).

(d) Post-closure insurance.

(1) An owner or operator may satisfy the requirements of this section by obtaining post-closure insurance which conforms to the requirements of this paragraph and submitting a certificate of such insurance to the Secretary. Within 120 days of the effective date of these regulations the owner or operator must submit to the Secretary a letter from an insurer stating that the insurer is considering issuance of post-closure insurance conforming to the requirements of this paragraph to the owner or operator. Within 90 days after the effective date of these regulations, the owner or operator must submit the certificate of insurance to the Secretary or establish other financial assurance as specified in this section. At a minimum, the insurer must 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 wording of the certifi cate of insurance must be identical to the wording specified in §264.151(e).

(3) The post-closure insurance policy must be issued for a face amount at least equal to the current post-closure cost estimate, except as provided in §265.145(f). the term "face amount" means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer will not change the face amount, although the insurer's future liability will be lowered by the amount of the payments.

(4) The post-closure insurance policy must guarantee that funds will be available to provide post-closure care of the facility whenever the post-closure period begins. The policy must also guarantee that once post-closure care begins the insurer will be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the Secretary, to such party or parties as the Secretary specifies.

(5) An owner or operator or any other person authorized to perform post-closure care may request reimbursement for post-closure expenditures by submitting itemized bills to the Secretary. Within 60 days after receiving bills for post-closure activities, the Secretary will determine whether the post-closure expenditures are in accordance with the post-closure plan or otherwise justified, and if so, he will instruct the insurer to make reimbursement in such amounts as the Secretary specifies in writing.

(6) The owner or operator must maintain the policy in full force and effect until the Secretary consents to termination of the policy by the owner or operator as specified in paragraph (d) (11) of this section. Failure to

pay the premium, without substitution of alternate financial assurance as specified in the section, will constitute a significant violation of these regulations, warranting such remedy as the Secretary deems necessary. Such violation will be deemed to begin upon receipt by the Secretary 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 most 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 must 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 must, 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 Secretary. Cancellation, termination, or failure to renew may not occur and the policy will remain in full force and effect in the event that on or before the date of expiration:

(i) The Secretary deems the facility abandoned; or

(ii) Interim status is terminated or revoked; or

(iii) Closure is ordered by the Secretary or a U.S. district court or other court of competent jurisdiction; or

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

(v) The premium due is paid.

(9) Whenever the current post-closure 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, must either cause the face amount to be increased to an amount at least equal to the current post-closure cost estimate and submit evidence of such increase to the Secretary, or obtain other financial assurance as specified in this section to cover the increase. Whenever the current post-closure cost estimate decreases during the operating life of the facility, the face amount may be reduced to the amount of the current post-closure cost estimate following written approval by the Secretary.

(10) Commencing on the date that liability to make payments pursuant to the policy accrues, the insurer will thereafter annually increase the face amount of the policy. Such increase must 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 Secretary will give written consent to the owner or operator that he may terminate the insurance policy when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Secretary releases the owner or operator from the requirements of this section in accordance with §265.145(h).

(e) Financial test and corporate guarantee for post-closure care.

(1) An owner or operator may satisfy the requirements of this section by demonstrating that he passes a financial test as specified in this paragraph. To pass this test the owner or operator must meet the criteria either of paragraph (e)(1)(i) or (e)(1)(ii) of this section:

(i) The owner or operator must have:

(A) 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

(B) Net working capital and tangible net worth each at least six times the sum of the current closure and post-closure cost estimates; and

(C) Tangible net worth of at least $10 million; and

(D) Assets in the United States amounting to a least 90 percent of his total assets or at least six times the sum of the current closure and post-closure cost estimates.

(ii) The owner or operator must have:

(A) A current rating for his 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

(B) Tangible net worth at least six times the sum of the current closure and post-closure cost estimates; and

(C) Tangible net worth of at least $10 million; and

(D) Assets located in the United States amounting to at least 90 percent of his total assets or at least six times the sum of the current closure and post-closure cost estimates.

(2) The phrase "current closure and post-closure cost estimates" as used in paragraph (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 (§264.151(f)).

(3) To demonstrate that he meets this test, the owner or operator must submit the following items to the Secretary:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in §264.151(f); and

(ii) 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

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

(A) He 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

(B) In connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted.

(4) The owner or operator may obtain an extension of the time allowed for submission of the documents specified in paragraph (e)(3) if the fiscal year of the owner or operator ends during the 90 days prior to the effective date of these regulations and if the year-end

financial statements for that fiscal year will be audited by an independent certified public accountant. The extension will end no later than 90 days after the end of the owner's or operator's fiscal year. To obtain the extension, the owner's or operator's chief financial officer must send, by the effective date of these regulations, a letter to the Secretary and Regional Administrator in appropriate EPA Regions in which the owner's or operator's facilities to be covered by the financial test are located outside the State. This letter from the chief financial officer must:

(i) Request the extension;

(ii) Certify that he has grounds to believe that the owner or operator meets the criteria of the financial test;

(iii) Specify for each facility to be covered by the test the EPA Identification Number, name, address, and the current closure and post-closure cost estimates to be covered by the test;

(iv) Specify the date ending the owner's or operator's latest complete fiscal year before the effective date of these regulations;

(v) Specify the date, no later than 90 days after the end of such fiscal year, when he will submit the documents specified in paragraph (e)(3) of this section; and

(vi) Certify that the year-end financial statements of the owner or operator for such fiscal year will be audited by an independent certified public accountant.

(5) After the initial submission of items specified in paragraph (e)(3) of this section, the owner or operator must send updated information to the Secretary within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in paragraph (e)(3) of this section.

(6) If the owner or operator no longer meets the requirements of paragraph (e)(1) of this section, he must send notice to the Secretary of intent to establish alternate financial assurance as specified in this section. The notice must be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements. The owner or operator must provide the alternate financial assurance within 120 days after the end of such fiscal year.

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

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

(9) During the period of

post-closure care, the Secretary may approve a decrease in the current post-closure cost estimate for which this test demonstrates financial assurance if the owner or operator demonstrates to the Secretary that the amount of the cost estimate exceeds the remaining cost of post-closure care.

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

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Secretary releases the owner or operator from the requirements of this section in accordance with §265.145(h).

(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 must be the parent corporation of the owner or operator. The guarantor must meet the requirements for owners or operators in paragraphs (e)(1) through (9) of this section and must comply with the terms of the corporate guarantee. The wording of the corporate guarantee must be identical to the wording specified in §264.151(h). The corporate guarantee must accompany the items sent to the Secretary as specified in paragraph (e)(3) of this section. The terms of the corporate guarantee must provide that:

(i) If the owner or operator fails to perform post-closure care of a facility covered by the corporate guarantee in accordance with the post-closure plan and other interim status requirements whenever required to do so, the guarantor will do so or establish a trust fund as specified in §265.145(a) in the name of the owner or operator.

(ii) The corporate guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the Secretary. Cancellation may 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 Secretary, as evidenced by the return receipts.

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

(f) 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. These mechanisms are limited to trust funds, surety bonds, letters of credit, and insurance. The mechanisms must be as specified in paragraphs (a) through (d), respectively, of this section, except that it is the combination of mechanisms, rather than the single mechanism, which must provide financial assurance for an amount at least equal to the current post-closure cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, he 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. The Secretary may use any or all of the mechanisms to provide for post-closure care of the facilitity.

(g) Use of a financial mechanism for multiple facilities. An owner or operator may use a financial assurance

mechanism specified in this section to meet the requirements of this section for more than one facility. Evidence of financial assurance submitted to the Secretary must include a list showing, for each facility, the EPA Identification Number, name, address, and the amount of funds for post-closure care assured by the mechanism. If the facilities covered by the mechanism are in more than one Region, identical evidence of financial assurance must be submitted to and maintained with the Regional Administrators of all such Regions. The amount of funds available through the mechanism must 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 must 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 post-closure care of any of the facilities covered by the mechanism, the Secretary 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.

(h) Release of the owner or operator from the requirements of this section. When an owner or operator has completed, to the satisfaction of the Secretary, all post-closure care requirements in accordance with the post-closure plan, the Secretary will, at the request of the owner or operator, notify him in writing that he is no longer required by this section to maintain financial assurance for post-closure care of the particular facility.

§265.146 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 that meets the specifications for the mechanism in both §§265.143 and 265.145. The amount of funds available through the mechanism must 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.

§265.147 Liability requirements.

(a) Coverage for sudden accidental occurrences. Within 120 days of the effective date of these regulations, an owner or operator of a hazardous waste treatment, storage, or disposal facility, or a group of such facilities, must demonstrate 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 must have and maintain liability coverage for sudden accidental occurrences in the amount of at least $1 million per occurrence per site with an annual aggregate of at least $2 million per site, exclusive of legal defense costs. This liability coverage may be demonstrated in one of three ways, as specified in paragraphs (a)(1), (2), and (3) of this section:

(1) An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in this paragraph.

(i) Each insurance policy must be amended by attachment of the Hazardous Waste Facility Liability Endorsement or evidenced by a Certificate of Liability Insurance. The wording of the endorsement must be identical to the wording specified in §264.151(i). The wording of the certificate of insurance must be identical to the wording specified in §264.151(j). The owner or operator must submit a signed duplicate original of the endorsement or the certificate or

insurance to the Secretary. If requested by a Secretary, the owner or operator must provide a signed duplicate original of the insurance policy.

(ii) Each insurance policy must be issued by an insurer which, at a minimum, is 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) An owner or operator may meet the requirements of this section by passing a financial test for liability coverage as specified in paragraph (f) of this section.

(3) An owner or operator may demonstrate the required liability coverage through use of both the financial test and insurance as these mechanisms are specified in this section. The amounts of coverage must total at least the minimum amounts required by this paragraph.

(b) Coverage for nonsudden accidental occurrences. An owner or operator of a surface impoundment, landfill, or land treatment facility which is used to manage hazardous waste, or a group of such facilities, must demonstrate financial responsibility for bodily damage 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 must have and maintain liability coverage for nonsudden accidental occurrences in the amount of at least $3 million per occurrence per site with an annual aggregate of at least $6 million per site, exclusive of legal defense costs. This liability coverage may be demonstrated in one of three ways, as specified in paragraphs (b)(1),(b) (2), and (b)(3) of this section:

(1) An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in this paragraph.

(i) Each insurance policy must be amended by attachment of the Hazardous Waste Facility Liability Endorsement or evidenced by a Certificate of Liability Insurance. The wording of the endorsement must be identical to the wording specified in §264.151(i). The wording of the certificate of insurance must be identical to the wording specified in §264.151(j). The owner or operator must submit a signed duplicate original of the endorsement or the certificate of insurance to the Secretary. If requested by a Secretary, the owner or operator must provide a signed duplicate original of the insurance policy.

(ii) Each insurance policy must be issued by an insurer which, at a minimum, is 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) An owner or operator may meet the requirements of this section by passing a financial test for liability coverage as specified in paragraph (f) of this section.

(3) An owner or operator may demonstrate the required liability coverage through use of both the financial test and insurance as these mechanisms are specified in this section. The amounts of coverage must total at least the minimum amounts required by this paragraph.

(4) The required liability coverage for nonsudden accidental occurrences must be demonstrated by the dates listed below. The total sales or revenues of the owner or operator in all lines of business, in the fiscal year preceding the effective date of these regulations, will determine which of the dates applies. If the owner and operator of a facility are two different parties, or if there is more than one owner or operator, the sales or revenues of the owner or operator with the largest sales or revenues will determine the

date by which the coverage must be demonstrated. The dates are as follows:

(i) For an owner or operator with sales or revenues totalling $5 million or more, six months after the effective date of these regulations.

(ii) All other owners or operators by January 15, 1985.

(5) By the date 6 months after the effective date of these regulations an owner or operator who is within either of the two categories (paragraphs (b)(4)(i) or (b)(4)(ii) of this section) must, unless he has demonstrated liability coverage for nonsudden accidental occurrences, send a letter to the Secretary stating the date by which he plans to establish such coverage.

(c) Adjustments by the Secretary. If the Secretary determines that the levels of financial responsibility required by paragraphs (a) or (b) of this section are not consistent with the degree and duration of risk associated with treatment, storage, or disposal at the facility or group of facilities, the Secretary may adjust the level of financial responsibility required under paragraphs (a) or (b) of this section as may be necessary to protect human health and the environment. This adjusted level will be based on the Secretary'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 Secretary 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, he may require that an owner or operator of the facility comply with paragraph (b) of this section. An owner or operator must furnish to the Secretary, within a reasonable time, any information which the Secretary requests to determine whether cause exists for such adjustments of level or type of coverage. The Secretary will process an adjustment of the level of required coverage as if it were a permit modification under §122.15(a)(7)(iii) of these Regulations and subject to the procedures of §124.5 of these Regulations. Notwithstanding any other provision, the Secretary may hold a public hearing at his discretion or whenever he finds, on the basis of requests for a public hearing, a significant degree of public interest in a tentative decision to adjust the level or type of required coverage.

(d) Period of coverage. An owner or operator must continuously provide liability coverage for a facility as required by this section until certifications of closure of the facility, as specified in §265.115, are received by the Secretary.

(e) Financial test for liability coverage. (1) An owner or operator may satisfy the requirements of this section by demonstrating that he passes a financial test as specified in this paragraph. To pass this test the owner or operator must meet the criteria of paragraph (f)(1)(i) or (f)(1)(ii):

(i) The owner or operator must have:

(A) Net working capital and tangible net worth each at least six times the amount of liability coverage to be demonstrated by this test; and

(B) Tangible net worth of at least $10 million; and

(C) Assets in the United States amounting to either: (1) At least 90 percent of his total assets; or (2) at least six times the amount of liability coverage to be demonstrated by this test.

(ii) The owner or operator must have:

(A) A current rating for his 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

(B) Tangible net worth of at least $10 million; and

(C) Tangible net worth at least six times the amount of liability coverage to be demonstrated by this test; and

(D) Assets in the United States amounting in either: (1) at least 90 percent of his 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 paragraph (f)(1) of this section refers to the annual aggregate amounts for which coverage is required under paragraphs (a) and (b) of this section.

(3) To demonstrate that he meets this test, the owner or operator must submit the following three items to the Secretary:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in §264.15(g). If an owner or operator is using the financial test to demonstrate both assurance for closure or post-closure care, as specified by §§264.143(f), 264.145(f), 265.143(e), and 265.145(e), and liability coverage, he must submit the letter specified in §264.151(g) to cover both forms of financial responsibility; a separate letter as specified in §264.151(f) is not required.

(ii) 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.

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

(A) He 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

(B) In connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted.

(4) The owner or operator may obtain a one-time extension of the time allowed for submission of the documents specified in paragraph (f)(3) of this section if the fiscal year of the owner or operator ends during the 90 days prior to the effective date of these regulations and if the year-end financial state ments for that fiscal year will be audited by an independent certified public accountant. The extension will end no later that 90 days after the end of the owner's or operator's fiscal year. To obtain the extension, the owner's or operator's chief financial officer must send, within 120 days of the effective date of these regulations, a letter to the Secretary. This letter from the chief financial officer must:

(i) Request the extension;

(ii) Certify that he has grounds to believe that the owner or operator meets the criteria of the financial test;

(iii) Specify for each facility to be covered by the test the EPA Identification Number, name, address, the amount of liability coverage and, when applicable, current closure and post-closure cost estimates to be covered by the test;

(iv) Specify the date ending the owner's or operator's last complete fiscal year before the effective date of these regulations;

(v) Specify the date, no later than 90 days after the end of such fiscal year, when he will submit the documents specified in paragraph (f)(3) of this section; and

(vi) Certify that the year-end financial statements of the owner or operator for such fiscal year will be audited by an independent certified public accountant.

(5) After the initial submission of items specified in paragraph (f)(3) of this section, the owner or operator must send updated information to the Secretary within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in paragraph (f)(3) of this section.

(6) If the owner or operator no longer meets the requirements of paragraph (f)(1) of this section, he must obtain insurance for the entire amount of required liability coverage as specified in this section. Evidence of insurance must be submitted to the Secretary within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the test requirements.

(7) The Secretary may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements (see paragraph (f)(3)(ii) of this section). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The Secretary will evaluate other qualifications on an individual basis. The owner or operator must provide evidence of insurance for the entire amount of required liability coverage as specified in this section within 30 days after notification of disallowance.

§265.148 Incapacity of institutions issuing letters of credit, surety, bonds or insurance policies.

(a) An owner or operator must notify the Secretary 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 corporate guarantee as specified in §§265.143(e) and 265.145(e) must make such a notification if he is named as debtor, as required under the terms of the corporate guarantee (§264.151(h)).

(b) An owner or operator who fulfills the requirements of §§265.143, 265.145, or 265.147 by obtaining a trust fund, surety bond, letter of credit, or insurance policy will 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 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 must establish other financial assurance or liability coverage within 60 days after such an event

§265.149 - 265.150 [Reserved]

Subpart I—Use and Management of Containers

§265.170 Applicability.

The regulations in this Subpart apply to owners and operators of all hazardous waste facilities that store containers of hazardous waste, except as §265.1 provides otherwise.

§265.171 Condition of containers.

If a container holding hazardous waste is not in good condition, or if it begins to leak, the owner or operator must 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 Part.

§265.172 Compatibility of waste with container.

The owner or operator must use a container made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that

the ability of the container to contain the waste is not impaired.

§265.173 Management of containers.

(a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.

(b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.

[Comment: Re-use of containers in transportation is governed by U.S. Department of Transportation regulations, including those set forth in 49 CFR 173.28.]

§265.174 Inspections.

The owner or operators must inspect areas where containers are stored, at least weekly, looking for leaks and for deterioration caused by corrosion or other factors.

[Comment: See §265.171 for remedial action required if deterioration or leaks are detected.]

§265.175 [Reserved]

§265.176 Special requirements for ignitable or reactive waste.

Containers holding ignitable or reactive waste must be located at least 15 meters (50 feet) from the facility's property line.

[Comment: See §265.17(a) for additional requirements]

§265.177 Special requirements for incompatible wastes.

(a) Incompatible wastes, or incompatible wastes and materials, (see Appendix V for examples) must not be placed in the same container, unless §265.17(b) is complied with.

(b) Hazardous waste must not be placed in an unwashed container that previously held an incompatible waste or material (see Appendix V for examples), unless §265.17(b) is complied with.

(c) a storage container holding a hazardous waste that is incompatible with any waste or other materials stored nearby in other containers, piles, open tanks, or surface impoundments must be separated from the other materials or protected from them by means of a dike, berm, wall, or other device.

[Comment: The purpose of this is to prevent fires, explosions, gaseous emissions, leaching, or other discharge of hazardous waste or hazardous waste constituents which could result from the mixing of incompatible wastes or materials if containers break or leak.]

Subpart J--Tanks

§265.190 Applicability.

The regulations in this subpart apply to owners and operators of facilities that use tanks to treat or store hazardous waste, except as 265.1 provides otherwise.

§265.191 [Reserved]

§265.192 General operating requirements

(a) Treatment or storage of hazardous waste in tanks must comply with §265.17(b).

(b) Hazardous wastes or treatment reagents must not be placed in a tank if they could cause the tank or its inner liner to rupture, leak, corrode, or otherwise fail before the end of it intended life.

(c) Uncovered tanks must be operated to ensure at least 60 centimeters (2 feet) of freeboard, unless the tank is equipped with a

containment structure (e.g., standby tank) with a capacity that equals or exceeds the volume of the top 60 centimeters (2 feet) of the tank.

(d) Where hazardous waste is continuously fed into a tank, the tank must be equipped with a means to stop this inflow (e.g., a waste feed cutoff system or by-pass system to a stand-by tank).

[Comment: These systems are intended to be used in the event of a leak or overflow from the tank due to a system failure (e.g., a malfunction in the treatment process, a crack in the tank, etc.).]

§265.193 Waste analysis and trial tests.

(a) In addition to the waste analysis required by §265.13, whenever a tank is to be used to:

(1) Chemically treat or store a hazardous waste which is substantially different from waste previously treated or stored in the tank; or

(2) Chemically treat hazardous waste with a substantially different process than any previously used in that tank; the owner or operator must, before treating or storing the different waste or using the different process:

(i) Conduct waste analyses and trial treatment or storage tests (e.g., bench scale or pilot plant scale tests); or

(ii) Obtain written, documented information on similar storage or treatment of similar waste under similar operating conditions;
to show that this proposed treatment or storage will meet all applicable requirements of §265.192(a) and (b).

[Comment: As required by §265.13, the waste analysis plan must include analyses needed to compiy with §§265.198 and 265.199. As required by §265.73, 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.]

§265.194 Inspections.

(a) The owner or operator of a tank must inspect, where present:

(1) Discharge control equipment (e.g., waste feed cut-off systems, bypass systems, and drainage 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 tank is being operated according to its design;

(3) The level of waste in the tank, at least once each operating day, to ensure compliance with §265.192(c);

(4) The construction materials of the tank, at least weekly, to detect corrosion or leaking of fixtures or seams; and

(5) 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).

[Comment: As required by §265.15(c), the owner or operator must remedy any deterioration or malfunction he finds.]

§265.195--265.196 [Reserved]

§265.197 Closure.

At closure, all hazardous waste and hazardous waste residues must be removed from tanks, discharge control equipment, and discharge confinement structures.

[Comment: At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with §261.3(c) or (d) of these Regulations, that any solid waste are moved from his tank is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of Parts 262, 263, and 265 of these Regulations.]

§265.198 Special requirements for ignitable or reactive waste.

(a) Ignitable or reactive waste must not be placed in a tank, unless:

(1) The waste is treated, rendered, or mixed before or immediately after placement in the tank so that (i) the resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under §§261.21 or 261.23 of these Regulations, and (ii) §265.17(b) is complied with; or

(2) The waste is stored or treated in such a way that it is protected from any material or

conditions which may cause the waste to ignite or react; or

(3) The tank is used solely for emergencies.

(b) The owner or operator of a facility which treats or stores ignitable or reactive waste in covered tanks must comply with the buffer zone requirements for tanks contained in Tables 2-1 through 2-6 of the National Fire Protection Associations's "Flammable and Combustible Liquids Code" (1977 or 1981), (incorporated by reference, see §260.11)

§265.199 Special requirements for incompatible wastes.

(a) Incompatible wastes, or incompatible wastes and materials, (see Appendix V for examples) must not be placed in the same tank, unless §265.17(b) is complied with.

(b) Hazardous waste must not be placed in an unwashed tank which previously held an incompatible waste or material, unless §265.17(b) is complied with.

Subpart K—Surface Impoundments

§265.220 Applicability.

The regulations in this Subpart apply to owners and operators of facilities that use surface impoundments to treat, store, or dispose of hazardous waste, except as §265.1 provides otherwise.

§265.221 [Reserved]

§265.222 General operating requirements.

(a) A surface impoundment must maintain enough freeboard to prevent any overtopping of the dike by overfilling, wave action, or a storm. 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 that alternate design features or operating plans will, to the best of his knowledge and opinion, prevent overtopping of the dike. The certification, along with a written identification of alternate design features or operating plans preventing overtopping, must be maintained at the facility.

§265.223 Containment system.

All earthen dikes must have a protective cover, such as grass, shale, or rock, to minimize wind and water erosion and to preserve their structural integrity.

§265.224 [Reserved]

§265.225 Waste analysis and trial tests.

(a) In addition to the waste analyses required by §265.13, 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 must, before treating the different waste or using the different process:

(i) Conduct waste analyses and trial treatment tests (e.g., bench scale or pilot plant scale tests); or

(ii) Obtain written, documented information on similar treatment of similar waste under similar operating conditions; to show that this treatment will comply with §265.17(b).

[Comment: As required by §265.13, the waste analysis plan must include analyses needed to comply with §§265.229 and 265.230. As required by §265.73, 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.]

§265.226 Inspections.

(a) The owner or operator must inspect:

(1) The freeboard level at least once each operating day to ensure compliance with §265.222, and

(2) The surface impoundment, including dikes and vegetation surrounding the dike, at least once a week to detect any leakes, deterior ation, or failures in the impoundment.

[Comment: As required by §265.15(c), the owner or operator must remedy any deterioration or malfunction he finds.]

§265.227 [Reserved]

§265.228 Closure and post-closure care.

(a) At closure, the owner or operator must:

(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 §261.3(d) of these Regulations applies; or

(2)(i) Eliminate free liquids by removing liquid wastes or solidifying the remaining wastes and waste residues;

(ii) Stabilize remaining wastes to a bearing capacity sufficient to support final cover, and

(iii) Cover the surface impoundment with a final cover designed and constructed to:

(A) Provide long-term minimization of the migration of liq uids through the closed inpoundment;

(B) Function with minimum maintenance;

(C) Promote drainage and minimize erosion or abrasion of the final cover;

(D) Accommodate settling and subsidence so that the cover's integrity is maintained; and

(E) Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

(b) In addition to the requirements of §265.117, during the post-closure care period, the owner or operator of a surface impoundment in which wastes remain after closure in accordance with the provisions of paragraph (a)(2) of this section must:

(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 ground-water monitoring system and comply with all other applicable requirements of Subpart F of this part; and

(3) Prevent run-on and run-off from eroding or otherwise damaging the final cover.

§265.229 Special requirements for ignitable or reactive waste.

Ignitable or reactive waste must not be placed in a surface impoundment, unless:

(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 §§261.21 or 261.23 of these Regulations; and

(2) Section 265.17(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 that, to the best of his 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.

§265.230 Special requirements for incompatible wastes.

Incompatible wastes, or incompatible wastes and materials, (see Appendix V for examples) must not be placed in the same surface impoundment, unless §265.17(b) is complied with.

Subpart L--Waste Piles

§265.250 Applicability.

The regulations in this subpart apply to owners and operators of facilities that treat or store hazardous waste in piles, except as §265.1 provides otherwise. Alternatively, a pile of hazardous waste may be managed as a landfill under Subpart N.

§265.251 Protection from wind.

The owner or operator of a pile containing hazardous waste which could be subject to dispersal by wind must cover or otherwise manage the pile so that wind dispersal is controlled.

§265.252 Waste analysis.

In addition to the waste analysis required by §265.13, the owner or operator must 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 amendable 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 must 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 must include a visual comparison of color and texture.

[Comment: As required by §265.13, the waste analysis plan must include analyses needed to comply with §§ 265.256 and 265.257. As required by §265.73, the owner or operator must place the results of this analysis in the operating record of the facility.

§265.253 Containment.

If leachate or run-off from a pile is a hazardous waste, then either:

(a)(1) The pile must be placed on an impermeable base that is compatible with the waste under the conditions of treatment or storage;

(2) The owner or operator must 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 must 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 must be emptied or otherwise managed expeditiously to maintain design capacity of the system; or

(b)(1) The pile must be protected from precipitation and run-on by some other means; and

(2) No liquids or wastes containing free liquids may be placed in the pile.

[Comment: If collected leachate or run-off is discharged through a point source to waters of the United States, it is subject to requirements of Section 402 of the Clean Water Act, as amended.]

§§265.254--265.255 [Reserved]

§265.256 Special requirements for ignitable or reactive waste.

(a) Ignitable or reactive wastes must not be placed in a pile, unless:

(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 §§261.21 or 261.23 of these Regulations, and (ii) complies with §265.17(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.

§265.257 Special requirements for incompatible wastes.

(a) Incompatible wastes, or incompatible wastes and materials, (see Appendix V for examples) must not be placed in the same pile, unless §265.17(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 must be separated from the other materials, or protected from them by means of a dike, berm, wall, or other device.

[Comment: The purpose of this is to prevent fires, explosions, gaseous emissions, leaching, or other discharge of hazardous waste or hazardous waste constituents which could result from the contact or mixing of incompatible wastes or materials.]

(c) Hazardous waste must 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 265.17(b).

§265.258 Closure and post-closure care

(a) At closure, the owner or operator must 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 §261.3(d) of these regulations 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 paragraph (a) of this seciton, the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he must close the facility and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills (§265.310).

Subpart M-Land Treatment

§265.270 Applicability.

The regulations in this subpart apply to owners and operators of hazardous waste land treatment facilities, except as §265.1 provides otherwise.

§265.271 [Reserved]

§265.272 General operating requirements.

(a) Hazardous waste must not be placed in or on a land treatment facility unless the waste can be made less hazardous or non-hazardous by biological degradation or chemical reactions occurring in or on the soil.

(b) The owner or operator must 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 must design, construct, operate, and maintain a run-off management system capable of collecting and controlling 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 must 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 must manage the unit to control wind dispersal.

§265.273 Waste Analysis & Soil Survey

(a) In addition to the waste analyses required by §265.13, before placing a hazardous waste in or on a land treatment facility, the owner or operator must:

(1) Determine the concentrations in the waste of any substances which exceed the maximum concentration contained in Table I of §261.24 of this chapter that cause a waste to exhibit the EP toxicity characteristic;

(2) For any waste listed in Part 261, Subpart D, of this chapter, determine the concentrations of any substances which caused the waste to be listed as a hazardous waste; and

(3) If food chain crops are grown, determine the concentrations in the waste of each of the following constituents: arsenic, cadmium, lead, and mercury, unless the owner or operator has written, documented data that show that the constituent is not present.

[Comment: Part 261 of this Chapter specifies the substance for which a waste is listed as a hazardous waste. As required by §265.13, the waste analysis plan must include analyses needed to comply with §§265.281 and 265.282. As required by §265.73, the

owner or operator must place the results from each waste analysis, or the documented information, in the operating record of the facility.]

(b) By April 30, 1983, the owner or operator of a land treatment facility must prepare a soil survey report and submit it to the Department. This report shall include the following, at a minimum,:

(1) An analysis of the cation exchange capacity (CEC) of the soil (Reference: "Hazardous Waste Land Treatment", U.S. Environmental Protection Agency, Office of Water & Waste Management, Washington, D.C. 20460, SW-874, September 1980).

(2) The analysis of the soil indicating:

(i) Salts in the soil including sodium, potassium and chloride;

(ii) Salts in the soil including arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, and other parameters that cause the waste to exhibit the EP toxicity characteristic, if applicable.

(iii) Other parameters which may be present in the soil, that have caused the hazardous waste to be listed in Section 261, Subpart D, if applicable.

(iv) pH of the soil.

(3) All chemical analyses for the parameters indicated in (2)(i) through (2)(iv) shall be certified as performed in accordance with methods specified in "Manual of Methods for Chemical Analysis of Water and Wastes", U.S. Environmental Protection Agency, incorporated by reference in §260.11.

(c) Annually, the owner or operator of a land treatment facility for hazardous waste, must determine the concentrations of the parameters as specified in (b)(2) in the waste-soil mixture, and submit to the Department by March 1 of the following year, a report containing the results of these analyses.

[Comment: The report for the period from November 19, 1980, to December 31, 1981, need not be submitted to the Department. The report for this period may be included with the report for 1982.]

§265.274-- 265.275 [Reserved]

§265.276 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, must notify the Secretary within 60 days after the effective date of this Part.

[Comment: The growth of food chain crops at a facility which has never before been used for this purpose is a significant change in process under §122.23(c)(3) of this Chapter. Owners or operators of such land treatment facilities who propose to grow food chain crops after the effective date of this Part must comply with §122.23(c)(3) of this Chapter.]

(b)(1) Food chain crops must 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 §265.273(b):

(i) Will not be transferred 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

(ii) 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 paragraph (b)(1) of this Section must be kept at the facility and must, at a minimum:

(i) Be based on tests for the specific waste and application rates being used at the facility; and

(ii) Include descriptions of crop and soil characteristics, sample selection criteria, sample size determination, analytical methods, and statistical procedures.

(c) Food chain crops must not be grown on a land treatment facility receiving waste that contains cadmium unless all requirements of paragraphs (c)(1)(i) through (iii) of this section or all requirements of paragraphs (c)(2)(i) through (iv) of this section are met.

(1)(i) 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;

(ii) 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 Dec. 31, 1986	1.25
Beginning Jan. 1, 1987.....	0.5

(iii) The cumulative application of cadmium from waste does not exceed the levels in either paragraph (c)(1)(iii)(A) of this section or paragraph (c)(1)(iii)(B) of this Section.

(A)

Soil cation exchange capacity (meq/100g)	Maximum cumulative application (kg/ha)	
	Background soil pH less than 6.5	Background soil pH greater than 6.5
Less than 5	5	5
5 to 15	5	10
Greater than 15	5	20

(B) For soils with a background pH of less than 6.5, the cumulative cadmimum 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 cation exchange capacity (meq/100g)	Maximum cumulative application (kg/ha)
Less than 5	5
5 to 15	10
Greater than 15	20

(2)(i) The only food chain crop produced is animal feed.

(ii) 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.

(iii) 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.

(iv) 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.

[Comment: As required by §265.73, if an owner or operator grows food chain crops on his land treatment facility, he must place the information developed in this section in the operating record of the facility.]

§265.277 [Reserved]

§265.278 Unsaturated zone (zone of aeration) monitoring.

(a) The owner or operator must have in writing, and must implement, an unsaturated 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 must be conducted before or in conjunction with the monitoring required under paragraph (a)(1) of this section.

(b) The unsaturated zone monitoring plan must 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 paragraph (a)(1) of this Section, the owner or operator must demonstrate in his unsaturated 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:

(i) The hazardous waste constituents (as identified in 265.273(a) and (b) in the waste and in the soil; and

(ii) 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 must keep at the facility his unsaturated zone monitoring plan, and the ration ale used in developing this plan.

(e) The owner or operator must analyze the soil and soil-pore water samples for the hazardous waste constituents that were found in the waste during the waste analysis under §265.273 (a) and (b).

[Comment: As required by §265.73, all data and information developed by the owner or operator under this section must be placed in the operating record of the facility.]

§265.279 Recordkeeping

The owner or operator must include hazardous waste application dates and rates in the operating record required under §265.73.

§265.280 Closure and post-closure.

(a) In the closure plan under §265.112 and the post-closure plan under §265.118, the owner or operator must address the following objectives and indicate how they will be achieved:

(1) Control of the migration of hazardous waste and hazardous waste constituents from the treated area into the ground water;

(2) Control of the release of contaminated run-off from the facility into surface water;

(3) Control of the release of airborne particulate contaminants caused by wind erosion; and

(4) Compliance with §265.276 concerning the growth of food-chain crops.

(b) The owner or operator must consider at least the following factors in addressing the closure and post-closure care objectives of paragraph (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) Unsaturated zone monitoring information obtained under §265.278; 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 must consider at least the following meth ods in addressing the closure and post-closure care objectives of paragraph (a) of this section:

(1) Removal of contaminated soils;

(2) Placement of a final cover, considering:

(i) Functions of the cover (e.g., infiltration control, erosion and run-off control, and wind erosion control): and

(ii) 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 Subpart G of this part, during the closure period the owner or operator of a land treatment facility must:

(1) Continue unsaturated 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 §265.272(b);

(3) Maintain the run-off management system required under §265.272(c); and

(4) Control wind dispersal of particulate matter which may be subject to wind dispersal.

(e) For the purpose of complying with §265.115, when closure is completed the owner or operator may submit to the Secretary certification both by the owner or operator and by an independent qualified soil scientist, in lieu of an independent 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 §265.117, during the post-closure care period the owner or operator of a land treatment unit must:

(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) Assure that growth of food chain crops complies with §265.276; and

(4) Control wind dispersal of hazardous waste.

§265.281 Special requirements for Ignitable or reactive waste.

Ignitable or reactive waste must not be land treated unless:

(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 §§265.21 or 262.23 of this chapter, and

(2) Section 264.17(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.

§265.282 Special requirements for incompatible wastes.

Incompatible wastes or incomp atible wastes and materials (see Appendix V for examples), must not be placed in the same land treatment area, unless 265.17(b) is complied with.

Subpart N--Landfills

§265.300 Applicability.

The regulations in this Subpart appy to owners and operators of facilities that dispose of hazardous waste in landfills, except as 265.1 provides otherwise. A waste pile used as a disposal facility is a landfill and is governed by this Subpart.

§265.301 [Reserved]

§265.302 General operating requirements.

(a) The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow into the active portion of the landfill during peak discharge from at least a 25-year storm.

(b) The owner or opearator must 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 must cover or otherwise manage the landfill so that wind dispersal of the hazardous waste is controlled.

(e) Cover, under circumstances other than wind dispersal, may be required if deemed necessary by the Department.

[Comment: As required by 265.13 the waste analysis plan must include analyses needed to comply with §§265.312 and 265.313. As required by §265.73, the owner or operator must place the results of these analyses in the operating record of the facility.]

§265.303—265.308 [Reserved]

§265.309 Surveying and recordkeeping.

The owner or operator of a landfill must maintain the following items in the operating record required in §265.73:

(a) On a map, the exact location and dimensions, including depth, of each cell with respect to permanently surveyed benchmarks; and

(b) The contents of each cell and the approximate location of each hazardous waste type within each cell.

§265.310 Closure and post-closure care

(a) The owner or operator must place a final cover over the landfill, and the closure plan under § 265.112 must specify the function and design of the cover. In the post-closure plan under § 265.118, the owner or operator must include the post-closure care requirements of paragraph (d) of this section.

(b) In the closure and post-closure plans, the owner or operator must address the following obvjectives and indicate how they will be achieved:

(1) Control of pollutant migration from the facility via ground water, surface water, and air;

(2) Control of surface water infiltration, including prevention of pooling; and

(3) Prevention of erosion.

(c) The owner or operator must consider at least the following factors in addressing the closure and post-closure care objectives of paragraph (b) of this Section:

(1) Type and amount of hazardous waste and hazardous waste constitutents in the landfill:

(2) The mobility and the expected rate of migration of the hazardous waste and hazardous waste constitutents;

(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) 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.

(d) In addition to the requirements of § 265.117, during the post-closure care period, the owner or operator of a hazardous waste landfill must:

(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;

[Comment: If the collected leachate is a hazardous waste under Part 261 of this Chapter, it must be managed as a hazardous waste in accordance with all applicable requirements of Parts 262, 263, and 265 of this Chapter. If the collected leachate is discharged through a point source to waters of the United States, it is subject to the requirements of Section 402 of the Clean Water Act, as amended.]

(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 post-closure use.

§265.311 [Reserved]

§265.312 Special requirements for Ignitable or reactive waste.

(a) Except as provided in paragraph (b) of this section, and in §265.316, ignitable or reactive waste must not be placed in a landfill, unless 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 §§261.21 or 261.23 of this chapter, and

(2) Section 265.17(b) is complied with.

(b) Ignitable wastes in containers may be landfilled without meeting the requirements of paragraph (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 must 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; must be covered daily with soil or other non-combustible material to minimize the potential for ignition of the wastes; and must not be disposed in cells that contain or will contain other wastes which may generate heat sufficient to cause ignition of the waste.

§265.313 Special requirements for incompatible wastes.

Incompatible wastes, or incompatible wastes and materials, (see Appendix V for examples) must not be placed in the same landfill cell, unless 265.17(b) is complied with.

§265.314 Special requirements for liquid waste.

(a) Bulk or non-containerized liquid waste or waste containing free liquids must not be placed in a landfill unless:

(1) The landfill has a liner and leachate collection and removal system that meets the requirements of §264.301(a) of these regulations or

(2) Before disposal, the liquid waste or waste containing free liquids is treated or stablized, chemically or physically (e.g., by mixing with an absorbent solid), so that free liquids are no longer present.

(b) Containers holding free liquids must not be placed in a landfill. unless:

(1) All free-standing liquid (i) has been removed by decanting, or other methods, (ii) has been mixed

with absorbent or solidified so that free-standing liquid is no longer observed or (iii) had been otherwise eliminated; or

(2) The container is very small, such as an ampule; or

(3) The container is designed to hold free liquids for use other than storage, such as a battery or capacitor; or

(4) The container is a lab pack as defined in §265.316 and is disposed of in accordance with §265.316.

The (c) date for compliance with paragraph (a) of this section is November 19, 1981. The date for compliance with paragraph (b) of this section is March 22, 1982.

§265.315 Special requirements for containers.

(a) An empty container must be crushed flat, shredded, or similarly reduced in volume before it is buried beneath the surface of a landfill.

§265.316 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 landfill if the following requirements are met:

(a) Hazardous waste must be packaged in non-leaking inside containers. The inside containers must 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 must be tightly and securely sealed. The inside containers must 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 must 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 must be full after packing with inside containers and absorbent material.

(c) The absorbent material used must not be capable of reacting dangerously with, being decomposed by, or being ignited by the contents of the inside containers, in accordance with §265.17(b).

(d) Incompatible wastes, as defined in §260.10(a) of this chapter, must not be placed in the same outside container.

(e) Reactive waste, other than cyanide- or sulfide-bearing waste as defined in §261.23(a)(5) of these regulations, must be treated or rendered non-reactive prior to packaging in accordance with paragraphs (a) through (d) of this section without first being treated or rendered non-reactive.

Subpart O--Incinerators

§265.340 Applicability.

(a) The regulations in this Subpart apply to owners or operators of facilities that treat hazardous waste in incinerators, except as §265.1 and paragraph (b) of this Section provide otherwise.

(b) Owners and operators of incinerators burning hazardous waste are exempt from all of the requirements of this Subpart, except §265.351 (Closure), provided that the owner or operator has documented, in writing, that the waste would not reasonably by expected to contain any of the hazardous constituents listed in Part 261, Appendix VIII, of these regulations, and such documentation is

etained at the facility, if the waste o be burned is:

(1) Listed as a hazardous aste in Part 261, Subpart D, of this hapter solely because it is ignitable Hazard Code I), corrosive (Hazard ode C), or both; or

(2) Listed as a hazardous aste in Part 261, Subpart D, of this hapter solely because it is eactive. (Hazard Code R) for haracteristics other than those isted in §261.23(a)(4) and (5), and ill not be burned when other azardous wastes are present in ombustion zone; or

(3) A hazardous waste solely ecause it possesses the haracteristic of ignitability, orrosivity, or both, as determined by he tests for characteristics of azardous wastes under Part 261, ubpart C, of this Chapter: or

(4) A hazardous waste solely ecause if possesses the reactivity haracteristics described by 261.23(a) (1), (2), (3), (6), (7), or (8) f these regulations, and will not be urned when other hazardous wastes are resent in the combustion zone.

265.341 Waste analysis.

In addition to the waste analyses equired by §265.13, the owner or perator must sufficiently analyze any aste which he has not previously urned in his incinerator to enable im to establish steady state normal) operating conditions including waste and auxiliary fuel eed and air flow) and to determine he type of pollutants which might be mitted. At a minimum, the analysis ust determine:

(a) Heating value of the waste;

(b) Halogen content and sulfur ontent in the waste; and

(c) Concentrations in the waste f lead and mercury, unless the owner r operator has written, documented data that show that the element is not present.

[Comment: As required by §265.73, the owner or operator must place the results from each waste analysis, or the documented information, in the operating record of the facility.]

§265.342--265.344 [Reserved]

§265.345 General operating requirements.

During start-up and shut-down of an incinerator, the owner or operator must not feed hazardous waste unless the incinerator is at steady state (normal) conditions of operation, including steady state operating temperature and air flow.

§265.346 [Reserved]

§265.347 Monitoring and inspections.

The owner or operator must conduct, as a minimum, the following monitoring and inspections when incinerating hazardous waste:

(a) Existing instruments which relate to combustion and emission control must be monitored at least every 15 minutes. Appropriate corrections to maintain steady state combustion conditions must 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.

(b) The complete incinerator and associated equipment (pumps, valves, conveyors, pipes, etc.) must 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.

§265.348--265.350 [Reserved]

§265.351 Closure

At closure, the owner or operator must remove all hazardous waste and hazardous waste residues (including but not limited to ash, scrubber waters, and scrubber sludges) from the incinerator.

[Comment: At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with §261.3(d) of this Chapter, that the residue removed from his incinerator is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of Parts 262-265 of this Chapter.]

§265.352--265.369 [Reserved]

Subpart P-Thermal Treatment

§265.370 Applicability.

The regulations in this Subpart apply to owners and operators of facilities that thermally treat hazardous waste in devices other than incinerators, except as §265.1 provides otherwise. Thermal treatment in incinerators is subject to the requirements of Subpart O.

§265.371--265.372 [Reserved]

§265.373 General operating requirements.

Before adding hazardous waste, the owner or operator must 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 non-continuous (batch) thermal treatment process which requires a complete thermal cycle to treat a discrete quantity of hazardous waste.

§265.374 [Reserved]

§265.375 Waste analysis.

In addition to the waste analyses required by §265.13, the owner or operator must sufficiently analyze any waste which he has not previously treated in his thermal process to enable him 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:

(a) Heating value of the waste;

(b) Halogen content and sulfur content in the waste; and

(c) 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.

[Comment: As required by §265.73, the owner or operator must place the results from each waste analysis, or the documented information, in the operating record of the facility.]

§265.376 [Reserved]

§265.377 Monitoring and inspections.

(a) The owner or operator must 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) must be monitored at least every 15 minutes. Appropriate corrections to maintain steady state or other appropriate thermal treatment conditions must 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, must be observed visually at least hourly for normal appearance (color and opacity). The operator must 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.) must 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.

§265.378--265.380 [Reserved]

§265.381 Closure.

At closure, the owner or operator must remove all hazardous waste and hazardous waste residues (including, but not limited to, ash) from the thermal treatment process or equipment.

[Comment: At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with §261.3(c) or (d) of this Chapter, that any solid waste removed from his thermal treatment process or equipment is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of Parts 262, 263, and 265 of this Chapter.]

§265.382 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 must 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	520 meters (1,750 feet).
10,001 to 30,000	690 meters (2,250 feet).

Subpart Q--Chemical, Physical, and Biological Treatment

§265.400 Applicability.

The regulations in this Subpart 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 §265.1 provides otherwise. Chemical, physical, and biological treatment of hazardous waste in tanks, surface impoundments, and land treatment facilities must be conducted in accordance with Subparts J, K, and M, respectively.

§265.401 General operating requirements.

(a) Chemical, physical, or biological treatment of hazardous waste must comply with §265.17(b).

(b) Hazardous wastes or treatment reagents must not be placed in the treatment process or equipment if tney 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 must 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).

[Comment: These systems are intended to be used in the event of a malfunction in the treatment process or equipment.]

§265.402 Waste analysis and trial tests.

(a) In addition to the waste analysis required by §265.13, 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; the owner or operator must, before treating the different waste or using the different process or equipment;

(i) Conduct waste analyses and trial treatment tests (e.g., bench scale or pilot plant scale tests); or

(ii) 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 §265.401 (a) and (b).

[Comment: As required by §265.13, the waste analysis plan must include analyses needed to comply with §§265.405 and 265.406. As required by §265.73, 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.]

§265.403 Inspections.

(a) The owner or operator of a treatment facility must 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).

[Comment: As required by §265.15(c), the owner or operator must remedy any deterioration or malfunction he finds.]

§265.404 Closure.

At closure, all hazardous waste and hazardous waste residues must be removed from treatment processes or equipment, discharge control equipment, and discharge confinement structures.

[Comment: At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with §261.3(c) or (d) of this Chapter, that any solid waste removed from his treatment process or equipment is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of Parts 262, 263, and 265 of this Chapter.]

§265.405 Special requirements for ignitable or reactive waste.

(a) Ignitable or reactive waste must not be placed in a treatment process or equipment unless:

(1) The waste is treated, rendered, or mixed before or immediately after placement in the treatment process or equipment so that

(i) the resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under §§261.21 or 261.23 or this Chapter, and (ii) §265.17(b) is complied with; or (2) 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.

§265.406 Special requirements for incompatible wastes.

(a) Incompatible wastes, or incompatible wastes and materials, (see Appendix V for examples) must not be placed in the same treatment process or equipment, unless §265.17(b) is complied with.

(b) Hazardous waste must not be placed in unwashed treatment equipment which previously held an incompatible waste or material, unless §265.17(b) is complied with.

Appendix I--Recordkeeping Instructions

The recordkeeping provisions of §254.73 specify that an owner or operator must keep a written operating record at his facility. This appendix provides additional instructions for keeping portions of the operating record. See §265.73(b) for additional recordkeeping requirements.

The following information must 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, treated, stored, or disposed of at the facility which includes the following:

(1) A description by its common name and the EPA Hazardous Waste Number(s) from Part 261 of this Chapter which apply to the waste. The waste description also must include the waste's physical form, i.e., liquid, sludge, solid, or contained gas. If the waste is not listed in Part 261, Subpart D. of this Chapter, the description also must include the process that produced it (for example, solid filter cake from production of _____, EPA Hazardous Waste Number W051).

Each hazardous waste listed in Part 261, Subpart D, of this Chapter, and each hazardous waste characteristic defined in Part 261, Subpart C, of this Chapter, has a four-digit EPA Hazardous Waste Number assigned to it. This number must 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 must include all applicable EPA 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

(3) The method(s) (by handling code(s) as specified in Table 2) and date(s) of treatment, storage, or disposal.

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.

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)

HAZARDOUS WASTE REPORT

PLEASE PLACE LABEL IN THIS SPACE

I. TYPE OF HAZARDOUS WASTE REPORT

PART A: GENERATOR ANNUAL REPORT

THIS REPORT IS FOR THE YEAR ENDING DEC. 31, 19

PART B: FACILITY ANNUAL REPORT

THIS REPORT FOR YEAR ENDING DEC. 31, 19

PART C: UNMANIFESTED WASTE REPORT

THIS REPORT IS FOR A WASTE RECEIVED (day, mo., & yr.) – – 19

INSTRUCTIONS: You may have received a preprinted label attached to the front of this pamphlet; affix it in the designated space above—left. If any of the information on the label is incorrect, draw a line through it and supply the correct information in the appropriate section below. If the label is complete and correct, leave Sections II, III, and IV below blank. If you did not receive a preprinted label, complete all sections. "Installation" means a single site where hazardous waste is generated, treated, stored, or disposed of. Please refer to the specific instructions for generators or facilities before completing this form. The information requested herein is required by law *(Section 3002/3004 of the Resource Conservation and Recovery Act)*.

II. INSTALLATION'S EPA I.D. NUMBER

F | T/A | C | 1

III. NAME OF INSTALLATION

IV. INSTALLATION MAILING ADDRESS

STREET OR P.O. BOX

3

CITY OR TOWN | ST. | ZIP CODE

4

V. LOCATION OF INSTALLATION

STREET OR ROUTE NUMBER

5

CITY OR TOWN | ST. | ZIP CODE

6

VI. INSTALLATION CONTACT

NAME *(last and first)* | PHONE NO. *(area code & no.)*

2 | – | –

VII. TRANSPORTATION SERVICES USED *(for Part A reports only)*

List the EPA Identification Numbers for those transporters whose services were used during the reporting year represented by this report.

VIII. COST ESTIMATES FOR FACILITIES *(for Part B reports only)*

A. COST ESTIMATE FOR FACILITY CLOSURE	B. COST ESTIMATE FOR POST CLOSURE MONITORING AND MAINTENANCE *(disposal facilities only)*
G | $, ,	$, ,

IX. CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and to based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. PRINT OR TYPE NAME | B. SIGNATURE | C. DATE SIGNED

Please print or type with ELITE type (12 characters/inch).

DNREC

FACILITY REPORT – PARTS B & C

(Collected under the authority of Section 3004 of RCRA.)

FOR OFFICIAL USE ONLY (Items 1 & 2)	1. DATE RECEIVED	XVI. TYPE OF REPORT (enter an "X")	XVII. FACILITY'S EPA I.D. NO.
	2. RECEIVED BY	☐ PART B ☐ PART C	G

XVIII. GENERATOR'S EPA I.D. NO.	XX. GENERATOR ADDRESS (street or P.O. box, city, state, & zip code)
XIX. GENERATOR NAME (specify)	

XXI. WASTE IDENTIFICATION

LINE NUMBER	A. DESCRIPTION OF WASTE	B. EPA HAZARDOUS WASTE NUMBER (see instructions)	C. HANDLING METHOD (enter code)	D. AMOUNT OF WASTE	UNIT OF MEASURE (enter code)
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

XXII. COMMENTS (enter information by line number – see instructions)

GENERAL INSTRUCTIONS: HAZARDOUS WASTE REPORT (DNREC FORM 8700-13)

Important: Read all instructions before completing this form.

Section I--Type of Hazardous Waste Report

Part A: Generator Annual Report

For generators who ship their waste off-site to facilities which they do not own or operate; fill in the reporting year for this report (e.g., 1982).

Note: Generators who ship hazard ous waste off-site to a facility which they own or operate must complete the facility (Part B) report instead of the Part A report.

Part B: Facility Annual Report

For owners or operators of on-site or off-site facilities that treat, sotre, or dispose of hazardous waste; fill in the reporting year for this report (e.g., 1982).

Part C: Unmanifested Waste Report

For facility owners or operators who accept for treatment, storage, or disposal any hazardous waste from an off-site source without an accompany ing manifest; fill in the date the waste was received at the facility (e.g., April 12, 1982).

Section II through Section IV--Installation I.D. Number, Name of Installation, and Installation Mailing Address

If you received a preprinted label from DNREC, attach it in the space provided and leave Sections II through IV blank. If there is an error or omission on the label, cross out the incorrect information and fill in the appropriate item(s). If you did not receive a preprinted label, complete Section II through Section IV.

Section V--Location of Installation

If your installation location address is defferent than the mailing address, enter the location address of your installation.

Section VI--Installation Contact

Enter the name (last and first) and telephone number of the person whom may be contacted regarding information contained in this report.

Section VII--Transportation Services Used (for Part A Reports Only)

List the EPA Identification Number for each transporter whose services you used during the reporting year.

Section VIII--Cost Estimates for Facilities (for Part B Reports Only)

A. Enter the most recent cost estimate for facility closure in dollars. See Subpart H of parts 264 or 265 for more detail.

B. For disposal facilities only, enter the most recent cost estimate for post closure monitoring and maintenance. See Subpart H of Parts 264 or 265 for more detail.

Section IX--Certification

The generator or his authorized representative (Part A report(s) or the owner or operator of the facility or his authjorized representative (Parts B and C report(s) must sign and date the certification where indicated. The printed or typed name of the person signing the report must also be included where indicated.

Note: Sice more than one page is required for each report, enter the page number of each sheet in the lower right corner as well as the total number of pages.

Facility Annual Report--Part B Instruction (DNREC Form 8700-13B)

Facility Annual Report for owners or operators of on-site or off-site facilities that treat, store, or dispose of hazardous waste.

Note: Generators who ship hazardous waste off-site to a facility they own or operate must complete this Part B report instead of the Generator (Part A) Annual Report.

Important: Read all instructions before completing this form.

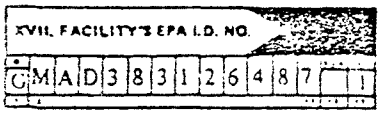
Section XVI--Type of Report

Put an "X" in the box marked Part B.

Section XVII--Facility's EPA Identification Number

Enter the EPA identification number for your facility.

Example:



Section XVIII--Generator's EPA Identification Number

Enter the EPA identification number of the generator of the waste described under Section XXI which was received by your facility during the reporting year. A separate sheet must be used for each generator. If the waste came from a foreign generator, enter the EPA identification number of the importer in this section and enter the name and address of the foreign generator in Section XXII, Comments. If the waste was generated and treated, stored, or disposed of at the same installation, leave this section blank.

Section XIX--Generator's Name

Enter the name of the generator corresponding to the generator's EPA identification number in Section XVIII.

If the waste was generated and treated, stored, or disposed of at the same installation, enter "ON-SITE".

If the waste came from a froeiffn generator, enter the name of the importer corresponding to the EPA identification number in Section XVIII.

Section XX--Generator's Address

Enter the address of the generator corresponding to the generator's EPA identification number in Section XVIII. If the waste was generated and treated, stored, or disposed of at the same installation, leave this section blank. If the waste came from a foreign generator, enter the address of the importer corresponding to the EPA identification number in Section XVIII.

Section XXI--Waste Identification

All information in this section must be entered by line number. A separate line entry is required for each different waste or mixture of wastes that your facility received during the reporting year. The handling code applicable to that waste at the end of the reporting year should be reported. If a different handling code applies to portions of the same waste (e.g., part of the waste is stored while the remainder was "chemically fixed" during the year), use a separate line entry for each portion.

Example:

XXI WASTE IDENTIFICATION

LINE NUMBER	A. DESCRIPTION OF WASTE	B. EPA HAZARDOUS WASTE NUMBER (see instructions)	C. HANDLING METHOD (enter code)	D. AMOUNT OF WASTE	UNIT OF MEASURE (enter code)
1	Steel Finishing Sludge	K060 K061	S02	25000	T
2	Steel Finishing Sludge	K060 K061	T21	157245	T

Section XXI-A--Description of Waste

For hazardous wastes that are listed under Part 261, Subpart D, enter the listed name, abbreviated if necessary. Where mixtures of listed wastes were received, enter the description which you believe best describes the waste.

For unlisted hazardous waste identified under Part 261, Subpart C, enter the description which you believe best describes the waste. Include the specific manufacturing or other process generating the waste (e.g., green sludge from widget manufacturing) and if known, the chemical or generic chemical name of the waste.

XXI WASTE IDENTIFICATION

LINE NUMBER	A. DESCRIPTION OF WASTE	B. EPA HAZARDOUS WASTE NUMBER (see instructions)	C. HANDLING METHOD (enter code)	D. AMOUNT OF WASTE	UNIT OF MEASURE (enter code)
1	Steel Finishing Sludge	K060 K061 K062 K063	T21	291745	T
2		K064			

Section XXI-B--Hazardous Waste Number

For listed waste, enter the four digit Hazardous Waste Number from Part 261, Subpart D, which identifies the waste.

For a mixture of more than one listed waste, enter each of the applicable Hazardous Waste Numbers.

Four spaces are provided. If more space is needed, continue on the next line(s) and leave all other information on that line blank.

For unlisted hazardous wastes, enter the EPA Hazardous Waste Numbers from Part 261, Subpart C, applicable to the waste. If more than four spaces are required, follow the procedure described above.

Section XXI-C--Handling Code

Enter one EPA handling code for each waste line entry. Where several handling steps have occurred during the year, report only the handling code representing the waste's status at the end of the reporting year or its final disposition. EPA handling codes are given in Appendix I of this Part.

Section XXI-D--Amount of Waste

Enter the total amount of waste described on this line which you received during this reporting year.

Section XXI-E--Unit of Measure

Enter the unit of measure code for the quantity of waste described on this line. Units of measure which must be used in this report and the appropriate codes are:

Units of measure	Code
Pounds	P
Short tons (2,000 lbs)	T
Kilograms	K
Tonnes (1,000 kg)	M

Units of volume may not be used for reporting but must be converted into one of the above units of weight, taking into account the appropriate density or specify gravity of the waste.

Section XXII--Comments

This space may be used to explain or clarify any entry. If used, enter a cross-reference to the appropriate section number.

Note: Since more than one page is required for each report, enter the page number of each sheet in the lower right hand corner as well as the total number of pages.

Where required by 264 or 265, Subparts F or R, attach ground-water monitoring data to this report.

Unmanifested Waste Report--Part C Instructions (EPA Form 8700-13B)

Unmanifested Waste Report for facility owners or operators who accept fortreatment, storage, or disposal any hazardous waste from an off-site source without an accompanying manifest.

Important: Read all instructions before completing this form.

For the Unmanifested Waste Report, DNREC Forms 8700-13 and 8700-13B must be filled out according to the directions for the Part B Facility Annual Report except that: (1) blocks for which information is not available to the owner or operator of the reporting facility may be marked "UNKNOWN," and (2) the following special instruction apply:

Section VIII--Cost Estimates for Facilities

Do not enter closure or post-closure cost estimates.

Section XVI--Type of Report

Put an "X" in the box marked Part C.

Section XXI-A--Description of Waste

Use as many line numbers as are needed to describe the waste.

Section XXI-C--Handling Code

Enter the handling code which describes the status of the weaste on the date the report is filed.

Section XXI-D--Amount of Waste

Enter the amount of waste received, rather than a total annual aggregrate.

Section XXII--Comments

a. Enter the EPA identification number, name, and address of the transporter, if known. If the transporter is not known to you, enter the name and chauffeur license number of the driver and the State and license number of the transporting vehicle shich presented the waste to your facility, if known.

b. Enter an explanation of how the waste movement was presented to your facility; why you believe the waste is hazardous; and how your facility plans to manage the waste. Continue on a separate blank sheet of paper if additional space is needed.

Monitoring Data

Do not attach monitoring data.

Appendix III--EPA Interim Primary Drinking Water Standards

APPENDIX III—EPA INTERIM PRIMARY DRINKING WATER STANDARDS

Parameter	Maximum level (mg/l)
Arsenic	0.05
Barium	1.0
Cadmium	0.01
Chromium	0.05
Fluoride	1.4–2.4
Lead	0.05
Mercury	0.002
Nitrate (as N)	10
Selenium	0.01
Silver	0.05
Endrin	0.0002
Lindane	0.004
Methoxychlor	0.1
Toxaphene	0.005
2,4-D	0.1
2,4,5-TP Silvex	0.01
Radium	5 pCi/l
Gross Alpha	15 pCi/l
Gross Beta	4 millirem/yr
Turbidity	1/TU
Coliform Bacteria	1/100 ml

(Comment: Turbidity is applicable only to surface water supplies.)

Appendix IV--Tests for Significance

As required in §265.93(b) the owner or operator must use the Student's t-test to determine statistically significant changes in the concentration or value of an indicator parameter in periodic ground-water samples when compared to the initial background concentration or value of that indicator parameter. The comparison must consider individually each of the wells in the monitoring system. For three of the indicator parameters (specific conductance, total organic cargon, and total organic halogen) a single-tailed Student's t-test must be used to test at the 0.01 level of significance for significant increases over

pH must be a two-tailed Student's t-test at the overall 0.01 level of significance.

The student's t-test involves calculation of the value of a t-statistic for each comparison of the mean (average) concentration or value (based on a minimum of four replicate measurements) of an indicator parameter with its initial background concentration or value. The calculated value of the t-statistic must then be compared to the value of the t-statistic found in a table for t-test of significance at the specified level of significance. A calculated value of t which exceeds the value of t found in the table indicates a statistically significant change in the concentration or value of the indicator parameter.

Formulae for calculation of the t-statistic and tables for t-test of significance can be found in most introductory statistics texts.

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 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 must, 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
Alkaline 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	

Group 2-A	Group 2-B
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 acids
Chlorites	Group 2-A wastes
Chromic acid	Group 4-A wastes
Hypochlorites	Other flammable and combustible wastes
Nitrates	
Nitric acid, fuming	
Perchlorates	
Permanganates	
Peroxides	
Other strong oxidizers	

PART 122 - THE HAZARDOUS WASTE PERMIT PROGRAM

Sections

Subpart A General Program Requirements

§122.1 Purpose and Scope of Part 122

(a) Coverage. These regulations require a permit for the treatment, storage, or disposal of any hazardous waste as identified or listed in Part 261.

Owners and operators of hazardous waste management units must have permits during the active life (including the closure period) of the unit, and for any unit which closes after effective date of these regulations, during any post-closure care period required under §264.117 and during any compliance period specified under §264.96, including any extension of the compliance period under §264.96(c).

(1) Specific inclusions. Owners and operators of certain facilities require hazardous waste permits as well as permits under other programs for certain aspects of the facility operation. Hazardous waste permits are required for:

(i) Treatment, storage, or disposal of hazardous waste at facilities requiring an NPDES permit. However, the owner and operator of a publicly owned treatment works receiving hazardous waste will be deemed to have a state hazardous waste permit for that waste if they comply with the requirements of §122.60(a) (permit-by-rule for POTWs).

(ii) Barges or vessels that dispose of hazardous waste by ocean disposal and onshore hazardous waste treatment or storage facilities associated with an ocean disposal operation. However, the owner and operator will be deemed to have a State hazardous waste permit for ocean disposal from the barge or vessel itself if they comply with the requirements of §122.60(a) [permit-by-rule for ocean disposal barges and vessels].

(2) Specific exclusions. The following persons are among those who are not required to obtain a State hazardous waste permit:

(i) Generators who accumulate hazardous waste on site for less than 90 days as provided in §262.34.

(ii) Farmers who dispose of hazardous waste pesticides from their own use as provided in §262.51.

(iii) Persons who own or operate facilities solely for the treatment, storage or disposal of hazardous waste excluded from regulations under this Part by §261.4 or 261.5 (small generator exemption).

(iv) Owners or operators of totally enclosed treatment facilities as define in §260.10.

(v) Owners and operators of elementary neutralization units or wastewater treatment units as defined in §260.10.

(vi) Transporters storing manifested shipments of hazardous waste in containers meeting the requirements of 263.12 at a transfer facility for a period of ten days or less.

(vii) Persons adding absorbent material to waste in a container (as defined in §260.10 of these regulations) and persons adding waste to absorbent material in a container, provided that these actions occur at the time waste is first placed in the container; and §264.17(b), 264.171 and 264.172 of these regulations are compiled with.

(3) Further exclusions. (i) A person is not required to obtain a hazardous waste permit for treatment or containment activities taken during immediate response to any of the following situations:

(A) A discharge of a hazardous waste.
(B) An imminent and substantial threat of a discharge of hazardous waste;
(C) A discharge of a material which when discharged becomes a hazardous waste.

(ii) Any person who continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to all applicable requirements of this Part for those activites.

(4) Permits for less than an entire facility. DNREC may issue or deny a permit for one or more units at a facility without simultaneously issuing or denying a permit to all of the units at the facility. The interim status of any unit for which a permit has not been issued or denied is not affected by the issuance or denial of a permit to any other unit at the facility

§122.2 Effect of a permit.

(a) Compliance with a State hazardous waste permit during its term constitutes compliance, for purposes of enforcement, with 7 Del.C. Chapter 63. However, a permit may be modified, revoked and reissued, or terminated during its term for cause as set forth in §§122.41 and 122.43.

(b) The issuance of a permit does not convey any property rights of any sort, or any exclusive privilege.

(c) The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local law or regulations.

§122.3 Noncompliance and program reporting by the Secretary.

The Secretary shall prepare quarterly and annual reports as detailed below. The Secretary shall submit any reports required under this section to the Regional Administrator.

For purposes of this section only, Hazardous Waste permittees shall include Hazardous Waste interim status facilties, when appropriate.

(a) Quarterly reports. The Secretary shall submit quarterly narrative reports for major facilities as follows:

(1) Format. The report shall use the following format:

(i) Information on noncompliance for each facilitity;

(ii) Alphabetize by permittee name. When two or more permittees have the same name, the lowest permit number shall be entered first.

(iii) For each entry on the list, include the following information in the following order;

(A) Name, location, and permit number of the noncomplying permittee.

(B) A brief description and date of each instance on noncompliance for that permittee. Instances of noncompliance may include one or more of the kinds set forth in paragraph (a)(2) of this section. When a permittee has noncompliance of more than one kind, combine the information into a single entry for each such permittee.

(C) The date(s) and a brief description of the action(s) taken by the Secretary to ensure compliance.

(D) Status of the instance(s) of noncompliance with the date of the review of the status or the date of resolution.

(E) Any details which tend to explain or mitigate the instance(s) of noncompliance.

(2) Instances of noncompliance to be reported. Any

instances of noncompliance within the following categories shall be reported in successive reports until the noncompliance is reported as resolved. Once noncompliance is reported as resolved it need not appear in subsequent reports.

(i) Failure to complete construction elements. When the permittee has failed to complete, by the date specified in the permit, an element of a compliance schedule involving either planning for construction (for example, award of a contract, preliminary plans), or a construction step (for example, begin construction, attain operation level); and the permittee has not returned to compliance by accomplishing the required element of the schedule within 30 days from the date a compliance schedule report is due under the permit.

(ii) Modifications to schedules of compliance. When a schedule of compliance in the permit has been modified under §§122.41 or 122.42 because of the permittee's noncompliance.

(iii) Failure to complete or provide compliance schedule or monitoring reports. When the permittee has failed to complete or provide a report required in a permit compliance schedule (for example, progress report or notice or noncompliance or compliance) or a monitoring report; and the permitteee has not submitted the complete report within 30 days from the date it is due under the permit for compliance schedules, or from the date specified in the permit for monitoring reports.

(iv) Deficient reports. When the required reports provided by the permittee are so deficient as to cause misunderstanding by the Secretary and thus impede the review of the status of compliance.

(v) Noncompliance with other permit requirements. Noncompliance shall be reported in the following circumstances:

(A) Whenever the permittee has violated a permit requirement (other than reported under paragraph (a)(2)(i) or (ii) of this section), and has not returned to compliance within 45 days from the date reporting of noncompliance was due under the permit; or

(B) When the Secretary determines that a pattern of noncompliance exists for a major facility permittee over the most recent four consecutive reporting periods. This pattern includes any violation of the same requirement in two consecutive reporting periods and any violation of one or more requirements in each of four consective reporting periods; or migration of fluids into an Underground Source of Drinking Water (USDW).

(C) When the Secretary determines significant permit non-compliance or other significant event has occurred, such as a fire or explosion.

(vi) All other. Statistical information shall be reported quarterly on all other instances of noncompliance by major facilities with permit requirements not otherwise reported under paragraph (a) of this section.

(3) In addition to the annual non-compliance report, the Secretary shall prepare a "program report" which contains information (in a manner and form prescribed by the Administrator) on generators and transporters and the permit status of regulated facilities. The Secretary shall also include, on a biennial basis, summary information on the quantities and types of hazardous wastes generated, transported, treated, stored, and disposed during the preceding odd numbered year. This summary information shall be reported according to EPA characteristics and

lists of hazardous wastes at 40 CFR 261.

(b) Annual Reports

(1) Annual noncompliance report. Statistical reports shall be submitted by the Secretary on nonmajor Hazardous Waste permittees indicating the total number reviewed, the number of noncomplying nonmajor permittees, the number of enforcement actions, and number of permit modifications extending compliance deadlines. The statistical information shall be organized to follow the types of noncompliance listed in paragraph (a) of this section.

(2) In addition to the annual noncompliance report, the Secretary shall prepare a "program report" which contains information (in a manner and form prescribed by the Regional Administrator) on generators and transporters and the permit status of regulated facilities. The Secretary shall also include, on a biennial basis, summary information on the quantities and types of hazardous wastes generated, transported, stored, treated, and disposed during the preceding odd-numbered year. This summary information shall be reported in a manner and form prescribed by the Administrator and shall be reported according to EPA characteristics and lists of hazardous wastes at Part 261.

(c) Schedule

(1) For all quarterly reports. On the last working day of May, August, November, and February, the State Secretary shall submit to the Regional Administrator information concerning noncompliance with permit requirements by major facilities in the State in accordance with the following schedule.

QUARTERS COVERED BY REPORTS ON NONCOMPLIANCE BY MAJOR DISCHARGERS
(Date for completion of reports)

January, February, and March..May 31[1]
April, May, and June.....Aug 31[1]
July, August, and Sept.....Nov 30[1]
October, November, and Dec....Feb 28[1]

[1] Reports must be made available to the public for inspection and copying on this date.

§122.4 - 122.9 [Reserved].

SUBPART B: PERMIT APPLICATION

§122.10 General Application Requirements.

(a) Permit application. Any person who is required to have a permit (including new applicants and permittees with expiring permits) shall complete, sign, and submit an application to the Secretary as described in this section and §§122.70 and 122.72. Persons currently authorized with interim status shall apply for permits when required by the Secretary. Persons covered by permits by rule (122.60), need not apply. Procedures for applications, issuance and administration of emergency administrative orders are found exclusively in 122.61.

(b) Who applies? When a facility or activity is owned by one person but is operated by another person, it is the operator's duty to obtain a permit, except that the owner must also sign the permit application.

(c) Completeness. The Secretary shall not issue a permit before receiving a complete application for a permit except for permits by rule, or emergency administrative orders. An application for a permit is complete when the Secretary receives an application form and any supplemental information which are completed to his or her satisfaction. The completeness of any application for a permit shall be judged independently of the status of any other permit application or permit for the same facility. An application which is reviewed under §124.3 is complete when the Secretary receives information listed in a notice of deficiency.

(d) Information requirement. All applicants for hazardous waste permits shall provide information set forth in §§122.13 and applicable sections in 122.14-122.29 to the Secretary, using the application form provided by the Secretary.

(e) Existing HWM facilities. (1) Owners and operators of existing hazardous waste management facilities must submit Part A of their permit application to the Secretary no later than (i) six months after the date of publication of regulations which required them to comply with the standards set forth in 40 CFR Parts 265 or (ii) thirty days after the date they first became subject to the standards set forth in 40 CFR 265, whichever first occurs.

(2) At any time after promulgation of these regulations the owner and operator of an existing HWM facility may be required to submit Part B of their permit application. Any owner or operator shall be allowed at least six months from the date of request to submit Part B of the application. Any owner or operator of an existing HWM facility may voluntarily submit Part B of the application at any time.

(3) Failure to furnish a requested Part B application on time, or to furnish a requested Part B application on time, or to furnish in full the information required by the Part B application, is grounds for termination of interim status under Part 124.

(f) New HWM facilities (1) No person shall begin physical construction of a new HWM facility without having submitted Part A and Part B of the permit application and having received a finally effective hazardous waste permit.

(2) An application for a permit for a new HWM facility (including both Part A and Part B) may be filed any time after promulgation of those standards in Part 264, applicable to such facility. The application shall be filed with the Secretary. All applications must be submitted at least 180 days before physical construction is expected to commence.

(g) Updating permit applications.

(1) If any owner or operator of a HWM facility has filed Part A of a permit application and has not yet filed Part B, the owner or operator shall file an amended Part A application:

(i) With the secretary, , no later than the effective date of regulatory provisions listing or designating wastes as hazardous in addition to those listed or designated under the existing State program, if the facility is treating, storing, or disposing of any of those newly listed or designated wastes; or

(ii) As necessary to comply with provisions of 122.72 for changes during interim status. Revised Part A applications necessary

to comply with the provisions of 122.72 shall be filed with the secretary.

(2) The owner or operator of a facility who fails to comply with the updating requirements of paragraph (g) (1) of this section does not receive interim status as to the wastes not covered by duly filed Part A applications.

(h) Reapplications. Any HWM facility with an effective permit shall submit a new application at least 180 days before the expiration date of the effective permit, unless permission for a later date has been granted by the Secretary. (The Secretary shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)

(i) Recordkeeping. Applicants shall keep records of all data used to complete permit applications and any supplemental information submitted under §§122.10(d), 122.13, 122.14-122.21 for a period of at least 3 years from the date the application is signed.

§122.11 Signatories to permit applications and reports.

(a) Applications. All permit applications shall be signed as follows:

(1) For a corporation; by a principal executive officer of at least the level of vice-president;

(2) For a partnership or sole proprietorship; by a general partner or the proprietor, respectively; or

(3) For a municipality, State, Federal, or other public agency; by either a principal executive officer or ranking elected official.

(b) Reports All reports required by permits and other information requested by the Secretary shall be signed by a person described in paragraph (a) of this section, or by a duly authorized representative only if:

(1) The authorization is made in writing by a person described in paragraph (a) of this section;

(2) The authorization specifies either an individual or a position having responsibility for overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, super intendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and

(3) The written author ization is submitted to the Secretary.

(c) Changes to authorization. If an authorization under paragraph (b) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph (b) of this section must be submitted to the Secretary prior to or together with any reports, information, or applications to be signed by an authorized representative.

(d) Certification. Any person signing a document under paragraph (a) or (b) of this section shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining

the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalities for submitting false information, including the possibility of fine and imprisonment.

§122.12 Confidentiality of information.

(a) In accordance with 7.Del.C. 6304, any information submitted to DNREC pursuant to these regulations may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission in the manner prescribed on the application form or instructions or, in the case or other submissions, by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, DNREC may make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with the procedures in 7 Del.C. 6304.

(b) Claims of confidentiality for the name and address of any permit applicant or permittee will be denied.

§122.13 Contents of Part A.

Part A of the hazardous waste application shall include the following information:

(a) The activities conducted by the applicant which require it to obtain a permit under hazardous waste regulations.

(b) Name, mailing address, telephone number and location, including latitude and longitude of the facility for which the application is submitted.

(c) Up to four SIC codes which best reflect the principal products or services provided by the facility.

(d) The operator's name, address, telephone number, ownership status, and status as Federal, State, private, public, or other entity.

(e) The name, addres, and phone number of the owner of the facility.

(f) Whether the facility is located on Indian lands.

(g) An indication of whether the facility is new or existing and whether it is a first or revised application.

(h) For existing facilities, (1) a scale drawing of the facility showing the location of all past, present, and future treatment, storage, and disposal areas; and (2) photographs of the facility clearly delineating all existing structures; existing treatment, storage, and disposal areas; and sites of future treatment, storage, and disposal areas.

(i) A description of the processes to be used for treating, storing, and disposing of hazardous waste, and the design capacity of these items.

(j) A specification of the hazardous wastes listed or designated under Part 261 to be treated, stored, or disposed of at the facility, an estimate of the quantity of such wastes to be treated, stored, or disposed annually and a general description of the processes to be used for such wastes.

(k) A listing of all permits or construction approvals received or applied for under any of the following programs:

(1) Hazardous Waste Management program under Hazardous Waste Regulations.

(2) UIC program under the SWDA.

(3) NPDES program under the CWA.

(4) Prevention of Significant Deterioration (PSD) program under the Clean Air Act.

(5) Nonattainment program under the Clean Air Act.

(6) National Emission Standards for Hazardous Pollutants (NESHAPS) preconstruction approval under the Clean Air Act.

(7) Ocean dumping permits under the Marine Protection Research and Sanctuaries Act.

(8) Dredge or fill permits under section 404 of the CWA.

(9) Other relevant environmental permits, including State permits.

(l) A topographic map (or other map if a topographic map is unavail able) extending one mile beyond the property boundaries of the source, depicting the facility and each of its intake and discharge structures; each of its hazardous waste treatment, storage, or disposal facilities; each well where fluids from the facility are injected underground; and those wells, springs, other surface water bodies, and drinking water wells listed in public records or otherwise known to the applicant within 1/4 mile of the facility property boundary.

(m) A brief description of the nature of the business.

§122.14 Contents of Part B: General Requirements

(a) Part B of the permit application consists of the general information requirements of this section, and the specific information requirements in §§122.14-122.29 applicable to the facility. The Part B information requirements presented in §§122.14-122.29 reflect the standards promulgated in Part 264. These information requirements are necessary in order for DNREC to determine compliance with the Part 264 standards. It is recommended that the applicants contact DNREC for information on the format of Part B applications.

If owners and operators of HWM facilities can domonstrate that the information prescribed in Part B can not be provided to the extent required, the Secretary may make allowance for submission of such

information on a case-by-case basis. Information required in Part B shall be submitted to the Secretary and signed in accordance with requirements in §122.11. Certain technical data, such as design drawings and specifications, and engineering studies shall be certified by a registered professional engineer.

(b) General information requirements. The following information is required for all HWM facilities, except as §264.1 provides otherwise:

(1) A general description of the facility.

(2) Chemical and physical analyses of the hazardous waste to be handled at the facility. At a minimum, these analyses shall contain all the information which must be known to treat, store, or dispose of the wastes properly in accordance with Part 264.

(3) A copy of the waste analysis plan required by §264.13(b) and, if applicable §264.13(c).

(4) A description of the security procedures and equipment required by §264.14, or a justification demonstrating the reasons for requesting a waiver of this requirement.

(5) A copy of the general inspection schedule required by §264.15(b); Include where applicable, as part of the inspection schedule, specific requirements in §§264.174, 264.194, 264.226, 264.254, 264.273, and 264.303.

(6) A justification of any request for a waiver(s) of the preparedness and prevention requirements of Part 264, Subpart C.

(7) A copy of the contingency plan required by Part 264, Subpart D. Note: Include, where applicable, as part of the contingency plan, specific requirements in §§264.227 and 264.255.

(8) A description of procedures, structures, or equipment used at the facility to;

(i) Prevent hazards in unloading operations (for example, ramps, special forklifts);

(ii) Prevent runoff from hazardous waste handling areas to other areas of the facility or environment, or to prevent flooding (for example, berms, dikes, trenches);

(iii) Prevent contamination of water supplies;

(iv) Mitigate effects of equipment failure and power outages; and

(v) Prevent undue exposure of personnel to hazardous waste (for example, protective clothing).

(9) A description or precautions to prevent accidental ignition or reaction of ignitable, reactive, or incompatible waste as required to demonstrate compliance with §264.17 including documentation demonstrating compliance with §264.17(c).

(10) Traffic pattern, estimated volume (number, types of vehicles) and control (for example, show turns across traffic lanes, and stacking lanes (if appropriate); describe access road surfacing and load bearing capacity; show traffic control signals).

(11) Facility location information;

(i) In order to determine the applicability of the seismic standard [§264.18(a)] the owner or operator of a new facility

must identify the political jurisdiction (e.g., county, township, or election district) in which the facility is proposed to be located. [Comment: If the county or election district is not listed in Appendix VI of Part 264, no further information is required to demonstrate compliance with §264.18(a).]

(ii) If the facility is proposed to be located in an area listed in Appendix VI of Part 264, the owner or operator shall demostrate compliance with the seismic standard. This demonstration may be made using either published geologic data or data obtained from field investigations carried out by the applicant. The information provided must be of such quality to be acceptable to geologists experienced in identifying and evaluating seismic activity. The information submitted must show that either;

(A) No faults which have had displacement in Holocene time are present, or no lineations which suggest the presence of a fault (which have displacement in Holocene time) within 3,000 feet of a facility are present, based on data from:

(1) Published geologic studies,

(2) Aerial reconnaissance of the area within a five-mile radius from the facility.

(3) An analysis of aerial photographs covering a 3,000 foot radius of the facility, and

(4) If needed to clarify the above data, a reconnaissance based on walking portions of the area within 3,000 feet of the facility, or

(B) If faults (to include lineations) which have had displacement in Holocene time are present within 3,000 feet of a facility, no faults pass with 200 feet of the portions of the facility where treatment, storage, or disposal of hazardous waste will be conducted, based on data from a comprehensive geologic analysis of the site. Unless a site analysis is otherwise conclusive concerning the absence of faults within 200 feet of such portions of the facility data shall be obtained from a subsurface exploration (trenching) of the area with a distance no less than 200 feet from portions of the facility where treatment, storage, or disposal of hazardous waste will be conducted. Such trenching shall be performed in a direction that is perpendicular to known faults (which have had displacement in Holocene time) passing within 3,000 feet of the portions of the facility where treatment, storage, or disposal of hazardous waste will be conducted. Such investigation shall document with supporting maps and other analyses, the location of faults found. [Comment: The Guidance Manual for the Location Standards provides greater detail on the content of each type of seismic investigation and the appropriate conditions under which each approach or a combination of approaches would be used.]

(iii) Owners and operators of all facilities shall provide an identification of whether the facility is located within a 100-year floodplain. This identification must include the source of data for such determination and include a copy of the relevant Federal Insurance Administration (FIA) flood map, if used, or the calculations and maps used where an FIA map is not available. Information shall also be provided identifying the 100-year flood level and any other special flooding factors (e.g.., wave action) which must be considered in designing, construction, operating, or maintaining the facility to withstand washout from a 100-year flood. [Comment: Where maps for the National Flood Insurance Program produced by the Federal Insurance Administration (FIA) of the Federal Emergency Management Agency are available, they will normally be determinative of whether a facility is located within or outside of the 100-year flood plain. However,

where the FIA map excludes an area (usually areas of the floodplain less that 200 feet in width), these areas must be considered and a determination made as to whether they are in the 100-year floodplain. Where FIA maps are not available for a preposed facility location, the owner or operator must use equivalent mapping techniques to determine whether the facility is within the 100-year floodplain, and if so located, what the 100-year flood elevation would be.]

(iv) Owners and operators of facilities located in the 100-year floodplain must provide the following information:

(A) Engineering analysis to indicate the various hydrodynamic and hydrostatic forces expected to result at the site as consequence of a 100-year flood.

(B) Structural or other engineering studies showing the design of operational units (e.g.., tanks, incinerators) and flood protection devices (e.g., floodwalls, dikes) at the facility and how these will prevent washout.

(C) If applicable, and in lieu of paragraphs (A) and (B) above, a detailed description of procedures to be followed to remove hazardous waste to safety before the facility is flooded, including:

(1) Timing of such movement relative to flood levels, including estimated time to move the waste, to show that such movement can be completed before floodwaters reach the facility.

(2) A description of the location(s) to which the waste will be moved and demonstration that those facilities will be eligible to receive hazardous waste in accordance with the regulations under Parts 122, 124, 264, and 265 of these regulations.

(3) The planned procedures, equipment, and personnel to be used and the means to ensure that such resources will be available in time for use.

(4) The potential for accidental discharges of the waste during movement.

(v) Existing facilities NOT in compliance with §264.18(b) shall provide a plan showing how the facility will be brought into compliance and a schedule for compliance.

(12) An outline of both the introductory and continuing training programs by owners or operators to prepare persons to operate or maintain the HWM facility in a safe manner as required to demonstrate compliance with §264.16. A brief description of how training will be designed to meet actual job tasks in accordance with requirements in §264.16(a)(3).

(13) A copy of the closure plan and, where applicable, the post-closure plan required by §264.112 and §264.118. Include, where applicable, as part of the plans, specific requirements in §§264.178, 264.197, 264.228, 264.258, 264.280, 264.310, and 264.351.

(14) For existing facilities, documentation that a notice has been placed in the deed or appropriate alternate instrument as required by §264.120.

(15) The most recent closure cost estimate for the facility prepared in accordance with §264.142 plus a copy of the financial assurance mechanism adopted in compliance with §264.143.

(16) Where applicable, the most recent post-closure cost estimate for the facility prepared in accordance with §264.144 plus a copy of the financial assurance mechanism adopted in compliance with §264.145.

(17) Where applicable, a copy of the insurance policy or other documentation which comprises compliance with the requirements of §264.147. For a new facility, documentation showing the amount of insurance meeting the specification of §264.147(a) and, if applicable, §264.147(b), that the owner or operator plans to have in effect before initial receipt of hazardous waste for treatment, storage, or disposal. A request for a variance in the amount of required coverage, for a new or existing facility, may be submitted as specified in §264.147(d).

(18) Where appropriate, proof of coverage by a State financial mechanism in compliance with §§264.149 or 264.150.

(19) A topographic map showing a distance of 1000 feet around the facility at a scale of 2.5 centimeters (1 inch) equal to not more than 61.0 meters (200 feet). Contours must be shown on the map. The contour interval must be sufficient to clearly show the pattern of surface water flow in the vicinity of and from each operational unit of the facility. For example, contours with an interval of 1.5 meters (5 feet), if relief is greater than 6.1 meters (20 feet), or an interval of 0.6 meters (2 feet), if relief is less than 6.1 meters (20 feet). Owners and operators of HWM facilities located in mountainous areas should use larger contour intervals to adequately show topographic profiles of facilities. The map shall clearly show the following:

(i) Map scale and date.
(ii) 100-year floodplain area.
(iii) Surface waters, including intermittant streams.
(iv) Surrounding land uses (residential, commercial, agricultural, recreational).
(v) A wind rose (i.e., prevailing wind-speed and direction).
(vi) Orientation of the map (north arrow).
(vii) Legal boundaries of the HWM facility site.
(viii) Access control (fences, gates).
(ix) Injection and withdrawal wells both on-site and off-site.
(x) Buildings; treatment, storage, or disposal operations; or other structure (recreation areas, runoff control systems, access and internal roads, storm, sanitary, and process sewerage systems, loading and unloading areas, fire control facilities, etc.)
(xi) Barriers for drainage or flood control.
(xii) Location of operational units within the HWM facility site, where hazardous waste is (or will be) treated, stored, or disposed (include equipment cleanup areas).

Note: For large HWM facilities the Department will allow the use of other scales on a case-by-case basis.

(20) Applicants may be required to submit such information as may be necessary to enable the Secretary to carry out his duties under other State laws.

(c) Additional information requirements. The following additional information regarding protection of ground water is required from owners or operators of hazardous waste surface impoundments, piles, land treatment units, and landfills

except as otherwise provided in 264.90(b):

(1) A summary of the ground-water monitoring data obtained during the interim status period under §§265.90 - 265.94, where applicable.

(2) Identification of the uppermost aquifer and aquifers hydraulically interconnected beneath the facility property, including ground-water flow direction and rate, and the basis for such identification (i.e., the information obtained from hydrogeologic investigations of the facility area).

(3) On the topographic map required under paragraph (b) (19) of this section, a delineation of the waste management area, the property boundary, the proposed "point of compliance" as defined under §264.95, the proposed location of ground-water monitoring wells as required under §264.97, and, to the extent possible, the information required in paragraph (c)(2) of this section.

(4) A description of any plume of contamination that has entered the ground water from a regulated unit at the time that the application was submitted that:

(i) Delineates the extent of the plume on the topographic map required under paragraph (b)(19) of this section;

(ii) Identifies the concentration of each Appendix VIII, Part 261 constituent throughout the plume or identifies the maximum concentrations of each Appendix VIII constituent in the plume.

(5) Detailed plans and an engineering report describing the proposed ground water monitoring program to be implemented to meet the requirements of §264.97.

(6) If the presence of hazardous constituents has not been detected in the ground water at the time of permit application, the owner or operator must submit sufficient information, supporting data, and analyses to establish a detection monitoring program which meets the requirements of §264.98. This submission must address the following items specified under §264.98:

(i) A proposed list of indicator parameters, waste constituents, or reaction products that can provide a reliable indication of the presence of hazardous constituents in the ground water;

(ii) A proposed ground-water monitoring system;

(iii) Background values for each proposed monitoring parameter or constituent, or procedures to calculate such values; and

(iv) A description of proposed sampling, analysis and statistical comparison procedures to be utilized in evaluating ground-water monitoring data.

(7) If the presence of hazardous constituents has been detected in the ground water at the point of compliance at the time of permit application, the owner or operator must submit sufficient information, supporting data, and analysis to establish a compliance monitoring program which meets the requirements of §264.99. The owner or operator must also submit an engineering feasibility plan for a corrective action program necessary to meet the requirements of §264.100, except as provided in §264.98(h)(5). To demonstrate compliance with §264.99, the owner or operator must address the following items:

(i) A description of the wastes previously handled at the facility;

(ii) A characterization of the contaminated ground water, including concentrations of hazardous constituents;

(iii) A list of hazardous constituents for which compliance monitoring will be undertaken in accordance with §264.97 and §264.99;

(iv) Proposed concentration limits for each hazardous constituent, based on the criteria set forth in §264.94(a), including a justification for establishing any alternate concentration limits;

(v) Detailed plans and an engineering report describing the proposed ground-water monitoring system, in accordance with the requirements of §264.97; and

(vi) A description of proposed sampling, analysis and statistical comparison procedures to be utilized in evaluating ground-water monitoring data.

(8) If hazardous constituents have been measured in the ground water which exceed the concentration limits established under §264.94 Table 1, or if ground water monitoring conducted at the time of permit application under §§265.90 - 265.94 at the waste boundary indicates the presence of hazardous constituents from the facility in ground water over background concentrations, the owner or operator must submit sufficient information, supporting data, and analyses to establish a corrective action program which meets the requirements of §264.100. However, an owner or operator is not required to submit information to establish a corrective action program if he demonstrates to the Secretary that alternate concentration limits will protect human health and the environment after considering the criteria listed in §264.94. An owner or operator who is not required to establish a corrective action program for this reason must instead submit sufficient information to establish a compliance monitoring program which meets the requirements of §264.99 and paragraph (c)(6) of this section.

To demonstrate compliance with §264.100, the owner or operator must address, at a minimum, the following items:

(i) A characterization of the contaminated ground water, including concentrations of hazardous constituents;

(ii) The concenration limit for each hazardous constituent found in the ground water as set forth in §264.94;

(iii) Detailed plans and an engineering report describing the corrective action to be taken; and

(iv) A description of how the ground-water monitoring program will demonstrate the adequacy of the corrective action.

§122.15 Specific Part B information requirements for containers.

Except as otherwise provided in §264.170 owners or operators of facilities that store containers of hazardous waste must provide the following additional information:

(a) A description of the containment system to demonstrate compliance with §264.175. Show at least the following:

(1) Basic design parameters, dimensions, and materials of construction.

(2) How the design promotes drainage or how containers are kept from contact with standing liquids in the containment system.

(3) Capacity of the containment system relative to the number and volume of containers to be stored.

(4) Provisions for preventing or managing run-on.

(5) How accumulated liquids can be analyzed and removed to prevent overflow.

(b) For storage areas that store containers holding wastes that do not contain free liquids, a demonstration of compliance with §264.175(c), including:

(1) Test procedures and results or other documentation or information to show that the wastes do not contain free liquids; and

(2) A description of how the storage area is designed or operated to drain and remove liquids or how containers are kept from contact with standing liquids.

(c) Sketches, drawings, or data demonstrating compliance with §264.176 (location of buffer zone and containers holding ignitable or reactive wastes) and §264.177(c) (location of incompatible wastes), where applicable.

(d) Where incompatible wastes are stored or otherwise managed in containers, a description of the procedures used to ensure compliance with §264.177(a) and (b), and §264.17(b) and (c).

§122.16 Specific Part B information requirements for tanks.

Except as otherwise provided in §264.190 owners and operators of facilities that use tanks to store or treat hazardous waste must provide a description of design and operation procedures which demonstrate compliance with the requirements of §§264.191, 264.192, 264.198, 264.199 including:

(a) References to design standards or other available information used (or to be used) in design and construction of the tank.

(b) A description of design specifications including identification of construction materials and lining materials (include pertinent characteristics such as corrosion or erosion resistance).

(c) Tank dimensions, capacity, and shell thickness.

(d) A diagram of piping, instrumentation, and process flow.

(e) Description of feed systems, safety cutoff, bypass systems, and pressure controls (e.g., vents).

(f) Description of procedures for handling incompatible ignitable, or reactive wastes, including the use of buffer zones.

§122.17 Specific Part B information requirements for surface impoundments

Except as otherwise provided in §264.220 owners and operators of facilities that store, treat or dispose of hazardous waste in surface impoundments must provide the following additional information:

(a) A list of the hazardous wastes placed or to be placed in each surface impoundment;

(b) Detailed plans and an engineering report describing how the surface impoundment is or will be designed, constructed, operated and maintained to meet the requirements of §264.221. This submission must address the following items as specified in §264.221:

(1) <u>The liner system</u> (except for an existing portion of a surface impoundment). If an exemption from

the requirement for a liner is sought as provided by §264.221(b), submit detailed plans and engineering and hydrogeologic reports, as appropriate, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous constituents into the ground water or surface water at any future time;

(2) Prevention of overtopping; and

(3) Structural integrity of dikes;

(c) If any exemption from Subpart F of Part 264 is sought, as provided by §264.222(a), detailed plans and an engineering report explaining the location of the saturated zone in relation to the surface impoundment, and the design of a double-liner system that incorporates a leak detection system between the liners;

(d) A description of how each surface impoundment, including the liner and cover systems and appurtenances for control of overtopping, will be inspected in order to meet the requirements of §264.226(a) and (b). This information should be included in the inspection plan submitted under §122.14(b)(5);

(e) A certification by a qualified engineer which attests to the structural integrity of each dike, as required under §264.226 (c). For new units, the owner or operator must submit a statement by a qualified engineer that he will provide such a certification upon completion of construction in accordance with the plans and specifications;

(f) A description of the procedure to be used for removing a surface impoundment from service, as required under §264.227(b) and (c). This information should be included in the contingency plan submitted under §122.14(b)(7);

(g) A description of how hazardous waste residues and contaminated materials will be removed from the unit at closure, as required under §264.228(a)(1). For any wastes not to be removed from the unit upon closure, the owner or operator must submit detailed plans and an engineering report describing how §264.228(a)(2) and (b) will be complied with. This information should be included in the closure plan and, where applicable, the post-closure plan submitted under §122.14(b)(13);

(h) If ignitable or reactive wastes are to be placed in a surface impoundment, an explanation of how §264.229 will be complied with;

(i) If incompatible wastes, or incompatible wastes and materials will be placed in a surface impoundment, an explanation of how §264.230 will be complied with.

§122.18 Specific Part B information requirements for waste piles.

Except as otherwise provided in §264.250 owners and operators of facilities that store or treat hazardous waste in waste piles must provide the following additional information:

(a) A list of hazardous wastes placed or to be placed in each waste pile;

(b) If an exemption is sought to §264.251, and Subpart F of Part 264 as provided by §264.250(c), an explanation of how the standards of §264.250(c) will be complied with;

(c) Detailed plans and an engineering report describing how the pile is or will be designed, constructed, operated and maintained to meet the requirements of §264.251. This submission must address the following items as specified in

§264.251:

(1) The liner system (except for an existing portion of a pile).
If an exemption from the requirement for a liner is sought, as provided by §264.252(b), the owner or operator must submit detailed plans and engineering and hydrogeologic reports, as applicable, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous constituents into the ground water or surface water at any future time;

(2) Control of run-on;

(3) Control of run-off;

(4) Management of collection and holding units associated with run-on and run-off control systems; and

(5) Control of wind dispersal of particulate matter, where applicable;

(d) If an exemption from Subpart F of Part 264 is sought as provided by §§264.252 or 264.253, submit detailed plans and an engineering report describing how the requirements of §§264.252(a) and §264.253(a) will be complied with;

(e) A description of how each waste pile, including the liner and appurtenances for control of run-on and run-off, will be inspected in order to meet the requirements of §264.254(a) and (b). This information should be included in the inspection plan submitted under 122.14(b)(5). If an exemption is sought to Subpart F of Part 264 pursuant to §264.253, describe in the inspection plan how the inspection requirements of §264.253(a)(3) will be complied with;

(f) If treatment is carried out on or in the pile, details of the process and equipment used, and the nature and quality of the residuals;

(g) If ignitable or reactive wastes are to be placed in a waste pile, an explanation of how the requirements of §264.256 will be complied with;

(h) If incompatible wastes, or incompatible wastes and materials will be place in a waste pile, an explanation of how §264.257 will be complied with;

(i) A description of how hazardous waste residues and contaminated materials will be removed from the waste pile at closure, as required under §264.258(a). For any waste not to be removed from the waste pile upon closure, the owner or operator must submit detailed plans and an engineering report describing how §264.310(a) and (b) will be complied with. This information should be included in the closure plan and, where applicable, the post-closure plan submitted under §122.14(b)(13).

§122.19 Specific Part B information requirements for incinerators.

Except as §264.340 of these regulations provides otherwise, owners and operators of facilities that incinerate hazardous waste must fulfill the requirements of (a), (b), or (c) of this section.

(a) When seeking an exemption under §264.340(b) or (c) of these regulations (Ignitable, corrosive, or reactive wastes only):

(1) Documentation that the waste is listed as a hazardous waste in Part 261, Subpart D of these regulations, solely because it is ignitable (Hazard Code I) or corrosive (Hazard Code C) or both; or

(2) Documentation that the waste is listed as a hazardous waste in Part 261, Subpart D of these regulations solely because it is reactive (Hazard Code R) for characteristics other than those listed in §264.23(a)(4) and (5) of these regulations, and will not be

turned when other hazardous wastes are present in the combustion zone; or

(3) Documentation that the waste is a hazardous waste solely because it possesses the characteristic of ignitability, corrosivity, or both, as determined by the tests for characteristics of hazardous waste under Part 261, Subpart C of this Chapter; or

(4) Documentation that the waste is a hazardous waste solely because it possesses the reactivity characteristics listed in §§264.23(a)(1),(2),(3),(6),(7), or (8) of this Chapter, and that it will not be burned when other hazardous wastes are present in the combustion zone; or

(b) Submit a trial burn plan or the results of a trail burn, including all required determinations, in accordance with §122.62; or

(c) In lieu of a trial burn, the applicant may submit the following information:

(1) An analysis of each waste or mixture of wastes to be burned including:

(i) Heat value of the waste in the form and composition in which it will be burned.

(ii) Viscosity (if applicable), or description of physical form of the waste.

(iii) An identification of any hazardous organic constituents listed in Part 261, Appendix VIII, of this Chapter, which are present in the waste to be burned, except that the applicant need not analyze for constituents listed in Part 261, Appendix VIII, of this Chapter which would reasonably not be expected to be found in the waste. The constituents excluded from analysis must be identified and the basis for their exclusion stated. The waste analysis must rely on analytical techniques specified in "Test methods for the evaluation of Solid Waste, Physical/ Chemical Methods" (incorporated by reference in Part 261, Appendix III), or their equivalent.

(iv) An approximate quantification of the hazardous constituents identified in the waste, within the precision produced by the analytical methods specified in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods" (incorporated by reference, see Part 261, Appendix III of these regulations).

(v) A quantification of those hazardous constituents in the waste which may be designated as POHC's based on data submitted from other trial or operational burns which demonstrate compliance with the performance standards in §264.343 of these regulations.

(2) A detailed engineering description of the incinerator, including:

(i) Manufacturer's name and model number of incinerator.

(ii) Type of incinerator.

(iii) Linear dimension of incinerator unit including cross sectional area of combustion chamber.

(iv) Description of auxiliary fuel system (type/feed).

(v) Capacity of prime mover.

(vi) Description of automatic waste feed cutoff system(s).

(vii) Stack gas monitoring and pollution control monitoring system.

(viii) Nozzle and burner design.

(ix) Construction materials.

(x) Location and description of temperature, pressure, and flow indicating devices and control devices.

(3) A description and analysis of the waste to be burned compared with the waste for which data from operational or trial burns are provided to support the contention that a trial burn is not needed. The data should include those items listed in paragraph (c)(1) of this section. This analysis should specify the POHC's which the applicant has identified in the waste for which a permit is sought, and any differences from the POHC's in the waste for which burn data are provided.

(4) The design and operating conditions of the incinerator unit to be used, compared with that for which comparative burn data are available.

(5) A description of the results submitted from any previously conducted trial burn(s) including:

(i) Sampling and analysis techniques used to calculate performance standards in §264.343 of these regulations,

(ii) Methods and results of monitoring temperatures, waste feed rates, carbon monoxide, and an appropriate indicator of combustion gas velocity (including a statement concerning the precision and accuracy of this measurement),

(6) The expected incinerator operation information to demonstrate compliance with §§264.343 and 264.345 of these regulations including:

(i) Expected carbon monoxide (CO) level in the stack exhaust gas.

(ii) Waste feed rate.

(iii) Combustion zone temperature.

(iv) Indication of combustion gas velocity.

(v) Expected stack gas volume, flow rate, and temperature.

(vi) Computed residence time for waste in the combustion zone.

(vii) Expected hydrochloric acid removal efficiency.

(viii) Expected fugitive emissions and their control procedures.

(ix) Proposed waste feed cut-off limits based on the identified significant operating parameters.

(7) Such supplemental information as the Secretary finds necessary to achieve the purposes of this paragraph.

(8) Waste analysis data, including that submitted in paragraph (c)(1) of this section, sufficient to allow the Secretary to specify as permit Principal Organic Hazardous Constituents (permit POHC's) those constituents for which destruction and removal efficiencies will be required.

(d) The Secretary shall approve a permit application without a trial burn if he finds that:

(1) The wastes are sufficiently similar; and

(2) The incinerator units are sufficiently similar, and the data from other trial burns are adequate to specify (under §264.345 of these regulations) operating conditions that will ensure that the performance standards in §264.345 of these regulations will be met by the incinerator.

§122.20 Specific Part B information requirements for land treatment

Except as otherwise provided in §264.270 owners and operators of facilities that use land treatment to dispose of hazardous waste must provide the following additional information:

(a) A description of plans to conduct a treatment demonstration as required under § 264.272. The description must include the following information:

(1) The wastes for which the demonstration will be made and the potential hazardous constituents in the wastes;

(2) The data sources to be used to make the demonstration (e.g., literature, laboratory data, field data, or operating data);

(3) Any specific laboratory or field test that will be conducted, including:

(i) The type of test (e.g., column leaching, degradation);

(ii) Materials and methods, including analytical procedures;

(iii) Expected time for completion;

(iv) Characteristics of the unit that will be simulated in the demonstration, including treatment zone characteristics, climatic conditions, and operating practices.

(b) A description of a land treatment program, as required under §264.271. This information must be submitted with the plans for the treatment demonstration, and updated following the treatment demonstration. The land treatment program must address the following items:

(1) The wastes to be land treated;

(2) Design measures and operating practices necessary to maximize treatment in accordance with §264.273(a) including:

(i) Waste application method and rate;

(ii) Measure to control soil pH;

(iii) Enhancement of microbial or chemical reactions;

(iv) Control of moisture content;

(3) Provisions for unsaturated zone monitoring, including:

(i) Sampling equipment, procedures, and frequency;

(ii) Procedures for selecting sampling locations;

(iii) Analytical procedures;

(iv) Chain of custody control;

(v) Procedures for establishing background values;

(vi) Statistical methods for interpreting results;

(vii) The justification for any hazardous constituents recommended for selection as principal hazardous constituents, in accordance with the criteria for such selection in §264.278(a);

(4) A list of hazardous constituents reasonably expected to be in, or derived from, the wastes to be land treated based on waste analysis performed pursuant to §264.13;

(5) The proposed dimensions of the treatment zone;

(c) A description of how the unit is or will be designed, constructed, operated, and maintained in order to meet the requirements of §264.273. This submission must address the following items:

(1) Control of run-on;

(2) Collection and control of run-off

(3) Minimization of run-off of hazardous constituents from the treatment zone;

(4) Management of collection and holding facilities associated with run-on and run-off control systems;

(5) Periodic inspection of the unit. This information should be included in the inspection plan submitted under §122.14(b)(5);

(6) Control of wind dispersal of particulate matter, if applicable;

(d) If food-chain crops are to be grown in or on the treatment zone of the land treatment unit, a description of how the demonstration required under §264.276(a) will be conducted including:

(1) Characteristics of the food-chain crop for which the demonstration will be made;

(2) Characteristics of the waste, treatment zone, and waste application method and rate to be used in the demonstration;

(3) Procedures for crop growth, sample collection, sample analysis, and date evaluation;

(4) Characteristics of the comparison crop including the location and conditions under which it was or will be grown;

(e) If food-chain crops are to be grown, and cadmium is present in the land-treated waste, a description of how the requirements of §264.276(b) will be complied with;

(f) A description of the vegetative cover to be applied to closed portions of the facility, and a plan for maintaining such cover during the post-closure care period, as required under §264.280(a)(8) and §264.280(c)(2). This information should be included in the closure plan and, where applicable, the post-closure care plan submitted under §122.14(b)(13);

(g) If ignitable or reactive wastes will be placed in or on the treatment zone, an explanation of how the requirements of §264.281 will be complied with:

(h) If incompatible wastes, or incompatible wastes and materials, will be placed in or on the same treatment zone, an explanation of how §264,282 will be complied with.

§122.21 Specific Part B information requirements for landfills

Except as otherwise provided in §264.300 owners and operators of facilities that dispose of hazardous waste in landfills must provide the following additional information:

(a) A list of the hazardous wastes placed or to be placed in each landfill or landfill cell;

(b) Detailed plans and an engineering report describing how the landfill is or will be designed, constructed, operated and maintained to comply with the requirements of §264.301. This submission must address the following items as specified in §264.301:

(1) the liner system and leachate collection and removal system (except for an existing portion of a landfill). If an exemption from the requirements for a liner and a leachate collection and removal system is sought as provided by §264.301(b), submit detailed plans and engineering and hydrogeologic reports, as appropriate describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous constituent into the ground water or surface water at any future time;

(2) Control of run-on;

(3) Control of run-off;

(4) Management of collection and holding facilities associated with run-on and run-off control systems; and

(5) Control of wind dispersal of particulate matter, where applicable;

(c) If an exemption from Subpart F of Part 264 is sought, as provided by §264.302(a), the owner or operator must submit detailed plans and an engineering report explaining the location of the saturated zone in relation to the landfill, the design of a doubleliner system that incorporates a leak detection system between the liners, and a leachate collection and removal system above the liners;

(d) A description of how each landfill, including the liner and cover systems, will be inspected in order to meet the requirements of §264.303(a) and (b). This information should be included in the inspection plan submitted under §122.14(b)(5).

(e) Detailed plans and an engineering report describing the final cover which will be applied to each landfill or landfill cell at closure in accordance with §264.310(a), and a description of how each landfill will be maintained and monitored after closure in accordance with §264.310(b). This information should be included in the closure and post-closure plans submitted under §122.14(b)(13).

(f) If ignitable or reactive wastes will be landfilled, an explanation of how §264.312 will be complied with;

(g) If incompatible wastes, or incompatible wastes and materials will be landfilled, an explanation of how §264.313 will be complied with;

(h) If bulk or non-containerized liquid waste or wastes containing free liquids is to be landfilled, an

explanation of how the requirements of §264.314 will be complied with;

(i) If containers of hazardous waste are to be landfilled, an explanation of how the requirements of §264.315 or §264.316, as applicable, will be complied with.

§122.22 - 122.26 [Reserved]

SUBPART C: PERMIT CONDITIONS

§122.30 Conditions applicable to all permits

The following conditions apply to all Hazardous Waste permits, and shall be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to these regulations must be given in the permit.

(a) Duty to comply. The permittee must comply with all conditions of this permit, except that the permittee need not comply with the conditions of this permit to the extent and for the duration such noncompliance is authorized in an emergency administrative order. (See §122.61). Any permit noncompliance, except under the terms of an emergency permit, constitutes a violation of the 7 Del. C. Chapter 63 and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

(b) **Duty to reapply.** If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.

(c) **Need to halt or reduce activity not a defense.** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(d) **Duty to mitigate.** The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit.

(e) **Proper operation and maintenance.** The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

(f) **Permit actions.** This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

(g) **Property rights.** The permit does not convey any property rights of an sort, or any exclusive privilege.

(h) **Duty to provide information.** The permittee shall furnish to the Secretary within a reasonable time, any relevant information which the Secretary may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the

Secretary, upon request, copies of records required to be kept by this permit.

(i) Inspection and entry. The permittee shall allow the Secretary, or an authorized representative, upon the presentation of credentials and other documents as may be required by law to:

(1) Enter at reasonable times upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

(2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(3) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

(4) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized 7 Del. C. Chapter 63, any substances or parameters at any location.

(j) Monitoring and records.

(1) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(2) The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Secretary at any time. The permitte shall maintain records from all ground water monitoring wells and associated ground water surface elevations, for the active life of the facility, and for disposal facilities for the post-closure care period as well.

(3) Records for monitoring information shall include:

(i) The date, exact place, and time of sampling or measurements;

(ii) The individual(s) who performed the sampling or measurements;

(iii) The date(s) analysis were performed;

(iv) The individual(s) who performed the analysis;

(v) The analytical techniques or methods used; and

(vi) The results of such analysis.

(k) Signatory requirement. All applications, reports, or information submitted to the Secretary shall be signed and certified. (See 122.11.)

(l) Reporting requirements. (1) Planned changes. The permittee shall give notice to the Secretary as soon as possible of any planned physical alterations or additions to the permitted facility.

(2) Anticipated noncompliance. The permittee shall give advance notice to the Secretary of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. For a new facility, the permittee may not treat, store, or dispose of hazardous waste; and for a facility being modified, the permittee may not treat, store, or

dispose of hazardous waste in the modified portion of the facility, until:

(i) The permittee has submitted to the Secretary by certified mail or hand delivery a letter signed by the permittee and a registered professional engineer stating that the facility has been constructed or modified in compliance with the permit; and

(ii) (A) The Secretary has inspected the modified or newly constructed facility and finds it is in compliance with the conditions of the permit; or

(B) Within 15 days of the date of submission of the letter in paragraph (l)(2)(i) of this section, the permittee has not received notice from the Secretary of his or her intent to inspect, prior inspection is waived and the permittee may commence treatment, storage, or disposal of hazardous waste.

(3) Transfers. This permit is not transferable to any person except after notice to the Secretary. The Secretary may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary. (See 122.40)

(4) Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(5) Compliance schedules. Reports of compliance or non-compliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

(6) Twenty-four hour reporting.

(i) The permittee shall report any noncompliance which may endanger health or the environment orally within 24 hours from the time the permittee becomes aware of the circumstances, including:

(A) Information concerning release of any hazardous waste that may cause an endangerment to public drinking water supplies.

(B) Any information of a release or discharge of hazardous waste or of a fire or explosion from the HWM facility, which could threaten the environment or human health outside the facility.

(ii) The description of the occurrence and its cause shall include:

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

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

(C) Date, time, and type of incident;

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

(E) The extent of injuries, if any;

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

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

(iii) A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the

period of noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The Secretary may waive the five day written notice requirement in favor of a written report within fifteen days.

(7) Manifest discrepancy report: If a significant discrepancy in a manifest is discovered, the permittee must attempt to reconcile the discrepancy. If not resolved within fifteen days, the permittee must submit a letter report, including a copy of the manifest, to the Secretary. (See §264.72.)

(8) Unmanifested waste report: This report must be submitted to the Secretary within 15 days of receipt of unmanifested waste. (See §264.76.)

(9) Annual report: An annual report must be submitted covering facility activities during the calendar year. (See §264.75.)

(10) Other noncompliance. The permittee shall report all instances of noncompliance not reported under paragraphs (L) (4), (5), and (6) of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (L) (6) of this section.

(11) Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Secretary, it shall promptly submit such facts or information.

§122.31 Requirements for recording and reporting of monitoring results.

All permits shall specify:

(a) Requirements concerning the proper use, maintenance, and installation, when appropriate, of monitoring equipment or methods (including biological monitoring methods when appropriate);

(b) Required monitoring including type, intervals, and frequency sufficient to yield data which are representative of the monitored activity including, when appropriate, continuous monitoring;

(c) Applicable reporting requirements based upon the impact of the regulated activity and as specified in Part 264. Reporting shall be no less frequent than specified in the above regulations.

§122.32 Establishing permit conditions.

(a) In addition to conditions required in all permits (§122.30), the Secretary shall establish conditions, as required on a case-by-case basis, in permits under §122.50 (duration of permits), §122.33(a) (schedules of compliance) and §122.31 (monitoring).

(b) Each hazardous waste permit shall include permit conditions necessary to achieve compliance with the Delaware Code and regulations, including each of the applicable requirements specified in Part 264. In satisfying this provision, the Secretary may incorporate applicable requirements of Part 264, directly into the permit or establish other permit conditions that are based on these parts.

(c) For a issued permit, an applicable requirement is a statutory or regulatory requirement which takes effect prior to final administrative disposition of a permit. Section 124.14 (reopening of comment period) provides a means for reopening DNREC permit proceedings at the discretion of the Secretary where new require ments become effective during the

permitting process and are of sufficient magnitude to make additional proceedings desirable. An applicable requirement is also any requirement which takes effect prior to the modification or revocation and reissuance of a permit, to the extent allowed in §122.41.

(d) New or reissued permits, and to the extent allowed under §122.41, modified or revoked and reissued permits, shall incorporate each of the applicable requirements referenced in this section and in §122.31.

(e) Incorporation. All permit conditions shall be incorporated either expressly or by reference. If incorporated by reference, a specific citation to the applicable regulations or requirements must be given in the permit.

§122.33 Schedules of compliance.

(a) The permit may, when appropriate, specify a schedule of compliance leading to compliance with the Delaware Code and regulations.

(1) Time for compliance. Any schedules of compliance under this section shall require compliance as soon as possible.

(2) Interim dates. Except as provided in paragraph (b) (1) (ii) of this section, if a permit establishes a schedule of compliance which exceeds 1 year from the date of permit issuance, the schedule shall set forth interim requirements and the dates for their achievement.

(i) The time between interim dates shall not exceed 1 year.

(ii) If the time necessary for completion of any interim requirement is more than 1 year and is not readily divisible into stages for completion, the permit shall specify interim dates for the submission of reports of progress toward completion of the interim requirements and indicate a projected completion date.

(3) Reporting. The permit shall be written to require that no later than 14 days following each interim date and the final date of compliance, the permittee shall notify the Secretary in writing, of its compliance or noncompliance with the interim or final requirements.

(b) Alternative schedules of compliance. A hazardous waste permit applicant or permittee may cease conducting regulated activities (by receiving a terminal volume of hazardous waste and for treatment and storage HWM facilities, closing pursuant to applicable requirements; and for disposal HWM facilities, closing and conducting post-closure care pursuant to applicable requirements) rather than continue to operate and meet permit requirements as follows:

(1) If the permittee decides to cease conducting regulated activities at a given time within the term of a permit which has already been issued:

(i) The permit may be modified to contain a new or additional schedule leading to timely cessation of activities; or

(ii) The permittee shall cease conducting permitted activities before noncompliance with any interim or final compliance schedule requirement already specified in the permit.

(2) If the decision to cease conducting regulated activities is made before issuance of a permit whose term will include the termination date, the permit shall contain a schedule leading to termination which will ensure timely compliance with

applicable requirements.

(3) If the permittee is undecided whether to cease conducting regulated activities, the Secretary may issue or modify a permit to contain two schedules as follows:

(i) Both schedules shall contain an identical interim deadline requiring a final decision on whether to cease conducting regulated activities no later than a date which ensures sufficient time to comply with applicable requirements in a timely manner if the decision is to continue conducting regulated activities;

(ii) One schedule shall lead to timely compliance with applicable requirements;

(iii) The second schedule shall lead to cessation of regulated activities by a date which will ensure timely compliance with applicable requirements;

(iv) Each permit containing two schedules shall include a requirement that after the permittee has made a final decision under paragraph (b) (3) (i) of this section it shall follow the schedule leading to compliance if the decision is to continue conducting regulated activities, and follow the schedule leading to termination if the decision is to cease conducting regulated activities.

(4) The applicant's or permittee's decision to cease conducting regulated activities shall be evidenced by a firm public commitment satisfactory to the Secretary, such as resolution of the board of directors of a corporation.

§122.34 - 122.39 [Reserved].

SUBPART D: CHANGES TO PERMIT

§122.40 Transfer of permits.

Transfers by modification. A permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued (under §122.41(b) (2)), or a minor modification made (under §122.42(d)), to identify the new permittee and incorporate such other requirements as may be necessary under the Delaware Code.

§122.41 Major modification or revocation and reissuance of permits.

When the Secretary receives any information (for example, inspects the facility, receives information submitted by the permittee as required in the permit (see §122.30), receives a request for modification or revocation and reissuance under §124.5, or conducts a review of the permit file) he or she may determine whether or not one or more of the causes listed in paragraphs (a) and (b) of this section for modification, or revocation and reissuance or both exist. If cause exists, the Secretary may modify or revoke and reissue the permit accordingly, subject to the limitations of paragraph (c) of this section, and may request an updated application if necessary. When a permit is modified, only the conditions subject to modification are reopened. If a permit is revoked and reissued, the entire permit is reopened and subject to revision and the permit is reissued for a new term (see §124.5(c)(2)). If cause does not exist under this section or §122.42, the Secretary shall not modify or revoke and reissue the permit. If a permit modification satisfies the criteria in §122.42 for a minor modification, the permit may be modified without a draft permit or public review. Otherwise, a draft permit must be prepared and other procedures in Part 124 followed.

(a) Causes for modification. The following are causes for modification, but not revocation and reissuance, of permits; the following may be causes for revocation and

reissuance, as well as modification, when the permittee requests or agrees.

(1) **Alterations.** There are material and substantial alterations or additions to the permitted facility or activity which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit.

(2) **Information.** The Secretary has received information. Permits may be modified during their terms for this cause only if the information was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and would have justified the application of different permit conditions at the time of issuance.

(3) **New regulations.** The standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued. Permits may be modified during their terms for this cause only as follows:

(i) For promulgation of amended standards or regulations, when:

(A) The permit condition requested to be modified was based on a promulgated Parts 260-265 regulation; and

(B) DNREC has revised, withdrawn, or modified that portion of the regulation on which the permit condition was based.

(C) A permittee requests modification in accordance with §124.5 within 90 days after public notice of the action on which the request is based. (ii) For judical decisions, a court of competent jurisdiction has remanded and stayed DNREC promulgated regulations if the remand and stay concern that portion of the regulations in which the permit conditions was based and a request is filed by the permittee in accordance with §124.5 within 90 days of judical remand.

(4) **Compliance schedules.** The Secretary determines good cause exists for modification of a compliance schedule, such as an act of God, strike, flood, or materials shortage or other events over which the permittee has little or no control and for which there is no reasonably available remedy.

(5) The Secretary may also modify a permit:

(i) When modification of a closure plan is required under §§264.112(b) or 264.118(b).

(ii) After the Secretary receives the notification of expected closure under §264.113, when the Secretary determines that extension of the 90 to 180 day periods under §264.113, modification of the 30-year post-closure period under §264.117(a), continuation of security requirements under §264.117(b), or permission to disturb the integrity of the containment system under §264.117(c) are unwarranted.

(iii) When the permittee has filed a request under §264.147(c) for a variance to the level of financial responsibility or when the Secretary demonstrates under §264.147(d) that an upward adjustment of the level of financial responsibility is required.

(iv) When the corrective action program specified in the permit under §264.100 has not brought the regulated unit into compliance with the ground-water protection standard within a reasonable period of time.

(v) To include a detection monitoring program meeting the requirements of §264.98, when the owner or operator has been conducting

a compliance monitoring program under §264.99 or a corrective action program under §264.100 and compliance period ends before the end of the post-closure care period for the unit.

(vi) When a permit requires a compliance monitoring program under §264.99, but monitoring data collected prior to permit issuance indicate that the facility is exceeding the ground-water protection standard.

(vii) To include conditions applicable to units at a facility that were not previously included in the facility's permit.

(viii) When a land treatment unit is not achieving complete treatment of hazardous constituents under its curent permit conditions.

(b) Causes for modification or revocation and reissuance. The following are causes to modify or alternatively, revoke and reissue a permit:

(1) Cause exists for termination under §122.43, and the Director determines that modification or revocation and reissuance is appropriate.

(2) The Director has received notification (as required in the permit, see §122.40 of a proposed transfer of the permit.

(c) Facility siting. Suitability of the facility location will not be considered at the time of permit modification or revocation and reissuance unless new information or standards indicate that a threat to human health or the environmental exists which was unknown at the time of permit issuance.

§122.42 Minor modifications of permits

Upon the consent of the permittee, the Secretary may modify a permit to make the corrections or allowances for changes in the permitted activity listed in this section, without following the procedures of Part 124. Any permit modification not processed as a minor modification under this section must be made for cause and with Part 124 draft permit and public notice as required in 122.41. Minor modifications may only:

(a) Correct typographical errors;

(b) Require more frequent monitoring or reporting by the permittee;

(c) Change an interim compliance date in a schedule of compliance, provided the new date is not more than 120 days after the date specified in the existing permit and does not interfere with attainment of the final compliance date requirements;

(d) Allow for a change in ownership or operational control of a facility where the Secretary determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittees has been submitted to the Secretary;

(e) Change the lists of facility emergency coordinators or equipment in the permit's contingency plan;

(f) Change estimates of maximum inventory under §264.112(a)(2);

(g) Change estimates of expected year of closure or schedules for final closure under §264.112(a) (4);

(h) Approve periods longer than 90 days or 180 days under §264.113(a) and (b);

(i) Change the ranges of the operating requirements set in the

permit to reflect the results of the trial burn, provided that the change is minor;

(j) Change the operating requirements set in the permit for conducting a trial burn, provided that the change is minor;

(k) Grant one extension of the time period for determining operational readiness following completion of construction, for up to 720 hours operating time for treatment of hazardous waste;

(l) Change the treatment program requirements for land treatment units under §264.271 to improve treatment of hazardous constituents, provided that the change is minor;

(m) Change any conditions specified in the permit for land treatment units to reflect the results of field tests or laboratory analyses used in making a treatment demonstration in accordance with §122.63, provided that the change is minor; and

(n) Allow a second treatment demonstration for land treatment to be conducted when the results of the first demonstration have not shown the conditions under which the waste or wastes can be treated completely as required by §264.272(a), provided that the conditions for the second demonstration are substantially the same as the conditions for the first demonstration.

§122.43 Termination of permits.

(a) The following are causes for terminating a permit during its term, or for denying a permit renewal application:

(1) Noncompliance by the permittee with any condition of the permit;

(2) The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the permittee's misrepresentation of any relevant facts at any time; or

(3) A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination.

(b) The Secretary shall follow the applicable procedures in Part 124 in terminating any permit under this section.

§122.44 - 122.49 [Reserved].

SUBPART E: EXPIRATION AND CONTINUATION OF PERMITS

§122.50 Duration of Permits.

(a) DNREC permits shall be effective for a fixed term not to exceed 10 years.

(b) Except as provided in §122.51, the term of a permit shall not be extended by modification beyond the maximum duration specified in this section.

(c) The Secretary may issue any permit for a duration that is less than the full allowable term under this section.

§122.51 Continuation of expiring permits.

(a) The conditions of an expired permit continue in force until the effective date of a new permit if:

(1) The permittee has submitted a timely application under §122.14 and the applicable sections in §122.15-122.29 which is a complete application for a new permit; and

(2) The Secretary through no fault of the permittee, does not issue a new permit with an effective date.

or before the expiration date of the previous permit (for example, when issuance is impracticable due to time or resource constraints).

(b) Effect. Permits continued under this section remain fully effective and enforceable.

(c) Enforcement. When the permittee is not in compliance with the conditions of the expiring or expired permit, the Secretary may choose to do any or all of the following:

(1) Initiate enforcement action based upon the permit which has been continued;

(2) Issue a notice of intent to deny the new permit under §124.6. If the permit is denied, the owner or operator would then be required to cease the activities authorized by the continued permit or be subject to enforcement action for operating without a permit;

(3) Issue a new permit under Part 124 with appropriate conditions; or

(4) Take other actions authorized by these regulations.

§122.52 - 122.59 [Reserved].

SUBPART F: SPECIAL FORMS OF PERMITS

§122.60 Permits by rule

Notwithstanding any other provision of this part or Part 124, the following shall be deemed to have a permit if the conditions listed are met:

(a) Ocean disposal barges or vessels. The owner or operator of a barge or other vessel which accepts hazardous waste for ocean disposal, if the owner or operator:

(i) Has a permit for ocean dumping issued under 40 CFR Part 220 (Ocean Dumping, authorized by the Marine Protection, Research and Sanctuaries Act as amended 33 USC 1420 et. seq.):

(2) Complies with the conditions of that permit; and

(3) Complies with the following hazardous waste regulations:

(i) §264.11, Identification number;
(ii) §264.71, Use of manifest system;
(iii) §264.72, Manifest discrepancies;
(iv) §264.73(a) and (b)(1), Operating record;
(v) §264.75, Annual report, and
(vi) §264.76, Unmanifested waste report.

(b) [Reserved]

(c) Publicly owned treatment works. The owner or operator of a POTW which accepts for treatment hazardous waste, if the owner or operator:

(1) Has an NPDES permit;

(2) Complies with the conditions of that permit; and

(3) Complies with the following regulations:

(i) §264.11, Identification number;
(ii) §264.71, Use of manifest system;
(iii) §264.72, Manifest discrepancies;
(iv) §264.73(a) and (b)(1), Operating record;
(v) §264.75, Annual report;
(vi) §264.76, Unmanifested waste report; and

(4) If the waste meets all Federal, State, and local pretreatment requirements which would be applicable to the waste if it were being discharged into the POTW through a sewer, pipe, or similiar conveyance.

§122.61 Emergency Administrative Orders

(a) Notwithstanding any other provision of this part or Part 124, in the event the Secretary finds an imminent and substantial endangerment to human health or the environment the Secretary may issue a temporary emergency administrative order

(1) to a nonpermitted facility to allow treatment, storage, or disposal of hazardous waste or (2) to a permitted facility to allow treatment, storage or disposal of a hazardous waste not covered by an effective permit.

(b) This emergency administrative order:

(1) May be oral or written. If oral, it shall be followed in five days by a written administrative order;

(2) Shall not exceed 90 days in duration;

(3) Shall clearly specify the hazardous wastes to be received, and the manner and location of their treatment, storage, or disposal;

(4) May be terminated by the Secretary at any time without process if he or she determines that termination is appropriate to protect human health and the environment;

(5) Shall be accompanied by a public notice published under §124.10(c) including;

(i) Name and address of the office granting the emergency authorization;

(ii) Name and location of the permitted HWM facility;

(iii) A brief description of the wastes involved;

(iv) A brief description of the action authorized and reasons for authorizing it; and

(v) Duration of the administrative order; and

(6) Shall incorporate, to the extent possible and not inconsistent with the emergency situation, all applicable requirements of this part and 264.

§122.62 Hazardous Waste Incinerator Permits

(a) For the purposes of determining operational readiness following completion of physical construction, the Secretary must establish permit conditions, including but not limited to allowable waste feeds and operating conditions, in the permit to a new hazardous waste incinerator. These permit conditions will be effective for the minimum time required to bring the incinerator to a point of operational readiness to conduct a trial burn, not to exceed 720 hours operating time for treatment of hazardous waste. The Secretary may extend the duration of this operational period once, for up to 720 additional hours, at the request of the applicant when good cause is shown. The permit may be modified to reflect the extension according to §122.42 (Minor modifications of permits) of these regulations.

(1) Applicants must submit a statement, with Part B of the permit application, which suggests the conditions necessary to operate in compliance with the performance standards of §264.343 of this Chapter during this period. This statement should include, at a minimum, restrictions on waste constituents, waste feed rates and the operating parameters identified in §264.345 of these regulations.

(2) The Secretary will review this statement and any other relevant information submitted with Part B of the permit application and specify requirements for this period sufficient to meet the performance standards of §264.343 of this Chapter based on his engineering judgment.

(b) For the purposes of determining feasibility of compliance with the performance standards of §264.343 of this Chapter and of determining adequate operating conditions under §264.345 of this Chapter, the Secretary must establish conditions in the permit for a new hazardous waste incinerator to be effective during the trial burn.

(1) Applicants must propose a trial burn plan, prepared under paragraph (b) (2) of this section with a Part B of the permit application.

(2) The trial burn plan must include the following information:

(i) An analysis of each waste or mixture of wastes to be burned which includes:

(A) Heat value of the waste in the form and composition in which it will be burned.

(B) Viscostiy (if applicable), or description of the physical form of the waste.

(C) An identification of any hazardous organic constituents listed in Part 261, Appendix VIII of this Chapter, which are present in the waste to be burned, except that the applicant need not analyze for constituents listed in Part 261, Appendix VIII, of this Chapter which would reasonably not be expected to be found in the waste. The constituents excluded from analysis must be identified, and the basis for the exclusion stated. The waste analysis must rely on analytical techniques specified in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods" (see Part 261. Appendix III), or other equivalent.

(D) An approximate quantification of the hazardous constituents identified in the waste, within the precision produced by the analytical methods specified in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods," or their equivalent.

(ii) A detailed engineering description of the incinerator for which the permit is sought including:

(A) Manufacturer's name and model number of incinerator (if available).

(B) Type of incinerator.

(C) Linear dimensions of the incinerator unit including the cross sectional area of combustion chamber.

(D) Description of the auxiliary fuel system (type/feed).

(E) Capacity of prime mover.

(F) Description of automatic waste feed cut-off system(s).

(G) Stack gas monitoring and pollution control equipment.

(H) Nozzle and burner design.

(I) Construction materials.

(J) Location and description of temperature, pressure, and flow indicating and control devices.

(iii) A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis.

(iv) A detailed test schedule for each waste for which the trial burn is planned including date(s), duration, quantity of waste to be burned, and other factors relevant to the Secretary's decision under paragraph (b) (5) of this section.

(v) A detailed test protocol, including, for each waste identified, the ranges of temperature, waste feed rate, combustion gas velocity, use of auxiliary fuel, and any other relevant parameters that will be varied to affect the destruction and removal efficiency of the incinerator.

(vi) A description of, and planned operating conditions for, any emission control equipment which will be used.

(vii) Procedures for rapidly stopping waste feed, shutting down the incinerator, and controlling emissions in the event of an equipment malfunction.

(viii) Such other information as the Secretary reasonably finds necessary to determine whether to approve the trial burn plan in light of the purposes of this paragraph and the criteria in paragraph (b) (5) of this section.

(3) The Secretary, in reviewing the trial burn plan, shall evaluate the sufficiency of the information provided and may require the applicant to supplement this information, if necessary, to achieve the purposes of this paragraph.

(4) Based on the waste analysis data in the trial burn plan, the Secretary will specify as trial Principal Organic Hazardous Constituents (POHCs), those constituents for which destruction and removal efficiencies must be calculated during the trial burn. These trial POHCs will be specified by the Secretary based on his estimate of the difficulty of incineration of the constituents identified in the waste analysis, their concentration or mass in the waste feed, and, for wastes listed in Part 261, Subart D, of this Chapter, the hazardous waste organic constituent or constituents identified in Appendix VII of that Part as the basis for listing.

(5) The Secretary shall approve a trial burn plan if he finds that:

(i) The trial burn is likely to determine whether the incinerator performance standard required by §264.343 of this Chapter can be met;

(ii) The trial burn itself will not present an imminent hazard to human health or the environment;

(iii) The trial burn will help the Secretary to determine operating requirements to be specified under §264.345 of this Chapter; and

(iv) The information sought in paragraphs (b) (5) (i) and (ii) of this Section cannot reasonably be developed through other means.

(6) During each approved trial burn (or as soon after the burn as is practicable), the applicant must make the following determinations:

(i) A quantitative analysis of the trial POHCs in the waste feed to the incinerator.

(ii) A quantitative analysis of the exhaust gas for the concentration and mass emissions of the trial POHCs, oxygen (O_2) and hydrogen chloride (HCl).

(iii) A quantitative analysis of the scrubber water (if any), ash residues, and other residues, for the purpose of estimating the fate of the trial POHCs.

(iv) A computation of destruction and removal efficiency (DRE), in accordance with the DRE formula specified in §264.343(a) of these regulations.

(v) If the HCl emission rate exceeds 1.8 kilograms of HCl per hour (4 pounds per hour), a computation of HCl removal efficiency in accordance with 264.343(b) of this Chapter.

(vi) A computation of particulate emissions, in accordance with §264.343(c) of these regulations.

(vii) An identification of sources of fugitive emissions and their means of control.

(viii) A measurement of average, maximum, and minmum temperatures and combustion gas velocity.

(ix) A continuous measurement of carbon monoxide (CO) in

the exhaust gas.

(x) Such other information as the Secretary may specify as necessary to ensure that the trial burn will determine compliance with the performance standards in §264.343 of this Chapter and to establish the operating conditions required by §264.345 of this Chapter as necessary to meet that performance standard.

(7) The applicant must submit to the Secretary a certification that the trial burn has been carried out in accordance with the approved trial burn plan, and must submit the results of all the determinations required in paragraph (b) (6). This submission shall be made within 90 days of completion of the trial burn, or later if approved by the Secretary.

(8) All data collected during any trial burn must be submitted to the Secretary following the completion of the trial burn.

(9) All submissions required by this paragraph must be certified on behalf of the applicant by the signature of a person authorized to sign a permit application or a report under §122.11.

(10) Based on the results of the trial burn, the Secretary shall set the operating requirements in the final permit according to §264.345 of this Chapter. The permit modification shall proceed as a minor modification according to §122.42.

(c) For the purposes of allowing operation of a new hazardous waste incinerator following completion of the trial burn and prior to final modification of the permit conditions to reflect the trial burn results, the Secretary may establish permit conditions, including but not limited to allowable waste feeds and operating conditions sufficient to meet the requirements of §264.345 or this Chapter, in the permit to a new hazardous waste incinerator. These permit conditions will be effective for the minimum time required to complete sample analysis, data computation and submission of the trial burn results by the applicant, and modification of the facility permit by the Secretary.

(1) Applicants must submit a statement, with Part B of the permit application, which identifies the conditions necessary to operate in compliance with the performance standards of §264.343 of this Chapter, during this period. This statement should include, at a minimum, restrictions on waste constituents, waste feed rates, and the operating parameters in §264.345 of this Chapter.

(2) The Secretary will review this statement and any other relevant information submitted with Part B of the permit application and specify those requirements for this period most likely to meet the performance standards of §264.343 of these regulations based on his engineering judgement.

(d) For the purposes of determining feasibility of compliance with the performance standards of §264.343 of this Chapter and of determining adequate operating conditions under §264.345 of this Chapter, the applicant for a permit to an existing hazardous waste incinerator may prepare and submit a trial burn plan and perform a trial burn in accordance with paragraphs (b) (2) through (b) (9) of this Section. Applicants who submit trial burn plans and receive approval before submission of a permit application must complete the trial burn and submit the results, specified in paragraph (b) (6), with Part B of the permit application. If completion of this process conflicts with the date set for submission of the Part B application, the applicant must contact the Secretary to

establish a later date for submission of the Part B application or the trial burn results. If the applicant submits a trial burn plan with Part B of the permit application, the trial burn must be conducted and the results submitted within a time period to be specified by the Secretary.

§122.63 Permits for land treatment demonstrations using field test or laboratory analyses.

(a) For the purpose of allowing an owner or operator to meet the treatment demonstration requirements of §264.272 of this Chapter, the Secretary may issue a treatment demonstration permit. The permit must contain only those requirements necessary to meet the standards in §264.272(c). The permit may be issued either as a treatment or disposal permit covering only the field test or laboratory analyses, or as a two-phase facility permit covering the field tests, or laboratory analyses, and design, construction operation and maintenance of the land treatment unit.

(1) The Secretary may issue a two-phase facility permit if he finds that, based on information submitted in Part B of the application, substantial, although incomplete or inconclusive, information already exists upon which to base the issuance of a facility permit.

(2) If the Secretary finds that not enough information exists upon which he can establish permit conditions to attempt to provide for compliance with all of the requirements of Subpart M, he must issue a treatment demonstration permit covering only the field test or laboratory analyses.

(b) If the Secretary finds that a phased permit may be issued, he will establish, as requirements in the first phase of the facility permit, conditions for conducting the field tests or laboratory analyses. These permit conditions will include design and operating parameters (including the duration of the tests or analyses and, in the case of field tests, the horizontal and vertical dimensions of the treatment zone), monitoring procedures, post-demonstration clean-up activities, and any other conditions which the Secretary finds may be necessary under §264.272(c). The Secretary will include conditions in the second phase of the facility permit to attempt to meet all Subpart M requirments pertaining to unit design, construction, operation, and maintenance. The Secretary will establish these conditions in the second phase of the permit based upon the substantial but incomplete or inconclusive information contained in the Part B application.

(1) The first phase of the permit will be effective as provided in §124.15(b) of these regulations.

(2) The second phase of the permit will effective as provided in paragraph (c) of this Section.

(c) When the owner or operator who has been issued a two-phase permit has completed the treatment demonstration, he must submit to the Secretary a certification, signed by a person authorized to sign a permit application or report under §122.11, that the field tests or laboratory analyses have been carried out in accordance with the conditions specified in phase one of the permit for conducting such tests or analyses. The owner or operator must also submit all data collected during the field tests or laboratory analyses within 90 days of completion of those tests or analyses unless the Secretary approves a later date.

(d) If the Secretary determines that the results of the field tests or laboratory analyses meet the requirements of §264.272 of this Chapter, he will modify the second

phase of the permit to incorporate any requirements necessary for operation of the facility in compliance with Part 264, Subpart M, of this Chapter, based upon the results of the field tests or laboratory analyses.

(1) This permit modification may proceed as a minor modification under §122.42, provided any such change is minor, or otherwise will proceed as a modification under §122.41(a) (2).

(2) If no modifications of the second phase of the permit are necessary, or if only minor modifications are necessary and have been made, the Secretary will give notice of his final decision to the permit applicant and to each person who submitted written comments on the phased permit or who requested notice of the final decision on the second phase of the permit. The second phase of the permit then will become effective as specified in §124.15(b).

(3) If modifications under §122.41(a) (2) are necessary, the second phase of the permit will become effective only after those modifications have been made.

§122.64 - 122.69 [Reserved].

SUBPART G: INTERIM STATUS

§122.70 Qualifying for interim status.

(a) Any person who owns or operates an "existing HWM facility" shall have interim status and shall be treated as having been issued a permit to the extent he or she has:

(1) Complied with the requirements of 7 Del.C. §§6304, 6306 and 6307 pertaining to notification of hazardous waste activity.

[Comment: Some existing facilities may not be required to file a notification under 7 Del.C. §§6304, 6306 and 6307. These facilities may qualify for interim status by meeting paragraph (a) (2) of this section.]

(2) Complied with the requirements of §122.10 governing submission of Part A applications;

(b) When DNREC determines on examination or reexamination of a Part A application that it fails to meet the standards of these regulations, it may notify the owner or operator that the application is deficient and that the owner or operator is therefore not entitled to interim status. The owner or operator will then be subject to DNREC enforcement for operating without a permit.

§122.71 Operation during interim status.

(a) During the interim status period the facility shall not:

(1) Treat, store, or dispose of hazardous waste not specified in Part A of the permit application;

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

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

(b) Interim status standards. During interim status, owners or operators shall comply with the interim status standards at Part 265.

§122.72 Changes during interim status.

(a) New hazardous wastes not previously identified in Part A of the permit application may be treated, stored, or disposed of at a facility if the owner or operator submits a revised Part A permit application prior to such a change;

(b) Increases in the design capacity of processes used at a

facility may be made if the owner or operator submits a revised Part A permit application prior to such a change (along with a justification explaining the need for the change) and the Secretary approves the change because of a lack of available treatment, storage, or disposal capacity at other hazardous waste management facilities;

(c) Changes in the processes for the treatment, storage, or disposal of hazardous waste may be made at a facility or additional processes may be added if the owner or operator submits a revised Part A permit application prior to such a change (along with a justification explaining the need for the change) and the Secretary approves the change because:

(1) It is necessary to prevent a threat to human health or the environment because of an emergency situation, or

(2) It is necessary to comply with State regulations (including the interim status standards at Part 265).

(d) Changes in the ownership or operational control of a facility may be made if the new owner or operator submits a revised Part A permit application no later than 90 days prior to the scheduled change. When a transfer of ownership or operational control of a facility occurs, the old owner or operator shall comply with the requirements of Part 265, Subpart H (financial requirements), until the new owner or operator has demonstrated to the Secretary that it is complying with that Subpart. All other interim status duties are transferred effective immediately upon the date of the change of ownership or operational control of the facility. Upon demonstration to the Secretary by the new owner or operator of compliance with that Subpart, the Secretary shall notify the old owner or operator in writing that it no longer needs to comply with that part as of the date of demonstration.

(e) In no event shall changes be made to an HWM facility during interim status which amount to reconstruction of the facility. Reconstruction occurs when the capital investment in the changes to the facility exceeds fifty percent of the capital cost of a comparable entirely new HWM facility.

§122.73 Termination of interim status.

Interim status terminates when:

(a) Final administrative disposition of a permit application is made; or

(b) Interim status is terminated as provided in §122.10(e)(3).

§122.74 - 122.79 [Reserved]

PART 124 - PROCEDURES FOR DECISION-MAKING

Subpart A- General Program Requirements

Section

Subpart A - General Program Requirements

§124.1 Purpose and scope

(a) This part contains procedures for issuing, modifying, revoking and reissuing, or terminating all hazardous waste permits other than Emergency Administrative Orders (see §122.61).

§124.2 - [Reserved]

§124.3 Application for a permit.

(a)(1) Any person who requires a permit under the hazardous waste program shall complete, sign, and submit to the Secretary an application for hazardous waste permit.

(2) The Secretary shall not begin the processing of a permit until the applicant has fully complied with the application requirements for that permit.

(3) Permit applications must comply with the signature and certification requirements of Part 122.11.

(b) [Reserved]

(c) The Secretary shall review for completeness every application. Each application for a hazardous waste permit submitted by a new HWM facility should be reviewed for completeness by the Secretary within 30 days of its receipt. Each application for a hazardous waste permit submitted by an existing HWM facility (both Parts A and B of the application), should be reviewed for completeness within 60 days of receipt. Upon completing the review, the Secretary shall notify the applicant in writing whether the application is complete. If the application is incomplete, the Secretary shall list the information necessary to make the application complete. When the application is for an existing HWM facility, the Secretary shall specify in the notice of deficiency a date for submitting the necessary information. The

Secretary shall notify the applicant that the application is complete, upon receiving this information. After the application is completed, the Secretary may request additional information from an applicant but only when necessary to clarify, modify, or supplement previously submitted material. Requests for such additional information will not render an application incomplete.

(d) If an applicant fails or refuses to correct deficiencies in the application, the permit may be denied and appropriate enforcement actions may be taken under the applicable statutory provision.

(e) If the Secretary decides that a site visit is necessary for any reason in conjunction with the processing of an application, he or she shall notify the applicant and a date shall be scheduled.

(f) The effective date of an application is the date on which the Secretary notifies the applicant that the application is complete as provided in paragraph (c) of this section.

(g) For each application from a major new HWM facility, the Secretary shall, no later than the effective date of the application, prepare and mail to the applicant a project decision schedule. The schedule shall specify target dates by which the Secretary intends to:

(1) Prepare a draft permit;
(2) Give public notice;
(3) Complete the public comment period, including any public hearing; and
(4) Issue a final permit.

§124.4 [Reserved]

§124.5 **Modification, revocation and reissuance, or termination of permits.**

(a) Permits may be modified, revoked and reissued, or terminated either at the request of any interested person (including the permittee) or upon the Secretary's initiative. However, permits may only be modified, revoked and reissued, or terminated for the reasons specified in §§122.41 or §122.43. All requests shall be in writing and shall contain facts or reasons supporting the request.

(b) If the Secretary decides the request is not justified, he or she shall send the requester a brief written response giving a reason for the decision. Denials of requests for modification, revocation and reissuance, or termination are not subject to public notice, comment, or hearings.

(c)(1) If the Secretary tentatively decides to modify or revoke and reissue a permit under §122.41, he shall prepare a draft permit under §124.6 incorporating the proposed changes. The Secretary may request additional information and, in the case of a modified permit, may require the submission of an updated permit application. In the case of revoked and reissued permits, the Secretary shall require the submission of a new application.

(2) In a permit modification under this section, only those conditions to be modified shall be reopened when a new draft permit is prepared. All other aspects of the existing permit shall remain in effect for the duration of the unmodified permit. When a permit is revoked and reissued under this section, the entire permit is reopened just as if the permit had expired and was being reissued. During any revocation and reissuance proceeding the permittee shall comply with all conditions of

the existing permit until a new final permit is reissued.

(3) "Minor modifications", as defined under §122.42,

are not subject to the requirements of this section.

(d) If the Secretary tentatively decides to terminate a permit under §122.43 he or she shall issue a notice of intent to terminate. A notice of intent to terminate is a type of draft permit which follows the same procedures as any draft permit prepared under §124.6.

§124.6 Draft permits

(a) Once an application is complete, the Secretary shall tentatively decide whether to prepare a draft permit or to deny the application.

(b) If the Secretary tentatively decides to deny the permit application, he shall issue a notice of intent to deny. A notice of intent to deny the permit application is a type of draft permit which follows the same procedures as any draft permit prepared under this section. See §124.6(d). If the Secretary's final decision is that the tentative decision to deny the permit application was incorrect, he or she shall withdraw the notice of intent to deny and proceed to prepare a draft permit under paragraph (d) of this section.

(c) If the Secretary decides to prepare a draft permit, he shall prepare a draft permit that contains the following information:

(1) All conditions under §122.30 and §122.32.

(2) All compliance schedules under §122.33.

(3) All monitoring requirements under §122.31 and

(4) Hazardous waste permits, standards for treatment, storage, and/or disposal and other permit conditions under §122.30.

(d) All draft permits prepared under this section shall be accompan ied by a statement of basis (§124.7) or fact sheet (§124.8), publicly noticed (§124.10) and made available for public comment (§124.11). The Secretary shall give notice of opportunity for a public hearing (§124.12) and respond to comments (§124.17).

§124.7 Statement of basis

DNREC shall prepare a statement of basis for every draft permit for which a fact sheet under §124.8 is not prepared. The statement of basis shall briefly describe the derivation of the conditions of the draft permit and the reasons for them or, in the case of notices of intent to deny or terminate, reasons supporting the tentative decision. The statement of basis shall be sent to the applicant and, on request, to any other person.

§124.8 Fact sheet

(a) A fact sheet shall be prepared for every draft permit for a major HWM, facility or activity, and for every draft permit which the Secretary finds is the subject of widespread public interest or raises major issues. The fact sheet shall briefly set forth the principal facts and the significant factual, legal, methodological and policy questions considered in preparing the draft permit. The Secretary shall send this fact sheet to the applicant and, on request, to any other person.

(b) The fact sheet shall include, when applicable:

(1) A brief description of the type of facility or activity which is the subject of the draft permit;

(2) The type and quantity of wastes, fluids, or pollutants which are proposed to be or are being treated, stored, disposed of, injected, emitted, or discharged.

(3) Reasons why any requested variances or alternatives to required standards do or do not appear justified.

(4) A description of the procedures for reaching a final decision on the draft permit including:

(i) The beginning and ending dates of the comment period under §124.10 and the address where comments will be received;

(ii) Procedures for requesting a hearing and the nature of that hearing; and

(iii) Any other procedures by which the public may participate in the final decision.

(5) Name and telephone number of a person to contact for additional information.

§124.9 [Reserved]

§124.10 Public notice of permit actions and public comment period.

(a) Scope. (1) The Secretary shall give public notice that the following actions have occurred:

(i) A permit application has been tentatively denied under §124.6(b);

(ii) A draft permit has been prepared under §124.6(d);

(iii) A hearing has been scheduled under §124.12;

(b) Timing (1) Public notice of the preparation of a draft permit (including a notice of intent to deny a permit application) required under paragraph (a) of this section shall allow at least 30 days for public comment. For Hazardous Waste permits only, public notice shall allow at least 45 days for public comment.

(2) Public notice of a public hearing shall be given at least 30 days before the hearing. (Public notice of the hearing may be given at the same time as public notice of the draft permit and the two notices may be combined.)

(c) Methods. Public notice of activities described in paragraph (a)(1) of this section shall be given by the following methods:

(1) By mailing a copy of a notice to the following persons (any person otherwise entitled to receive notice under this paragraph may waive his or her rights to receive notice for any classes and categories of permits):

(i) The applicant;

(ii) Any other agency which the Secretary knows has issued or is required to issue a RCRA, UIC, PSD, NPDES or 404 permit for the same facility or activity (including EPA when the draft permit is prepared by the State);

(iii) Federal and State agencies with jurisdiction over fish, shellfish, and wildlife resources and over coastal zone management plans, the Advisory Council on Historic Preservation, State Historic Preservation Officers, and other appropriate government authorities, including any affected States;

(iv) Persons on a mailing list developed by:

(A) Including those who request in writing to be on the list;

(B) Soliciting persons for "area lists" from participants in past permit proceedings in that area; and

(C) Notifying the public of the opportunity to be put on the mailing list through periodic publication in the public press and in such publications as Regional and State funded newsletters, environmental bulletins, or State law journals. (The Secretary may update the mailing list from time to time by requesting written indication of continued interest from those listed. The Secretary may delete from the list the name of any person who fails to respond to such a request.)

(v)(A) To any unit of local government having jurisdiction over the area where the facility is proposed to be located; and (B) To each State agency having any authority under State law with respect to the construction or operation of such facility.

(2)(i) Publication of a notice in a daily or weekly major local newspaper of general circulation and broadcast over local radio stations.

(3) In a manner constituting legal notice to the public under State law; and

(4) Any other method reasonably calculated to give actual notice of the action in question to the persons potentially affected by it, including press releases or any other forum or medium to elicit public participation.

(d) Contents (1) All public notices. All public notices issued under this part shall contain the following minimum information:

(i) Name and address of the office processing the permit action for which notice is being given;

(ii) Name and address of the permittee or permit applicant and, if different, of the facility or activity regulated by the permit;

(iii) A brief description of the business conducted at the facility or activity described in the permit application or the draft permit;

(iv) Name, address and telephone number of a person from whom interested persons may obtain further information, including copies of the draft permit or draft general permit, as the case may be, statement of basis or fact sheet, and the application; and

(v) A brief description of the comment procedures required by §124.11 and 124.12 and the time and place of any hearing that will be held, including a statement of procedures to request a hearing (unless a hearing has already been scheduled) and other procedures by which the public may participate in the final permit decision.

(vi) Any additional information considered necessary or proper.

(2) Public notices for hearings. In addition to the general public notice described in paragraph (d)(1) of this section, the public notice of a hearing under §124.12, shall contain the following information:

(i) Reference to the date of previous public notices relating to the permit;

(ii) Date, time, and place of the hearing;

(iii) A brief description of the nature and purpose of the hearing, including the applicable rules and procedures.

(c) In addition to the general public notice described in paragraph (d)(1) of this section, all persons identified in paragraphs (c)(1)(i), (ii), (iii), and (iv) of this section shall be mailed a copy of the fact sheet, the permit application (if any) and the draft permit (if any).

§124.11 Public comments and requests for public hearings.

During the public comment period provided under §124.10, any interested person may submit written comments on the draft permit and may request a public hearing, if no hearing has already been scheduled. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. All comments shall be considered in making the final decision and shall be answered as provided in §124.17.

§124.12 Public hearings.

(a)(1) The Secretary shall hold a public hearing whenever he finds, on the basis of requests, a significant degree of public interest in a draft permit(s);

(2) The Secretary may also hold a public hearing at his discretion, whenever for instance, such a hearing might clarify one or more issues involved in the permit decision;

(3)(i) The Secretary shall hold a public hearing whenever he receives written notice of opposition to a draft permit and a request for a hearing within 45 days of public notice under §124.10(b)(1); (ii) whenever possible the Secretary shall schedule a hearing under this section at a location convenient to the nearest population center to the proposed facility;

(4) Public notice of the hearing shall be given as specified in §124.10.

(b) Any person may submit oral or written statements and data concerning the draft permit. Reasonable limits may be set upon the time allowed for oral statements, and the submission of statements in writing may be required. The public comment period under §124.10 shall automatically be extended to the close of any public hearing under this section. The hearing officer may also extend the comment period by so stating at the hearing.

(c) A tape recording or written transcript of the hearing shall be made available to the public.

§124.13- 124.16 [Reserved]

§124.17- Response to comments.

(a) At the time that any final permit is issued, the Secretary shall issue a response to comments. This response shall:

(1) Specify which provisions, if any, of the draft permit have been changed in the final permit decision, and the reasons for the change; and

(2) Briefly describe and respond to all significant comments on the draft permit raised during the public comment period, or during any hearing.

(b) The response to comments shall be available to the public.