

**STATE OF VERMONT
AGENCY OF NATURAL RESOURCES
DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

SOLID WASTE MANAGEMENT RULES

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Solid Waste Management Rules

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**SOLID WASTE MANAGEMENT RULES
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Subchapter 1 -- PURPOSE

6-101 Authority

This rule is adopted under the authority of 10 V.S.A. Chapter 159, Waste Management. The Secretary has the power to adopt, amend and repeal rules pursuant to 3 V.S.A. Chapter 25.

Related statutes include: 3 V.S.A. §2822(j) regarding fees; 24 V.S.A. Chapter 61, Subchapter 8 regarding the police powers of municipalities as related to rubbish and garbage; 32 V.S.A. Chapter 151, Subchapter 13 regarding franchise tax on waste facilities.

6-102 Declaration of Purpose

These rules establish procedures and standards to protect public health and the environment by ensuring the safe, proper, and sustainable management of solid waste in Vermont. They amend the Solid Waste Management Rules effective on October 15, 2004.

6-103 Severability

The provisions of any section of these rules are severable. If any provision of these rules is invalid or if any application of these rules to any person or circumstance is invalid, the invalidity shall not affect other provisions or applications that can be given effect without the invalid provision or application.

Subchapter 2 -- DEFINITIONS

6-201 Definitions

As used in this chapter all terms not defined herein shall have the meaning given them in 10 V.S.A. 6602, unless a different meaning clearly appears from the context.

“Adjoining residences and landowners” shall include those residences and landowners residing on land adjacent to the facility applied for, notwithstanding the presence of a road, railroad, other right of way or a watercourse located on the boundary of the parcel of land on which the facility is located.

“Airport” means a public-use airport open to the public without prior permission and without restrictions within the physical capacities of available facilities.

“Agency” means Agency of Natural Resources.

“Asbestos” means the fibrous varieties of primarily the amphibole and serpentine mineral groups which include the minerals chrysotile, riebeckite (crocidolite), cummingtonite- grunerite (amosite), anthophyllite, actinolite, and tremolite.

“Asbestos Waste” means a waste that contains any type of asbestos in an amount greater than one percent by weight, either alone or mixed with other fibrous or non-fibrous materials.

“Bird Hazard” means an increase in the likelihood of collision between birds and aircraft that may cause damage to the aircraft or injury to its occupants.

“Closure” means the set of activities and requirements that a facility must complete, as prescribed by the facility's certification or the Secretary, when a portion of the facility or the entire facility is no longer serving to process or dispose of solid waste. The timing of closure is either set forth in the facility certification or will be determined by the Secretary.

“Commercial hauler” means: (a) any person who transports regulated quantities of hazardous waste; and (b) any person who transports solid waste for compensation in a vehicle having a rated capacity of more than one ton.

“Composite liner” means a system consisting of two components; the upper component must consist of a minimum 60-mil Flexible Membrane Liner (FML), and the lower component must consist of a least two-foot layer of compacted soil with a hydraulic conductivity of no more than 1×10^{-7} cm/sec. The FML component must be installed in direct and uniform contact with the compacted soil component.

“Composting” means the controlled biological decomposition of organic matter through active management to produce a stable humus-rich material.

“Conditionally Exempt Generator” (CEG) means a generator of hazardous waste which is conditionally exempted from certain provisions of the Vermont Hazardous Waste Management Regulations.

“Construction and Demolition Waste” means, for the purpose of these rules, waste derived from the construction or demolition of buildings, roadways or structures including but not limited to clean wood, treated or painted wood, plaster, sheetrock, roofing paper and shingles, insulation, glass, stone, soil, flooring materials, brick, masonry, mortar, incidental metal, furniture and mattresses. This waste does not include asbestos waste, regulated hazardous waste, hazardous waste generated by households, hazardous waste from conditionally exempt generators, or any material banned from landfill disposal under 10 V.S.A. §6621a.

“Contact person” means a person, designated by the Permittee(s), who has the authority to make and implement decisions regarding operating conditions at the solid waste management facility.

“Container” means a portable device in which a material or waste is stored, transported, treated, disposed or otherwise handled.

“Cover Material” means earthen material, or other material approved by the Secretary, that is used to cover compacted solid wastes in a discrete disposal facility in order to control fire, disease vectors and odors, to prevent blowing litter, to discourage scavenging by animals, and to assure an aesthetic appearance.

“Diffuse Disposal Facilities” means surface or subsurface disposal areas where agronomically beneficial wastes are disposed at a controlled application rate, usually based on crop nutrient requirements, not tolerance.

“Discarded”.

- (1) means a material that is:
 - (A) delivered to a treatment, storage, recycling or disposal facility;
 - (B) abandoned;
 - (C) burned or incinerated;
 - (D) stored or placed in a manner that constitutes the discharge, injection, spilling, or leaking of material or any constituent thereof into or on any land or water or into the air;

- (E) placed in or near the public right of way for collection; or
 - (F) conveyed to a commercial hauler for delivery to a treatment, storage, recycling, or disposal facility.
- (2) does not mean a material that is used in a manner approved by the Secretary by means of procedure as acceptable and not posing a threat to public health or the environment.

“Discharge” means the placing, depositing or emission of a waste directly or indirectly into or on any land or water or into the air.

“Discrete Disposal Facilities” means all facilities other than diffuse disposal facilities that are used for the disposal of solid wastes. A discrete disposal facility may include one or more landfill units.

“Disposal” means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste into or on any land or water so that such solid waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any ground or surface waters.

“Domestic Wastes” means wastes originating from bathrooms, kitchens, showers, toilets, or other sanitary facilities, public or private, regardless of the degree of treatment.

“Facility” means all contiguous land, structures, other appurtenances, and improvements on the land, used for treating, storing or disposing of solid waste. A facility may consist of several treatment, storage, or disposal operational units.

“Floodplain” means the land area adjacent to a surface water body that is below the one hundred (100) year flood elevation.

“Floodway” means the area of land and water necessary to convey the one hundred (100) year flood without cumulatively increasing the water surface elevation more than one (1) foot.

“Groundwater” means water below the land surface, but does not include surface waters within the meaning of 10 V.S.A. § 1251(13).

“Guidelines” means recommended considerations, technical criteria, specifications, and engineering practices for location, design, operation and maintenance of solid waste management facilities.

“HHW/CEG Hazardous Waste Collection Facility” means a facility used for the collection and storage of Household Hazardous Wastes (HHW) and/or hazardous waste from Conditionally Exempt Generators (CEG).

“Hazardous waste” means any waste or combination of wastes of a solid, liquid, contained gaseous, or semi-solid form, including but not limited to those which are toxic, corrosive, ignitable, reactive, strong sensitizers, or which generate pressure through decomposition, heat or other means, which in the judgment of the Secretary may cause, or contribute to, an increase in mortality or an increase in serious irreversible or incapacitating reversible illness, taking into account the toxicity of such waste, its persistence and degradability in nature, and its potential for assimilation, or concentration in tissue, and other factors that may otherwise cause or contribute to adverse acute or chronic effects on the health of persons or other living organisms, or any matter which may have an unusually destructive effect on water quality if discharged to ground or surface waters of the state. All special nuclear, source, or by-product material, as defined by the Atomic Energy Act of 1954, is specifically excluded from this definition.

“Household Hazardous Waste” (HHW) means any waste from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds and day-use recreation areas) that would be subject to regulation as hazardous wastes if it were not from households.

“Incinerator” means any structure or furnace in which combustion takes place, the primary purpose of which is the reduction in volume and weight of an unwanted material.

“Leachate” means liquid containing dissolved, suspended, or miscible materials that pass through or emerges from solid waste.

“Liquid waste” means any waste material that is determined to contain "free liquids" as defined by Method 9095A (Paint Filter Test), contained in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Pub. No. SW-846).

“Mercury-Added Consumer Product” means a device or material into which elemental mercury or mercury compounds are intentionally added during its formulation or manufacture and in which the continued presence of mercury is desired to provide a specific characteristic, appearance, or quality, or to perform a specific function. For the purposes of this Chapter “mercury-added consumer products” shall be those mercury containing products required to be labeled by 10 V.S.A. § 7106 ~~6621d~~ (a), namely:

- (1) A thermostat or thermometer.
- (2) A switch, individually or as part of another product.
- (3) A medical or scientific instrument.

- (4) An electric relay or other electrical device.
- (5) A lamp.
- (6) A battery, sold to the public, other than a button battery.

“Mining activity” means the process or business of extracting metals, minerals, rocks, or ores from the earth.

“Mining waste” means a solid waste from an industrial or manufacturing facility that processes materials from a mining activity and where chemicals are intentionally added as a part of that processing. Mining waste does not include commercial products from mined materials.

“Mineral processing waste” means a solid waste from an industrial or manufacturing facility that processes materials from a mining activity that is generated from the beneficiation, irrespective of the addition of chemicals, of rock or ore to separate and concentrate valuable minerals from waste material, remove impurities, or prepare the rock for further refinement. Mineral processing waste includes asbestos waste, except when that asbestos waste is disposed at a certified facility in accordance with § 6-802(a). Mineral processing waste does not include mining waste solely from cutting, shaping or finishing granite, marble, limestone, slate or other stones for monuments, buildings or other similar uses.

“Mobile HHW/CEG Hazardous Waste Collection Unit” means a vehicle or trailer used to collect Household Hazardous Waste (HHW) and/or hazardous waste from Conditionally Exempt Generators (CEG), at more than one location.

“Mobile Solid Waste Collection Operation” means the operation of a vehicle or trailer, or a container on or attached to such vehicle or trailer, used for collecting solid waste.

“Municipal Solid Waste” means combined household, commercial, and industrial waste materials generated in a given area.

“Operational Unit” means a discrete area of land or excavation that receives solid waste.

“Open Burning” means the burning of solid wastes in the open where the products of combustion are emitted directly into the atmosphere without passing through a stack, chimney, or other enclosure.

“Permitted Hazardous Waste Transporter” means a commercial hauler or transporter permitted to transport hazardous waste, pursuant to the Vermont Hazardous Waste Management Regulations.

“Person” means any individual, partnership, company, corporation, association, unincorporated association, joint venture, trust, municipality, the state of Vermont

or any agency, department or subdivision of the state, federal agency, or any other legal or commercial entity.

“Post closure” means the time period following closure.

“Processed Recyclable” means the product resulting from recyclable materials which have been treated by any method, technique or process.

“Recyclable Materials” means solid waste which may be reclaimed and/or processed so that they may be used in the production of materials or products.

“Recycle” means the process of utilizing solid waste for the production of raw materials or products, but shall not include processing solid waste to produce energy or fuel products.

“Recycling Facility” means a facility that accepts, aggregates, stores or processes recyclable materials.

“Regulated medical waste” (RMW) means that portion of waste generated in the medical industry which requires special handling and treatment prior to disposal.

- (a) The following types of solid waste are considered RMW:
- (1) Pathological waste: human tissues, organs, and body parts.
 - (2) Human blood, blood products and other body fluids, including but not limited to:
 - (A) All liquid waste human blood and blood products such as serum plasma and other blood components;
 - (B) Other potentially infectious liquid body fluids including cerebrospinal fluid, synovial, pleural, peritoneal and amniotic fluid; and
 - (C) Items saturated or dripping with blood or with potentially infectious body fluids and those caked with dried blood or with potentially infectious dried body fluids.
 - (3) Cultures and stocks of infectious agents: cultures and stocks of infectious agents including cultures from medical and pathological laboratories; cultures and stocks of infectious agents from research, industrial and educational laboratories; discarded live and attenuated vaccines; and culture dishes and devices used to transfer, inoculate, and mix cultures.
 - (4) Sharps: objects that are capable of cutting or penetrating the skin and inducing subdermal inoculation of an infectious agent. This includes needles, Pasteur pipettes, scalpel blades and other similar items. Discarded unused sharps are also considered RMW.
 - (5) Animal waste: animal carcasses, body parts, bedding, and other items from animals that the department of health or the agency of agriculture knows or suspects are contaminated with organisms

- that can produce disease in humans and concludes that disposal by burial or other ordinarily acceptable means of disposing of the waste would not sufficiently reduce the risk of transmission of a disease to humans or other animals.
- (6) Chemotherapy waste: any non-hazardous material containing cytotoxic/antineoplastic agents (agents toxic to cells) and/or antineoplastic agents (agents that inhibit or prevent the growth and spread of tumors or malignant cells) during the preparation, handling or administration of such agents. This waste includes, but is not limited to, masks, gloves, gowns, empty IV tubing bags and vials, and other contaminated materials.
 - (7) Infectious isolation waste: biological waste and discarded materials contaminated with blood, body fluids, excretion, exudates or secretions from humans who are isolated to protect others from dangerous communicable diseases.
 - (8) Biotechnological by-product effluents: any discarded preparation made from genetically altered living organisms (excluding plants) and their products.
- (b) Exclusions. The following types of solid wastes are not considered RMW:
- (1) Waste that has been identified or characterized as hazardous waste based on the compounds listed in the Vermont Hazardous Waste Management Regulations Appendix 3, U or P (Acute) list (40 CFR261.33) and is the sole active ingredient of the mixed formulation. The formulation may be hazardous if it exhibits any of the characteristics as described in §7-205 Ignitability, §7-206 Corrosivity, §7-207 Reactivity, §7-208 Toxicity, as presented in the Vermont HWMR.
 - (2) Corpses, remains and anatomical parts that are for ceremonial interment or ceremonial cremation.
 - (3) Nasal secretions, sputum, tears, sweat, urine, and vomitus unless they contain visible blood.
 - (4) Teeth.
 - (5) RMW generated in the home.
 - (6) Police evidence, other than sharps, that is held for more than one year in sealed packages.

“Residence” means a permanent structure where a person lives during some or all of a year.

“Reuse” means the use of a material or product more than once before it is recycled or discarded as solid waste.

“Saturated zone” means the zone in which the voids in the rock or soil are filled with water.

“Semi-permanent HHW/CEG Hazardous Waste Collection Unit” means either structures or equipment used for the collection and storage of Household Hazardous Waste (HHW) and/or hazardous waste from Conditionally Exempt Generators (CEG), which are transported between sites certified or approved by the Secretary and which may remain temporarily at that location.

“Septage” means the liquid and solid materials pumped from a septic tank or cesspool during cleaning.

“Sludge” means any solid, semisolid, or liquid generated from a municipal, commercial, or industrial wastewater treatment plant or process, water supply treatment plant, air pollution control facility or any other such waste having similar characteristics and effects.

“Solid Waste” means any discarded garbage, refuse, septage, sludge from a waste treatment plant, water supply plant, or pollution control facility and other discarded material including solid, liquid, semi-solid, or contained gaseous materials resulting from industrial, commercial, mining, or agricultural operations and from community activities but does not include animal manure and absorbent bedding used for soil enrichment or solid or dissolved materials in industrial discharges which are point sources subject to permits under the Water Pollution Control Act, 10 V.S.A., ch. 47. For the purposes of these rules, solid waste that is also hazardous waste is subject to further regulation under the Vermont Hazardous Waste Management Regulations.

“Solid Waste Management” means the activities that result in the storage, transportation, transfer, or treatment of solid waste or recyclable materials, or in the disposal of solid waste.

“Stabilized” refers to the condition of waste in which it no longer undergoes physical, chemical, or biological changes spontaneously.

“Storage” means the actual or intended containment of wastes, either on a temporary basis or for a period of years; in such a manner as not to constitute disposal of such wastes.

“Transfer” means to carry, remove, transport, or shift solid waste from one place, facility, vehicle, trailer, or container to another.

“Transfer Station” means a solid waste management facility where solid waste is collected, aggregated, sorted, stored and/or processed for the purpose of subsequent transfer to another solid waste management facility for further processing, treatment, transfer or disposal.

“Transport” or “transportation” means the movement of wastes by air, rail, road, highway, or water.

“Treatment” means any method, technique, or process, including neutralization, designed to change the physical, chemical or biological character or composition of any hazardous or solid waste, so as to neutralize such waste, or so as to recover energy or material resources from the waste, or so as to render such waste safer for transport, amenable for recovery, amenable for storage, or reduced in volume, or for hazardous wastes, so as to render such waste non-hazardous.

“Treatment standard for regulated medical waste” means the inactivation of vegetative bacteria, fungi, lipophilic/hydrophilic viruses, parasites, and mycobacteria at a 6 Log₁₀ reduction or greater; and inactivation of *B. stearothermophilus* spores or *B. subtilis* spores at a 4 Log₁₀ reduction or greater.

“Untreated Wood” means:

- (1) wood produced by splitting or chipping a whole tree, including wood, bark, tree tops, limbs and logging residue;
- (2) any timber, board, or sawn dimensional lumber which has not been treated, coated or preserved. The term “untreated wood” does not include any manufactured building material, such as (but not limited to) pressure treated wood, plywood, particle board, or waferboard;
- (3) sawdust produced solely by the primary processing of the acceptable materials described in this subsection; or,
- (4) fuel pellets produced from the acceptable materials described in this definition.

“Used Oil” means any petroleum product that has been refined from crude oil (in whole or in part), or any synthetic oil that has been used and as a result of such use is contaminated by physical or chemical impurities. Used oil is a free-flowing liquid at standard temperature and pressure and has a flash point of greater than 100 degrees (Fahrenheit).

“Vectors” means organisms or media (air, water, soil, etc.) that serve to transmit disease organisms.

“Waste” means a material that is discarded or is being accumulated, stored, or physically, chemically or biologically treated prior to being discarded or that has served its originally intended use and is normally discarded or that is a manufacturing or mining by-product and is normally discarded.

“Waste Management Boundary” means the outer perimeter of the area within which solid waste is stored, treated or disposed.

“Water Table” means the upper surface of the zone of saturation.

“Waters” means all rivers, streams, creeks, brooks, reservoirs, ponds, lakes, springs and all bodies of surface waters, artificial or natural, which are contained within, flow through or border upon the state or any portion of it.

“Working Face” means that portion of the discrete disposal facility where solid wastes are discharged and are spread and compacted prior to the placement of cover material.

Subchapter 3 -- APPLICABILITY AND ADMINISTRATION

6-301 General Applicability

- (a) These rules apply to persons storing, transporting, treating, disposing, recycling, or otherwise managing any solid waste facility, except as provided in § 6-301(b). Such solid waste management facilities, include, but are not limited to: storage, including transfer stations; transportation, incineration, recycling, composting or other processing or treatment; and discrete disposal facilities, land application or other solid waste disposal. These rules also apply to persons involved with solid waste planning activities pursuant to 24 V.S.A. § 2202a(c) (see Subchapter 4 - Planning).

- (b) The following are exempt from the provisions of these rules:
 - (1) The disposal of trees, stumps, yard waste, and wood chips generated from these materials, when the origin and disposal of such waste occurs on property under the same ownership or control.

 - (2) [Reserved].

 - (3) Small volumes of less than one cubic yard of wastes that exhibit all of the following characteristics:
 - (A) are stabilized, treated, or composted;

 - (B) are distributed in association with some other primary product (e.g., nursery stock, top soil);

 - (C) do not contain pathogenic or chemical contaminants above applicable standards (as specified in § 6-702(a)(10) and;

 - (D) pass the prequalifying tests specified in § 6-702(a)(10).

 - (4) Recycling facilities which accept, aggregate, store and/or process less than 50 tons of recyclable materials per year.

 - (5) Solid waste that has been treated or processed in a certified facility provided that the applicant demonstrates to the satisfaction of the Secretary that after treatment or processing the solid waste poses no threat to the environment, public health and safety and does not create a nuisance.

 - (6) Storage and compaction operations or activities managed by a solid waste generator or a consortium of generators, provided that the storage or compaction operations or activities will not result in the disposal of solid

- waste and will not create a nuisance. This exemption does not apply to sludge and septage storage facilities.
- (7) Mobile Solid Waste Collection Operations, provided that:
 - (A) the vehicle or trailer is registered and inspected as required by the Agency of Transportation.
 - (B) the vehicles, trailers, or containers used to collect solid wastes, must prevent the release of all solid wastes and related liquids; and
 - (C) solid wastes collected pursuant to such an operation are delivered to a certified waste management facility by the end of the next business day, or within 48 hours of collection, whichever is later.
 - (8) The transfer of solid waste by a commercial hauler from a vehicle or trailer used for the collection or storage of solid waste to another vehicle or trailer provided:
 - (A) the transfer meets the requirements of § 6-301(b)(7); and
 - (B) the receiving vehicle or trailer has a capacity not greater than 15 tons for solid waste or 10,000 gallons for liquid sludge or septage.
 - (9) Sludge management facilities located at wastewater treatment plants that are essential to the wastewater treatment process and are not used solely for the storage or treatment of sludge. Examples of exempt units include, but are not limited to, wastewater treatment lagoons and digesters.
 - (10) Septage, portable toilet, and holding tank wastes when disposed of at a municipal wastewater treatment facility or other non-diffuse disposal facility, as determined to be appropriate by the Secretary. This exemption does not, however, relieve operators of wastewater treatment facilities from complying with the reporting requirements set forth in Section 6-703.
 - (11) Collection of used oil and used oil filters provided that the collection is in compliance with all applicable used oil provisions of the Vermont Hazardous Waste Management Regulations, as may be amended, adopted pursuant to 10 V.S.A. Chapter 159.
 - (12) (A) Collection, storage, and treatment of regulated medical waste (RMW) by a regulated medical waste generator provided that:
 - (i) the type of RMW accepted is also produced by the generator; and

- (ii) the total amount of RMW accepted from other sources must be within the storage capacity of the site; and
 - (iii) the total amount of RMW accepted from other sources does not exceed the amount produced by the generator for that calendar year.
 - (B) This exemption does not relieve a regulated medical waste generator from the requirements of subsection (h) of section 6-302 or relieve the waste from meeting the requirements of subsection (b) of section 6-802 of this rule.
- (13) Cemeteries as defined in 18 V.S.A § 5302.
- (c) Insignificant Waste Management Event Approvals

Upon submittal of a written request and receipt of written approval from the Secretary, a person may engage in a waste disposal, storage, treatment or processing event of limited duration that will not result in a threat to the public health and safety or to the environment, and will not create a nuisance, without having received a Solid Waste Certification.
- (d) The Secretary may waive technical and siting requirements of these rules provided the following conditions are met:
 - (1) The President of the United States intends to perform a response action, as defined in 42 U.S.C. §9601(25), or the Secretary intends to perform a removal or remedial action, pursuant to 10 V.S.A. Chapter 159, in response to a release or threatened release of hazardous substances or materials; and
 - (2) The Secretary makes a prior written finding that:
 - (A) the proposed response action will not adversely affect public health, safety or the environment; and
 - (B) the technical and siting requirements will be complied with to the extent practical in light of the overall objectives of the response.

6-302 Prohibitions

The following are prohibited:

- (a) Open burning of solid waste except as may be allowed in accordance with the Air Pollution Control Regulations. The Secretary may require any person seeking to conduct the following types of open burning to obtain additional approval for such burning pursuant to § 6-301(c) of these rules:
 - (1) Burning of structures for the purpose of training firefighters; and
 - (2) Fires to thwart a hazard which cannot properly be managed by any other means or fires that are necessary for the protection of public health.
- (b) Combustion of solid waste in an incinerator unless the incinerator meets all requirements of the Air Pollution Control Regulations and these Rules.
- (c) Construction, substantial alteration, or operation of any solid waste management facility to which these rules apply without first obtaining certification or a modification of a certification from the Secretary in accordance with these rules.
- (d) Treatment, storage or disposal of solid waste outside of a certified facility except for the limited exemptions set forth in § 6-301(b) and (c) of these rules.
- (e) Disposal of septage, portable toilet, and holding tank wastes at a diffuse disposal facility.
- (f) Disposal of hazardous waste in solid waste discrete disposal facilities, with the exception of household hazardous waste.
- (g) Disposal of wastes listed in 10 V.S.A. § 6621a in a discrete disposal facility.
- (h) Disposal of regulated medical wastes which does not comply with the provisions of § 6-802(b) of this rule.

6-303 Certification

- (a) Any person wishing to store, treat or dispose of solid waste or otherwise construct, substantially alter or operate a solid waste facility as identified in § 6-301 of these rules shall file for and obtain certification in the manner set forth in § 6-304 and § 6-305. Facilities that qualify for categorical certification under § 6-309, categorical composting certification under § 6-1104, or categorical recycling certification under § 6-1207, shall file an application for categorical certification as required by those Sections.
- (b) Treatment or storage facilities for sludge or septage fenced area of a domestic wastewater treatment plant permitted under 10 V.S.A. Chapter 47 are exempt from obtaining certification provided that:

- (1) the treatment facility does not utilize a process to further reduce pathogens in order for the waste to qualify for distribution and marketing;
 - (2) the facility is not a sludge or septage drying bed, lagoon, or non-concrete bunker; and
 - (3) a sludge and septage management plan for the facility, as specified in §6-310(a), has been submitted to the Secretary and the Secretary has approved the plan.
- (c) Certification shall be for a period not to exceed 10 years, except for a sanitary landfill or a household hazardous waste facility which shall not exceed five years. A sanitary landfill that recirculates leachate shall be permitted for a period not to exceed three years and may be renewed only three times.
- (d) Except for facilities that qualify for a categorical certification under § 6-309, the Secretary may not certify a discrete disposal facility unless it is in compliance with the Groundwater Protection Rule and Strategy, as may be amended, adopted pursuant to 10 V.S.A. Chapter 48, Groundwater Protection; Vermont Water Quality Standards, as may be amended, adopted pursuant to 10 V.S.A. Chapter 47; and the laws of Vermont.

6-304 Application for Certification

- (a) Any person required to obtain certification under § 6-303 shall fully complete, sign and submit an application along with the appropriate fee, to the Secretary.
- (b) An application submitted by a corporation shall be signed by a principal executive officer of at least the level of vice-president or a duly authorized representative who is responsible for the operation of the facility. An application submitted by a partnership or a sole proprietorship shall be signed by a general partner or proprietor. An application submitted by a municipality, state, or other public entity shall be signed by a principal executive officer, ranking elected official or other duly authorized employee.
- (c) The Secretary shall not begin the processing of a certification until the applicant has fully complied with the application requirements, as identified by the Secretary, for the specific type of facility involved, including submittal of appropriate fees.
- (d) The completion of the application shall be accomplished under the direction of a professional engineer licensed in the State of Vermont, unless this requirement is specifically waived by the Secretary for that application. The engineer shall make appropriate use of other disciplines to assure compliance with all applicable standards contained or referenced in these rules. The engineer shall certify that to the best of his or her information, knowledge and belief the application is in

- compliance with such standards. If the Secretary waives the requirement that the completion of the application is accomplished under the direction of an engineer, then the applicant is required to certify that the application is in compliance with such standards.
- (e) Each application for certification shall be accompanied by a form provided for this purpose by the Secretary and the application shall include, at a minimum, the following information:
- (1) siting, design and operations information sufficient to show compliance with Subchapters 5, 6 and 7 of these rules, or, in the case of Storage, Transfer and Recycling Facilities, with Subchapters 5 and 12;
 - (2) (A) the name, mailing address, and phone number of the facility, and the name, signature, mailing address, and phone number of the owner of the facility, the operator of the facility, and the owner of the land on which the facility is located.

(B) If the operator does not own the land on which the facility is to be located, the owner of the land must sign the application for certification as a co-applicant and agree to be bound by the terms of the certification, unless the proposed facility is for the management of sludge or septage in which case the operator may provide a lease for a term consistent with the term of the certification and which does not conflict with the requirements of these rules. The requirements of this subsection (e)(2)(B) do not apply to diffuse disposal facilities;
 - (3) the name, mailing address, and phone number(s) of the primary and any secondary contact persons;
 - (4) the name, signature, mailing address and phone number of the person preparing the application;
 - (5) the type of solid waste management facility including all operational units;
 - (6) the location of the facility, using the Vermont plane coordination system on the appropriate Vermont orthophoto tax map or through the use of a ground position system. The application shall also include a description of the limits on its horizontal and vertical development of the facility;
 - (7) a description of the proposed operation and future development of the facility in accordance with the engineering plans;
 - (8) the amounts and types of materials to be managed at the facility;

- (9) information sufficient, as defined by the Secretary pursuant to 10 V.S.A. Chapter 48, to show that the property on which the facility is located is classified as a Class III or Class IV groundwater area;
 - (10) evidence of compliance with the financial responsibility and capability requirements of Subchapter 9 of these rules, or a plan for achieving compliance with these requirements prior to the issuance of a draft certification;
 - (11) unless otherwise exempt under Subchapter 10 of these rules, a closure and post-closure plan along with cost estimates, as defined in Subchapter 10;
 - (12) evidence of fee simple title to or a lease agreement consistent with subsection (e)(2)(B) of this section. This requirement does not apply to diffuse disposal facilities;
 - (13) evidence that the application complies with the planning requirements of 10 V.S.A. § 6605(c). Such evidence may consist of a written supporting statement from the appropriate municipality, solid waste management district, solid waste alliance or regional planning commission that identifies the relevant part(s) of the plan(s). This evidence is not required in the case of a sludge or septage land application project;
 - (14) evidence of compliance with the disclosure requirements of the waste management personnel background review, pursuant to 10 V.S.A. 6605f;
 - (15) in the case where a municipal solid waste discrete disposal facility is proposed to be located within a 5 mile radius of an airport runway serving piston-driven or turbojet aircraft, evidence that the applicant has notified the Federal Aviation Administration (FAA) and the affected airport; and
- (f) When a solid waste management facility includes more than one operational unit, such as multiple sites used for the land application of septage or sludge, the information required for the certification application shall be provided for all involved units.
 - (g) Applicants shall keep records of all data used to complete applications and supplemental information submitted to the Secretary for a period of at least six years from the date on which the application is signed, unless otherwise authorized by the Secretary.
 - (h) (1) Except as provided in § 6-306(c), each application shall include a plan for effective public notice of the application. Such plan shall include provisions for a notice of the application to the general public by advertisement in at least two newspapers of general circulation in the area of the proposed facility, one of which shall be a regional weekly

newspaper if one is available. The applicant shall provide the Secretary with a list of the names and mailing addresses of persons and entities that are to receive the public notice prior to distribution. The plan shall include provisions for sending notices of the application to:

- (A) the legislative body of the municipality in which the facility is proposed to be or is located and to any adjacent Vermont municipality if the facility is proposed to be or is located on a boundary;
 - (B)
 - (i) For all facilities except those specified in subsection (h)(1)(B)(ii), (iii), and (iv) of this section, all residences and landowners within a one-half mile radius of the property boundary of the facility or the nearest 100 residences and landowners, whichever is the lesser number;
 - (ii) For diffuse disposal facilities, all residences and landowners within 500 feet of the proposed diffuse disposal area, and to all adjoining residences and landowners;
 - (iii) For sludge and septage storage and treatment facilities which are located at a wastewater treatment plant, except for those facilities treating the material to achieve PFRP (Process to Further Reduce Pathogens), all adjoining residences and landowners within 1000 feet of the facility; and
 - (iv) For all facilities, except diffuse disposal facilities, whose applications are determined to be minor by the Secretary, all adjoining residences and landowners.
 - (C) any other state agency or subdivision thereof that has issued or may be required to issue a permit for the facility; and
 - (D) the regional planning commission and the solid waste district or municipal alliance serving the town where the facility is located.
- (2) Except in the case of public notices of minor applications, the Secretary may reduce, for good cause shown, the requirements of subsection (h)(1)(B) of this section if he or she finds that fewer notifications will still provide an effective notice of the application.
- (3) The public notice shall give general background information on the application (e.g. facility type, location, materials to be managed) and set forth the process for review of the application including opportunities for

public participation. The notice shall be prepared and distributed by the applicant, but shall be approved by the Secretary prior to distribution.

- (4) The notice must also include the Agency's address.

6-305 Review of Applications for Certification and Minor Applications for Certifications

- (a) The following procedure applies to the review of applications for certification, except as provided in subsection (b) of this section:
 - (1) Within 15 days of the receipt of a certification application, the Secretary shall review the application for administrative completeness, and shall notify the applicant in writing that the application is either administratively complete or incomplete. If the Secretary determines that the application is administratively incomplete, the Secretary shall specify what information is missing or lacking and state that the Secretary's technical review of the application will begin only when it is determined to be complete.
 - (2) Upon the Secretary's determination that an application, including the plan for public notice required by § 6-304(h) of these rules is administratively complete, the applicant shall provide public notice of the application in accordance with the plan and shall ensure that at the time public notice is provided a complete application is on file with the municipality where the facility is to be located.
 - (3) The notice of application shall include the information listed in § 6-304(h)(3). The applicant shall provide a printed copy of the newspaper notice(s) to the Secretary.
 - (4) The period for the receipt of public comment on the notice of application shall end no sooner than 15 days after the date of the latest newspaper publication date.
 - (5) Review of Application.
 - (A) The Secretary shall review the application for conformance with these rules, as well as other applicable requirements of 10 V.S.A. chapter 159. In conducting this review, the Secretary shall take into consideration the comments received.
 - (B) The Secretary shall inform the applicant, in writing, of the Secretary's determination that the application conforms or does not conform with this subchapter.

- (i) If the application conforms with the rules:
 - (I) The Secretary shall issue a fact sheet, briefly setting forth the basis of the draft certification, and a draft certification.
 - (II) The applicant shall ensure that a complete copy of the conforming application is on file in the municipality where the facility is to be located.
 - (ii) If the application does not conform to these rules or any other applicable requirement of 10 V.S.A. Chapter 159, a written denial shall be sent to the applicant along with the reasons for the denial.
 - (C) When reviewing a renewal application for a sanitary landfill that recirculates leachate the Secretary shall review the research objectives established for the project and evaluate whether the project achieved those objectives. The Secretary may, at the Secretary's sole discretion, terminate the project if it is determined that the project does not achieve the objective.
- (6) [Reserved].
- (7) Copies of the fact sheet and draft certification shall be sent to the applicant, to the municipalities, solid waste districts, regional planning commissions, and any other state agencies or subdivision thereof who received the notice of application under § 6-304(h) and to any other person who, in writing, requests the document.
- (8) The Secretary shall provide notice, by advertisement in at least two newspapers of general circulation in the area of the proposed facility, one of which shall be a regional weekly newspaper if one is available, of the issuance of each draft certification, and of the opportunity for public comment. The period for receipt of public comments shall be specified in the notice and shall end no sooner than 22 days following the notice or 14 days following a public informational meeting, if one is held pursuant to subsection (a)(9) of this section, whichever date is later. This notice must include information on how and where the public may obtain copies of pertinent documents. Such documents must be available at reasonable times and expense.
- (9) The Secretary shall hold a public information meeting to receive comment on the draft certification if it is requested within the public comment period specified in subsection (a)(8) of this section through petition by the

selectmen of any town, the trustees of an incorporated village, a city council, the appropriate officials of affected Agencies or subdivision thereof, or 25 or more citizens from within the municipality or adjacent municipalities where the facility is located. The Secretary may also hold a public informational meeting on his or her own motion. The Secretary shall provide public notice of the date and purpose of any such informational meeting by advertisement in at least two newspapers of general circulation in the area of the proposed facility, one of which shall be a regional weekly newspaper if one it available. Any public informational meeting shall be held no sooner than 14 days after the date of the public notice required by this subsection.

- (10) Prior to the issuance of a final certification, the Secretary shall prepare a summary of the comments with responses noting all changes to the draft certificate with reasons stated for those changes. If the issuance of a final certification is denied, the Secretary shall send a written denial to the applicant, which shall explain the reason(s) for the denial.
 - (11) When issuing draft or final certifications, the Secretary may impose any conditions, requirements or restrictions as deemed necessary to assure compliance with statutes, rules or to protect public health and safety and the environment.
- (b) The following procedure applies to applications which the Secretary determines to be minor:
- (1) For the purposes of this Subsection, an application may be deemed to be minor if the Secretary determines that, given the nature of the facility, scale of the operation, and kinds of activities, the facility for which certification application is made will not pose a significant threat to public health and safety or the environment or cause a nuisance. With the exception of recycling facilities, applications for certification of solid waste management facilities not previously certified may not be deemed minor by the Secretary. Re-certification of solid waste incinerators and solid waste discrete disposal facilities, with the exception of post-closure certifications, shall not be deemed minor by the Secretary. Applications for recertification which the Secretary may determine to be minor include, but are not limited to, the following:
 - (A) minor expansions of, or changes to, currently certified facilities;
 - (B) amendments to diffuse disposal facility certifications where not more than 25% of the acreage used for diffuse disposal is changed;
 - (C) recertification of facilities, or amendments to current certifications, for facilities regulated under Subchapter 12 of these rules;

- (D) recertification of facilities, or amendments to current certifications, for food and yard waste composting facilities not otherwise regulated under Subchapter 11 of these rules;
 - (E) recertification of facilities, or amendments to current certifications, for construction and demolition debris treatment and processing facilities; or
 - (F) recertification of facilities, or amendments to current certifications, for facilities previously certified under the minor application process.
- (2) Within 15 days of the receipt of a certification application, the Secretary shall review the application for administrative completeness, and shall notify the applicant in writing that the application is either administratively complete or incomplete and whether the application will be reviewed according to the procedures set forth in this section. If the Secretary determines that the application is administratively incomplete, the Secretary shall specify what information is missing or lacking and state that the Secretary's technical review of the application will begin only when it is determined to be administratively complete.
- (3) Upon the Secretary's written determination that an application for a minor certification conforms with the rules, the applicant shall provide notice, pursuant to § 6-304(h)(1), that:
- (A) the Secretary has reviewed the application in accordance with the provisions of § 6-305(b) and has determined that the application complies with the rules;
 - (B) a draft certification based on the application has been developed; and
 - (C) a final certification is intended to be issued at the expiration of 14 days from the date of the latest newspaper publication without convening a public informational meeting unless a written request for a public informational meeting and extension of the public comment period, signed by at least 25 residents of the municipality wherein the facility is proposed to be located, by the legislative body or planning commission of the municipality wherein the facility is proposed, by a governing solid waste management district, municipal alliance, or regional planning commission, or by an adjoining landowner or resident, is received by the Secretary no later than 14 days after the date of the latest newspaper publication.

The applicant shall ensure that a complete copy of the application is on file with the municipality where the facility is located, at the time public notice is provided. The applicant shall provide a printed copy of the newspaper notice(s) to the Secretary.

- (4) If a written request for a public meeting and extension of the public comment period is received by the Secretary within fourteen days from the date of latest newspaper publication, or upon the Secretary's own motion, the Secretary shall:
 - (A) schedule and convene a public informational meeting to be held no less than fourteen days after completion of the public comment period;
 - (B) extend the public comment period for a period not less than seven days and not more than fourteen days from the date of the public informational meeting; and
 - (C) publish notification of the meeting, together with notification of an extension of the public comment period in the same newspapers in which the prior notification of the application was provided.
- (5) A responsiveness summary summarizing relevant public comment and the Secretary's response to relevant comment, together with any changes to the draft certification, shall be developed and made available to any interested public along with the final decision.
- (6) Notwithstanding any other provision of this subsection, the Secretary may require that any application be processed according to the full procedures of subsection (a) above.

6-306 Interim Certification

- (a) A person who does not qualify for a solid waste management certification under the statutory or regulatory requirements may be issued an interim certification. Such interim certifications cannot be issued unless the Secretary makes findings, as set forth in 10 V.S.A. § 6605b.
- (b) The applicant for an interim certification shall submit all of the information required in § 6-304. In addition, the applicant shall submit:
 - (1) evidence of the necessity of facility operation and public benefits derived from operation;

- (2) an assessment of currently available methods to manage the wastes stored, treated, or disposed at the facility;
 - (3) a schedule to complete activities resulting in proper closure or full certification of the facility;
 - (4) monitoring plans for groundwater, surface water and air quality including summaries of existing available data;
 - (5) evidence that the construction, alteration, continued operation of the facility or continuation of the activity is consistent with regional solid waste plans, if any, and the state waste management plan; and
 - (6) any other information the Secretary may require.
- (c) Interim certification procedures shall be identical to the procedures set forth in § 6-305 for full certification except that where the applicant cannot demonstrate that the facility qualifies for a facility certification pursuant to § 6-304 the Secretary may issue an interim certification subject to the findings and conditions established in 10 V.S.A. § 6605b.
- (d) An interim certification shall be valid only for a period of time, not to exceed two (2) years, for an applicant to meet the requirements of full certification or closure, and may not be renewed more than once.
- (e) An interim certification shall contain, at a minimum, all provisions required by 10 V.S.A. § 6605b~~(e)~~.

6-307 Amendment or Revocation of Certification or Interim Certification

Any certification or interim certification issued pursuant to these rules may be amended, suspended or revoked, in whole or in part, during its term for cause, including but not limited to the causes set forth in subsection (1) of this section.

- (1) The Secretary may amend any certification or interim certification upon his or her own motion or upon a written request by the certification holder containing facts and reasons supporting the request. If the Secretary determines that amendment is appropriate, only the conditions subject to the amendment shall be reopened. All amendments under this section shall be performed in accordance with the procedures and requirements of these rules. Until amendments are granted or denied in whole or in part, all terms and conditions of the original certification shall remain in full force and effect. Amendments to a certification may be made for cause, including:

- (A) material and substantial additions or alterations to the facility or the facility's activities or any other change in conditions, that occurred after certification which justify the application of conditions different or absent from the existing certification;
 - (B) the receipt of information that was not available when the certification was issued which justifies the application of conditions different or absent from the existing certification;
 - (C) the statutes, standards or rules, on which the certification was based; were revised by adoption or judicial decision after the certification was issued and those revisions justify the application of conditions different or absent from the existing certification;
 - (D) the determination by the Secretary that other good cause exists for amendment, necessary to protect the public health and safety and the environment;
- (2) A certification or interim certification may be suspended or revoked, in whole or in part, during its term for cause upon a motion by the Secretary or upon a written request containing facts and reasons supporting the request. The certification holder shall be given written notice at least 14 days before suspension or revocation takes effect. Written notice shall include a statement of the reasons for suspension or revocation and notice of the certification holder's right to request a hearing or otherwise present information on the suspension or revocation issues. If the certification holder submits a written request for a hearing within 14 days of the date such notice is issued, the Secretary shall provide an opportunity to be heard. If the Secretary determines that only immediate suspension or revocation of a certification or interim certification can alleviate an immediate and substantial hazard to public health and safety or the environment, suspension or revocation shall become effective upon receipt of the written notice by the applicant. In such cases, the certification holder may still request a hearing, although the suspension or revocation will be in effect until the hearing has been completed and a decision has issued. The Secretary shall hear the matter at the earliest possible time. Cause for suspension or revocation includes:
- (A) non-compliance with the requirements of 10 V.S.A. Chapter 159, these rules, or any condition of certification;
 - (B) failure to disclose all relevant facts during the certification process that were known or should have been known, at that time;
 - (C) misrepresentation of any relevant fact at any time; or

- (D) a determination by the Secretary that only the suspension or revocation of a certification or interim certification can alleviate an actual or potential hazard to public health or the environment.
- (3) The Secretary may make *de minimis* modifications to a certification without following the procedures set forth in these rules where the Secretary finds that the modifications pose no threat to public health and safety or to the environment and will not create a nuisance, as determined by the Secretary.

6-308 Recertification

- (a) A facility may be recertified upon following all application requirements according to the provisions of the latest certification and these rules.
- (b) Notwithstanding subsection (a), a person may apply for recertification of a facility in accordance with the following:
 - (1) Upon review of the information currently on file with the Agency, the person shall identify in writing what information required under § 6-304 of these rules is on file in the Agency and will not be resubmitted because there has been no change since the last certification application; and
 - (2) The person submits all documentation reflecting a change in the design, management or operation of the facility, including but not limited to information that must be updated according to §§ 6-304(e)(6), (10), (11), and (14) of these rules.

6-309 Categorical Disposal Certifications

- (a) Applicability.
 - (1) The disposal of solid wastes specified in subsection (b) of this section, may qualify for a categorical disposal certification provided that the requirements of subsection (d) of this section are satisfied and the applicant has met the notice requirement of subsection (c) of this section. Certifications issued pursuant to this section shall not exceed a duration of five years. The holder of a categorical certification must comply with the standards and operating and reporting requirements of subsections (d) and (e) of this section.
 - (2) No later than January 1, 2002, any person operating a facility which was granted categorical certification prior to the effective date of these rules shall re-apply for and receive categorical disposal certification or shall cease operation of the facility.

- (b) Solid waste categories. A person that disposes of one or more of the following categories of solid wastes is eligible for certifications pursuant to this section, provided that the requirements of subsection (d) of this section are satisfied:
- (1) stumps, brush, or untreated wood;
 - (2) bituminous concrete;
 - (3) rinsed non-recycled glass;
 - (4) concrete, masonry, mortar, porcelain, pottery, tile, and clay pipe;
 - (5) street sweepings;
 - (6) car wash grit and municipal separated storm sewer catch basin grit provided that the applicant demonstrates that the solid waste does not leach volatile organic compounds which exceed groundwater enforcement standards;
- (c) Notice. On or before the date of filing any certification application for a facility, the applicant shall send notice and a copy of the application to the municipality where the facility is proposed to be or is located and any adjacent Vermont municipality if the facility is located on a boundary. The applicant shall furnish the secretary the names of those noticed of the application.
- (d) Application requirements. In order to qualify for a categorical disposal certification, an applicant shall submit to the Secretary an application which provides the information in (1) through (5) and which demonstrates compliance with the siting limitations in (6):
- (1) Site location map and sketch showing the facility size and location;
 - (2) Names of the owner of the land, the operator of the facility, along with business addresses and telephone numbers;
 - (3) Hours of operation;
 - (4) An estimate of the type and quantity of materials to be received;
 - (5) A letter from the municipality, municipal alliance or solid waste district serving the town where the facility is located that indicates the disposal facility is acceptable under the solid waste implementation plan, if any; and
 - (6) Information which addresses the following siting limitations:

- (A) The facility is not located in a Class I or Class II Groundwater Area; in a watershed for Class A Waters; in Class I or Class II wetlands or their associated buffer zones, as defined in the Vermont Wetlands Rules, unless a Conditional Use Determination has been issued by the Agency; or in Class III wetlands, as defined by the Vermont Wetlands Rules, unless a Water Quality Certification, pursuant to 40 CFR Part 401, has been issued or waived by the Agency;
 - (B) Disposal shall not occur within the floodway or within the 100 year floodplain;
 - (C) Disposal shall not occur within 300 feet of a public highway, or the property line(s) of lands owned by others unless the applicant can demonstrate that a reduced distance will not result in objectionable odors off site of the facility, unreasonable visual impact off site of the facility, unreasonable increase in level of noise detected off site of the facility, creates a nuisance and shall not create a condition that otherwise adversely affects public health. In no instance shall the distance be less than 50 feet;
 - (D) (i) Disposal shall not occur within:
 - (I) the source isolation zone of a public water supply, or within 200 feet of the source of a public drinking water supply, whichever is greater.
 - (II) within 200 feet of the source of a private drinking water supply.
 - (ii) If disposal is proposed within the source protection area of a public water supply, the location of the disposal area and the delineated source protection area shall be identified on a site map; and
 - (E) Disposal shall not occur within 100 feet of Class B Waters, as designated by the Water Resources Board or the Natural Resources Board.
 - (F) Animal and wildlife carcass disposal shall not occur within three ~~(3)~~ feet of seasonal high groundwater or within six feet of bedrock.
- (7) The Secretary may require additional siting limitations as may be necessary to protect public health and safety, or the environment.

- (e) Operational and reporting requirements. A certification issued by the Secretary shall contain, at a minimum, the following operating and reporting conditions:
- (1) The solid waste shall be covered and the disposal area shall be graded when closing the facility. A minimum cover shall consist of at least one foot thickness of a silty fine sand or other material capable of sustaining vegetation. The Secretary reserves the authority to require more frequent cover requirements;
 - (2) Access to the disposal facility shall be controlled at all times by a fence or barrier and a lockable gate. An attendant shall be present to assure that only the waste allowed by the categorical disposal certification is disposed of at the facility, to perform record keeping and to observe disposal during the hours of operation;
 - (3) The siting limitations, set forth in subsection (d)(6) of this section are maintained;
 - (4) The facility operator shall make reports to the Secretary on forms developed by the Secretary. The facility operator shall file a report with the Secretary quarterly or as specified in the facility certification; and
 - (5) The Secretary may require any additional operational requirements in the certification, including financial responsibility or capability requirements set forth in subchapter 9 of these rules, if it is determined necessary to protect public health, safety, or the environment.
- (f) If the Secretary determines that the proposed categorical facility size, processes, disposal activities, or the nature of the solid wastes require additional review and oversight not provided by this section, the Secretary may require that the person apply for a certification pursuant to § 6-304.

6-310 Sludge From Domestic Wastes

- (a) All owners of wastewater treatment plants that generate sludge as a result of the treatment of any domestic waste shall submit sludge management plans to the Secretary for review and approval. The plans shall identify the owners and operators of the plants and shall include a contingency plan, a spill response plan, a reporting plan, information demonstrating conformance with an approved Solid Waste Implementation plan, and information regarding methods of sampling and disposal.
- (b) All owners of wastewater treatment plants that generate sludge as a result of the treatment of domestic waste shall report to the Secretary on a quarterly basis. The reports shall include the quantity of sludge removed, sludge quality (when

required), and the location where the sludge was delivered for management or disposal.

6-311 Environmental Impairment

- (a) If the operation of a facility, which is otherwise in compliance with its certification, interim certification, or categorical certification results in an emission or discharge that poses a threat to public health and safety or the environment, the Secretary may, under the authority of 10 V.S.A. §6610a, require the operator to perform certain activities including, but not limited to:
 - (1) Additional monitoring of the surface water, groundwater, soils, or air;
 - (2) Other investigations of the site necessary to determine the nature and extent of the emission or discharge and any contamination resulting from the emission or discharge; or
 - (3) Removal and remedial actions necessary to prevent further contamination, to address the existing contamination, and to meet applicable environmental quality and public health standards.
- (b) In situations where the Secretary determines that only the cessation of operations can alleviate the hazard posed by a facility, certification suspension or revocation proceedings under § 6-307(2) may be initiated. The Secretary may also pursue such other and/or additional remedies authorized under Vermont law.

6-312 [REPEALED]

Subchapter 4 -- PLANNING

6-401 State Plan

Pursuant to 10 V.S.A. § 6604, the Secretary shall publish and adopt a waste management plan that sets forth a comprehensive state-wide strategy for the management of waste.

6-402 Solid Waste Implementation Plans

Pursuant to 24 V.S.A. §2202a(c)(2), each regional planning commission is required to work cooperatively with municipalities within the region to prepare a solid waste implementation plan for adoption by all the municipalities within the region which are not members of a solid waste district. The plan must conform to the state solid waste management plan and describe in detail how the region will achieve the priorities established by 10 V.S.A. §6604(a)(1). Each solid waste district is required to adopt a solid waste implementation plan that conforms to the state waste management plan, describes in detail how the district will achieve the priorities established in 10 V.S.A. §6604(a)(1), and is in conformance with any regional plan adopted pursuant to 24 V.S.A., chapter 117.

6-403 State Approval of Solid Waste Implementation Plans

- (a) The Secretary shall review the solid waste implementation plan of a regional planning commission, municipality, solid waste alliance or solid waste management district and evaluate the plan for conformance with the state solid waste management plan in the following situations:
 - (1) upon the request of the regional planning commission, municipality, solid waste alliance or district responsible for preparing the plan; or
 - (2) whenever there is good cause, including significant changes or amendments to municipal solid waste implementation plans or to the state waste management plan.
- (b) The Secretary shall approve the solid waste implementation plan of a municipality, solid waste alliance, or solid waste management district upon a determination that the plan conforms to the state solid waste management plan. In determining conformance of a solid waste implementation plan with the state plan, the Secretary must find that all planning activities and items required by the state solid waste management plan have been adequately addressed or considered in the plan.
- (c) Prior to approving the solid waste implementation plan of a municipality, solid waste alliance, or solid waste district, the Secretary must also find that the public has had an appropriate opportunity to participate in the plan's development. This finding shall be based on a demonstration of early and continual efforts by the

municipality or district to notify and involve interested and potentially affected members of the public in the decisions being contemplated through the planning process.

- (d) Approval of the solid waste implementation plan by the Secretary establishes acceptance of siting decisions identified within the plan, unless the approval is expressly qualified or conditioned by the Secretary

Subchapter 5 -- SITING

6-501 General

- (a) The requirements of this Subchapter apply to solid waste management facilities certified under §§ 6-303 through 6-305, and under Subchapter 12 of these rules.
- (b) The requirements of this subchapter shall not apply to facilities that meet the requirements for categorical certification pursuant to:
 - (1) § 6-309 of these rules.
 - (2) §§ 6-1104 and 6-1105 of these rules.
 - (3) § 6-1207 of these rules.

6-502 Prohibited Areas

- (a) Facilities are prohibited from being sited in the following designated areas:
 - (1) In the case of discrete disposal facilities, in the Green Mountain National Forest except for a one half mile corridor drawn from the center line of the right of way of each Federal and secondary highway or as approved by the National Forest Service. This prohibition does not apply to diffuse disposal facilities;
 - (2) Class I and Class II Groundwater Areas;
 - (3) Class I and Class II wetlands and their associated buffer zones, as defined in the Vermont Wetlands Rules, unless a Conditional Use Determination has been issued by the Agency;
 - (4) Class III wetlands, as defined by the Vermont Wetlands Rules, unless a Water Quality Certification has been issued pursuant to 40 CFR Part 401, or has been waived by the Agency;
 - (5) A National Wildlife Refuge as designated by the United States Fish and Wildlife Service;
 - (6) A wildlife management area as designated by the Agency;
 - (7) A threatened or endangered species habitat area as designated by the Agency, except for diffuse disposal facilities;
 - (8) A watershed for a Class A Waters, as designated by the Vermont Water Resources Board or the Natural Resources Board;

- (9) In the case of discrete disposal facilities, within the floodway or within the 100 year flood plain;
- (9) In the case of discrete disposal facilities, within the floodway or within the ~~one hundred~~ (100) year flood plain;
- (11) Within 500 feet of an Outstanding Resource Waters as designated by the Vermont Water Resources Board or the Natural Resources Board. This criterion does not apply to previously certified subchapter 12 facilities where there is no expansion of the facility beyond the previously certified waste management boundary;
- (12) In cases of diffuse disposal facilities, within zone 1 or 2 of an approved Public Water Supply Source Protection Area, except that the Secretary may, on a case-by-case basis, make a determination that a diffuse disposal facility may be sited in zone 2 of an approved surface water a Public Water Supply Source Protection Area.
- (13) In the cases of discrete disposal, no facilities shall be located:
 - (A) within the Source Protection Area of a public water system using a groundwater source.
 - (B) within zone 1 or zone 2 of a Source Protection Area for a public water system using a surface water source.

6-503 Siting Standards

- (a) General Performance Standard. Facilities shall be located such that an emission or discharge from the facility will not unduly harm the public health and will have the least possible reasonable impact on the environment.
- (b) In order to meet the general performance standard of subsection (a) of this section, the operator must satisfactorily demonstrate the following:
 - (1) that the isolation distances from the high seasonal water table, bedrock, and waters are sufficient to assure that an emission or discharge from the facility will meet all applicable environmental quality and public health standards and rules;
 - (2) that the isolation distance to public and private drinking water sources is sufficient to assure that an emission or discharge from the facility will not adversely affect drinking water;

- (3) that the isolation distances to property lines, or any of the following not owned by the applicant: residences, schools, day care facilities, hospitals, and nursing homes, are sufficient to assure that the facility will not:
 - (A) result in objectionable odors off site of the facility;
 - (B) result in an unreasonable visual impact off site of the facility;
 - (C) unreasonably increase the level of noise detectable off site of the facility; or
 - (D) otherwise adversely affect public health.
- (4) That the minimum isolation distances for the facility or activity listed in Table A are met, or sufficiently increased, to make the demonstration under subdivisions (1), (2), and (3) of this subsection. Any facility, which is not listed in Table A, shall have an isolation distance to property lines of at least 50 feet.
- (5) that the facility is not located in areas that have serious development limitations, such as highly erodible soils, steep slopes, or do not have the physical capability to support the facility;
- (6) that the facility is accessible from a state or federal highway or a Class III or better town highway; and
- (7) Discrete disposal facilities which may attract birds located within 10,000 feet of a runway used by turbojet aircraft, or 5,000 feet of a runway used only by piston-type aircraft, shall not pose a bird hazard to aircraft.
- (c) The Secretary may request any additional information necessary to determine if a proposed facility meets the standards contained in this section.
- (d) Facilities in existence as of February 1, 1989 which are used for the storage and treatment of sludge and septage and located at a Wastewater Treatment Plant are exempt from the requirements of this section.

Table A- Required Minimum Isolation Distances

CATEGORY	FACILITY TYPE			
	Diffuse Disposal ¹ Injection	Other	Discrete ² Disposal	Subchapter 12 facilities
Minimum Vertical Separation from High Seasonal Water Table ³	3'	3'	6'	n/a
Minimum vertical separation to bedrock	3'	3'	10'	n/a
Minimum distance to waters from the waste management boundary	50'	100'	300'	100' ⁴
Minimum distance from waste management boundary to drinking water source not owned by the applicant.	300'	300'	1000'	100' ⁴
Minimum distance to property line from waste management boundary	25'	50'	300' ⁸	50' ⁶
Minimum distance from waste management boundary to residences, schools, daycare facilities, hospitals, and nursing homes, not owned by the applicant	100'	100'	1000' ⁵	100' ⁷

¹ Diffuse disposal, or land application, applies to sludge and septage distributed over an area of land at a controlled rate to make efficient use of its nutrient and/or soil amendment value.

² Minimum criteria for a discrete disposal facility are based on underlying soils with a maximum permeability of 1×10^{-4} cm/sec. Discrete disposal sites with more permeable soils will be evaluated on a case by case basis, but are generally not acceptable.

³ For diffuse disposal the three foot minimum vertical separation shall be measured from the ground surface, or bottom of the zone of incorporation, to the saturated zone existing at the time of disposal. For discrete disposal the vertical separation shall be measured from the bottom of the discrete disposal facility liner system to the seasonal high groundwater table.

⁴ These criteria apply only to facilities constructed after July 1, 1998 or to modifications after July 1, 1998 of existing facilities.

⁵ These criteria apply only to certifications issued after October 15, 2004 for new discrete disposal facility landfill units or lateral expansions of previously certified existing discrete disposal facility landfill units.

⁶ These criteria apply only to facilities constructed after July 1, 1998. The Secretary may approve a distance which is less than 50 feet if the operator makes a satisfactory demonstration under § 6-503(b)(3).

⁷ These criteria apply only to initial certification of new facilities or modifications of existing facilities certified after October 1, 2004.

⁸ These criteria apply only to certifications issued after October 15, 2004 for new discrete disposal facility landfill units or lateral expansions of previously certified discrete disposal facility landfill units. The minimum distance to the property line is 50 feet for discrete disposal facility landfill units certified prior to October 15, 2004. This criteria does not apply to any facility located on or adjacent to property sought by a solid waste district through an eminent domain proceeding, pursuant to 24 V.S.A. § 2299a et seq., which was initiated prior to June 24, 2002, provided that the district that demonstrated the necessity in the eminent domain proceeding acquired the property. The minimum distance for such municipal facilities shall be 100 feet.

Subchapter 6 -- DESIGN STANDARDS

6-601 General

- (a) Design of all solid waste management facilities shall be addressed in a facility management plan that contains a basis of design and an operating plan for all facility components. The plan shall contain sufficient information to permit the Secretary to determine whether the facility conforms to the provisions of these rules. §§ 6-604 through 6-606 provide the criteria which must be specifically addressed for each component of a solid waste management facility.
- (b) The requirements of this subchapter shall not apply to facilities that meet the requirements for categorical certification pursuant to:
 - (1) § 6-309;
 - (2) §§ 6-1104 and 6-1105; or
 - (3) § 6-1207.

6-602 Submittals

- (a) The management plan documentation shall be prepared under the direction of an engineer, licensed in the State of Vermont, unless the Secretary specifically waives the requirement that an engineer be involved.
- (b) The engineer shall make appropriate use of available expertise for evaluating geology and hydrogeology, soils science, air pollution control and impacts, and other areas of specialized knowledge which may be required to assemble a management plan.

6-603 Site Characterization

A facility management plan document must be developed by the applicant. Except for facility management plan documents prepared for facilities regulated under Subchapter 12 of these rules, this document shall include information necessary to fully characterize the site and the facility operation. Such site characterization shall be adequate to determine all mechanisms of emission or discharge to the environment and to allow modeling of contaminant transport with a level of resolution sufficient to determine compliance with applicable environmental quality standards (e.g., drinking water, surface water or groundwater quality, or air quality standards). At a minimum, the site characterization must address, unless deemed nonapplicable by the Secretary:

- (a) soils and surficial geology;

- (b) bedrock geology;
- (c) integrated groundwater geology and geochemistry;
- (d) topography;
- (e) surface water;
- (f) groundwater location and flow direction;
- (g) air quality; and
- (h) airshed characteristics such as prevailing wind speed and direction, meteorology, and climatology.

6-604 Treatment Facilities

- (a) General Performance Standards
 - (1) All treatment facilities shall result in a chemical, biological, or physical improvement in the wastes being treated such that there is a reduction in the threat to public health and the environment from the wastes.
 - (2) All treatment facilities shall contain adequate means to allow the operator to exercise control over the variable parameters of the treatment process which could result in the treatment facility failing to meet permit conditions. The treatment facility should be flexible and its controls should allow the operator to optimize the treatment process.
 - (3) Facility management plans shall provide for reliable means to control vectors, emissions, or discharges including odor and dust, so as to preclude hazards to public health and safety, reduce impacts on the environment and reduce the likelihood of nuisance conditions.
 - (4) Facilities shall be designed to protect surface and groundwater and the air, and to detect, through appropriate monitoring, the emission or discharge of contaminants from the facility to surface water, groundwater, or the air.
 - (5) All treatment facilities designs must contain provisions for disposing of bypass, sidestream and residual wastes. The facility receiving the bypass, sidestream, or residual wastes must possess a certification or an interim certification. Suitable written agreements, between the applicant and any facility proposed to receive such bypass, sidestream or residual waste, must be submitted to demonstrate that a disposal facility will accept bypass, sidestream, or residual wastes for the duration of the treatment facility certification.

- (6) Facility management plans shall include provisions for contingencies for the proper management of waste during both planned and unplanned events when the facility is not in operation.
 - (7) Facility management plans shall include operator training plans that assure that all facility personnel involved in the handling of waste receive organized instruction that teaches them to perform their duties in a way that ensures the facility's compliance with these rules and conditions of certification.
 - (8) The applicants shall report to the Secretary all significant design plan changes at least five working days prior to construction unless the Secretary waives the five day period..
- (b) Standards for Specific Treatment Processes
- (1) Compost
 - (A) To meet the requirements for distribution and/or marketing, any solid wastes derived or partially derived from a domestic waste to be composted must undergo a process to further reduce pathogens as defined in Appendix B or other treatment processes deemed appropriate for other pathogen containing waste. Design documentation must demonstrate the capability to meet this standard.
 - (B) The design shall provide adequate storage at the treatment facility for curing the compost, and for periods of time when compost is not in demand.
 - (C) Evidence of the ability to pass the prequalification test specified in § 6-702 (a)(10)(B) of these rules.
 - (D) For compost derived or partially derived from a domestic waste a feasible marketing and development plan discussing how, where, and under what conditions the compost will be marketed or disposed of is required for certification.
 - (2) Land Application. Prior to the land application of solid wastes derived from domestic waste, the waste must be treated, by lime stabilization, pyrolysis, or by other chemical, biological or physical processes, to:
 - (A) meet the requirements of a process to significantly reduce or further reduce pathogens as included in Appendix B; and to

- (B) assure that the final product is homogeneous and not otherwise deleterious in character.
- (3) Waste Incineration
- (A) The facility management plan document shall:
 - (i) identify the amounts and types of waste to be treated;
 - (ii) identify the air and water pollution control devices to be used;
 - (iii) include plans for the proper storage and handling of incoming wastes and of residues;
 - (iv) include plans for the disposal of incinerator ash and of solid wastes not processed by the incinerator;
 - (v) include testing requirements for waste generated by an incineration unit, using a federally accepted test procedure with frequency of testing determined on a case by case basis, but not less than annually; and
 - (vi) insure that all ash residue is properly wetted or contained to prevent dust emissions or discharges during on-site storage, loading, transport, and unloading. Stored ash must be kept in watertight containers approved by the Secretary. Containers used for the transport of ash must be watertight, leach resistant, have covers, and be approved by the Secretary. Containers shall be prominently marked with an identification coding system so that it is possible to maintain records of what containers are used for ash transport.
 - (B) Facilities shall be designed to assure that there is complete combustion as evidenced by the greatest practical reduction in content of carbon compounds in the waste of all wastes to be incinerated.
 - (C) Facility operations shall include methods to separate from the incinerator those wastes that should not or cannot be burned.

6-605 Sludge and Septage Storage Facilities

(a) General Performance Standards

- (1) Facilities shall be designed to provide adequate storage to assure the protection of public health and safety and the environment and to assure that the disposal of stored wastes occurs at proper times and under environmentally sound conditions.
- (2) Facilities shall be designed to prevent, to the greatest extent feasible, the reduction of the quality of the waste, such as the rotting or contamination of stored wastes.
- (3) Facilities shall be designed to protect surface water and groundwater and the air, and to detect, through monitoring where appropriate, the emission or discharge of contaminants from the facility to surface water, groundwater, or the air.
- (4) Facility management plans shall identify means to control vectors, emissions, or discharges including odor and dust, so as to preclude undue threats to public health and safety, the environment or the creation of nuisance conditions.
- (5) Facility management plans shall include provisions for contingencies for the proper management of wastes during both planned and unplanned events when the facility is not in operation.
- (6) Facility management plans shall include operator training plans that assure that all facility personnel involved in the handling of waste receive organized instruction that teaches them to perform their duties in a way that ensures the facility's compliance with these rules and conditions of certification.
- (7) Facility management plans must include estimates of amounts and types of solid wastes brought to storage facilities, and a schedule for transport and disposal of these materials.

(b) Standards for Specific Facilities

- (1) Waste Piles Intended for Diffuse Disposal
 - (A) Waste pile storage areas must be of adequate volume to contain the waste in accordance with the generation, transport and disposal schedule contained in the facility management plan.

- (B) Waste piles shall be covered if the contents are subject to leaching to groundwater.
- (2) Lagoons. The liner composition shall be compatible with the solid waste to be stored in a lagoon.

6-606 Disposal Facilities

(a) General Performance Standards

- (1) Facilities shall be designed to minimize the possibility of an emission or discharge of contaminants from the facility and, should an emission or discharge occur, the threats from the emission or discharge to public health and the environment.
- (2) Facilities shall be designed to identify a means to control odor, vectors, and dust so as to preclude hazards to public health and safety or the creation of nuisance conditions.
- (3) Facilities shall be designed to protect surface water, groundwater and the air, and to detect, through monitoring where appropriate, the emission or discharge of contaminants from the facility to surface water, groundwater, or the air.
- (4) Facility management plans shall include provisions for contingencies for the proper management of wastes during both planned and unplanned events when the facility is not in operation.
- (5) Facility management plans shall include operator training plans that assure that all facility personnel involved in the handling of waste receive organized instruction that teaches them to perform their duties in a way that ensures the facility's compliance with these rules and conditions of certification.
- (6) Final cover systems for discrete disposal facilities shall be designed, constructed and maintained to minimize erosion and infiltration from precipitation.

(b) Standards for Specific Facilities

(1) Diffuse Disposal Facilities

- (A) Facilities shall be designed to provide for an aggregate storage volume for five months of the waste generated to account for storage during winter months, inclement weather and normal

agricultural and silvicultural practices. Alternatives which provide the equivalent of storage are acceptable if adequately documented.

- (B) Design documentation shall detail each disposal site with respect to soil character, cropping practices, usable area, floodplain and seasonal restrictions, application area and rates, and site life, as these affect the management of the facilities.
 - (C) Land application rates shall be based on agronomic rates unless otherwise limited by the Secretary. Waste quality must be fully documented as required in § 6-702(a)(10).
 - (D) Design shall show obvious points of public access and provide for any appropriate measures to control public access.
- (2) Discrete Disposal Facilities
- (A) New discrete disposal facilities or new operational units at an existing facility, placed in operation after July 1, 1987, shall have liner and leachate collection systems and appropriate provisions for leachate treatment, except as otherwise provided in § 6-309(b) or in § 6-606(b)(2)(B) of these rules. The Secretary may further waive the liner requirement for discrete disposal facilities or portions of discrete disposal facilities that are designated solely to receive particular waste components that are not the source of leachate harmful to public health and safety or the environment or the creation of nuisance conditions.
 - (B) Discrete disposal facilities in operation prior to July 1, 1987, that are certified to receive or actually receive less 1,000-tons of municipal waste per year may be exempted from liner and leachate requirements if the Secretary finds that they will not create a significant risk to public health and that they will not cause irreparable harm to the environment. This exemption only applies to discrete disposal facility operations within the waste management boundary of the facility as that boundary existed on November 3, 1995.
 - (C) Notwithstanding any other provisions of these rules, facilities used for the disposal of ash from waste incinerators must have liner and leachate collection systems and appropriate provisions for leachate treatment. Waste incinerator ash shall not be disposed with other waste within the lined cell.
 - (D) All new municipal solid waste discrete disposal facilities and lateral expansions located in seismic impact zones must have

containment structures designed to resist the maximum horizontal acceleration in lithified earth material for the site.

- (E) All liner systems installed after February 7, 1989 shall be of double liner construction. The primary liner shall be a synthetic material, or a composite of synthetic and natural material. The secondary liner shall consist of a synthetic material, or a composite of synthetic and natural materials. All natural components of liners, must consist of an appropriate thickness of soils or materials having an in-place permeability of 1×10^{-7} cm/sec or less. All liner systems must be approved by the Secretary on a case-by-case basis. All such facilities shall be equipped with leak detection and leachate collection systems capable of detecting and collecting leaks from the primary liner system.

- (F) Placement of a liner system over buried solid waste may be approved by the Secretary on a case by case basis where the following are adequately addressed in addition to all other requirements for lined discrete disposal facilities:
 - (i) stability;
 - (ii) settlement;
 - (iii) drainage of leachate to leachate collection systems;
 - (iv) ability to monitor the proposed landfill unit as required in § 6-604(a)(4) and § 6-606(a)(3): and
 - (v) compliance with § 6-303(d) for both the proposed and existing landfill units.

- (G) Leachate collection systems shall be placed and sized to minimize ponding on the liner. The components of leachate collection systems that feed to leachate storage facilities shall be designed to insure that the depth of leachate does not exceed 12 inches over the liner. Leachate can be stored on the primary liner in excess of 12 inches for up to five days following a 25 year/24 hour or greater storm event.

- (H) Facilities proposing to recirculate leachate shall address the following issues:
 - (i) Demonstrate that the facility accepts more than 2,500 tons per year of municipal solid waste at the facility.

- (ii) Provide research or demonstration objectives that will be achieved by permitting the project and milestones for evaluation at permit renewal.
 - (iii) Demonstrate that the facility has screening measures in place to ensure that household hazardous wastes, hazardous wastes, and other solid wastes that may pose any issue to leachate quality have been screened from disposal at the landfill.
 - (iv) Demonstrate the the facility has adequate measures in place to protect human health, the environment, and ensure the proper management of leachate.
 - (v) Demonstrate that the facility leachate collection system maintains less than a 30-cm depth of leachate on the liner. The applicant shall include estimates of leachate production resulting from changes in operations.
 - (vi) Demonstrate that the facility landfill gas collection system is adequate to collect and destroy additional landfill gas generated as a result of additional liquids. The applicant shall include estimates of gas production resulting from changes in operations
 - (vii) Demonstrate that the facility protects surface water and groundwater in a manner that meets or exceeds the requirements established in 40 C.F.R. Part 258.
 - (viii) Demonstrate that the addition of water to a landfill does not compromise the geotechnical stability of the waste. The application shall include a stability analysis demonstrating the physical stability of the landfill prior to the issuance of a permit. Any movement of the waste and shall be documented and the application shall include a description of the methods for determining whether there is any actual or potential movement of the waste or liquid seepage from the landfill.
 - (ix) Other demonstrations that the Secretary finds necessary to protect human health, the environment, and prevent the creation of a nuisance condition.
- (I) Discrete disposal facility designs shall provide a sequential capping plan for closing operational units of the disposal facility during its life. Such operational units shall be designed for a life

not to exceed five years unless otherwise approved by the Secretary.

- (J) Facilities shall assure the control and treatment, if determined necessary by the Secretary, of gases resulting from the decomposition of wastes to prevent hazards to public health and safety, the environment, or the creation of a nuisance.
- (K) Discrete disposal facility designs shall provide for the appropriate control of surface water run-on and run-off, as determined by the Secretary.
- (L) The engineering design and plan for lift development shall insure proper drainage on the discrete disposal facility site and prevent ponding of water on the facility surface. This requirement applies both during the working life of the facility and after the final cover system has been installed and vegetation established.
- (M) The final cover system design for lined discrete disposal facilities shall include a gas collection layer, an infiltration layer consisting of a minimum 18 inch thick layer of earthen material with a permeability less than 1×10^{-5} cm/sec, a flexible membrane liner with a minimum thickness of 40-mil, a drainage layer and an erosion layer consisting of a minimum six-inch thick earthen material layer capable of sustaining native plant growth. The Secretary may approve an alternative final cover design and materials that includes an infiltration layer and/or an erosion layer of different specifications or materials which are demonstrated to achieve equivalent performance.
- (N) The final cover system design for unlined discrete disposal facilities shall include a minimum two-foot thick layer of earthen material with a permeability of less than 1×10^{-5} cm/sec and less than the permeability of the facility base soils, and a minimum six-inch thick earthen material layer capable of sustaining native plant growth. Alternatively, a final cover system as described in subsection (b)(2)(M) of this section for lined discrete disposal facilities will be utilized for unlined discrete disposal facilities if required by the Secretary. The Secretary may approve alternative materials to the earthen material which are demonstrated to achieve equivalent performance.
- (O) The final cover system design for either lined or unlined discrete disposal facilities shall provide for a minimum slope of five percent and a maximum slope of 33 1/3 percent

Subchapter 7 -- OPERATION STANDARDS**6-701 General Standards Applicable to All Facilities**

Operational requirements are provided below for all solid waste management facilities. Facilities which qualify for categorical certification under § 6-309 or Subchapter 11 and all facilities regulated under Subchapter 12 are exempt from the provisions of this Subchapter, but have operational requirements applicable to those facilities contained within the provisions of those sections.

- (1) Adequate and qualified personnel must be retained to operate solid waste management facilities.
- (2) Before a solid waste management facility may commence operations, a professional engineer licensed in the State of Vermont must certify it was built in accordance with requirements of the certification and furnish a complete set of as-built drawings to the Secretary. Upon written request of the applicant, the Secretary may waive the requirement that the certification referred to above be furnished by a professional engineer.
- (3) Owners and operators of a solid waste management facility shall adhere to all conditions of the facility certification and these rules.
- (4) At least one contact person identified in the certification application shall be on site during all hours of operation, unless specifically waived by the Secretary, in which case a contact person must nevertheless be able to be contacted at all times.
- (5) All sampling must be performed by properly trained and qualified personnel. Qualified personnel must have a minimum three months training and six months experience in sampling or analysis.
- (6) The owner and operator shall take all steps necessary to prevent and/or control spills, nuisance dust, vectors, wind blown debris, and odors.
- (7) The owner and operator shall take all practicable steps to prevent the inclusion of hazardous wastes, as defined and regulated by Vermont's Hazardous Waste Management Regulations, into the waste stream being managed by the facility.
- (8) Access to the facility shall be controlled, as appropriate, in a manner approved by the Secretary.

6-702 Standards for Disposal Facilities

- (a) Diffuse Disposal Facilities
 - (1) Application of solid wastes on frozen ground or on top of snow-covered ground is prohibited.
 - (2) Application rate shall be determined on the basis of representative sampling and analysis of the wastes applied, the crop nutrient requirements, other sources of nutrient used, and limited by other factors such as metals.
 - (3) Cadmium application shall be limited to 0.45 pounds per acre annually, and 4.5 pounds per acre cumulatively.
 - (4) The pH of the soil in the zone of incorporation for all sites used for application of solid wastes shall be maintained between 6.5 and 8.0 during the time of application.
 - (5) Application of solid waste is prohibited on the 100 year floodplain unless incorporated within 48 hours of application.
 - (6) Application of solid waste is prohibited at times when groundwater is within three feet of the zone of incorporation.
 - (7) Application of solid waste is prohibited in Class I and Class II Groundwater areas.
 - (8) Application is prohibited in a watershed for a Class A stream or stream segment.
 - (9) Where solid waste is a domestic waste unless otherwise directed by the Secretary, the following restrictions shall apply:
 - (A) Public access shall be controlled for the duration of disposal, and for 12 months beyond the last disposal episode.
 - (B) Domestic food source animals shall be prohibited from grazing on disposal facilities for the duration of the project and six months beyond the last disposal episode.
 - (C) Sites amended by solid waste application shall not be used for the production of crops for direct human consumption, for the duration of the project and 36-months beyond the last disposal episode.

- (D) Feed crops grown on solid waste amended disposal facilities shall not be harvested for a period of five weeks beyond the last disposal episode.
 - (E) Silage to be used as a feed crop, from solid waste amended sites shall not be fed to domestic food source animals for a period of four months after the last application of waste.
- (10) The following requirements for sampling, analysis, and standards shall be met:
- (A) All solid wastes intended for diffuse disposal shall be sampled and analyzed for the following parameters. The frequency will be established in each certification.
 - (i) The waste must pass the Extraction Procedure (EP) Toxicity Test Method (or other EPA approved extraction procedure). This can be done one of two ways; through sampling and analysis or calculation.
 - (aa) Sampling and Analysis. Perform the EP Toxicity Test Method on the sample; or
 - (bb) Calculation. For a superior quality waste material it may be possible to show mathematically that the waste cannot fail the extraction procedure. If this method is chosen, the calculations must be based on an assumption that all metals are extracted from the sample.
 - (ii) The waste must be tested for total metals concentration for the following metals.

Cadmium	(Cd)
Chromium	(Cr)
Copper	(Cu)
Nickel	(Ni)
Lead	(Pb)
Zinc	(Zn)
Mercury	(Hg)

Note that Arsenic (As), Silver (Ag), Barium (Ba), and Selenium (Se) must be analyzed if the calculation method, subsection (a)(10)(A)(i)(bb) of this section is chosen.

- (iii) The waste must be tested for total polychlorinated biphenyls (PCB).
- (iv) The waste shall be tested for the following nutrients, if land application is the chosen disposal method.

Percent solids; pH; Total Kjeldahl Nitrogen (TKN); Ammonia-Nitrogen (NH₄-N); Nitrate-Nitrogen (NO₃-N); Total Phosphorous (TP); and Total Potassium (TK).

- (B) All wastes intended for diffuse disposal, or for processing at a composting or co-composting facility, must meet the following standards. At the Secretary's discretion, these standards may be made more or less stringent.
 - (i) EP Toxicity Test Method limits (or other EPA approved extraction procedure), or demonstrate mathematically that based on the total metals concentrations in the waste, it will not fail EP Toxicity Test Method limits.
 - (ii) Total metals concentrations of the wastes must be no more than:

PARAMETER	MAX CONCENTRATION (mg/kg, dry wt.)
Arsenic (As)	15
Cadmium (Cd)	21
Chromium (Cr)	1,200
Copper (Cu)	1,500
Lead (Pb)	300
Mercury (Hg)	10
Molybdenum (Mo)	75
Nickel (Ni)	420
Selenium (Se)	100
Zinc (Zn)	2,800

- (iii) Total PCB = 10 mg/kg or less
- (iv) Pathogen reduction standards, as follow.
 - (aa) Compost. To be considered compost, and eligible for disposal by general distribution, the waste must undergo a process to further reduce pathogens as defined in Appendix B. This subsection (a)(10)(B)(iv)(aa) applies only to compost derived or partially derived from domestic waste.

- (bb) Diffuse disposal by land application. Prior to land application of solid waste derived from domestic waste, the waste must undergo a process to significantly reduce pathogens or a process to further reduce pathogens, as defined in Appendix B.
 - (v) A certification may be issued to a person who does not meet the standards contained in subsection (a)(10)(B)(ii), provided that the certification contains a compliance schedule with the following approved by the Secretary:
 - (aa) a management plan that is designed to achieve compliance with the applicable standards with a reasonable period of time;
 - (bb) the waste intended for diffuse disposal, as managed, does not present an unreasonable risk to human health or the environment; and
 - (cc) the holder of the certification notifies all users and property owners where the waste is applied of the nature and extent of noncompliance with the applicable standards.
- (11) Testing frequency of solid waste, soil, groundwater, and surface water and plant tissue shall be performed as specified in the solid waste management facility certification.
- (12) For compost derived or partially derived from a domestic waste, those marketing and distribution methods authorized in the solid waste management facility certification are allowed.
- (b) *reserved*
- (c) *reserved*
- (d) Discrete Disposal Facilities
 - (1) A qualified operator familiar with procedures and the facility management plan shall be on site during all hours of operation.
 - (2) Properly maintained and calibrated scales should be used to measure the weight of solid waste received and disposed at the facility.

- (3) Adequate horizontal and vertical benchmarks shall be established prior to depositing any waste, and maintained throughout the life of the facility.
- (4) The owner and/or operator shall make provisions for standby equipment to be operational within 24 hours of breakdown of the primary equipment.
- (5) With the exception of construction and demolition waste landfills, cover material shall be in place at the end of each operating day, or at more frequent intervals if necessary, to control disease vectors, fires and odors, to prevent blowing litter, and to discourage scavenging by animals, without presenting a threat to human health and the environment. Grading shall be accomplished to prevent ponding. At least a six inch thickness is required when earthen material is used as cover material. In all areas other than the working face which have not received waste material in any given operating day, the owner or operator shall take all steps necessary to ensure that the cover material remains functional and stable until such time as the final cover system is installed. Construction and demolition waste landfills shall maintain cover pursuant to the cover requirements contained within facility's approved facility management plan.
- (6) Lift development shall be carried out in accordance with the engineering plans, to ensure proper drainage and to prevent ponding.
- (7) The operator shall notify the Agency in writing when the facility has reached final grades or capacity limits. The final cover system shall be in place within 90 days of attaining final grades, final capacity, or of the last date of receipt of waste for disposal. Grass or ground cover shall be established within four months of final cover. The Secretary may approve an extension to these deadlines if weather conditions cause an extension to be necessary.
- (8) Industrial and commercial solid waste, sludge, septage or other materials which may combine to form hazardous substances shall be deposited only as specified in the certification.

6-703 Reporting

- (a) The operator, including operators of wastewater treatment plants, shall make reports to the Secretary on forms developed by the Secretary. The operator shall file a report with the Secretary either quarterly or as specified in the facility certification. Such reports shall include, but are not limited to, information on:
 - (1) the quantity and quality of wastes, by type, managed by the facility at each site;

- (2) the sources and quantity of all solid wastes (by municipality), managed by the facility; and
- (3) the destination of all solid wastes managed by the facility.
- (b) The operator shall submit a report to the Secretary within five ~~(5)~~ working days of the receipt of any information indicating non-compliance with any term or condition of certification or other operating authority.
- (c) Any discharge or emission from a facility which poses a threat to public health and safety, a threat to the environment or the creation of a nuisance must be reported within 24 hours to the State of Vermont Department of Environmental Conservation, the local health officer, and the selectpersons of the affected municipalities. A written report shall be submitted to the parties to whom the event was reported within seven days of the discharge or emission. The report shall identify the discharge or emission that occurred, the type, quantity, and quality of waste, and the actions taken to correct the problem.
- (d) The operator shall make any other reports that may be reasonably required by the Secretary in the facility certification.
- (e) Commercial haulers subject to the permit requirements of 10 V.S.A. 6607a as a result of hauling septage or sludge, must report to the Secretary in accordance with the following schedule:
 - (1) Annually (by April 30 of each year) - for the coming year, submit letter of intent from all facilities with conditions; and
 - (2) Quarterly - record of the facilities and the quantities of septage or sludge delivered.

6-704 Record Keeping

- (a) The following records must be kept in a dry and secure location by the owner and/or operator of the facility:
 - (1) All information that demonstrates compliance with Subchapters 5 through 11;
 - (2) Copies of the quarterly report forms that have been submitted to the Secretary as a requirement of certification; and
 - (3) Copies of any reports, records, data or other information required to be submitted to the Secretary as a requirement of certification.
- (b) All records must be kept for the time period specified below:

- (1) For discrete disposal facilities, from the date on which the application for initial certification is signed through the end of the post-closure period. The record keeping requirements shall cease upon written notification by the Secretary of the completion of post-closure care, in accordance with § 6-1003(i);
- (2) For diffuse disposal facilities, from the date on which the application for initial certification is signed through the date of closure of the facility; and
- (3) For sludge or septage storage and treatment facilities located at wastewater treatment facilities, for five years

Subchapter 8 -- SPECIAL WASTES

6-801 General

- (a) The Secretary may designate that certain types or categories of solid wastes are special solid wastes if he or she determines that the wastes pose special environmental or public health and safety concerns or have other characteristics (e.g., size, composition) that cause problems in handling or management.
- (b) Subsequent to a special waste designation, the Secretary may require, as part of a certification or other operating authority, any special handling or management techniques for the wastes involved as may be necessary to assure the protection of public health and safety and the environment.

6-802 Standards for Particular Special Wastes

In addition to the standards otherwise enumerated in these rules, the following general standards apply to the following special solid wastes:

- (a) Asbestos Waste
 - (1) Any amount of asbestos waste exceeding ten cubic yards from a single source must be disposed of in a disposal facility certified to receive asbestos waste only, unless otherwise approved by the Secretary. The operator of such a facility shall:
 - (A) take appropriate measures to ensure the protection of all persons present during the disposal of any asbestos waste and who perform duties within the disposal facility;
 - (B) maintain records on the generator, source, and type asbestos waste, volume disposed, and dates of disposal;
 - (C) mist the daily disposal cell prior to disposal;
 - (D) inspect vehicle contents to determine whether all asbestos waste has been properly contained and labeled in accordance with Department of Health Regulations for Asbestos Control;
 - (E) verify the content of contained asbestos waste from each generator;
 - (F) mist the contained asbestos waste as it is removed from the vehicle;
 - (G) perform disposal in such a way as to ensure no airborne emissions;

- (H) cover immediately after placement with at least six inches of appropriate cover material, ensuring no breakage of contained asbestos waste;
 - (I) provide training of employees in the asbestos waste disposal procedures;
 - (J) ensure that the properly contained asbestos waste is transported in closed transport vehicle containers and that the containers have not been mechanically compacted prior to receipt at the disposal facility; and
 - (K) use a three-dimensional grid system to identify where the waste is disposed.
- (2) Amounts of asbestos waste less than ten ~~(40)~~ cubic yards from a single source may be disposed of at a certified municipal solid waste discrete disposal facility if the operator:
- (A) disposes of waste in an area of the certified facility away from the working face, but not along a final slope; and
 - (B) meets the requirements of § 6-802(a)(1)(A), (B), (D), (E), (G), (H), and (J).
- (b) Regulated Medical Waste (RMW)
- (1) RMW which is treated as provided in subdivision (b)(2) of this section, and is accompanied by a certification of treatment or written alternative management method approval, may be disposed of at a certified municipal solid waste discrete disposal facility, if the operator:
 - (A) disposes of the waste in an isolated area within the working face except as precluded in § 6-606(b)(2)(C);
 - (B) takes appropriate measures to ensure the protection of all persons present during the disposal of any treated RMW and who perform duties within the disposal facility; and
 - (C) covers immediately after placement with at least six inches of appropriate cover material, ensuring no breakage of contained RMW while exposed to an open air environment.
 - (2) For purposes of this subsection RMW shall be considered treated if:

- (A) RMW is treated to the RMW treatment standard in a method approved by the Secretary; or
 - (B) the applicant demonstrates to the satisfaction of the Secretary that the alternate method of management of the RMW to be implemented by the applicant protects human health, safety, and the environment.
- (c) Hazardous waste from Conditionally Exempt Generators (CEG): CEG hazardous waste may be accepted for handling and transfer only by solid waste facilities certified or approved by the Secretary to manage these wastes according to the provisions of Subchapter 12 of these rules.
- (d) Liquid Containers. Liquid containers with a capacity of greater than 30 gallons shall be cleaned prior to disposal.
- (e) Liquid wastes including septage and sludge. Prior to the disposal of these wastes in any discrete solid waste facility, written approval from the Secretary is required.

6-803 Mercury-Added Consumer Products

- (a) To facilitate the source reduction of mercury from solid waste and to help ensure proper handling, recycling and disposal of waste mercury-added consumer products, certain mercury-added items must be labeled prior sale.
- (1) After July 1, 1999, a manufacturer or wholesaler may not sell at retail in this state, to a retailer in this state, or for use in this state, and a retailer may not knowingly sell, any of the items listed in 10 V.S.A. § 7106 at retail if they contain added mercury, unless the item is labeled in accordance with § 6-803(b) or (c).
 - (2) Items to be labeled are:
 - (A) A thermostat or thermometer.
 - (B) A switch, individually or as part of another product.
 - (C) A medical or scientific instrument.
 - (D) An electric relay or other electrical device.
 - (E) A lamp.
 - (F) A battery, sold to the public, other than a button battery.

- (b) The following labeling standards shall apply to all mercury-added consumer products listed in § 6-803(a)(2) above:
- (1) The label must clearly inform the purchaser or consumer that mercury is present in the item and that the item may not be disposed of or placed in a waste stream destined for disposal until the mercury is removed and reused, recycled, or otherwise managed to ensure that mercury does not become part of solid waste or wastewater.
 - (2) A label must be clearly visible and legible to consumers prior to purchase of the product. The label must be located on a surface of the product that is visible during installation and removal.
 - (3) For labels affixed to products, the required words or symbols must be printed, mounted, molded, or engraved on the surface of the product using materials sufficiently durable to remain legible for the useful life of the product.
 - (4) For products with enclosed mercury-added switches, both the enclosed device and the larger product must be labeled.
 - (5) A listed mercury-added consumer product must be labeled if manufactured after July 1, 1999.
 - (6) Primary responsibility for affixing the required labels shall be on the manufacturer, and not on the wholesaler or retailer.
- (c) The Secretary may administratively authorize alternative labeling, including package labeling, for mercury-added consumer products listed in § 6-803(a)(2) under the following conditions:
- (1) A manufacturer must submit a written request for alternative labeling documenting that a product or class of products cannot reasonably be labeled to comply with specific requirements of § 6-803(a) and/or (b).
 - (2) All authorizations for alternative labeling granted under this Subsection will be limited in duration and may be renewed.

Subchapter 9 -- FINANCIAL RESPONSIBILITY AND CAPABILITY**6-901 Financial Responsibility-Private Facilities**

- (a) The requirements for financial responsibility for solid waste management facilities as contained in this section shall apply to all existing and future private facilities. Categorical certification facilities under § 6-309 are exempt from the provisions of this subchapter unless the Secretary determines financial responsibility is necessary to protect public health, safety, or the environment. State and local governments or other public entities are required to comply with the provisions on financial capability in § 6-902.
- (b) This section establishes requirements and procedures for applicants for solid waste management facility certifications to show evidence of financial responsibility for closure and, as appropriate, post-closure care. Financial responsibility is provided so that upon abandonment, cessation, or interruption of the operation of a facility, all appropriate measures can be taken to prevent present and future damage to the public health and safety and to the environment.
- (c) Evidence of financial responsibility shall be in one or a combination of the following forms:
 - (1) a trust fund maintained by the applicant for the benefit of the Agency with a surety bond guaranteeing full payment into the fund;
 - (2) a surety bond guaranteeing performance of closure or post-closure care;
 - (3) an irrevocable standby letter of credit;
 - (4) a deposit of acceptable collateral, as determined by the Secretary;
 - (5) a financial test and corporate guarantee, as determined appropriate by the Secretary; or
 - (6) other financial responsibility instruments that the Secretary may deem appropriate.
- (d) The content of any particular financial responsibility instrument must meet the standards and requirements specified in Appendix A.
- (e) Financial responsibility instruments shall be submitted on a form prepared for this purpose by the Secretary.
- (f) Financial responsibility instruments shall be in the amount of the cost estimate for closure and post-closure care, as calculated using the procedures set forth in Subchapter 10.

- (g) The certification holder must maintain financial responsibility equal to or greater than the required cost estimates at all times except as provided in this subsection. The certification holder has 90 days to increase the total amount of financial responsibility so as to equal the required cost estimates after any of the following:
 - (1) an increase in the required cost estimates;
 - (2) a decrease in the value of a trust fund;
 - (3) a determination by the Secretary that the certification holder no longer meets the gross revenue or financial test; or
 - (4) notification by the certification holder that he or she intends to substitute alternative financial responsibility for self-insurance.
- (h) Use of Financial Responsibility Instruments
 - (1) An applicant may satisfy the requirements of this section by establishing more than one financial responsibility instrument per facility. These instruments are limited to trust funds, surety bonds, letters of credit, and deposits of acceptable collateral. The instruments must be as specified in Appendix A, except that it is the combination of instruments, rather than the single instrument, that must provide financial responsibility for an amount at least equal to the closure or post-closure care cost estimate.
 - (2) The Secretary may draw on any or all of the instruments to provide for closure or post-closure care at the facility.
- (i) Use of a Financial Responsibility Instrument for Multiple Facilities
 - (1) An applicant may satisfy the requirements of this section by using a single financial responsibility instrument for more than one facility. Evidence for financial responsibility submitted to the Agency must include a list showing, for each facility, the name, address, and the amount of funds assured by the instrument must be no less than the sum of funds that would be available if a separate instrument had been established and maintained for each facility.
 - (2) In directing funds available through the instrument for closure or post-closure care for any of the facilities covered by the instrument, the Secretary may direct only the amount of funds designated for that facility, unless the applicant agrees to the use of additional funds available under the instrument.

- (j) Use of a Financial Responsibility Instrument for Both Closure and Post-Closure Care. An applicant may satisfy the requirements of this section for both closure and post-closure care for one or more facilities by using one of the instruments specified in this section. The amount of funds available through the instrument must be no less than the sum of the funds that would be available if a separate instrument had been established and maintained for closure and post-closure care.
- (k) Release from Financial Responsibility Requirements. Upon satisfactory demonstration by the certification holder to the Secretary that the requirements of a closure or post-closure care plan have been satisfied, the Secretary will notify the certification holder in writing, within 60 days, that he or she is no longer required to maintain financial responsibility for closure or post-closure care.

6-902 Financial Capability - Public Facilities

- (a) The requirements for financial capability for solid waste management facilities apply to facilities operated by the State of Vermont, or by municipal entities created under 24 V.S.A., including facilities operated by Union Municipal Districts formed under 24 V.S.A. Chapter 121, or by other public entities.
- (b) Documentation of Financial Capability
 - (1) The auditor of the entity responsible for operating the facility or an independent certified public accountant shall annually submit a report to the Secretary on the financial condition of the entity. For municipal entities, this shall be the auditor's annual report required by 24 V.S.A. §§ 1681 through 1683. For other public entities, the annual report shall contain at least the information required of municipalities in 24 V.S.A. §§ 1681 through 1683, unless otherwise required by the Secretary.
 - (2) The following documents must be submitted to the Secretary biennially:
 - (A) A letter from the entity's chief financial officer outlining current and anticipated income and expenses for the entity's waste management facilities, and certifying that the entity will be financially capable to meet the cost estimates made for closure and post-closure care required in these rules. The letter must be in a form prescribed by the Secretary and must include, at a minimum, total debt for the facility, closure and post-closure estimates, other anticipated expenses, income from user charges, transferred funds, and other income.
 - (B) The opinion of the entity's auditor or an independent certified public accountant as to the entity's financial capability to meet closure and post-closure costs.

- (3) The documents required by this section must be submitted with the application for certification. Documentation for a Union Municipal District need not include an annual report for each member town, but must include the district's annual report as required by 24 V.S.A. § 4868.

(c) Closure and Post-Closure Fund

- (1) Annual contributions to a fund established to meet closure and post-closure care obligations must be made by the entity responsible for operating the facility. The expense must be included as a line item in the facility's budget.
- (2) The amount of the annual payment to the fund shall be determined by the following equation:

$$CE(1+a)^n \times \frac{i}{(i+1)^n - 1}$$

Where CE = Closure Cost Estimate Plus Post-closure Cost Estimate
a = Forecasted Average Rate of Inflation
i = Anticipated Rate of Interest Income
n = Number of Years to Fund Maturity

The number of years to fund maturity shall be no longer than the life of the facility.

- (3) The annual payment to the fund shall be calculated each year using the most recent closure and post-closure cost estimates.

Subchapter 10 -- CLOSURE AND POST-CLOSURE

6-1001 Closure Performance Standard

All facilities subject to closure requirements must be closed in a manner that:

- (1) Minimizes the need for further maintenance related to the waste facility; and
- (2) Controls, minimizes, or eliminates, to the extent necessary to prevent threats to public health and safety and the environment, including post-closure emission or discharge of waste, waste constituents, leachate, contaminated runoff, and/or waste decomposition products to the groundwater or surface waters or the atmosphere.

6-1002 Closure Plan

- (a) A closure plan is required for all facilities operating on the effective date of these rules and all new facilities required to obtain certification under these rules, except the following:
 - (1) facilities that qualify for categorical certifications under § 6-309, Subchapter 11 or Subchapter 12;
 - (2) land used for the diffuse land application of septage, sludge or other appropriate wastes; and
 - (3) Septage or sludge facilities located at domestic wastewater treatment plants.
- (b) The closure plan must identify steps necessary to close the facility completely at any point during its intended life. The closure plan must include, at least:
 - (1) A description of the steps necessary to close the facility;
 - (2) A listing of labor, materials, and testing necessary to close the facility;
 - (3) An estimate of the expected year of closure;
 - (4) A schedule for final closure including, at a minimum, the total time required to close the facility and the time required for the various steps or phases in the closure process;
 - (5) A cost estimate for facility closure that satisfies the requirements of § 6-1004;

- (6) A description of the methods for compliance with the closure requirements; and
 - (7) Any remedial action necessary prior to closure, if required by the Secretary pursuant to § 6-311.
- (c) The approved closure plan will become a condition of any certification or other operating authority issued by the Secretary.
- (d) An approved closure plan may be amended, subject to the approval of the Secretary, at any time during the active life of the facility, except that an amended closure plan may not be submitted for approval less than 90 days before receipt of the final volume of waste.
- (e) An amended closure plan must be submitted for approval to the Secretary whenever:
- (1) Changes in the operating plan or facility design affect the closure plan; or
 - (2) There is a change in the expected year of closure.
- (f) When a certification modification is requested to authorize a change in the operating plans or facility design, a closure plan amendment must be requested at the same time. If a certification modification is not needed to authorize the change in operating plans or facility design, the request for a closure plan amendment must be made within 60 days after the change in plans or design occurs.
- (g) Notice of Closure. A certification holder shall send to the Secretary a notice of closure within 30 days after the date the final volume of waste is received at the facility.
- (h) Partial Closure. A facility may be partially closed prior to final closure. Any partial closure shall be performed in accordance with an approved closure plan and shall be subject to all of the requirements of this section.
- (i) Certification of Closure. As part of the final closure of a facility, the following must be submitted to the Agency:
- (1) Certification by the certification holder of the facility and by a professional engineer licensed in the State of Vermont that the facility has been closed in accordance with the specifications of the approved closure plan; and
 - (2) Verification that the owner of the property on which the facility is located has recorded a notation on the deed to the facility property, or on some other instrument that is normally examined during title search, that will in

perpetuity notify any potential purchaser of the property that the land has been used as a solid waste management facility.

6-1003 Post-Closure Plan

- (a) Except as provided in § 6-1003(b), a post-closure plan is required for all facilities where waste or waste constituents remain at or in the facility after closure, and that are operating on the effective date of these rules, or are otherwise required to obtain certification under these rules.
- (b) Facilities that qualify for categorical certifications under § 6-309 or Subchapter 11, land used for the diffuse land application of septage, sludge, or other appropriate solid wastes, and facilities subject to the requirements of Subchapter 12, are not required to prepare a post-closure plan.
- (c) The post-closure plan must identify the activities that will be carried out after closure, the frequency of these activities, and include at least:
 - (1) a description of the appropriate air, surface water, groundwater monitoring activities;
 - (2) a description of the planned maintenance activities;
 - (3) the name, address, and phone number of the person or office to contact about the facility during the post-closure period; and
 - (4) a post-closure cost estimate that satisfied the requirements of § 6-1005.
- (d) The approved post-closure plan will become a condition of any certification or other operating authority issued by the Secretary.
- (e) A post-closure plan may be amended, subject to the approval of the Secretary, at any time during the active life of the facility or during the post-closure period.
- (f) An amended post-closure plan must be submitted for approval to the Secretary whenever:
 - (1) changes in the operating plan, facility design or closure plan, or events that occur during the active life of the facility or during the post-closure period, affect the post-closure plan; or
 - (2) there is a change in the expected year of closure.
- (g) When a certification modification is requested to authorize a change in the operating plans or facility design, a post-closure plan amendment must be requested at the same time. In all other cases, the request for a post-closure plan

amendment must be made within 60 days after the change in operating plans or facility design or the events that affect the post-closure plan occur.

- (h) Upon the satisfactory demonstration by the certification holder that the post-closure care requirements have been completed in accordance with the approved post-closure plan, the Secretary shall, at the request of the certification holder provide a written notification of the completion of post-closure care.
- (i) A notification provided under this section by the Secretary shall in no way preclude the liability provisions of 10 V.S.A. § 6615.

6-1004 Closure Cost Estimates

- (a) All facilities required under § 6-1002 to prepare a closure plan must have a written estimate of the cost of closing the facility in accordance with the closure plan.
- (b) The closure cost estimate shall be based on the work required for a third party contractor to effect proper closure at the point in the life of the facility when closure would be most expensive. Those factors to be considered in estimating the closure cost shall include at least:
 - (1) the size and topography of the facility;
 - (2) the daily and weekly tonnage to be received at the facility;
 - (3) the availability of cover and fill material needed for facility grading;
 - (4) expected amounts of leachate production and requirements for treatment and disposal;
 - (5) plans and methods of disposal at the facility;
 - (6) the location of the facility and the character of the surrounding area;
 - (7) requirements for surface drainage;
 - (8) leachate and gas collection and treatment systems, as required;
 - (9) environmental quality monitoring systems, as required;
 - (10) structures and other improvements to be dismantled and removed;
 - (11) facility storage capacity for the types of wastes being received;
 - (12) off-site disposal requirements;

- (13) an appropriate forecasted average rate of inflation over the active life of the facility; and
- (14) vector control requirements.
- (c) The certification holder may revise the closure cost estimate at any time during the active life of the facility if:
 - (1) a certified partial closure has been completed; or
 - (2) a change in the closure plan decreases the closure cost estimate.
- (d) The certification holder must revise the closure cost estimate whenever a change in the closure plan increases the closure cost estimate.

6-1005 Post-Closure Cost Estimates

- (a) Facilities that are required under § 6-1003 to prepare a post-closure plan must have a written estimate of the cost of post-closure monitoring and maintenance of the facility in accordance with the post-closure plan.
- (b) The post-closure cost estimate shall be based on the work required for a third party contractor to implement the post-closure plan. The factors to be considered in estimating post-closure monitoring and maintenance cost shall include at least:
 - (1) the size and topography of the facility;
 - (2) the type and quantity of waste received;
 - (3) the disposal method and plan;
 - (4) the potential for significant leachate production and the possibility of contaminating groundwater or surface waters;
 - (5) environmental quality monitoring systems;
 - (6) soil conditions;
 - (7) an appropriate forecasted average rate of inflation over the active life of the facility and the post-closure care period;
 - (8) the location of the site and the character of the surrounding area; and
 - (9) leachate and gas collection and treatment systems.

- (c) The certification holder must revise the post-closure cost estimate whenever a change in the post-closure plan increases the cost of post-closure monitoring and maintenance.

6-1006 Biennial Revision to Closure and Post-Closure Cost Estimates

- (a) The certification holder must revise the closure and post-closure care cost estimates at least once every two years. The revised cost estimates must be filed on or before the second anniversary of the filing or last revision of the current cost estimates.
- (b) The certification holder must review the closure and post-closure care plans prior to filing revised cost estimates in order to determine whether they are consistent with current operations and regulations. The certification holder must either certify that the plans are consistent, or must file an application for certification modification reflecting new plans.
- (c) The certification holder must prepare new closure and post-closure care cost estimates reflecting current prices for the items included in the estimates. The certification holder must submit a report to the Secretary showing the necessary calculations and indicating either what the new cost estimates are or that there are no changes.

Subchapter 11 - ORGANICS MANAGEMENT**§ 6-1101 Applicability.**

- (a) Notwithstanding the other requirements of these rules, this Subchapter applies to persons engaged in composting and organics management activities where the wastes being composted do not contain any amount of sewage sludge, domestic septage, or septage. Composting activities where the wastes being composted do contain any amount of sewage sludge, domestic septage, or septage shall be managed as diffuse disposal facilities.
- (b) The siting requirements of § 6-1107 and the liquid management standards of § 6-1108 shall not apply to facilities permitted prior to [effective date of this rule]. A lateral expansion or significant improvement to a facility permitted subsequent to [the effective date of this rule] shall require the facility to meet the siting requirements for the expansion and the liquid management standards for the facility.
- (c) This subchapter does not apply to sewage sludge and septage.

§ 6-1102 Definitions

As used in this Subchapter the following definitions apply:

- (1) “Actively aerated” means forcibly inducing the flow of air through a compost pile or windrow utilizing mechanical means, such as electrically powered blowers and is accomplished by a pile design which incorporates perforated piping or other mechanisms to direct air flow through the pile.
- (2) “Aerated piles” means inducing natural flow of air through a free standing compost pile or windrow through proper compost pile design.
- (3) “Anaerobic digestion” means the controlled anaerobic decomposition of organic food residuals, manure, animal feed waste, other natural organic waste materials inside a containment structure or vessel, generally resulting in the production of methane-rich gas.
- (4) “Clean high carbon bulking agent” means the materials defined as clean high carbon bulking agents in the procedure entitled “*Approved clean high carbon bulking agents for use at composting facilities*” dated [date of signature] as may be amended.
- (5) "Compost" means the product of composting; consisting of a group of organic residues or a mixture of organic residues and soil that have been piled, moistened, and allowed to undergo aerobic biological decomposition.

- (6) "Compostable" means a product, package or material that will safely decompose, in a composting system, into a humus-like material, that can be safely used as a beneficial soil amendment.
- (7) "Composting" means the controlled biological decomposition of organic matter through active management to produce a stable humus-like material but shall not mean sewage, septage, or materials derived from sewage or septage.
- (8) "Compost facility operator" means a person who operates a composting facility regulated under this subchapter.
- (9) "Compost management area" means an area used for the unloading and storage of feed stocks, and active and curing compost. Compost management area does not include the area used for the management of runoff or leachate and does not include areas where finished compost is stored.
- (10) "Compost tea" means a product produced by mixing finished compost with water and incubating the mixture to make a product used for soil enrichment. Compost tea may actively aerate the mixture or add additives to increase the microbial population during its production.
- (11) "Contaminant" means any non-biodegradable material which lends impurity to compost, including but not limited to, glass, metal, plastics, and ceramics.
- (12) "Curing" means the final stage of composting in which stabilization of the compost continues after much of the readily metabolized material has decomposed. Curing occurs after material has met the treatment process for compost required by this subchapter.
- (13) "Digestate" means the remaining solid and liquid derived from the finished stage of in-vessel anaerobic digestion.
- (14) "Farm" means a place used for agricultural or horticultural use and/or cultivation or management of land for orchard crops or food, fiber, Christmas trees, maple sap and maple syrup products, animal husbandry, fish or bees or a greenhouse operation, on-site storage of agriculture products principally produced on the farm or the on-site production of fuel or power from agriculture products or waste principally produced on the farm.
- (15) "Food processing residual" means the remaining organic material from a food processing plant and may include whey and other dairy, cheese making, and ice cream residuals or residuals from any food manufacturing process excluding slaughtering and rendering operations. It does not include materials from markets, groceries, or restaurants.
- (16) "Food residual" means compostable material derived from processing or disposal of food, excluding residuals derived from the processing of meat and meat

- products such as animal slaughtering and rendering operations. Food residuals may include pre- and post-consumer food scraps.
- (17) “Leachate” means liquid containing dissolved, suspended, or miscible materials that passes through or emerges from the active compost area. "Leachate" does not include liquid containing dissolved, suspended, or miscible materials that pass through or emerges from the area where compost is curing, or storage of finished product.
- (18) "Leaf and yard residual" means compostable untreated vegetative matter, including but not limited to grass clippings, leaves, Kraft paper bags and brush, which are free from contaminants. It does not include such materials as pre and post consumer food residuals, food processing residuals or soiled paper.
- (19) “Passively aerated” means inducing the flow of air though a free standing compost pile or windrow.
- (20) “Specified risk material” means tissues of ruminants that could contain Bovine Spongiform Encephalopathy causing prions as defined by the United States Department of Agriculture. These tissues include the tonsils, skull, brain, trigeminal ganglia (nerves attached to brain and close to the skull exterior), eyes, spinal cord, distal ileum (a part of the small intestine), and the dorsal root ganglia (nerves attached to the spinal cord and close to the vertebral column) of cattle aged 30 months or older and the tonsils and distal ileum of the small intestine of all cattle.
- (21) “Vermicomposting” means a method of composting utilizing red worms or similar worms to breakdown organic material into a nutrient rich soil amendment.
- (22) “Untreated wood residual” means untreated wood as defined in § 6-201.

§ 6-1103 Organics Management Certification Exemptions

The following activities are exempt from the requirements of this subchapter:

- (1) A person composting 100 cubic yards or less annually of combined feedstocks is not subject to regulation under these rules.
- (2) Facilities that manage less than 3,000 cubic yards per year of solely leaf, yard, plant and untreated wood residuals provided that not more than 20 percent of the residuals are grass clippings.
- (3) Food residuals when digested provided that the residuals do not exceed one percent of the design capacity of the digester.

- (4) Facilities that compost solely any of the following materials, provided the compost is used for soil enrichment:
 - (A) any amount of animal manure;
 - (B) any amount of absorbent bedding; and
 - (C) any amount of clean high carbon bulking agent.
- (5) Facilities located on a farm that compost vegetative farm waste from a farm.
- (6) The composting of less than 1,000 cubic yards of food processing residuals when the composting takes place on a farm.
- (7) Facilities located on a farm that compost animal mortalities and slaughter house waste from the farm.
- (8) The disposal of animal mortalities when disposed on a farm when the mortalities are from the farm.
- (9) Burial of four or less animal carcasses per year when the disposal occurs in accordance with the following siting requirements:
 - (A) one hundred fifty (150) feet from the property line or surface waters,
 - (B) three (3) feet above the seasonal high water table,
 - (C) two hundred feet from public or private drinking water supplies; and
 - (D) covered with a minimum of 24 inches of soil.
- (10) Household pet burial on owner's property.
- (11) The treatment or disposal of animal, bird, and fish species resulting from an emergency declaration to control the spread of disease, provided that the disposal activities occur in consultation with the Secretary. In the case of domestic animals, the declaration shall be issued by the Secretary of Agriculture, Food & Markets, in accordance with the authorities provided under 6 V.S.A. §§ 1159 and 1464. In the case of wild animal, bird, and fish species, such declaration shall be issued by the Commissioner of the Department of Fish and Wildlife in accordance with the authorities provided under 10 V.S.A. § 4136.
- (12) Pet cemeteries. For purposes of this subdivision a pet cemetery means any plot of ground used, or intended to be used, for the permanent burial or

disposition of the remains of a pet in a grave, a mausoleum, a columbarium, a vault, or other receptacle.

§ 6-1104. Accepted composting practices for small composting facilities.

(a)(1) Applicability. This section applies to composting facilities that:

- (A) compost 5000 cubic yards per year or less of total organics of which not more than 2000 cubic yards per year or less are food residuals or food processing residuals;
- (B) manage 10,000 cubic yards or less per year of solely leaf, yard, and untreated wood residuals;
- (C) do not compost animal mortalities, slaughterhouse waste, or offal; and
- (D) have a compost management area four acres or less in size.

(2) A facility exempt from Act 250 pursuant to 10 V.S.A. § 6001 (3)(D)(vii)(VI) is not eligible to be registered under this section and shall apply for a permit under § 6-1105.

(3) Facilities registered under this section and in compliance with this section, the facility registration, and its facility management plan shall be considered operating consistent with accepted composting practices and subject to the permit limitations of 10 V.S.A. 6605j.

(b) Registration. No person shall operate a compost facility without registering that facility with the Secretary on a form provided by the Secretary and providing a copy of the facility management plan. A copy of the facility management plan and registration form shall also be provided to the solid waste planning entity. At a minimum the form shall contain the following:

- (1) The name and contact information for the facility registrant.
- (2) The name and location of the facility registered under this section.
- (3) A certification by the facility registrant that the facility has been sited, designed, constructed, and will be operated in accordance with these rules.
- (4) A statement by the facility owner that a copy of the registration was sent to the municipality and to the solid waste planning where the facility is located.
- (5) Prior to submitting a registration, the applicant shall obtain a letter from the local solid waste planning entity that the facility is acceptable under its plan.

- (c)(1) Siting criteria. A composting operation registered to operate under this section shall not construct the compost management area or the area used to treat leachate and run-off within the following siting minimum distances. The following siting distances shall not affect another property owner's ability to conduct activities not regulated by these rules:
- (A) minimum of 300 feet from the nearest public or private water supplies not owned by the applicant;
 - (B) minimum of 3 feet from seasonal high water table and bedrock;
 - (C) minimum of 100 feet from surface water;
 - (D) minimum of 100 feet from all property lines and edge of public roads; and
 - (E) minimum of 300 feet from all residences not owned by the applicant and from all public buildings.
- (2) Vermicomposting exemption. Vermicomposting facilities regulated under this section are not required to meet siting criteria provided that all activities occur within an enclosed structure with an impermeable floor.
- (d) Prohibited areas. A composting operation registered to operate under this section shall not construct the compost management area or the area used to treat leachate and run-off in accordance within the following prohibited areas:
- (1) The 100 year flood plain as shown on the National Flood Insurance Maps;
 - (2) A class I or class II wetland or its associated buffer zone unless a conditional use determination has been issued by the Secretary.
 - (3) A class III wetland unless authorized by the Secretary.
 - (4) Any location within a municipality where that municipality has prohibited composting as a part of its zoning bylaws.
 - (5) Within a designated downtown or village center, unless the municipality has expressly allowed composting in that area.
- (e) Prohibited activities. A composting operation registered to operate under this section shall not conduct any of the following prohibited activities:
- (1) The discharge of any waste or wastewater from the operation of the facility into surface waters or wetlands.
 - (2) The construction of any basin, trench, pond, or depression with the purpose of discharging run off or leachate to groundwater.

- (3) The operation or management of the facility in a manner that causes a nuisance condition.
- (f) Liquids management. Composting activities shall be managed in a manner that prevents discharges off site and to surface waters. At a minimum, the facility shall conform to the following to meet that standard:
 - (1) Clean stormwater run-off from upgradient areas shall be diverted from running onto the compost management area and the area used for the management of run-off and leachate from the compost management area. This shall be accomplished using berms, swales, and other similar controls.
 - (2) The compost management area shall be located an average slope between two and five percent. The slope shall be maintained so that ponding in the compost management area will not occur.
 - (3) All run off and leachate shall be managed on property owned or leased by the registrant.
 - (4) A registrant shall manage leachate from the compost management area through the use of a vegetative area for the treatment of leachate and stormwater run off from the compost management area designed and maintained in the following manner:
 - (A) The vegetative treatment area shall be, at a minimum, equal to the area of the compost management area.
 - (B) The vegetative treatment area shall be equal to the contributing length of the compost management area in the downslope direction
 - (C) The vegetative treatment area shall be located on an area with a slope of less than or equal to five percent and shall be managed to prevent the ponding or pooling of liquids in the area.
 - (D) The vegetative treatment area shall be maintained and operated to slow the movement of liquids off the site and promote the uptake of liquids into the vegetation or infiltration of liquids into the soils.
 - (E) Any berms, swales or ditches used to convey water from the compost management area to the vegetative treatment area shall use finished compost, bark, stone, and fabric in the construction to filter suspended solids and excess nutrients from leachate.
- (g) Facility management. Composting facilities shall be managed to properly compost materials, destroy pathogens, not create a threat to public health or the environment, and not create objectionable odors, noise, vectors or other nuisance conditions. The facility shall conform to the following to meet that standard:

- (1) The compost feedstocks shall be limited to those listed on the procedure entitled “*Approved feedstocks for small facilities registered to operate under acceptable composting practices*” dated [date of signature] as may be amended.
- (2) The clean high carbon bulking agents shall be limited to those listed on the procedure entitled “*Approved clean high carbon bulking agents for use at composting facilities*” dated [date of signature] as may be amended.
- (3) All recipes shall be designed to ensure that the initial compost mix results in:
 - (A) A carbon to nitrogen (C:N) ratio of 20:1 to 40:1.
 - (B) A bulk density of less than 1200 pounds per cubic yard.
 - (C) A pH in the range of six to eight S.U.
- (4) The pile size an windrow or pile, at the time of construction, shall be not greater than ten feet at the base and a maximum height of six feet.
- (5) Compost stability. All finished products shall meet the following prior to marketing or distribution for sale:
 - (A) Temperature decline to near ambient conditions (less than 100° F) provided that the decline is not the result of improper management of the composting process. Composting records shall indicate appropriate schedules for turning, monitoring of moisture within the required range, and an appropriate mix of composting feedstocks.
 - (B) At a minimum, at least two of the following analyses shall be required annually if the Agency suspects, either through site inspections or complaint investigations, that compost is being distributed off-site before it matures:
 - (i) Reheat potential using the Dewar Compost Self-Heating Flask. The results must indicate a stable product. Temperature rise above ambient must not exceed 20°C for stable compost.
 - (ii) Specific oxygen uptake. To be classified as stable the product must have a specific oxygen uptake rate of less than 0.1 milligrams per gram of dry solids per hour.
 - (iii) Solvita™ Compost Maturity Test. To be classified as stable the product must exhibit color equal or greater than six.

- (iv) Carbon dioxide evolution. Respirometry rate that meets or is equivalent to standards established by the US Composting Council Seal of Testing Assurance to be classified as stable.
 - (v) Ammonia/Nitrate ratio of less than 3.
 - (vi) Plant tests conducted in a manner approved by the Agency.
- (6) If the compost is to be marketed or distributed for sale, the final product shall not exceed the following concentrations. One test for these parameters annually.

Parameter	Maximum Total Concentration
Fecal Coliform	1000 MPN/g total solids (dry weight)
Salmonella	3MPN/4g total solids (dry weight)

- (7) If the compost is to be marketed or distributed for sale, the final product shall not exceed the following concentrations. One test for these parameters annually.

Parameter	Maximum Total Concentration (mg/kg dry wt)
Arsenic	15
Cadmium	21
Chromium	1200
Copper	1500
Lead	300
Mercury	10
Nickel	420
Zinc	2800

- (h) Recordkeeping requirements. The compost facility shall keep records for the following activities at the facility office in a dry and secure location available for review for five years. At a minimum, records on the following shall be retained:
- (1) The temperature of the compost windrows shall be monitored on a daily basis during the treatment process. The temperature should be monitored at one foot and three foot depths every five liner feet of windrow at the base of the windrow while achieving the treatment standards established in subsection (j)(4) of this section.
 - (2) weekly amounts, recorded in either tons or cubic yards, and types, of incoming compost feedstock;

- (3) annual amount of compost produced in cubic yards;
 - (4) annual amount of contaminants disposed of; and,
 - (5) copies of all analytical results for metals and maturity testing as required by subsection (g)(4) and (5).
- (i) Reporting requirements.
- (1) Data in the form of an annual report shall be forwarded to the Secretary by January 20 of each year, on forms provided by the Secretary.
 - (2) Any discharge or emission from a facility which poses a threat to public health and safety, a threat to the environment or the creation of a nuisance must be reported within 24 hours to the State of Vermont Department of Environmental Conservation, the local health officer, and the selectpersons of the affected municipalities. A written report shall be submitted to the parties to whom the event was reported within seven days of the discharge or emission. The report shall identify the discharge or emission that occurred, the type, quantity, and quality of waste, and the actions taken to correct the problem.
- (j) Food residuals and food processing residuals.
- (1) Food residuals or food processing residuals shall be managed as follows:
 - (A) The food residuals shall be incorporated into the compost mix the same day the residuals arrive at the facility; or
 - (B) The residuals shall be in a sealed container, or immediately covered with finished compost or untreated wood and incorporated into the compost mix within 72 hours of the residuals arrival at the facility.
 - (2) Inspection of compost feedstocks. The compost feedstocks shall be inspected upon delivery to the facility and all non-compostable material removed either manually or mechanically. All non-compostable materials shall be disposed of at a certified solid waste facility.
 - (3) Screening of finished compost. The finished compost shall be screened to remove any remaining contaminants. All contaminant materials shall be disposed of at a certified solid waste facility.
 - (4) Treatment of food residuals. The composting of food or food processing residuals shall use one of the following treatment methods:
 - (A) If using a turned windrow system, the temperature must be maintained at 131 degrees Fahrenheit (55 degrees Celsius), or

higher, for at least 13 of 16 consecutive days, during which time the materials must be turned not fewer than five times to ensure that all materials reach this temperature.

- (B) If using an actively or passively aerated static pile or the within vessel method (including bins), the temperature must be maintained at 131 degrees Fahrenheit (55 degrees Celsius), or higher, for at least three consecutive days.
- (k) Leaf and yard residual composting facilities. Facilities that compost leaf and yard residuals shall also meet the following requirements:
- (1) **Pile Construction.** Incoming leaf and yard residuals, and untreated wood must, within one week of delivery to the site, be formed into windrow piles no more than ten feet high by 15 to 20 feet wide at the base, or other configuration that provides for the proper conditions under which aerobic composting will occur. Windrows must run with the slope of the land such that runoff is not trapped by the windrows. Leaf and yard residual compost facilities may use horse manure within the composting process.
 - (2) **Grass.** Grass clippings must be incorporated, and thoroughly mixed into established windrows at a ratio of no more than one part grass to three parts leaf or wood residuals by volume within 24 hours of receipt at the facility. The composting facility must not accept grass clippings unless there is a sufficient volume of high carbon feed stocks available to meet this ratio.
 - (3) **Windrow turning.** The windrow must be turned at least four times per year. There must be no more than six months between any two turnings.
 - (4) **Distribution.** Compost must be distributed for use within one year of completion of the compost process, and within three years of receipt of the raw materials for composting.
 - (5) **Fire control.** The operator must develop and implement a plan to prevent spontaneous combustion in residual and compost piles at the site.
- (l) **Closure.** The facility must be closed in a manner that minimizes the need for further maintenance; and so that the closed facility will not pollute any waters of the state, contaminate the ambient air, constitute a hazard to health or welfare, or create a nuisance. At a minimum, the applicant must remove all compost, wastes, feedstocks, secondary materials, and residue, including compost screenings, from the facility; and broom clean the facility structures and equipment.
- (m) **Facility operator training.** The facility operator shall complete an approved operator training course within 6 months of filing the registration with the Secretary.

Note: A list of approved operator training requirements can be found at the Agency website.

- (n) If the Secretary determines that the proposed facility size, processes, activities, or the nature of the composting activities require additional review and oversight not provided by this section, the Secretary may require that the applicant apply for a certification pursuant to § 6-1105.

§ 6-1105. Medium scale categorical composting facility certifications

- (a) Applicability. This section applies to composting facilities that:
 - (1) have a compost management area of less than 10 acres in size; and
 - (2) compost the following materials:
 - (A) more than 10,000 cubic yards per year of leaf and yard waste; or
 - (B) compost 40,000 or less cubic yards per year of total organics any of the following feedstocks:
 - (i) not more than 5,000 cubic yards per year are food residuals or food processing residuals.
 - (ii) not more than 10 tons of animal, animal offal, and butcher waste per month.
- (b) Siting Limitations. A composting facility shall not receive a certification under this section unless the facility is sited in accordance with the siting standards and prohibited areas under § 6-1107.
- (c) Application Requirements. In order to qualify for a medium scale compost certification, the applicant shall submit an application which provides the following information:
 - (1) Site plan map. A site plan map at a scale of 1:100 or greater that contains: the property boundaries; structures; access roads; truck loading and unloading areas; wash area for totes; location of barriers to unauthorized entry; water supplies; feedstock storage areas; compost management area ; areas for the management and treatment of leachate and run-off; and water quality sampling points, if applicable.
 - (2) Topographic map. A United States Geological Survey topographic map with a scale of 1:24,000 or a color printout from the Agency internet mapping program that contains all available layers that show siting criteria and prohibited areas established under § 6-1107.

- (3) Soils map. The application shall include a copy of a Natural Resource Conservation Service soils map for the area.
- (4) Management plan detailing, at a minimum:
 - (A) expected volume and type of incoming materials;
 - (B) methods for achieving odor control;
 - (C) methods for achieving noise control;
 - (D) methods for controlling vectors, dusts, and litter;
 - (E) methods for achieving the liquid management standards at § 6-1108;
 - (F) methods to inspect loads and remove non-compostable materials or contaminants from the incoming feedstocks;
 - (G) a description of the composting process and how that process will meet the standards established under § 6-1110(c);
 - (H) fire prevention and control measures;
 - (I) list of equipment to be used;
 - (J) hours of operation;
 - (K) access control;
 - (L) product distribution; and,
 - (M) a sampling plan for metals concentrations as required by subsection (e)(8) of this section and stability and maturity testing of the finished compost.
- (d) Reporting and recordkeeping requirements. The facility shall meet the reporting and recordkeeping requirements of § 6-1109.
- (e) Operational requirements.
 - (1) The facility shall operate in accordance with its approved facility management plan and the requirements of this section.
 - (2) The facility shall be managed to properly compost materials, destroy pathogens, not create a threat to public health or the environment, and not create objectionable odors, noise, vectors or other nuisance conditions.

- (3) Unless an alternative is approved as a part of the facility management plan the initial compost mix shall result in:
 - (A) A carbon to nitrogen (C:N) ratio of 20:1 to 40:1.
 - (B) A bulk density of less than 1200 pounds per cubic yard.
 - (C) A pH in the range of six to eight S.U.
- (4) A facility that uses food residuals or food processing residuals as a compost feedstock shall comply with the requirements of § 6-1110.
- (5) A facility that uses animal mortalities, offal, or butchering waste as a compost feedstock shall comply with the requirements of § 6-1112.
- (6) A facility that uses leaf and yard residuals as a compost feedstock shall comply with the requirements of subsection (f) of this section.
- (7) Compost Stability. Finished products marketed or distributed for sale shall be tested for two of the following methods listed below:
 - (A) Temperature decline to near ambient conditions (less than 100° F) when not the result of improper management of the composting process. Composting records shall indicate appropriate schedules for turning, monitoring of moisture within the required range, and an appropriate mix of composting feedstocks.
 - (B) Reheat potential using the Dewar Compost Self-Heating Flask. The results must indicate a stable product. Temperature rise above ambient must not exceed 20°C for stable compost.
 - (C) Specific oxygen uptake. To be classified as stable the product must have a specific oxygen uptake rate of less than 0.1 milligrams per gram of dry solids per hour.
 - (D) Solvita™ Compost Maturity Test. To be classified as stable the product must exhibit color equal or greater than six.
 - (E) Carbon dioxide evolution or Respiration Rate. Respirometry rate that meets or is equivalent to standards established by the US Composting Council Seal of Testing Assurance to be classified as stable.
 - (F) Reduction in organic matter (ROM) of at least 60 %
 - (G) Plant tests conducted in a manner approved by the Agency.

- (8) If the compost is to be marketed or distributed for sale, the final product shall not exceed the following metals concentrations.

Parameter	Maximum Total Concentration (mg/kg dry wt)
Arsenic	15
Cadmium	21
Chromium	1200
Copper	1500
Lead	300
Mercury	10
Nickel	420
Zinc	2800

- (9) If the compost is to be marketed or distributed for sale, the final product shall not exceed the following concentrations. One test for these parameters annually.

Parameter	Maximum Total Concentration
Fecal Coliform	1000 MPN/g total solids (dry weight)
Salmonella	3MPN/4g total solids (dry weight)

- (f) Leaf and yard residual facilities. Facilities that solely compost leaf and yard residuals shall also meet the following requirements:
- (1) **Pile Construction.** Incoming leaf and yard residuals and untreated wood must, within one week of delivery to the site, be formed into windrow piles no more than ten feet high by 15 to 20 feet wide at the base, or other configuration that provides for the proper conditions under which aerobic composting will occur. Windrows must run with the slope of the land such that runoff is not trapped by the windrows. Leaf and yard residual compost facilities may use horse manure within the composting process.
 - (2) **Grass.** Grass clippings must be incorporated, and thoroughly mixed into established windrows at a ratio of no more than one part grass to three parts leaf or untreated wood by volume within 24 hours of receipt at the facility. The composting facility must not accept grass clippings unless there is a sufficient volume of high carbon feed stocks available to meet this ratio.
 - (3) **Windrow turning.** The windrow must be turned at least four times per year. There must be no more than six months between any two turnings.
 - (4) **Distribution.** Compost must be distributed for use within one year of completion of the compost process, and within three years of receipt of the raw materials for composting.

- (5) Fire control. The operator must develop and implement a plan to prevent spontaneous combustion in residual and compost piles at the site.
- (g) Closure. The facility must be closed in a manner that minimizes the need for further maintenance; and so that the closed facility will not pollute any waters, contaminate the ambient air, constitute a hazard to health or welfare, or create a nuisance. At a minimum, the applicant must remove all compost, wastes, feedstocks, secondary materials, and residue, including compost screenings, from the facility; and broom clean the facility structures and equipment.
- (h) Facility operator training. A minimum of one person at the facility on any operating day shall have completed an approved operator training course within six months of the issuance of the certification. A list of approved operator training requirements can be found at the Agency website.
- (i) Acceptable under solid waste implementation plan. Prior to submitting an application, the applicant shall obtain a letter from the local solid waste planning entity that the facility is acceptable under its plan.
- (j)(1) Notice. On or before the date of filing any certification application or an amendment thereto, the applicant shall send notice and a copy of the application to the municipality where the facility is proposed to be or is located and any adjacent Vermont municipality if the facility is located on a boundary. The applicant shall also notify all adjoining residences and landowners. The notice shall inform interested persons that they have 14 days to comment on the application and that comments may be sent to the Department of Environmental Conservation, Solid Waste Management Program. The applicant shall furnish the secretary the names of those noticed of the application.
- (2) Public informational meeting. Upon a written request from a party identified in §6-305(a)(9), or upon the Secretary's own motion, the Secretary shall hold a public informational meeting on the application. The request shall be made within 14 days of the Secretary's receipt of the application. Upon determining to hold a public informational meeting the Secretary shall:
 - (A) schedule and convene a public informational meeting;
 - (B) extend the public comment period for a period not less than three days and not more than seven days from the date of the public informational meeting; and,
 - (C) require that the applicant provide notice of the meeting to all persons notified under subsection (j)(1) of this section.
- (k) If the Secretary determines that the proposed facility size, processes, activities, or the nature of the composting activities require additional review and oversight not

provided by this section, the Secretary may require that the person apply for a certification pursuant to § 6-1106.

§ 6-1106. Large composting facilities

- (a) **Applicability.** This section applies to composting facilities that do not qualify for medium categorical composting certification under § 6-1105.
- (b) **Siting Limitations.** A composting facility shall not receive a certification under this section unless the facility is sited in accordance with the siting standards and prohibited areas under § 6-1107.
- (c) **Application Requirements.** In order to qualify for a large scale compost certification, the applicant shall submit an application which provides the following information:
 - (1) **Site plan map.** A site plan map at a scale of 1:100 or greater that contains: the property boundaries; structures; access roads; truck loading/unloading areas; wash areas for totes; location of barriers to unauthorized entry; water supplies; feedstock storage areas; compost management area; areas for the management and treatment of leachate and run-off; and water quality sampling points, if applicable established by § 6-1107.
 - (2) **Topographic map.** A United States Geological Survey topographic map with a scale of 1:24,000 or a color printout from the Agency internet mapping program that contains all available layers that show siting features and prohibited areas.
 - (3) **Soils map.** The application shall include a copy of a Natural Resource Conservation Service soils map for the area.
 - (4) **Management plan detailing, at a minimum:**
 - (A) expected volume and type of incoming materials;
 - (B) methods for achieving odor control;
 - (C) methods for achieving noise control;
 - (D) methods for controlling vectors, dusts, and litter;
 - (E) methods for achieving the liquid management standards at § 6-1108;
 - (F) methods to inspect loads and properly screen for potential contaminants in incoming feedstocks;

- (G) a description of the composting process and how that process will meet the standards established under § 6-1110(c);
 - (H) fire prevention and control measures;
 - (I) list of equipment to be used;
 - (J) hours of operation;
 - (K) access control;
 - (L) product distribution; and,
 - (M) plan for metals concentrations as required in (e)(7) of this section and stability and maturity testing of the final compost product.
- (d) Reporting and recordkeeping requirements. The facility shall meet the reporting and recordkeeping requirements of § 6-1109.
- (e) Operational requirements.
- (1) The facility shall operate in accordance with its approved facility management plan and the requirements of this section.
 - (2) The facility shall be managed to properly compost materials, destroy pathogens, not create a threat to public health or the environment, and not create objectionable odors, noise, vectors or other nuisance conditions.
 - (3) Unless an alternative is approved as a part of the facility management plan the initial compost mix shall result in:
 - (A) A carbon to nitrogen (C:N) ratio of 20:1 to 40:1.
 - (B) A bulk density of less than 1200 pounds per cubic yard.
 - (C) A pH in the range of six to eight S.U.
 - (4) A facility that uses food residuals or food processing residuals as a compost feedstock shall comply with the requirements of § 6-1110.
 - (5) A facility that uses animal mortalities, offal, or butchering waste as a compost feedstock shall comply with the requirements of § 6-1112.
 - (6) Compost Stability. Finished products marketed or distributed for sale shall be tested for two of the following methods listed below:
 - (A) Temperature decline to near ambient conditions (less than 100° F) when not the result of improper management of the composting process. Composting records shall indicate appropriate schedules

for turning, monitoring of moisture within the required range, and an appropriate mix of composting feedstocks.

- (B) Reheat potential using the Dewar Compost Self-Heating Flask. The results must indicate a stable product. Temperature rise above ambient must not exceed 20°C for stable compost.
 - (C) Specific oxygen uptake. To be classified as stable the product must have a specific oxygen uptake rate of less than 0.1 milligrams per gram of dry solids per hour.
 - (D) Solvita™ Compost Maturity Test. To be classified as stable the product must exhibit color equal or greater than six.
 - (E) Carbon dioxide evolution or Respiration Rate. Respirometry rate that meets or is equivalent to standards established by the US Composting Council Seal of Testing Assurance to be classified as stable.
 - (F) Reduction in organic matter (ROM) of at least 60 %
 - (G) Plant tests conducted in a manner approved by the Agency.
- (7) If the compost is to be marketed or distributed for sale, the final product shall not exceed the following metals concentrations:

Parameter	Maximum Total Concentration (mg/kg dry wt)
Arsenic	15
Cadmium	21
Chromium	1200
Copper	1500
Lead	300
Mercury	10
Nickel	420
Zinc	2800

- (9) If the compost is to be marketed or distributed for sale, the final product shall not exceed the following concentrations. One test for these parameters annually.

Parameter	Maximum Total Concentration
Fecal Coliform	1000 MPN/g total solids (dry weight)
Salmonella	3MPN/4g total solids (dry weight)

- (f) Applications for certification under this section shall be treated as solid waste facility certifications and shall address the following:
 - (1) the requirements of §§ 6-304(e)(10) (financial responsibility); (11) (closure plan); (13) (planning requirements of 10 V.S.A. § 6605(c)); and (14) (background disclosure requirements of 10 V.S.A. § 6615f);
 - (2) submit a plan for effective public notice as required by § 6-304(h); and
 - (3) be subject to the application review requirements of §§ 6-305 and 307.
- (g) Facility operator training. A minimum of one person at the facility shall complete an approved operator training course within six months of the issuance of the certification. A list of approved operator training requirements can be found at the Agency website.

§ 6-1107. Siting and prohibited areas for medium and large compost facilities.

- (a) Siting criteria. A composting operation shall not construct the compost management area and area used to treat or infiltrate runoff to groundwater within the following siting minimum distances. The following siting distances shall not affect another property owner's ability to conduct activities not regulated by these rules:
 - (1) minimum of 300 feet from the nearest public or private water supplies not owned by the applicant;
 - (2) minimum of 3 feet from seasonal high water table and bedrock;
 - (3) minimum of 100 feet from surface water;
 - (4) minimum of 100 feet from all property lines and edge of public roads; and
 - (5) minimum of 300 feet from all residences not owned by the applicant and from all public buildings.
 - (6) for compost facilities, a minimum of 10,000 feet of a runway used by turbojet aircraft, or 5,000 feet of a runway used only by piston-type aircraft.
- (b) Prohibited areas. A composting operation registered shall not construct the compost management area and any area used to treat or infiltrate groundwater in accordance within the following prohibited areas:
 - (1) The 100 year flood plain as shown on the National Flood Insurance Maps;
 - (2) A class I or class II wetland or its associated buffer zone unless a conditional use determination has been issued by the Secretary.

- (3) A class III wetland. Unless authorized by the Secretary.
- (4) Any location within a municipality where that municipality has prohibited composting as a part of its zoning bylaws.
- (5) within 1000 feet of a residential housing unit located within an area that has a residential housing density of 3 units per acre or greater.
- (6) within a designated downtown or village center, unless the municipality has expressly allowed composting in that area.

§ 6-1108. Liquids management standards for medium and large compost facilities.

- (a) A compost facility shall divert all clean stormwater run-off from surrounding upgradient areas and prevent it from running onto the compost management area. This shall be accomplished through the use of berms, swales, grading, and other controls.
- (b) The compost facility shall not have an unpermitted discharge of leachate or runoff to a surface water.
- (c) All material that has not met the treatment standard defined in § 6-1110(d), excluding leaf and yard residuals and high carbon bulking agents, shall be located on an average slope of between two and five percent. The slope shall be maintained so that ponding in the compost management area will not occur. The area for this material shall be located on the following:
 - (1) an impervious pad; or
 - (2) improved native soils as approved by the Secretary; or
 - (3) a compacted gravel pad meeting a conductivity of 1×10^{-7} cm/sec as approved by the Secretary.
- (d) Facilities are required to collect and treat all leachate from the active composting area in a lined pond, swale or lagoon. The leachate storage area shall meet the following construction standards:
 - (1) be single lined with a natural or synthetic liner that has a maximum permeability of 10^{-7} in a design approved by the Secretary;
 - (2) be constructed in accordance with Natural Resource Conservation Service standards and approved by the Secretary; or
 - (3) be a waste management lagoon constructed consistent with the Agency of Agriculture, Food, and Markets standards.

- (e) Leachate storage areas shall, at all times, maintain a minimum of two feet of freeboard and be isolated from public access with fencing. Acceptable treatment options include the following:
 - (1) Collection and treatment at a permitted wastewater treatment facility;
 - (2) Collection and application to active composting piles in a manner approved by the Secretary;
 - (3) Treatment on site in a manner approved by the Secretary;
- (f) Acceptable treatment for run-off collected from compost curing areas include:
 - (1) Collection and treatment at a permitted wastewater treatment facility;
 - (2) Collection and application to active composting piles in a manner approved by the Secretary, if used to wet compost that has achieved the treatment standards established in § 6-1110(d),
 - (3) Treatment on site in a manner approved by the Secretary;
 - (4) Collection and land application under a nutrient management plan prepared in accordance with Natural Resource Conservation Service Practice Standard 590 – Nutrient Management with the following restrictions:
 - (A) Application rate shall not exceed 25,000 gallons per acre per day.
 - (B) Liquid application shall not occur when the fields are saturated, frozen, or snow covered or when ponding occurs.
 - (C) The application shall not result in an offsite discharge or a discharge to surface water.
- (g) The design, construction, and operation of the facility shall comply with the Vermont Groundwater Protection Rule and Strategy as may be amended.
- (h) Testing of leachate and run-off may be required dependent on the approved feedstocks accepted at the facility.

§6-1109. Recordkeeping and reporting requirements for medium and large compost facilities.

- (a) Recordkeeping requirements. The compost facility shall keep records for the following activities at the facility office available for review in a dry and secure location for five years. At a minimum, records on the following shall be retained:

- (1) The temperature of the active compost windrows shall be monitored on a daily basis during the treatment process in accordance with the requirements of the approved facility management plan.
 - (2) weekly amounts and types, of incoming compost feedstock;
 - (3) annual amount of compost produced;
 - (4) annual amount of contaminants disposed of; and,
 - (5) copies of all analytical results for metals and maturity testing of the final compost product as required by § 6-1106 (e)(6) and (7).
- (b) Reporting requirements.
- (1) Data in the form of an annual report shall be forwarded to the Secretary by January 20 of each year, on forms provided by the Secretary
 - (2) Any discharge or emission from a facility which poses a threat to public health and safety, a threat to the environment or the creation of a nuisance must be reported within 24 hours to the State of Vermont Department of Environmental Conservation, the local health officer, and the selectpersons of the affected municipalities. A written report shall be submitted to the parties to whom the event was reported within seven days of the discharge or emission. The report shall identify the discharge or emission that occurred, the type, quantity, and quality of waste, and the actions taken to correct the problem.

§6-1110. Management of food and food processing residuals at medium and large composting facilities.

- (a) Food residuals or food processing residuals shall be managed as follows:
- (1) The residuals shall be incorporated into the compost mix the same day it arrives at the facility; or
 - (2) The residuals shall be in a sealed container, or immediately covered with finished compost or untreated wood and incorporated into the compost mix within 72 hours of its arrival at the facility.
- (b) Inspection of compost feedstocks. The compost feedstocks shall be inspected upon delivery to the facility and non-compostable materials either manually or mechanically removed. All non-compostable materials shall be disposed of at a certified solid waste facility.
- (c) Screening of finished compost. The finished compost shall be screened to remove non-compostable materials. All non-compostable materials shall be disposed of at a certified solid waste facility.

- (d) Treatment of food residuals. The composting of food or food processing residuals shall use one of the following treatment methods:
 - (1) If using a turned windrow system, the temperature must be maintained at 131 degrees Fahrenheit (55 degrees Celsius), or higher, for at least 13 of 16 consecutive days, during which time the materials must be turned to ensure that all materials reach this temperature.
 - (2) If using an actively or passively aerated static pile (including static windrows), or the within vessel method (including bins), the temperature must be maintained at 131 degrees Fahrenheit (55 degrees Celsius), or higher, for at least three consecutive days.
 - (3) Another method that reduces pathogens to the extent equivalent to the reduction achieved by the methods in subsections (d)(1) or (2) of this section, which is approved by the Secretary.

§ 6-1111. Standards for animal burial categorical certifications.

- (a) Applicability. This section applies to the burial or disposal of all non-exempt animal mortalities, animal offal, and butchering waste.
- (b) Composting and burial prohibited. Animals showing signs of a neurological disease shall be reported to authorities and managed in accordance with their directions. Animals that show signs of a neurological disease shall not be composted or buried.
- (c) Emergency situations. When the Secretary determines that an emergency event has occurred that requires the disposal of animal mortalities from that event, the Secretary may authorize a one time disposal event in accordance with § 6-301(c). To the maximum extent practical, the disposal event shall conform to the requirements of subsection (d) of this section.
- (d) Applications for animal burial shall apply for a permit as follows:
 - (1) The facility shall be sited and constructed in conformance with § 6-1107.
 - (2) The facility shall meet the following:
 - (A) The pit must be managed so that the carcasses do not attract pests or vectors;
 - (B) Upon deposit in the pit the carcasses shall be:
 - (i) immediately covered with a minimum of 1/8" layer of hydrated lime and covered with at least 2 feet of soil; or

- (ii) immediately covered with a minimum of 1/8" layer of hydrated lime and covered with at least 6" of soil and covered with boards; or,
 - (iii) managed in an alternative manner if approved in advance by the Solid Waste Program;
 - (C) Active pits must have snow fencing, or equivalent around the perimeter until the top of pit is at ground level;
 - (D) No carcasses shall be deposited within two feet of the surface;
 - (E) Final cover shall consist of at least two feet of compacted soil.
- (e)(1) Notice. On or before the date of filing any certification application or an amendment thereto, the applicant shall send notice and a copy of the application to the solid waste planning entity, to the municipality where the facility is proposed to be or is located and any adjacent Vermont municipality if the facility is located on a boundary. The applicant shall also notify all adjoining residences and landowners. The notice shall inform interested persons that they have 14 days to comment on the application and that comments may be sent to the Department of Environmental Conservation, Solid Waste Management Program. The applicant shall furnish the secretary the names of those noticed of the application.
- (2) Public informational meeting. Upon a written request from a party identified in § 6-305(a)(9), or upon the Secretary's own motion, the Secretary shall hold a public informational meeting on the application. The request shall be made within 14 days of the Secretary's receipt of the application. Upon determining to hold a public informational meeting the Secretary shall:
- (A) schedule and convene a public informational meeting;
 - (B) extend the public comment period for a period not less than three days and not more than seven days from the date of the public informational meeting; and
 - (C) require that the applicant provide notice of the application to all persons notified under subsection (e)(1) of this section.

§ 6-1112. Standards for animal mortality composting.

- (a) Applicability. This section applies to a facility that includes animal mortalities, animal offal, or butchering waste as a compost feedstock

- (b) Composting and burial prohibited. Animals showing signs of a neurological disease shall be reported to authorities and managed in accordance with their directions. Animals that show signs of a neurological disease shall not be composted or buried.
- (c) Emergency situations. When the Secretary determines that an emergency event has occurred that requires the composting of animal mortalities from that event, the Secretary may authorize a one time composting event in accordance with § 6-301(c). To the maximum extent practical, the disposal event shall conform to the requirements of subsection (d) of this section.
- (d) Compost pile management. Composting of animal mortalities, animal offal and butchering waste must comply with the same application standards as Section 6-1105 and include the following operational standards:
 - (1) Feedstock management. The feedstock shall be incorporated into the compost mix when it arrives at the facility.
 - (2) Compost pile construction. Compost piles shall be constructed in the following manner:
 - (A) Prepare a 24-inch depth bed of bulky, absorbent organic material such as wood chips or similar material. Ensure the base is large enough to allow for two-foot clearance around the carcass.
 - (B) Lay animal in the center of the bed. Lance the rumen to avoid bloating and possible explosion.
 - (C) Cover carcass with two feet of a dry, high-carbon material, old silage, sawdust or dry stall bedding (some semi-solid manure will expedite the process).
 - (D) For small animals, layer mortalities with a minimum of two feet of carbon material between layers.
 - (E) Add cover material as necessary to maintain the two foot cover.
 - (3) Monitoring and Turning Requirements.
 - (A) The composting of animal mortalities shall use one of the following treatment methods:
 - (i) If using an actively or passively aerated static pile (including static windrows), or the within vessel method (including bins), the temperature must be maintained at 131 degrees Fahrenheit (55 degrees Celsius), or higher, for at least three consecutive days.

- (ii) Another method that reduces pathogens to extent equivalent to the reduction achieved by the methods in subsection (d)(3)(A)(i) of this section, which is approved by the Secretary.
- (B) The compost shall not be turned until at least the third month of composting.
- (C) After three months treatment, if the requirements of subsection (d)(3) of this section have been met, the permittee may visually examine the compost pile to determine whether the piles may be turned based upon whether the mortalities have degraded (with the exception of bones) and no odors are evident.
- (4) Compost that contains specified risk material from ruminants or carcasses of ruminants greater than 30 months old cannot be distributed off-site and must be managed on land owned or controlled by the permittee.
- (5) If finished compost is to be sold or distributed off-site it shall meet the testing requirements in § 6-1105 (e)(7), (8) and (9).

§6-1113. Anaerobic solid waste digesters.

- (a) Applicability. This section applies to the following anaerobic digesters:
 - (1) When any amount of food scraps are used as a feedstock for the digester; or
 - (2) If the digester is not located on a farm and any amount of food processing waste is used as a feedstock for the digester; or
 - (3) A digester may accept a limited amount food residuals on a trial basis and not apply for a permit under this section. The amount of food residuals shall not exceed five percent of the design capacity of the digester and the trial shall not to exceed 12 weeks in duration. The facility shall apply for and receive an insignificant waste management event approval for the activity under § 6-301(c).
- (b) Anaerobic digester permitting. All facilities shall meet the following requirements:
 - (1) Siting requirements. Facilities permitted under this section shall meet the siting and prohibited area requirements of Subchapter 5. Facilities permitted under this section shall be sited in the same fashion as facilities permitted under Subchapter 12.

- (2) Application Requirements. In order to qualify for a certification, the applicant shall submit an application which provides the following information:
- (A) Topographic map. A United States Geological Survey topographic map with a scale of 1:24,000 or a color printout from the Agency environmental interest locator that contains all available layers that show siting features and prohibited areas

Note: The environmental interest locator may be found at the Agency's website.

- (B) Site plan map. A site plan map at a scale of 1:100 or greater that contains:
- (i) location of barriers to prevent unauthorized entry;
 - (ii) access roads;
 - (iii) location of the following areas of the facility:
 - (I) the area used for processing and handling for the feedstocks for the anaerobic digester;
 - (II) wash area for totes;
 - (III) areas designated for storage of non-permitted wastes delivered to or generated by the facility;
 - (IV) area for scales, if any;
 - (iv) facility boundaries and property boundaries.
- (C) Engineering design plans that detail:
- (i) The facility design;
 - (ii) A schematic of the anaerobic digester that includes any additional processes, including pasteurization, the generator unit, the gas processing unit, digestate processing or holding ponds;
 - (iii) A design of all operational aspects of the anaerobic digester and related components, including utility hookups;
 - (iv) A design and location of a flare to be used as a backup combustion method;

- (v) For facilities that use a tipping floor for the management of food residuals or food processing residuals, the tipping floor shall be constructed in accordance with § 6-1204(c). If the facility does not use a tipping floor, all food residuals and food processing residuals shall be stored in containers.
- (D) Management plan detailing:
- (i) expected volume and type of incoming feedstocks;
 - (ii) methods for achieving odor control;
 - (iii) methods for achieving noise control;
 - (iv) methods for controlling vectors, dusts, and litter;
 - (v) methods for digestate management.
 - (vi) methods to properly remove potential contaminants in incoming feedstocks;
 - (vii) fire prevention and control measures, gas leak monitoring, fire contingency and control measures;
 - (viii) list of equipment to be used in addition to the digester;
 - (ix) hours of operation for the acceptance of food residuals, food processing residuals and other feedstocks;
 - (x) For facilities that use a tipping floor for the management of food residuals or food processing residuals, the tipping floor shall be managed in accordance with § 6-1206(a)(3). If the facility does not use a tipping floor, the facility shall be managed to prevent a discharge or emission from the containers.
- (3) Recordkeeping requirements. The compost facility shall keep records for the following activities. At a minimum, records on the following shall be retained A digester permitted under this section shall keep records at the facility office available for review in a dry and secure location for five years. Records shall be kept on the following:
- (A) documentation that digestion process meets pathogen inactivation standards if digestate is used off site or sold for public use;
 - (B) weekly amounts and types, of incoming feedstock;

- (C) annual amount of digestate produced and description of how digestate is managed.
- (4) Reporting requirements. An annual report shall be forwarded to the Secretary by January 20 of each year, on forms provided by the Secretary. The annual report shall include the following information:
- (A) annual amounts and types of incoming feedstocks; and
 - (B) annual amount of digestate produced and description of how digestate is managed.
- (5) Operational requirements.
- (A) The facility shall operate in accordance with its approved facility management plan and the requirements of this section.
 - (B) Animals showing signs of a neurological disease shall be reported to authorities and managed in accordance with their directions.
 - (C) Digestate shall be managed in the following manner:
 - (i) Solid portions of digestate must meet the treatment standards established in § 6-1110(d) by composting or other treatment options prior to distribution off-site for non-farm use.
 - (ii) If the facility is located on a farm, digestate that meets standards for pathogen treatment and contaminant content and concentration established by the Secretary or Secretary of Agriculture, Food, and Markets may be exempted from solid waste disposal siting and certification requirements where collection and land application occurs under a nutrient management plan prepared in accordance with Natural Resource Conservation Service Practice Standard 590 – Nutrient Management but is not authorized for use on crops for direct human consumption; or
 - (iii) If the facility is not located on a farm, collection and land application of leachate (the liquid portion of the digestate) must meet solid waste siting and certification criteria and occur under a nutrient management plan prepared in accordance with Natural Resource Conservation Service Practice Standard 590 – Nutrient Management or a plan approved by the Secretary with the following restrictions:
 - (I) Application rate shall not to exceed 25,000 gallons per acre per day.

- (II) Liquid application shall not occur when the fields are saturated, frozen, snow covered, or when ponding occurs.
- (6) Permitting. Facilities permitted under this subsection shall meet the same requirements as facilities permitted under § 6-1106(f).

Subchapter 12 - STORAGE, TRANSFER AND RECYCLING FACILITIES

6-1201 General

All solid waste recycling, storage and transfer facilities are subject to the requirements of this Subchapter and the requirements of Subchapters 3,5,9 and 10, except for those facilities which manage sludge or septage, facilities used in conjunction with diffuse disposal, and those facilities covered under § 6-1207.

6-1202 Facility Management Plan

Design and operation of storage, transfer and recycling facilities shall be addressed in a facility management plan, which shall describe how the facility will meet the requirements of §§ 6-1203, 6-1204, 6-1205 and all applicable requirements of § 6-1206. The management plan shall be prepared under the direction of a professional engineer, licensed to practice in the State of Vermont, unless the requirement that an engineer be involved is specifically waived by the Secretary. The management plan shall be submitted with the application for certification.

6-1203 General Performance Standards

- (a) Facilities shall be designed and operated to control vectors, and to control emissions or discharges to the environment, including odor and dust, so as to preclude the creation of nuisance conditions and undue threats to public health and safety or to the environment.
- (b) Facilities shall be designed and operated to prevent, to the greatest extent feasible, the reduction of the quality of the waste, such as the rotting or contamination of stored wastes or recyclable materials.
- (c) Facilities shall be designed to assure the effective collection, storage and/or processing of waste or recyclable materials.

6-1204 Design Standards

- (a) All designs for storage, transfer and recycling facilities shall consider the following aspects of the site and the applicable requirements of Subchapter 5 in the design of the facility in order to comply with the General Performance Standards set forth in § 6-1203 above:
 - (1) soils and surficial geology;
 - (2) topography; and
 - (3) surface water.

- (b) Facilities shall be designed to provide for all weather access, with access controlled and limited to hours of operation identified in the facility management plan.
- (c) All new facilities designed with tipping floors where municipal solid waste is temporarily deposited pending transport shall be designed and constructed so that the tipping floor is either enclosed within a building or covered by a roof to prevent exposure of waste to weather. The tipping floor shall incorporate a collection system designed to collect liquids that may be associated with incoming waste materials. Liquid storage tanks shall be double-walled, and shall be sized appropriately for the particular facility.
- (d) Existing facilities which currently have a tipping floor for municipal solid waste shall comply with the requirements of subsection (c) of this section within one year from the effective date of these Rules.
- (e) Recycling facilities shall be designed to have storage capacity for all recyclable materials and any process residuals.

6-1205 Operation Standards

- (a) A contingency plan must be developed which addresses the proper management of wastes or recyclable materials during both planned and unplanned events when the facility is and is not in operation. The contingency plan must be submitted with the application for certification.
- (b) An operator training plan must be developed which provides for all facility personnel involved in the handling of waste to receive organized instruction that teaches them to perform their duties in a way that ensures the facility's compliance with all applicable statutes, rules and conditions of certification. The operator training plan must be submitted with the application for certification.
- (c) A qualified operator shall be on site during all hours of operation, unless specifically waived by the Secretary in writing, in which case a contact person must nevertheless be able to be contacted at all times.
- (d) Personal protection materials and equipment appropriate to the materials being handled shall be available at all times for material handling and spill control.
- (e) The operator shall take all practicable steps to prevent the inclusion into the waste stream destined for disposal at a discrete disposal facility of hazardous wastes subject to regulation under the Vermont Hazardous Waste Management Regulations and all waste identified in 10 V.S.A. § 6621a.
- (f) All collected wastewater from transfer stations with tipping floors shall be disposed of in a wastewater treatment facility.

- (g) Hours of operation shall be specified in the facility management plan.

6-1206 Standards For Specific Materials

- (a) Solid Waste

- (1) Except as specifically provided in this section, all solid waste shall be stored in containers. The facility shall be managed to minimize the possibility of an emission or discharge of contaminants from the containers.
- (2) All solid waste shall be transported to a treatment or disposal facility on a schedule adjusted as necessary to minimize odors from the waste.
- (3) Solid waste deposited on a tipping floor shall be removed from the tipping floor as soon as is practical, but in no event later than the end of the operating day as defined in the facility management plan. The facility management plan shall identify any unique circumstances when solid waste might remain on the tipping floor beyond the end of the operating day and the practices that will be implemented at the facility so that the facility complies with the provisions of § 6-1203 during this unique circumstance.

- (b) Recyclable Materials. Materials to be recycled, contaminated recyclable materials, and process residuals which may be dispersed by wind shall be stored inside buildings or other roofed structures, in box trailers, or in other closed containers which are covered except when the facility is operating.

- (c) Lead-acid batteries

- (1) All lead-acid batteries shall be stored under cover on an impervious surface.
- (2) The facility must maintain a supply of absorbent materials and acid neutralizers sufficient to clean up a spill of up to one gallon of battery acid solution.
- (3) All batteries shall be transported off-site in accordance with all applicable federal and state hazardous materials transport regulations.

- (d) Household Hazardous Waste (HHW) and Conditionally Exempt Generator (CEG) Hazardous Waste

- (1) Collection Events

- (A) Collection events may take place only at certified solid waste facilities or at other locations specifically approved by the Secretary pursuant to § 6-301(c). The facility management plan must address the wastes to be managed and the activities to be conducted during the event.
 - (B) If the event is held at a site which does not have appropriate safety, accident and contingency provisions in its existing facility management plan, the collection event organizer must submit a safety, accident and contingency plan to the Secretary for the specific site or sites where the collection event will take place.
 - (C) All wastes must be handled by personnel appropriately trained in accordance with all applicable federal and state statutes and regulations.
 - (D) At the end of an event, all CEG hazardous waste collected during the event must be packaged, labeled, and transported off-site by a permitted hazardous waste transporter in accordance with Vermont Hazardous Waste Management Regulations.
 - (E) At the end of an event, all HHW collected during the event must be removed from the site. The waste may be managed as a regulated hazardous waste as provided in subsection (d)(1)(D) of this section or may be transported to a certified HHW/CEG Hazardous Waste Collection Facility or a Semi-Permanent HHW/CEG Hazardous Waste Collection Unit.
- (2) Mobile HHW/CEG Hazardous Waste Collection Units

Mobile HHW/CEG Hazardous Waste Collection Units must meet the requirements of § 6-1206(d)(1) and the following requirements:

- (A) The operator of the mobile collection unit must be a permitted hazardous waste transporter when CEG hazardous wastes are collected;
- (B) The mobile collection unit must return to a solid waste facility certified to support it upon completion of each collection event; and
- (C) Collected HHW and CEG hazardous wastes may remain in the mobile unit while at the vehicles's support facility for no more than 10 days before it must be transferred to another permitted hazardous waste transporter, a certified hazardous waste treatment,

storage or disposal facility, or to a HHW/CEG hazardous waste collection facility or a semi-permanent HHW/CEG hazardous waste collection unit. All transfers of collected HHW and CEG hazardous wastes to another permitted hazardous waste transporter must occur at a certified facility or a certified collection site.

- (3) HHW/CEG Hazardous Waste Collection Facilities or Semi-Permanent HHW/CEG Hazardous Waste Collection Units. These facilities or units must meet the requirements of § 6-1206(d)(1) and the following requirements:
 - (A) All wastes collected must be properly stored at the end of each operating day in accordance with the facility management plan; and
 - (B) Facilities must comply with the generator short-term storage requirements of the Vermont Hazardous Waste Management Regulations.
- (e) Tires. No more than 3000 tires may be stored uncovered at the facility site at any time, unless the facility processes tires on-site, in which case, the maximum amount and the storage design shall be dictated by the facility management plan.
- (f) Construction & Demolition Waste (C&D)
 - (1) The maximum storage time and the maximum on-site volume for C&D collected at a facility that processes the material on-site shall be dictated by the approved facility management plan.
 - (2) C&D collected at a facility that does not treat the material on-site must be stored in containers or in an enclosed or covered area.
- (g) Other Materials
 - (1) Untreated wood, concrete, bricks, mortar or asphalt, scrap metals, appliances and furniture may be stored uncovered at the facility.
 - (2) Refrigerants from appliances shall be drained and collected by a qualified person prior to any further treatment of the appliances. Refrigerant-containing appliances shall be stored and handled in a manner that prevents the release of refrigerant.
 - (3) All materials listed in subsection (g)(1) of this section must be removed from the ground, and either taken off-site or stored under cover in accordance with a schedule that is included in the approved facility management plan but in no event more than two years from the date of

receipt. The maximum on-site volume shall not exceed 2,000 cubic yards at any time unless otherwise approved as part of the facility management plan.

6-1207 Categorical Recycling Facilities

- (a) Applicability.
- (1) Recycling facilities which anticipate collecting and managing between 50 and 400 tons of recyclable materials per year may qualify for categorical certification provided that an applicant submits an application which contains the information in subsection (b) of this section. If the facility qualifies, a categorical certification will be issued for a period up to five years.
 - (2) No later than January 1, 2002, any person operating a facility which was granted categorical certification prior to the effective date of these rules shall reapply for and receive either categorical certification or certification under Section 6-304 of these rules or shall cease operation of the facility.
- (b) Application requirements. In order to qualify for a categorical recycling facility certification, an application which provides all the following information must be submitted:
- (1) Site location map and sketch showing the facility size and location;
 - (2) Names of the owner of the land, the operator of the facility, along with business addresses and telephone numbers;
 - (3) Hours of operation;
 - (4) An estimate of the type and quantity of materials to be received; and
 - (5) A letter from the municipality, municipal alliance or solid waste district serving the town where the facility is located that indicates the disposal facility is acceptable under the solid waste implementation plan, if any.
- (c) Reporting requirements. The facility shall maintain records of waste source, waste type, waste quantity and destination. The data shall be reported to the Secretary within 20-days of the end of each calendar year, on forms provided by the Secretary.
- (d) Notice. On or before the date of filing any certification application for a facility, the applicant shall send notice and a copy of the application to the municipality where the facility is proposed to be or is located and any adjacent Vermont

municipality if the facility is located on a boundary. The applicant shall furnish the secretary the names of those noticed of the application.

- (e) If the Secretary determines that the proposed categorical facility size, processes, recycling activities, or the nature of the solid wastes require additional review and oversight not provided by this section, the Secretary may determine that the facility is not eligible for categorical recycling certification.

6-1208 Reporting

- (a) Except for categorical recycling facilities, the owner and/or operator of a solid waste management facility certified pursuant to this Subchapter shall make reports to the Secretary on forms developed for this purpose by the Secretary. The owner and/or operator shall file a report with the Secretary either quarterly or as specified in the facility certification. Such reports shall include, but are not limited to, information on:
 - (1) the quantity of wastes, by type, managed by the facility;
 - (2) the sources and quantity of all solid wastes (by municipality) managed by the facility; and
 - (3) the destination of all solid wastes managed by the facility.
- (b) The operator shall submit a report to the Secretary within five working days of the receipt of any information indicating non-compliance with any term or condition of certification or other operating authority.
- (c) Any discharge or emission from a facility which poses a threat to public health and safety, a danger to the environment or the creation of a nuisance must be reported within 24 hours to the State of Vermont Waste Management Division, the local health officer, and the selectpersons of the affected municipalities. Within 7 days of the event, a written report shall be submitted to the parties to whom the event was reported. The report shall identify the discharge or spill that occurred, the type, quantity, and quality of waste discharged or spilled, and the actions taken to correct the problem.
- (d) The operator shall make any other reports that may be reasonably required by the Secretary in the facility certification.

6-1209 Record Keeping

- (a) The following records must be kept by the owner and/or the operator of the facility in a dry and secure location at the facility or the primary location of business for the facility:

- (1) All information that demonstrates compliance with Subchapters 5, 9, 10 and 12;
 - (2) Copies of the quarterly report forms submitted to the Secretary as a requirement of certification; and
 - (3) Copies of any reports, records, data or other information required to be submitted to the Secretary as a requirement of certification.
- (b) All records must be kept from the date on which the application for initial certification is signed through the date of closure of the facility.

Subchapter 13 -- Management of mining and mineral processing waste.

§ 6-1301. Applicability.

- (a) Notwithstanding the provisions of subchapters 3 through 12 of this rule, no person shall operate a facility for the disposal, treatment, or storage of mining or mineral processing waste without receiving a certification from the Secretary under this subchapter. Facilities that manage mining or mineral processing waste and other solid wastes are subject to the requirements of subchapters 3 through 12 of these rules.
- (b) A person may request categorical mining waste certification, provided that:
 - (1) The waste managed at the facility is a mining waste and not a mineral processing waste; and
 - (2) The mining waste managed at the facility does not exceed 15,000 cubic yards per year.
- (c) Mining or mineral processing waste subject to the hazardous waste management regulations shall not be subject to this subchapter. Any mining or mineral processing waste excluded from the hazardous waste management rules pursuant to § 7-203(e) shall be subject to the certification requirements of § 6-1303.
- (d) Soil, rock, and materials from mining activities that are not mining waste or a mineral processing waste are not subject to the certification requirements of this rule.
- (e) Transition and implementation of this subchapter.
 - (1) On or before August 1, 2006 a person operating a mining or a mineral processing waste treatment, storage, or disposal facility not currently certified under these rules shall notify the Secretary of the following information:
 - (A) The location of the waste management facility or facilities.
 - (B) Whether the waste is considered mining waste or mineral processing waste.
 - (C) A brief narrative of the waste management activities taking place at the facility.
 - (2) Based on the information provided in subsection (e)(1) of this section, the Secretary may require the person operating a mining or mineral processing

waste treatment, storage or disposal facility to provide additional information about the facility or the waste at the facility.

- (3) On or before November 1, 2006 any person subject to the requirements of § 6-1302 shall submit an administratively complete application for certification to the Secretary. Based on the information provided in subsection (e)(1) of this section, the Secretary may require this application before November 1, 2006.
- (4) On or before February 1, 2007 any person subject to the requirements of § 6-1303 shall submit an administratively complete application for certification to the Secretary. Based on the information provided in subsection (e)(1) of this section, the Secretary may require this application before February 1, 2007.
- (f) The Secretary may waive technical and siting requirements of these rules provided the following conditions are met:
 - (1) The President of the United States intends to perform a response action, as defined in 42 U.S.C. §9601(25), or the Secretary intends to perform a removal or remedial action, pursuant to 10 V.S.A. Chapter 159, in response to a release or threatened release of hazardous substances or materials; and
 - (2) The Secretary makes a prior written finding that:
 - (A) the proposed response action will not adversely affect public health, safety or the environment; and
 - (B) the technical and siting requirements will be complied with to the extent practical in light of the overall objectives of the response.

§ 6-1302. Categorical mining waste certification.

- (a) Application. Application for a categorical mining waste certification shall be made on a form approved by the Secretary. The application shall, at a minimum, include the following information:
 - (1) The location where the mining waste is managed and a diagram detailing the limits on the management area.
 - (2) A waste characterization report pursuant to § 6-1308.
 - (3) A certificate of service that demonstrates that the applicant has provided notice as required in subsection (b) of this section.

- (4) A letter from the municipality, municipal alliance or solid waste district serving the town where the facility is located that indicates the facility is acceptable under the solid waste implementation plan, if any.
- (5) Any additional information that the Secretary deems necessary to evaluate potential impacts to the public health, and the air, groundwater, and surface water quality.
- (b) (1) Notice. On or before the submittal of the application to the Secretary, the applicant shall send notice and a copy of the application to:
 - (A) The municipality where the facility is proposed to be or is located and any adjacent Vermont municipality if the facility is located on a boundary.
 - (B) All adjoining residences and landowners.
- (2) The Agency shall accept and consider comments on an application for at least 14 days after receipt of the application by the Secretary.
- (c) Certification. A certification issued pursuant to this section shall contain the following terms and conditions:
 - (1) A condition that the certification holder notify the Secretary prior to the implementation of any change to the mining or manufacturing process, or any change to the management of the mining waste, that would chemically or physically alter the character of the mining waste.
 - (2) A condition that the operator report to the Secretary within five working days of the receipt of any information indicating non-compliance with any term or condition of certification or other operating authority.
 - (3) A condition that the operator notify the Secretary, the local health officer, and the municipal legislative body of the affected municipalities about any unpermitted discharge or emission from a facility within 24 hours. Within seven days of the event, a written report shall be submitted to the Secretary, the local health officer, and the selectpersons of the affected municipalities. The report shall identify the discharge or spill that occurred, the type, quantity, and quality of waste discharged or spilled, and the actions taken to correct the problem. This condition applies in addition to the requirements of 10 V.S.A. § 6617.
 - (4) Any additional conditions, requirements, restrictions, as the secretary may deem necessary to preserve and protect the public health and the air, groundwater and surface water quality. This may include requirements

concerning recording, reporting, and inspections of the operation of the facility.

- (d) If the Secretary determines that the proposed categorical facility size, processes, disposal activities, or the nature of the mining wastes require additional review and oversight not provided by this section, the Secretary may require that the person apply for a mining waste facility certification pursuant to § 6-1303.

§ 6-1303. Application for mining waste or mineral processing waste facility certification.

- (a) Any owner or operator of a facility not eligible for categorical mining waste certification pursuant to § 6-1302 shall apply to the Secretary on a form approved by the Secretary. The application shall include, at a minimum, the following information:
 - (1) A waste characterization report pursuant to § 6-1308.
 - (2) Information which sufficiently addresses the requirements and standards of § 6-1305.
 - (3) A plan for effective public notice of the application.
 - (A) This plan shall include provisions for a notice to the general public by advertisement in at least two newspapers of general circulation in the area of the proposed facility, one of which shall be a regional weekly newspaper if one is available.
 - (B) The public notice shall give general background information on the application (e.g. facility type, location, materials to be managed) and set forth the process for review of the application including opportunities for public participation. The notice shall be prepared and distributed by the applicant, but shall be approved by the Secretary prior to distribution.
 - (C) The applicant shall provide the Secretary with a list of the names and mailing addresses of persons and entities that are to receive the public notice prior to distribution. The plan shall include provisions for sending notices of the application to:
 - (i) the legislative body of the municipality in which the facility is proposed to be or is located and to any adjacent Vermont municipality if the facility is proposed to be or is located on a boundary;

- (ii) all residences and landowners within a one-half mile radius of the property boundary of the facility or the nearest 100 residences and landowners, whichever is the lesser number;
 - (iii) any other state agency or subdivision thereof that has issued or may be required to issue a permit for the facility; and
 - (iv) the regional planning commission and the solid waste district or municipal alliance serving the town where the facility is located.
- (4) Evidence of fee simple title of the property to be used for the facility.
- (5) The name, mailing address, and phone number of the facility, and the name, signature, mailing address, and phone number of the owner of the facility, the operator of the facility, and the owner of the land on which the facility is located. If the operator is a different person from the owner of the land on which the facility is to be located, the owner of the land must sign the application for certification as a co-applicant and agree to be bound by the terms of the certification.
- (6) The name, signature, mailing address and phone number of the person preparing the application.
- (7) The location of the facility using the Vermont plane coordination system on the appropriate Vermont orthophoto tax map or through the use of a global positioning system. The application shall also include a description of the limits on its horizontal and vertical development of the facility.
- (8) A list of all facility components used for the management of mining and mineral processing waste.
- (9) Evidence that the application complies with the planning requirements of 10 V.S.A. § 6605(c). Such evidence may consist of a written supporting statement from the appropriate municipality, solid waste management district, solid waste alliance or regional planning commission that identifies the relevant part(s) of the plan(s).
- (10) Evidence of compliance with the disclosure requirements of the waste management personnel background review, pursuant to 10 V.S.A. § 6605f unless the elements of the exception contained in 10 V.S.A. § 6605f(k) are met.
- (11) Evidence of compliance with the financial responsibility and capability requirements of subchapter 9 of these rules, or a plan for achieving

compliance with these requirements prior to the issuance of a draft certification.

- (b) An application submitted by a corporation shall be signed by a principal executive officer of at least the level of vice-president or a duly authorized representative who is responsible for the operation of the facility. An application submitted by a partnership or a sole proprietorship shall be signed by a general partner or proprietor. An application submitted by a municipality, state, or other public entity shall be signed by a principal executive officer, ranking elected official or other duly authorized employee; and
- (c) The application shall be made under the direction of a professional engineer licensed in the State of Vermont, unless it is an application for recertification and the Secretary specially waives the requirement. The engineer shall make appropriate use of other disciplines including experts in geology, hydrogeology, and soils science, to assure compliance with all applicable standards contained or referenced in these rules. The engineer shall certify that to the best of his or her information, knowledge and belief the application is in compliance with such standards. If the Secretary waives the requirement that the completion of the application is accomplished under the direction of an engineer, then the applicant is required to certify that the application is in compliance with such standards.

§ 6-1304 Review of applications for certification

- (a) On or before the date of filing any certification for a facility, the applicant shall send notice and a copy of the application to the municipality where the facility is proposed to be or is located, and any adjacent Vermont municipality if the land is located on a boundary. The applicant shall furnish to the Secretary the names of those municipalities furnished notice of application.
- (b) Within 15 days of the receipt of a certification application, the Secretary shall review the application for administrative completeness, and shall notify the applicant in writing that the application is either administratively complete or incomplete. If the Secretary determines that the application is administratively incomplete, the Secretary shall specify what information is missing or lacking and state that the Secretary's technical review of the application will begin only when it is determined to be administratively complete.
- (c) Upon the Secretary's written determination that an application is administratively complete, the applicant shall provide public notice of the application, pursuant to § 6-1303(a)(3), and shall ensure that at the time of public notice a complete application is on file with the municipality where the facility is to be located.
- (d) The period for the receipt of public comment on the notice of application shall end no sooner than 15 days after the date of the latest newspaper publication date.

- (e) Review of Application.
 - (1) The Secretary shall review the application for conformance with these rules, as well as other applicable requirements of 10 V.S.A. chapter 159. In conducting this review, the Secretary shall take into consideration the comments received.
 - (2) The Secretary shall inform the applicant, in writing, of the Secretary's determination that the application conforms or does not conform with this subchapter.
 - (A) If the application conforms with the rules:
 - (i) The Secretary shall issue a fact sheet, briefly setting forth the basis of the draft certification, and a draft certification.
 - (ii) The applicant shall ensure that a complete copy of the conforming application is on file in the municipality where the facility is to be located.
 - (B) If the application does not conform to these rules or any other applicable requirement of 10 V.S.A. Chapter 159, a written denial shall be sent to the applicant along with the reasons for the denial.
- (f) Copies of the fact sheet and draft certification shall be sent to the applicant, any person who received the notice of application under § 6-1303(a)(3), and to any other person who, in writing, requests the document.
- (g) Notice and Comment on Draft Certification.
 - (1) The Secretary shall provide notice, by advertisement, of the issuance of each draft certification.
 - (2) The notice shall be advertised in at least two newspapers of general circulation in the area of the proposed facility, one of which shall be a regional weekly newspaper if available.
 - (3) The notice shall inform the public of an opportunity to comment upon the draft certification, the length of the comment period and provide information on where and how the public may obtain copies of pertinent documents. Such documents must be available at reasonable times and expense.
 - (4) The comment period shall end no sooner than 22 days following the last newspaper notice, or 14 days following a public informational meeting if one is requested under subsection (h)(1) or (h)(2) of this section.

- (h) Public information meeting.
 - (1) The Secretary shall hold a public information meeting to receive comment on the draft certification if requested during the public comment period provided in subsection (g) of this section by any of the following:
 - (A) the legislative body of any municipality;
 - (B) the appropriate official(s) of any affected state agency or subdivision thereof; or
 - (C) 25 or more citizens from within the municipality or adjacent municipalities where the facility is located.
 - (2) The Secretary may hold a public information meeting on his or her own motion.
 - (3) The Secretary shall provide notice, by advertisement, of the date and purpose of any public information meeting.
 - (4) The notice shall be advertised in at least two newspapers of general circulation in the area of the proposed facility, one of which shall be a regional weekly newspaper if available.
 - (5) A public information shall be held no sooner than 14 days after the date of the last newspaper notice.
- (i) Prior to the issuance of a final certification, the Secretary shall prepare a summary of the comments with responses noting all changes to the draft certificate with reasons stated for those changes. If the issuance of a final certification is denied, the Secretary shall send a written denial to the applicant, which shall explain the reason(s) for the denial.
- (j) When issuing draft or final certifications, the Secretary may impose any conditions, requirements or restrictions as deemed necessary to assure compliance with statutes, rules or to protect public health and safety and the environment.

§ 6-1305. Facility requirements and standards

- (a) The applicant shall provide the Secretary with detailed information on how the applicant will site, design, operate and close the facility, and manage and monitor the facility during the post-closure period.
- (b) General performance standard. Facilities shall be sited, designed, operated, closed, and managed and monitored during the post-closure period, such that an emission or discharge from the facility will not unduly harm the public health and will have the least possible reasonable impact on the environment, as determined by the Secretary of Natural Resources.
- (c) In order to meet the general performance standard in subsection (b) of this section the applicant must demonstrate the following:
 - (1) Site characterization standards, and requirements . The application shall include the following information on the siting of the facility:
 - (A) A site map which shows the location of the facility, access roads, and facility buildings.
 - (B) Information demonstrating that the facility is not sited in a prohibited area pursuant to § 6-502.
 - (C) That the facility is not located in areas that have serious development limitations, such as highly erodable soils, steep slopes, or do not have the physical capability to support the facility.
 - (D) That the facility is accessible from a state or federal highway or a Class III or better town highway.
 - (E) Site characterization for disposal facilities. The characterization shall include information necessary to determine all paths of emission or discharge to the environment and shall be sufficient to model contaminant transport as required in subsection (c)(3) of this section utilizing waste characterization information required in § 6-1308. The site characterization must address, unless deemed non-applicable by the Secretary:
 - (i) Soils and surficial geology.
 - (ii) Bedrock geology.
 - (iii) Integrated groundwater geology and geochemistry.

- (iv) Topography.
 - (v) Surface water.
 - (vi) Groundwater location and flow direction.
 - (vii) Prevailing wind speed and direction.
- (2) Design standards and requirements. The application shall include the following information about the design of the facility:
- (A) Detailed information about the facility design.
 - (B) Provisions for contingencies for the proper management of mining wastes or mineral processing wastes during both planned and unplanned events.
 - (C) For treatment facilities, an explanation of the treatment process and information that demonstrates that the method, technique, or process is designed to change the physical, chemical or biological character or composition of any mining waste or mineral processing waste, so as to neutralize such mining waste or mineral processing waste, or so as to recover energy or material resources from the mining waste or mineral processing waste, or so as to render such mining waste or mineral processing waste safer for transport, amenable for recovery, amenable for storage, or reduced in volume.
 - (D) Liner requirements. Disposal facilities shall have liner and leachate collection systems and appropriate provisions for leachate treatment unless the Secretary waives the liner requirement for disposal facilities, or portions of disposal facilities, that are designated solely to receive particular mining waste or mineral processing waste components that the facility has demonstrated will not be the source of leachate harmful to human health and safety or the environment or the creation of nuisance conditions.
 - (E) For discrete disposal facilities a description of how the facility design will adequately address:
 - (i) Seismic impact for lined disposal facilities.
 - (ii) Closure of operational units during the facility life (capping plan). Operational units shall be designed for a life not to

exceed five years unless otherwise approved by the secretary.

- (iii) Control of surface water run on and run off.
 - (iv) Drainage and ponding of water on the facility surface during operational and post closure periods.
 - (v) A final cover system that is stable, minimizes infiltration, minimizes erosion, and is capable of sustaining native plant growth.
 - (vi) A final cover system design that has a minimum slope of five percent and a maximum slope of 33 1/3 percent. The maximum slope may be adjusted on a case by case basis.
- (F) Design of lined disposal facilities must also include:
- (i) A double liner system consisting of synthetic material with leak detection and leachate collection or a single liner with leachate collection.
 - (ii) Leachate collection systems designed to insure the depth of leachate does not exceed 12 inches over the liner.
 - (iii) A final cover system that includes a flexible membrane liner with a minimum thickness of 40-mil and if determined necessary, a gas collection system.
- (G) Before the facility may commence operations, a professional engineer licensed in the State of Vermont must certify it was built in accordance with requirements of the certification and furnish a complete set of as-built drawings to the Secretary.

(3) Standards and performance.

- (A) All facilities shall demonstrate:
- (i) That the isolation distances from the high seasonal water table, bedrock, and waters are sufficient to assure that an emission or discharge from the facility will meet all applicable environmental quality and public health standards and rules;
 - (ii) That the isolation distance to public and private drinking water sources is sufficient to assure that an emission or

discharge from the facility will not adversely affect drinking water;

- (iii) that the isolation distances to property lines, or any of the following not owned by the applicant: residences, schools, day care facilities, hospitals, and nursing homes, are sufficient to assure that the facility will not:
 - (I) result in objectionable odors off site of the facility;
 - (II) result in an unreasonable visual impact off site of the facility;
 - (III) unreasonably increase the level of noise detectable off site of the facility; or
 - (IV) otherwise adversely affect public health.
- (iv) The Secretary may request any additional information necessary to determine if a proposed facility meets the standards contained in this section.
- (B) For disposal facilities, the demonstration required under subsection (c)(3)(A) of this section shall involve modeling of contaminant transport with a level of resolution sufficient to determine compliance with applicable environmental quality standards at applicable compliance points (e.g., drinking water, surface water or groundwater quality) taking into account waste characterization, site characterization, and facility design and operation. Specifically, the applicant shall demonstrate the mining waste disposal facility complies with the Groundwater Protection Rule and Strategy, as amended; and the Vermont Water Quality Standards, as may be amended.
- (C) For a new disposal facility or a lateral expansion of an existing disposal facility the minimum isolation distance from the waste management boundary to:
 - (i) public and private drinking water sources is 1000 feet.
 - (ii) residences, schools, day care facilities, hospitals or nursing homes, not owned by the applicant, is 1000 feet.
- (D) The minimum isolation distance from the waste management boundary to property lines is:

- (i) 300 feet for new facilities; or
 - (ii) 100 feet for the lateral expansion of an existing facility.
- (d) Facility management plan - Operation requirements and standards.
 - (1) The facility management plan for all mining waste or mineral processing waste facilities shall provide the following information:
 - (A) A description of how adequate and qualified personnel will be retained to operate the facility.
 - (B) An operator training plan that assures all personnel involved in the handling of mining waste or mineral processing waste receive training to ensure the facility's compliance with these rules and conditions of certification.
 - (C) Identify a contact person or persons who will be on site during the hours of operation and a contact person or persons in case of emergency.
 - (D) Information demonstrating how the facility shall be operated to minimize an emission or a discharge of contaminants from the facility and to minimize the threat from an emission or discharge should one occur.
 - (E) Information to demonstrate that the facility shall be operated only for treating, storing, recycling, or disposing of mining waste or mineral processing waste and shall not be used for the disposal of any other solid waste.
 - (F) Information to demonstrate compliance with closure and post closure requirements of subchapter 10 of this rule.
 - (2) For disposal facilities, the facility management plan shall provide the following information:
 - (A) The identification of adequate horizontal and vertical benchmarks to be maintained throughout the life of the facility.
 - (B) Engineering plans that demonstrate how lift development ensures proper drainage and prevents ponding.
 - (C) An intermediate and final cover plan, as may be necessary, to control any potential odors, dust, or nuisance conditions.

- (D) A final cover plan. The plan shall ensure that the operator of the facility inform the Secretary when final grades or capacity limits have been reached. The plan shall ensure that the final cover system will be in place within 90 days of attaining final grades, final capacity, or of the last date of receipt of solid waste for disposal. The plan shall ensure that grass or ground cover will be established within four months of final cover. The Secretary may extend the requirement for grass or ground cover due to weather conditions.
- (3) The Secretary may require additional measures within a facility management plan if the Secretary determines such measures are necessary to protect human health and safety, the environment, or to prevent the creation of a nuisance.

§ 6-1306. Amendment and revocation.

- (a) Certifications issued pursuant to § 6-1302 and § 6-1303 shall be amended in accordance with § 6-307(1).
- (b) Certifications issued pursuant to § 6-1302 and § 6-1303 may be revoked in accordance with § 6-307(2).

§ 6-1307. Interim certifications.

A person who does not meet the requirements of § 6-1303 may apply for an interim certification in accordance with §6-306, except that references in § 6-306 to the application requirements of § 6-304 shall be construed to refer to § 6-1303 and references to the review process in § 6-305 shall be construed to refer to § 6-1304.

§ 6-1308. Mining or mineral processing waste characterization report.

At the request of the Secretary, or as required by § 6-1303(a)(1), the applicant shall provide the Secretary with a mining waste or mineral processing waste characterization report showing the following information:

- (1) A description of the mining and industrial process or processes that are taking place at the facility including a process flow diagram.
- (2) A detailed description of all materials processed which generate mining waste or mineral processing waste including identification of:
 - (A) reagents, chemicals or additives used in the mining and industrial process and the point added in that process including the amount used per year and an estimate of the amount in the waste using a mass balance analysis. A copy of the material safety data sheets

for each reagent, chemical or additive used in the industrial process shall be included; and

- (B) natural contaminants (including heavy metals, metal salts, fluorine, radioisotopes, asbestos, arsenic) present in the material that is processed.
- (3) The annual amount of mining wastes or mineral processing wastes proposed to be treated, stored, or disposed.
- (4) The results of analytical tests of extract from representative samples of the mining waste or mineral processing waste to determine the concentration of metals, organic compounds, volatile compounds, semi-volatile compounds or other contaminants. The analytical results shall be presented in a format approved by the Secretary.
- (5) A statement that the applicant has examined alternatives to reduce the amount of reagents, chemicals, or additives in the mining waste or mineral processing waste. The statement shall include potential reuse and recycling options explored by the applicant for the waste. The statement should include a brief description of the alternatives considered and the conclusions reached.
- (6) Any additional information that the applicant or the Secretary believes would assist the Secretary in accurately characterizing the mining waste or mineral processing waste.

Appendix A

Specific Requirement for Financial Responsibility Instruments

A-1 Trust Fund with Surety

- (a) An applicant may satisfy the financial responsibility requirements of subchapter 9 by establishing a trust fund for the benefit of the Agency according to the requirements of this section and subsections A-2 (b), (c), (f), (g), (h), (i), (k), and (l). The surety bond must guarantee full payment into the trust fund of the cost estimate for closure or post-closure plan submitted with the certification application. The trustee for the trust fund must be a bank or financial institution which has the authority to act as a trustee and whose operations are regulated and examined by the State of Vermont. The surety for the bond must be a surety company licensed to operate as a surety in the State of Vermont and must be approved by the secretary.
- (b) The trust agreement and surety bond shall be executed in the form provided for such purposes by the secretary.
- (c) Payments to the trust fund must be made annually by the certification holder over the term of the state certification issued for such facility or over the life of the facility if such facility life is shorter than the term of the state permit. Payments must be made as follows:
 - (1) The first payment shall be made when the trust is established and shall be at least equal to the cost estimated divided by the number of years in the term of the permit or life of the facility, whichever is the shorter.
 - (2) Subsequent payments must be made no later than 30 days after each anniversary date of the first payment. The amount of each subsequent payment shall be the cost estimate minus the current value of the trust fund, divided by the number of years remaining in the term of the certification or the remaining number of years in the life of the facility, whichever is the shorter.
- (d) The certification holder may accelerate payments into the trust fund or he may deposit the full amount of the cost estimate at the time the fund is established. However, the value of the fund must be maintained at no less than the value would have been if annual payments were made as specified in paragraphs a and c of this subsection.

- (e) Whenever the cost estimate changes after the pay-in period is completed, the certification holder shall compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new cost estimate, the certification holder must, within 90 days of the change in the cost estimate, deposit a sufficient amount into the fund so that its value after payment at least equals the amount of the new estimate, or obtain other financial assurance as specified in subchapter 9 to cover the difference. If the value of the trust fund is greater than the total amount of the cost estimate, the certification holder may submit a written request to the secretary for release of the amount which is in excess of the cost estimate.
- (f) If the certification holder substituted other financial responsibility as specified in subchapter 9 for all or part of the trust fund, he may submit a written request to the secretary for release of the amount which is greater than the amount required as a result of the substitution.
- (g) Within 60 days after receiving a request from the certification holder for release of funds specified in paragraphs e and f of this subsection, the secretary will instruct the trustee to release to the certification holder such funds as the secretary specifies in writing.
- (h) After beginning final closure or during the period of post-closure care, a certification holder or any other person authorized to conduct closure, may request reimbursement for closure or post-closure expenditures respectively by submitting itemized bills to the secretary within 60 days after receiving bills for closure or post-closure activities. The secretary shall instruct the trustees to make reimbursement in those amounts as the secretary determines are in accordance with the closure or post-closure plan or are otherwise justified.
- (i) The secretary shall agree to terminate the trust when:
 - (1) The certification holder substitutes alternate financial responsibility as specified in subchapter 9; or
 - (2) The secretary notifies the certification holder that he is no longer required by subchapter 9 to maintain financial responsibility for the closure or post-closure of the facility.
- (j) The term of the surety bond shall be for the pay in period of the trust fund.

- (k) The bond must guarantee that the certification holder will:
 - (1) Fund the trust in the amount of the cost estimate by the end of the pay-in period; or
 - (2) During the pay-in period, fund the trust in the amount of the cost estimate within 15 days after an order to begin closure or post-closure care by the secretary or by a court, or following issuance of a notice of revocation of the certification; or
 - (3) Provide alternative assurance within 90 days after receipt by the secretary of a notice of cancellation of the bond by the surety.

A-2 Surety Bonds

- (a) An applicant may satisfy the financial responsibility requirements of subchapter 9 by obtaining a surety bond according to the requirements of this section and by submitting the original copy of the bond with the facility closure or post-closure plans with the certification application. Only bonds issued by surety companies licensed to operate as sureties in the State of Vermont and approved by the secretary will satisfy the requirements of this section.
- (b) A surety bond form supplied by the secretary shall be used by the applicant and the surety.
- (c) The surety bond must name the applicant as the principal and name the State of Vermont as the obligee.
- (d) The term of the bond shall be for the life of the facility for which a certification is applied by the applicant through the closure period. A bond used for post-closure responsibility shall extend through the post-closure period.
- (e) The bond must guarantee that the certification holder will:
 - (1) Perform final closure or post-closure care in accordance with the closure or post-closure plan and other requirements in the certification for the facility; or
 - (2) Perform final closure or post-closure care following an order to begin closure or post-closure care issued by the secretary or by a court, or following issuance of a notice of revocation of the certification; or

- (3) Provide alternate financial assurance as specified in this section within 90 days after receipt by the secretary of a notice of cancellation of the bond from the surety.
- (f) The surety will become liable on the bond obligation when the certification holder fails to perform as guaranteed by the bond.
- (g) The penal sum of the bond must be in an amount at least equal to the amount of the closure or post-closure cost estimate.
- (h) Whenever the cost estimate increases to an amount greater than the amount of the penal sum of the bond, the certification holder shall, within 90 days after the increase, cause the penal sum of the bond to be increased to an amount at least equal to the new estimate or obtain other financial assurance, as specified in subchapter 9, to cover the increase. Whenever the cost estimate decreases, the penal sum may be reduced to the amount of the cost estimate following written approval by the secretary. Notice of an increase or decrease in the penal sum must be sent to the secretary by certified mail within 90 days after the change.
- (i) the bond shall remain in force for its term unless the surety sends written notice of cancellation by certified mail to the certification holder and to the secretary. Cancellation can not occur, however:
 - (1) During the 120 days beginning on the date of receipt of the notice of cancellation by the secretary as shown on the signed return receipt; or
 - (2) While a compliance or enforcement action is pending.
- (j) following a determination that the certification holder has failed to perform final closure or post-closure care in accordance with the approved plan and other certification requirements when required to do so, the surety shall perform final closure or post-closure care in accordance with the terms of the bond, approved plan and other certification requirements or closure order. As an alternative to performing final closure or post-closure care the surety may forfeit the full amount of the penal sum to the State.
- (k) The certification holder may cancel the bond if the secretary has given prior written consent based on receipt of evidence of alternative financial assurance as specified in subchapter 9.
- (l) The secretary will notify the surety if the certification holder provides alternate financial assurance as specified in subchapter 9.

- (m) The surety will not be liable for deficiencies in the performance of closure by the certification holder after the certification holder has been notified by the secretary that the certification holder is no longer required by subchapter 9 to maintain financial assurance for closure or post-closure care of the facility.
- (n) As performed either by the certification holder or the surety, proper closure of post-closure care shall be deemed to have occurred only when the secretary so determines according to these rules.

A-3 Letters of Credit

- (a) An applicant may satisfy the requirements of subchapter 9 by obtaining an irrevocable standby letter of credit according to the requirements of this section and by submitting the original copy of the letter of credit attached to the facility closure or post-closure plan along with the certification application. For new facilities, the letter of credit must be effective before the initial receipt of waste at the facility for which it is issued. The issuing institution must be a bank or other financial institution which has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by the State of Vermont.
- (b) The wording of the letter of credit must be approved by the secretary.
- (c) The letter of credit must be irrevocable and issued for a period of at least one year. The letter of credit must provide that the expiration date will be automatically extended for a period of at least one year. If the issuing institution decides not to extend the letter of credit beyond the current expiration date it must, at least 120 days before the date, notify both the certification holder and the secretary by certified mail of that decision. The 120 day period will begin on the date of receipt by the secretary as shown on the signed return receipt. Expiration can not occur, however, while a compliance or enforcement action is pending.
- (d) The letter of credit must be issued for at least the amount of the closure or post-closure cost estimate.
- (e) Whenever the cost estimate increases to an amount greater than the amount of credit, the certification holder shall, within 90 days of the increase, cause the amount of credit to be increased to an amount at least responsibility as specified in subchapter 9 to cover the increase. Whenever the cost estimate decreases, the letter of credit may be reduced to the amount of new estimate following written approval by the secretary. Notice of an increase or

decrease in the amount of the credit shall be sent to the secretary by certified mail within 90 days of the change.

- (f) Following a determination that the certification holder has failed to perform closure or post-closure care in accordance with the approved plan or other certification requirement, the secretary will draw on the letter of credit.
- (g) the certification holder must establish alternate financial responsibility as specified in subchapter 9 and obtain written approval from the secretary within 90 days after receipt by both the certification holder 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. If the certification holder does not establish such alternative financial responsibility within the 90 days, the secretary will draw on the letter of credit. If the issuing institution grants an extension of the term of credit, the secretary may do the drawing during the last 30 days of credit if the operator has failed to provide alternative financial responsibility as specified in subchapter 9 and obtain written approval of such responsibility from the secretary .
- (h) The secretary shall return the original letter of credit to the issuing institution for termination when:
 - (1) the certification holder substitutes alternate financial responsibility for closure or post-closure as specified in subchapter 9; or
 - (2) The secretary notifies the certification holder, in accordance with section 6-901(l) of these rules, that he is no longer required to maintain financial responsibility for closure or post-closure of the facility.

A-4 Deposits of Acceptable Collateral

- (a) An applicant may satisfy the requirements of subchapter 9, wholly or in part, by filing with the secretary a collateral bond payable to the State of Vermont, conditioned so that the applicant shall comply with the closure or post-closure plan filed for the facility. The amount of the bond shall be at least equal to the estimated closure or post-closure cost of the facility. for which the certification application has been filed or any part thereof not covered by other financial responsibility instruments. Such bond shall be executed by the applicant after depositing with the secretary acceptable collateral, the market value of which shall be at least equal to the total estimated closure or post-closure cost or any part thereof not covered by other financial responsibility instruments.

- (b) Acceptable collateral may include certificates of deposit, negotiable bonds of the United States Government, the State of Vermont or any of its agencies, any government authority within the State of Vermont, or any county, municipality or other local bond issuing authority within the State of Vermont approved as acceptable for financial responsibility purposes by the secretary.
- (c) The secretary shall, upon receipt of such collateral, place the instrument(s) with the state treasurer to be held in the name of the state of Vermont in trust, for the purposes for which such deposit is made.
- (d) The certification holder shall be entitled to demand, receive and recover the interest and income from said instrument(s) as it becomes due and payable as long as the market value of the instrument(s) plus any other mechanisms used continue to be at least equal the closure or post-closure cost estimate.
- (d) the certification holder shall also be permitted to replace the collateral instruments with other like instruments of at least equal market value upon proper notification to the secretary and the state treasurer.
- (f) In the event of failure of the certification holder to comply with the final closure or post-closure plan, the secretary shall declare said collateral forfeited and shall request the state treasurer to convert said collateral into cash and transfer such funds to the secretary to be used for final closure or post-closure purposes.
- (g) The term of a collateral bond shall be for the life of the facility through the closure or post-closure period, as appropriate.
- (h) The secretary shall return collateral instruments to the certification holder when:
 - (1) the certification holder substitutes alternate financial responsibility for closure or post-closure as specified in subchapter 9; or
 - (2) the secretary notifies the certification holder, in accordance with these rules, that he is no longer required to maintain financial responsibility for closure or post-closure of the facility.

A-5 Financial Test and Corporate Guarantee

- (a) An applicant may satisfy the subchapter 9 requirements for financial responsibility by demonstrating that he passes a financial test as specified in

this section. To pass this test the applicant must meet the criteria of either subsection (a)(1) or (a)(2).

- (1) The applicant 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) new 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% of his total assets or at least six times the sum of the current closure and post-closure cost estimates.
 - (2) The applicant 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) net worth of at least \$10 million; and
 - (D) assets located in the United States amounting to at least 90% of his total assets or at least six times the sum of the current closure and post-closure cost estimates.
- (b) To demonstrate that he meets this test, the applicant shall submit the following items to the secretary.
- (1) A letter signed by the applicant's chief financial officer and worded as specified by the secretary.
 - (2) A copy of the independent certified public accountant's report on

- examination of the applicant's financial statement for the latest completed fiscal year; and
- (3) a special report from the applicant's independent certified accountant to the applicant stating that:
 - (A) He has compared the data which the letter from the chief financial officer specifies as having been derived from an independently audited, year-end financial statement for the latest fiscal year with the amounts in such financial statements; and
 - (B) In connection with that procedure, no matters come to his attention which caused him to believe that the specified data should be adjusted.
 - (c) For a new facility, the applicant shall submit the items specified to the secretary at least 60 days before the date on which solid waste is first received for treatment, storage, or disposal.
 - (d) After the initial submission of items specified in subsection (b), the certification holder shall send updated information to the secretary within 90 days after the close of each succeeding fiscal year. This information shall consist of all three items specified in subsection (b).
 - (e) If the certification holder no longer meets the requirements of subsection (a), he shall send notice to the secretary of intent to establish alternate financial responsibility as specified in subchapter 9. The notice shall 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 certification holder no longer meets the requirements. The certification holder shall provide the alternate financial responsibility within 120 days after the end of such fiscal year.
 - (f) The secretary may, based on a reasonable belief that the certification holder may no longer meet the requirements of subsection (a), require reports of financial condition at any time from the operator in addition to those specified in subsection (b). If the secretary finds, on the basis of such reports or other information, that the certification holder no longer meets the requirements of subsection (a), the certification holder shall provide alternate financial responsibility as specified in subchapter 0 within 30 days after notification of such a finding.
 - (g) The secretary may disallow use of this test on the basis of qualification in the

opinion expressed by the independent certified public accountant in his report on examination of the applicant's or certification holder's financial statements (see subsection (b)(2)). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The secretary will evaluate other qualifications on an individual basis. The certification holder shall provide alternate financial responsibility as specified in subchapter 9 within 30 days after notification of the disallowance.

- (h) During the period of post-closure care, the secretary may approve a decrease in the current post-closure cost estimate for which this test demonstrated financial responsibility if the certification holder demonstrates to the secretary that the amount of the cost estimate exceeds the remaining costs of the post-closure care.
- (i) the certification holder is no longer required to submit the items specified in subsection (b) when:
 - (1) a certification holder substitutes financial responsibility as specified in subchapter 9; or
 - (2) the secretary releases the certification holder from the requirements of this section as specified in section 6-902(1) of these rules.
- (j) An certification holder may meet the requirements of this subsection by obtaining a written guarantee, hereafter referred to as "corporate guarantee." The guarantor shall be the parent corporation of the certification holder. The guarantor shall meet the requirements for applicant or certification holder in subsections (a) through (g) and shall comply with the terms of the corporate guarantee. The wording of the corporate guarantee shall be specified by the secretary. The corporate guarantee shall accompany the items sent to the secretary as specified in subsection (b). The terms of the corporate guarantee shall provide that:
 - (1) If the certification holder fails to perform final closure or post-closure of a facility covered by the corporate guarantee in accordance with the closure plan or post-closure plan, the guarantor will do so or establish a trust fund in the name of the certification holder as specified in these rules.
 - (2) The corporate guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the certification holder and to the secretary. The cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of

cancellation by both the certification holder and the secretary as evidenced by the return receipts.

- (3) If the certification holder fails to provide alternate financial responsibility as specified in subchapter 9 and obtain the written approval of such alternate responsibility from the secretary within 90 days after the receipt by both the certification holder and the secretary of a notice of cancellation of the corporate guarantee from the guarantor, the guarantor will provide such alternate financial responsibility in the name of the certification holder.

APPENDIX B

Processes to Significantly Reduce and Further Reduce Pathogens

1. Processes to Significantly Reduce Pathogens

Aerobic Digestion

Aerobic conditions are maintained at residence times ranging from 60 days at 15°C to 40 days at 20°C, with a volatile solids reduction of at least 38 percent.

Anaerobic Digestion

The process is conducted without air at residence times ranging from 60 days at 20°C to 15 days at 30°C, to 55°C, with a volatile solids reduction of at least 38 percent.

Air Drying (Sand Beds)

Sludge is allowed to dry on sand beds for a minimum of 90 days, 60 days of which temperatures average above 0°C on a daily basis. Sludge depth on the drying beds is 9 inches or less at the time the sludge is deposited on the beds.

Composting

Sludge is maintained at minimum operation conditions of 40°C for five days. For four hours during this period the temperature exceeds 55°C. The composting methods used are the static aerated pile, windrow or within-vessel methods.

Lime Stabilization

Lime is added to produce a pH of 12 after two hours contact.

2. Processes to Further Reduce Pathogens

High Temperature Composting

Using the within-vessel or static aerated pile composting method, the sludge is maintained at operating conditions of 55°C or greater for three days. Using the windrow composting method, the sludge attains a temperature of 55°C or greater for at least 15 days during the composting period. During the high temperature period, there will be a minimum of five turnings of the windrow.

Heat Drying

Dewatered sludge cake is dried by direct or indirect contact with hot gases, and moisture content is reduced to 10 percent or lower. Sludge particles reach temperatures well in excess of 80°C.

Heat Treatment

Liquid sludge is heated to temperature of 180°C for 30 minutes.

High Temperature Aerobic Digestion

Liquid sludge is agitated with air or oxygen to maintain aerobic conditions at residence times of 10 days at 55°C - 60°C with a volatile solid s reduction of at least 38 percent.

The processes below do not, on their own, reduce the attraction of disease vectors, therefore, they can only be used after a process to significantly reduce pathogens.

Beta Ray Irradiation

Sludge is irradiated with beta rays from an accelerator at dosages of at least 1.0 megarad at room temperature (20°C).

Gamma Ray Irradiation

Sludge is irradiated with gamma rays from certain isotopes, such as 60 cobalt and 137 cesium, at dosages of at least 1.0 medarad at room temperature (20°C).

Pasteurization

Sludge is maintained for at least 30 minutes at a minimum temperature of 70°C.

METHOD 9095A

PAINT FILTER LIQUIDS TEST

To receive a copy of the paint filter liquids test (Method 9095A) contact:

**Solid Waste Management Program
Waste Management Division
103 South Main Street
West Office Building
Waterbury VT 05671-0404**

Telephone 802-241-3444