

**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS**

**DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**

**OFFICE OF WASTE MANAGEMENT**



**SOLID WASTE REGULATION NO. 1**

**GENERAL REQUIREMENTS**

**EFFECTIVE DATE - JANUARY 1997**  
**AS AMENDED - APRIL 2001**

# GENERAL REQUIREMENTS

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## **1.1.00 FINDINGS AND POLICY**

- 1.1.01 Purpose: These Rules and Regulations are intended to minimize environmental hazards associated with the operation of solid waste landfills, transfer stations and collection stations, incinerators and resource recovery facilities, waste tire storage and recycling facilities, petroleum-contaminated soil processing facilities, facilities that process construction and demolition debris, and composting facilities. They are also designed to promote planning and implementation of solid waste management facilities and composting facilities where necessary and desirable throughout the State.
- 1.1.02 Authority: These Rules and Regulations are promulgated pursuant to the requirements and provisions of Chapter 2-1, "Agricultural Functions of Department of Environmental Management", Chapter 2-22, "Rhode Island Soil Amendment Law", Chapter 2-23, "Rhode Island Right to Farm Act", Chapter 5-51, "Rhode Island State Board of Examiners of Landscape Architects", Chapter 23-18.8, "Rhode Island Recycling Act", Chapter 23-18.9, "Refuse Disposal", Chapter 23-19, "Rhode Island Resource Recovery Corporation Act", Chapter 23-19.1, "Hazardous Waste Management Act", Chapter 23-23, "Air Pollution", Chapter 23-63, "Vehicle Tire Storage and Recycling", Chapter 37-15.1, "Hard-to-Dispose Material-Control and Recycling", Chapter 42-17.1, "Department of Environmental Management", Chapter 42-17.6, "Administrative Penalties for Environmental Violations", Chapter 44-27, "Taxation of Farm, Forest, and Open Space Land", and Chapter 46-12, "Water Pollution", in accordance with the provisions of Chapter 42-35, "Administrative Procedures Act", of the Rhode Island General Laws of 1956, as amended.
- 1.1.03 Application: The terms and provisions of these Rules and Regulations shall be liberally construed to allow the Department to effectuate the purposes of state law, goals, and policies.
- 1.1.04 Function: The primary functions of the Department are the regulation of solid waste and to grant, deny, suspend or revoke licenses and registrations for the operation of solid waste management facilities and composting facilities and to grant, deny, suspend or revoke approval of the plans and specifications for the construction of solid waste management facilities and composting facilities and the installation of any equipment in such facilities. Any and all solid waste management facilities and composting facilities, licensed or not licensed (or registered or not registered), and projects including control and remediation, shall be subject to the regulatory and enforcement activities of the Department.
- 1.1.05 Severability: If any provision of these Rules and Regulations, or the application thereof to any person or circumstances, is held invalid by a court of competent jurisdiction, the validity of the remainder of the Rules And Regulations shall not be affected thereby.
- 1.1.06 Superseded Rules and Regulations: On the effective date of these Rules and Regulations, all previous Rules and Regulations, and any policies regarding the administration and enforcement of the pertinent sections of the chapters of the Rhode Island General Laws listed in Rule 1.1.02 shall be superseded. However, any enforcement action taken by, or

application submitted to, the Department prior to the effective date of these Rules and Regulations shall be governed by the Rules and Regulations in effect at the time the enforcement action was taken, or application filed.

## **1.2.00 ORGANIZATION AND METHOD OF OPERATION**

1.2.01 Organization: Sections 23-18.9-8 and 23-18.9-9 of the 1956 R.I.G.L., as amended, establishes the Department of Environmental Management as the licensing agency for solid waste management facilities, and grants the Director the authority to establish rules and regulations to ensure proper, adequate, and sound solid waste management. Section 2-22-5 establishes the Department as the agency for purposes of registering composting facilities and grants the Director the authority to establish rules and regulations governing this registration process. Section 42-17.1-2 (p), as amended, grants the Director the authority to establish minimum standards, subject to the approval of the Environmental Standards Board, for permissible types of refuse disposal facilities, the design, construction, operation, maintenance and location of disposal facilities. Subsection 42-17.1-2(s), as amended, authorizes the Department to issue and enforce rules, regulations and orders as may be necessary to carry out its duties. Subsection 42-17.1-2(u) authorizes the Department to give notice of alleged violations of law and to issue compliance orders, where appropriate.

### **1.2.02 Method of Operations and Powers:**

- (a) The Department shall adopt, amend, promulgate and enforce such rules, regulations and standards with respect to all solid waste management facilities, composting facilities, and projects to be licensed or registered to further the accomplishment of the purposes of Chapters 2-1, 2-22, 2-23, 5-51, 23-18.8, 23-18.9, 23-19, 23-19.1, 23-23, 23-63, 37-15.1, 42-17.1, 42-17.6, 44-27, and 46-12.
- (b) The Department shall receive applications from persons desirous of being licensed or registered as a solid waste management facility, composting facility, or other facility specified by the Rules and Regulations or from applicants desirous of constructing such a facility or installing any equipment in such a facility. The application must be made upon forms provided by the Department and shall also contain such other information as the Department requires, which may include affirmative evidence of ability to comply with such rules, regulations and standards as are lawfully prescribed

1.2.03 Office of Waste Management:

A unit of the Department of Environmental Management designated the Office of Waste Management shall perform all duties related to administration of these Rules and Regulations. Such duties include the receipt, analysis, investigation, and processing of complaints, applications for licenses, registrations, and approvals, conducting of inspections, and determination of violations.

**1.3.00 DEFINITIONS**

- 1.3.01 "Active Life" - shall mean, relative to Solid Waste Landfill Units, the period of operation beginning with the initial receipt of solid waste and ending at completion of closure activities per Rule 2.1.09.
- 1.3.02 "Active Portion" - shall mean, relative to Solid Waste Landfill Units, that part of a facility or unit that has received or is receiving wastes and that has not been closed in accordance with Rule 2.1.09.
- 1.3.03 "Adulterated Wood Waste": Shall mean wood waste that has been treated, painted, coated, stained, soiled, contaminated, or similarly altered from its clean or virgin state.
- 1.3.04 "Aerated Static Pile Composting" - shall mean a method of composting in which oxygen and temperature levels are mechanically controlled by forced aeration using blowers. A series of perforated pipes (or equivalent) air distribution system runs underneath the compost pile and is connected to a blower that either draws or blows air through the pile. Little or no pile turning is performed.
- 1.3.05 "Aeration" (for composting) - shall mean bringing about contact of air and composting solid organic matter, by means of turning or ventilating, to allow aerobic microbial metabolism of the organic matter.
- 1.3.06 "Aerobic" - shall mean occurring in the presence of oxygen.
- 1.3.07 "Aerobic Composting" - shall mean decomposition of organic materials by bacteria in the presence of oxygen.
- 1.3.08 "Agricultural by-product" - shall mean discarded organic materials produced from the raising of plants and animals as part of agronomic, floricultural, horticultural, silvicultural, vinicultural or viticultural operations including, but not limited to, animal manure, bedding materials, plant stalk, leaves, other vegetative matter and discarded by-product from the on-farm processing of fruits and vegetables.

- 1.3.09 "Agricultural Composting" - shall mean the composting of agricultural by-products and/or other specified compostable materials on an "agricultural unit", resulting in compost products for agricultural and horticultural uses.
- 1.3.10 "Agricultural Composting Facility" - shall mean that part of an agricultural unit upon which agricultural composting takes place. Such facilities must meet the requirements of the Office of Natural Resource Services.
- 1.3.11 "Agricultural Unit" - shall mean farmland as designated under RIGL 44-27-3 upon which agricultural operations as defined in RIGL 2-23-4 are undertaken by a farmer.
- 1.3.12 "Airport" shall mean a public-use airport open to the public without prior permission and without restrictions within the physical capacities of available facilities, as defined in 40 CFR 257.3-8 (e) (1) (1979).
- 1.3.13 "Anaerobic" - shall mean occurring in the absence of oxygen.
- 1.3.14 "Anaerobic Digestion" - shall mean decomposition of organic material in the absence of oxygen.
- 1.3.15 "Apparent Opening Size" shall mean the number of the U.S. Bureau of Standards sieve, or its opening size in millimeters or inches, having openings closest in size to the diameter of uniform particles which will allow 5 percent or less by weight to pass through.
- 1.3.16 "Applicant" shall mean a person seeking a new license or license renewal for a solid waste management facility or a new registration or registration renewal for a composting facility. It shall also include persons seeking to construct or add new equipment to an existing solid waste management facility or composting facility, whether licensed or not.
- 1.3.17 "Aquifer" shall mean a geologic formation, group of formations, or part of a formation that contains sufficient saturated, permeable material to yield significant quantities of water to wells and springs.
- 1.3.18 "Asbestos" shall mean actinolite, amosite, anthophyllite, chrysotile, crocidolite, and tremolite.
- 1.3.19 "Ash Residue" shall mean all the solid residue and any entrained liquids resulting from the combustion of solid waste or solid waste in combination with fossil fuel at a solid waste incinerator, including bottom ash, boiler ash, fly ash, and the solid residue of any air pollution control device used at a solid waste incinerator.
- 1.3.20 "Backyard Composting" shall mean the composting on a residential site of certain wastes generated only at that site and where the compost produced is utilized on site and is not distributed or marketed. Wastes which may be composted include leaf and yard waste, certain food wastes including fruits and vegetables, tea leaves, coffee grounds, and egg

shells; hair, sawdust, manures from animals that eat only plants, and other wastes acceptable to the Department for backyard composting.

- 1.3.21 "Base Flood" shall mean a flood that has a 1 percent or greater chance of recurring in any year or a flood of magnitude equaled or exceeded once in 100 years on the average over a significantly long period, as defined in 40 CFR 257.3-1 (b) (1), as is or as amended.
- 1.3.22 "Bedrock" shall mean solid rock, commonly called ledge, that forms the earth's crust.
- 1.3.23 "Biodegradable" - shall mean capable of being broken down (degraded) by micro-organisms into simpler compounds or natural elements.
- 1.3.24 "Bird Hazard" shall mean an increase in the likelihood of bird/aircraft collisions that may cause damage to the aircraft or injury to its occupants (40 CFR 257.3-8 (e) (2)), as is or as amended.
- 1.3.25 "Bottom Ash" shall mean the ash residue remaining after combustion of solid waste or solid waste in combination with fossil fuel in a solid waste incinerator that is discharged through and from the grates, combustor, or stoker.
- 1.3.26 "Buffer" - shall mean any distance, topographical feature, vegetative, or man-made structure that allows for mitigation of impacts of composting or other solid waste management facility activity on neighboring land uses.
- 1.3.27 "Buffer Zone" - shall mean an area of land between a composting facility or solid waste management facility and neighboring facilities or homes which shield these abutters from negative impact of the composting facility or solid waste management facility operations.
- 1.3.28 "Bulking Agent" - shall mean a material added to composting wastes to provide structure to those wastes, to lower total moisture content and to allow air to reach and be held in small pockets within the waste, by preventing settling and compaction of the waste. Most bulking agents are carbonaceous, thereby providing a source of carbon to the composting mix, and are frequently chipped or shredded wastes, such as sawdust, wood chips or yard trimmings.
- 1.3.29 "Bulky Waste" shall mean large items of solid waste such as appliances, furniture, auto parts, stumps, etc.
- 1.3.30 "Bypass Waste" shall mean any solid waste that is either within the control of the operator of a solid waste incinerator or processing facility or within the control of another person, that requires treatment at the facility but cannot be so treated, and includes:
  - (a) "downtime waste", meaning any treatable or burnable solid waste accumulated during a scheduled or unscheduled maintenance period of the facility; or

- (b) "excess waste", meaning solid waste which cannot be treated because the facility is operating at the approved design capacity.

For the purposes of this definition, "control" means control exercised by contract, local law, or any other means.

- 1.3.31 "Carbon To Nitrogen Ratio" (C:N ratio) - shall mean the numerical ratio of the mass of carbon to the mass of nitrogen in an organic material or in a mix of materials and which determines the composting potential of the organic material or the mix of materials.
- 1.3.32 "Cell" shall mean compacted solid wastes that are completely enclosed by natural soil or cover material.
- 1.3.33 "Co-Composting" - shall mean a composting operation which includes the use of septic waste or sewage sludge as part of its process for composting portions of the solid waste stream.
- 1.3.34 "Coefficient of Permeability" and "Hydraulic Conductivity" shall mean the rate of laminar flow of water through a unit cross-sectional area of a porous medium under a unit hydraulic gradient at a standard temperature. The units of "Coefficient of Permeability" and "Hydraulic Conductivity" shall be expressed in centimeters per second.
- 1.3.35 "Collection Station" shall mean a solid waste management facility where refuse arrives by automobile or vehicles other than collection vehicles from sites separate from the collection station for transfer to another solid waste management facility.
- 1.3.36 "Combined Ash" shall mean the mixture of bottom ash and fly ash.
- 1.3.37 "Combustion" shall mean the thermal treatment of solid waste in a device which uses elevated temperatures as the primary means to change the chemical, physical, or biological character and composition of the waste.

Examples of combustion processes include incineration, pyrolysis, and fluidized bed.

- 1.3.38 "Commercial Waste" shall mean solid waste generated by stores, offices, institutions, restaurants, warehouses, and activities at industrial facilities.
- 1.3.39 "Compost" - shall mean a soil amending material resulting from the aerobic, thermophilic, microbial processing of organic materials.
- 1.3.40 "Compostable" - shall mean organic material that can be biologically decomposed under aerobic conditions.
- 1.3.41 "Compost Class" - shall mean the designation of compost, according to its physical, chemical, and biological characteristics.

- 1.3.42 "Composting" - shall mean any aerobic, thermophilic process which allows for the conversion of raw organic materials into a stable soil amendment.
- 1.3.43 "Composting Facility" - shall mean a facility, excluding any facility which composts only sewage sludge, which employs a composting process, acceptable to the Department, to produce compost from the organic fraction of the received solid waste stream.
- 1.3.44 "Composting Pad" - shall mean the surface area within the composting facility upon which organic materials are composted.
- 1.3.45 "Construction Certification Report" shall mean a report submitted to the Department upon completion of the construction of a solid waste management facility which includes the resulting information prepared in accordance with the requirements of this Rule and the license issued thereto.
- 1.3.46(a) "Construction and Demolition Debris Processing Facility" shall mean a solid waste management facility that receives and processes construction and demolition debris of more than fifty (50) tons per day. Said facilities shall demonstrate, through records maintained at the facility and provided to the Department, that seventy-five percent (75%) of all material received by the facility is processed and removed from the site within six (6) weeks of receipt on a continuous basis, and that in no case stores material on site for over three (3) months, provided, however, such facilities do not include municipal compost facilities.
- 1.3.46(b) "Construction and Demolition Debris Separation Facility" shall mean a facility that receives, separates, and/or screens construction and demolition debris into its components for subsequent resale or processing which includes but is not limited to grinding, shredding, crushing, or landfilling at another location separate and apart from the location in which the separation occurs.
- 1.3.47 "Construction and Demolition (C&D) Debris" shall mean non-hazardous solid waste resulting from the construction, remodeling, repair, and demolition of utilities and structures; and uncontaminated solid waste resulting from land clearing. Such waste includes, but is not limited to wood (including painted, treated and coated wood and wood
- 1.3.48 products), land clearing debris, wall coverings, plaster, drywall, plumbing fixtures, non-asbestos insulation, roofing shingles and other roofing coverings, glass, plastics that are not sealed in a manner that conceals other wastes, empty buckets ten gallons or less in size and having no more than one inch of residue remaining on the bottom, electrical wiring and components containing no hazardous liquids, and pipe and metals that are incidental to any of the above. Solid waste that is not C&D debris (even if resulting from the construction, remodeling, repair, and demolition of utilities, structures, and roads and land clearing) includes, but is not limited to, asbestos waste, garbage, corrugated container board, electrical fixtures containing hazardous liquids such as fluorescent light ballasts or transformers, fluorescent lights, carpeting, furniture, appliances, tires, drums, containers

greater than ten gallons in size, any containers having more than one inch of residue remaining on the bottom, and fuel tanks. Also excluded from the definition of C & D debris is solid waste resulting from any processing technique that renders individual waste components unrecognizable, such as pulverizing or shredding, at a facility that processes C&D debris.

- 1.3.48 "Cover Material" shall mean clean soil or earth or other material approved by the Director that is used to cover compacted solid waste in a sanitary landfill.
- 1.3.49 "Critical Habitat" for a threatened or endangered species is defined in the Endangered Species Act, 16 U.S.C. 1532, as is or as amended, and shall also include State species of concern as identified by the Natural Heritage Program.
- 1.3.50 "Curing" - shall mean the final stage of composting, after much of the readily metabolized organic material has been decomposed, in which the compost material further stabilizes at a slower rate and at a lower temperature than during the initial active composting phase.
- 1.3.51 "Curing Area" shall mean the area of the composting facility where curing of the compost occurs.
- 1.3.52 "Decomposition" - shall mean the breakdown of organic matter by microbial activity.
- 1.3.53 "Department", "DEM", or "RIDEM" shall mean the Rhode Island Department of Environmental Management.
- 1.3.54 "Destruction or Adverse Modification" (of a critical habitat of endangered or threatened species) shall mean a direct or indirect alteration of a critical habitat which appreciably diminishes the likelihood of the survival and recovery of threatened or endangered species using that habitat, as defined in 40 CFR 257.3-2 (c) (2), as is or as amended.
- 1.3.55 "Director" shall mean the Director or the Commissioner of the Rhode Island Department of Environmental Management and his or her designee.
- 1.3.56 "Discharge" is defined in the Clean Water Act of 1977, 33 U.S.C. Section 1322 (a) (9), as is or as amended, and for the purposes of these Rules and Regulations, it shall include leaching and releases.
- 1.3.57 "Disposal" shall mean the abandonment, discard or final disposition of waste.
- 1.3.58 "Distribute" shall mean to offer for sale, sell, barter, or otherwise supply compost products derived from organic solid waste.
- 1.3.59 "Distributor" - shall mean the person or company which distributes or markets composted products derived from organic solid waste.

- 1.3.60 "Dredged Material" is defined in the Clean Water Act of 1977, 33 U.S.C. Section 1402, as is or as amended.
- 1.3.61 "Enclosed Vessel" (In-vessel Composting) - shall mean the composting of materials within an enclosed vessel in which adequate mixing, aeration, and moisture control are provided.
- 1.3.62 "Endangered or Threatened Species" is defined in the Endangered Species Act, as amended, 16 U.S.C. Section 1532 (6) (15), as is or as amended, and shall also include State species of concern as identified by the National Heritage Program.
- 1.3.63 "Energy Recovery" shall mean treatment by which energy is derived or extracted from solid waste.
- 1.3.64 "Energy Recovery Incinerator" shall mean an incinerator in which household waste and nonhazardous industrial/commercial waste are combusted for energy production.
- 1.3.65 "Environmental Management District" shall mean the area located in the Town of Johnston and the City of Cranston bounded by Plainfield Pike on the South; Peck Hill Road on the west; Central Avenue on the north; and I-295 on the east.
- 1.6.66 "Existing SWLF Unit" - shall mean, relative to Solid Waste Landfill Units, any solid waste landfill that is receiving solid waste as of October 9, 1993. Waste placement in existing units must be consistent with past operating practices or modified practices to ensure good management.
- 1.3.67 "Facility" (see "Solid Waste Management Facility").
- 1.3.68 "Facilities That Process Construction and Demolition Debris" shall mean facilities that receive and process construction and demolition debris.
- 1.3.69 "Farmer" - shall mean an individual, partnership or corporation who operates a farm and meets the requirements of RIGL 2-1-22(i)(1).
- 1.3.70 "Final Cover" shall mean cover material which will be permanently exposed to the environment.
- 1.3.71 "Finished Compost" (finished product) - shall mean compost that meets at least minimum requirements for public health, safety and environmental protection and is suitable for use as defined by compost quality standards or as approved by the Department.
- 1.3.72 "Flood Plain" is defined in the R.I. Fresh Water Wetlands Act 1956 R.I.G.L., as is or as amended, Section 2-1-20, and in the "Rules and Regulations Governing the Enforcement of the Fresh Water Wetlands Act" (effective March, 1981), as is or as amended.

- 1.3.73 "Fly Ash" shall mean the ash residue from the combustion of solid waste or solid waste in combination with fossil fuel that is entrained in the gas stream of a solid waste combustion facility and removed by the air pollution control equipment.
- 1.3.74 "Food Chain Crops" - shall mean crops consumed by humans as well as crops grown as feed for animals whose products, in-turn, are consumed by humans.
- 1.3.75 "Foreign Matter" - shall mean the inorganic and organic constituents that are not readily decomposed and which may be present in finished compost. Examples include, but are not limited to, glass, plastics, metals, rubber, bones and leather.
- 1.3.76 "Friable Asbestos Material" shall mean any material that contains more than 1 percent asbestos by weight and that can be crumbled, pulverized, or reduced to powder, when dry, by hand pressure.
- 1.3.77 "Generator" shall mean any person whose act or process produces a solid waste or whose act first causes solid waste to be subject to regulation under this Title.
- 1.3.78 "Geocomposite" shall mean a manufactured material using geotextiles, geogrids, geomembranes, or combinations of same, in a laminated or composite form.
- 1.3.79 "Geogrid" shall mean a deformed or non-deformed netlike polymeric material used with foundation, soil, rock, earth, or any other geotechnical engineering-related material as an integral part of the man-made structure or system to provide reinforcement to soil slopes.
- 1.3.80 "Geomembrane" shall mean an essentially impermeable membrane used with foundation, soil, rock, earth, or any other geotechnical engineering-related material as an integral part of a man-made structure or system designed to limit the movement of liquid or gas in the system.
- 1.3.81 "Geonet" shall mean a type of geogrid that allows planar flow of liquids and serves as a drainage system.
- 1.3.82 "Geosynthetics" shall mean the generic classification of all synthetic materials used in geotechnical engineering applications, including geotextiles, geogrids, geomembranes, and geocomposites.
- 1.3.83 "Geotextile" shall mean any permeable textile used with foundation, soil, rock, earth, or any other geotechnical engineering-related material as an integral part of a man-made structure or system designed to act as a filter to prevent the flow of soil fines into drainage systems, to provide planar flow for drainage, or to serve as a cushion to protect geomembranes, or to provide structural support.
- 1.3.84 "Groundwater" shall mean water found underground which completely fills the open spaces between particles of sediment and within rock formations.

- 1.3.85 "Groundwater Recharge Area" shall refer to the land surface from which water is added to the zone of saturation. The recharge area for a particular well or aquifer, for instance, is that land surface from which water moves to the well or aquifer or may move to the well or aquifer under certain hydraulic conditions.
- 1.3.86 "Groundwater Reservoir" shall refer to those stratified drift deposits having a saturated thickness greater than or equal to 40 feet and a transmissivity greater than or equal to 4000 feet squared per day which have been determined by the Director to be potentially significant sources of water.
- 1.3.87 "Hazardous Waste" shall mean any waste as defined in the Rhode Island Hazardous Waste Management Act, Section 23-19.1.4(4), or in regulations adopted pursuant thereto, as are or as amended.
- 1.3.88 "HEALTH", "RIDOH", or "DOH" – shall mean the Rhode Island Department of Health.
- 1.3.89 "Heavy Metals" - shall mean metallic elements with higher molecular weights and at certain concentrations, some of these elements may present health risks to humans and animals and may be toxic to plants.
- 1.3.90 "Humus" - shall mean a complex amorphous aggregate, formed during the microbial decomposition or alteration of plant and animal residues and products synthesized by soil organisms; principal constituents are derivatives of lignins, proteins, and cellulose combined with inorganic soil constituents and for water absorption.
- 1.3.91 "Impermeable" (Impervious) - shall mean not permitting the passage of liquids through its substance.
- 1.3.92 "Impermeable Liner" shall mean a layer of natural or man-made material of sufficient thickness, density and composition so as to impede the passage of a fluid to a degree that will satisfy the standards required by the Department. For natural materials, this standard shall be  $1 \times 10^{-7}$  cm/sec. For man-made materials, this standard shall be  $1 \times 10^{-12}$  cm/sec.
- 1.3.93 "Incinerator" shall mean an arrangement of chambers and equipment designed for burning solid, semi-solid or gaseous combustible waste to a gas and residue. Incinerators used only for the combustion of solid waste generated on site shall not be covered by this definition.
- 1.3.94 "Initial Cover" shall mean cover material that is spread and compacted on the top, side slopes, and the face of compacted solid waste at least at the end of each operating day in accordance with Rule 2.3.04(a).
- 1.3.95 "Inocula/Inoculum" - shall mean preconditional microorganisms or compost added to a raw material to assure that appropriate microorganisms are present so as to sustain decomposition of organic material in a composting process.

- 1.3.96 "Inorganic Materials" - shall mean materials in which there are no carbon-to-carbon bonds, such as minerals, and which, therefore, will not undergo biological decomposition.
- 1.3.97 "Intermediate Cover" shall mean cover material which must resist erosion for a longer period of time because it is applied in accordance with Rule 2.3.04(b) on areas where additional cells are not to be constructed for extended periods of time.
- 1.3.98 "Landfill Cell" shall mean a discrete volume of a landfill which uses a liner system to provide isolation of solid waste from adjacent cells of solid waste.
- 1.3.99 "Landfill Gas Recovery Facility" shall mean a facility in which gases produced from the decomposition of solid wastes are collected for the purpose of the control of landfill gas migration and/or for the recovery of energy.
- 1.3.100 "Land Reclamation" shall mean the restoration of productivity to lands made barren through processes such as erosion, mining, or land clearing.
- 1.3.101 "Lateral Expansion" - shall mean, relative to Solid Waste Landfill Units, a horizontal expansion of the waste boundaries of an existing SWLF unit.
- 1.3.102 "Leachate" shall mean a liquid that has percolated through, or originated in solid waste and is presumed by these Rules and Regulations to contain dissolved or suspended materials from solid waste.
- 1.3.103 "Lead-Free" - shall mean any soil, compost, sludge, or other designated medium that either contains no lead, or contains lead in amounts less than the maximum acceptable environmental lead levels established in the Rhode Island Department of Health "Rules and Regulations for Lead Poisoning Prevention", as amended.
- 1.3.104 "Lead-Safe" - shall mean any soil, compost, sludge, or other designated medium that contains lead in amounts less than the maximum permissible environmental lead levels established in the Rhode Island Department of Health "Rules and Regulations for Lead Poisoning Prevention", as amended; which poses no significant environmental lead exposure hazard despite having a lead concentration above that required for a designation as "Lead Fee".
- 1.3.105 "Leaf and Yard Waste Composting Facility" - shall mean a facility, that is required to be registered with the Department, that is designed and operated to compost only leaf and yard waste.
- 1.3.106 "Leaves" - shall mean seasonal deposition from deciduous and coniferous trees and shrubbery.
- 1.3.107 "Licensing Agency" shall mean the Department of Environmental Management.

- 1.3.108 "Lift" shall mean a compacted layer of solid waste plus its overlying cover material in a sanitary landfill.
- 1.3.109 "Liner System" shall mean a continuous layer of natural and man-made materials, beneath or on the sides of a surface impoundment, landfill, or landfill cell, which restricts the downward or lateral escape of solid waste, any constituents of such wastes, or leachate and which complies with these Rules and Regulations.
- 1.3.110 "Manure" shall mean a waste composed of excreta of animals.
- 1.3.111 "Materials Recovery Facility (MRF) or Intermediate Processing Facility (IPF)" shall mean a facility consisting of structures, machinery, or devices utilized to sort, bale, or otherwise process only source segregated recyclable materials prior to conveyance to market outlets.
- Facilities meeting the above requirements are not required to apply for a solid waste management facility license except for facilities that accept, store, or process waste tires pursuant to RIGL 23-63. Facilities meeting the above requirements are required to register with the Office of Program Development.
- 1.3.112 "Mature Compost" - shall mean compost that has stabilized and has undergone a reduction of pathogens below the level of human risk. It is characterized as containing readily available forms of plant nutrients, poor in phytotoxic acids and phenols, and low in available carbon compounds.
- 1.3.113 "Microorganisms" - shall mean living organisms visible only with a microscope.
- 1.3.114 "Mixed Solid Waste" - shall mean heterogeneous and commingled solid waste, which may include readily biodegradable organic wastes, as well as other organic wastes which are not readily biodegradable and may also contain inorganic, non-compostable wastes.
- 1.1.115 "Mixed Solid Waste Composting Facility" - shall mean a solid waste management facility that is designed and operated to produce compost from the compostable portion of a mixed solid waste input stream.
- 1.3.116 "Monofill" shall mean a landfill or landfill cell into which only one homogeneous type of waste is placed.
- 1.3.117 "New SWLF Unit" - shall mean, relative to Solid Waste Landfill Units, any solid waste landfill unit that has not received waste prior to October 9, 1993.
- 1.3.118 "Non-compostable" - shall mean incapable of decomposing naturally or of yielding safe, non-toxic end products, after decomposition.
- 1.3.119 "Non-hazardous Liquid and Semi-Liquid Waste" shall mean any discarded material that is liquid or semi-liquid and which is not hazardous waste as defined in the Hazardous Waste

Management Act, R.I.G.L. 23-19.1, or rules and regulations promulgated pursuant to such Act, as is or as amended.

- 1.3.120 "Oil Spill Cleanup Debris" shall mean waste resulting from the cleanup of debris caused by spilling, depositing or placing of petroleum distillates, including but not limited to crank case oil, lubricants and hydraulic oil, penetrant oils, tramp oils, quenching oils, kerosene, gasoline, aviation fuels, diesel, and Nos. 2, 4, and 6 heating oil, onto the land or into the waters of the State.
- 1.3.121 "On-Farm" - On farmland owned by the agricultural composting facility owner.
- 1.3.122 "Open Burning" shall mean the combustion of solid waste without:
- (a) Control of combustion air to maintain adequate temperature for efficient combustion,
  - (b) Containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion, and
  - (c) Control of the emission of the combustion products.
- 1.3.123 "Operating a Solid Waste Management Facility" shall mean receiving solid waste at any facility, whether knowingly or unknowingly. For purposes of disposal, such receipt must be in an amount greater than three cubic yards, per Rhode Island General Law § 23-18.9-5; and any property owner is considered to be operating a solid waste management facility if an amount of solid waste greater than three cubic yards exists on their property.
- 1.3.124 "Operator" - shall mean the person, corporation, or entity responsible for daily operations or activities at a composting facility or solid waste management facility, whether licensed or unlicensed.
- 1.3.125 "Organic Material" - shall mean materials that contain carbon-to-carbon bonds and are biodegradable, such as paper, wood, food waste, leaves, and yard waste.
- 1.3.126 "Owner" - shall mean any person, corporation, or entity who owns a composting facility or solid waste management facility and who may also own the real property upon which the facility is located and/or constructed, whether licensed or unlicensed.
- 1.3.127 "Passive Windrow Composting" - shall mean composting of wastes in windrows in which wastes are turned at least twice per year.
- 1.3.128 "Pathogens" - shall mean organisms or microorganisms including viruses, bacteria, fungi, helminth, and protozoa capable of producing an infection or disease in a susceptible host.

- 1.3.129 "Percent Moisture" (relative to composting) - shall mean weight of water in a material divided by the total weight of the material, multiplied by one hundred (100).
- 1.3.130 "Percolation" - shall mean the downward movement of water or liquids through the pores or spaces of material or soil.
- 1.3.131 "Permeability" - shall mean the ability of water or liquids to percolate through a material or soil.
- 1.3.132 "Person" shall mean an individual, firm, joint stock company, partnership, association, private or municipal corporation, government or quasi-governmental corporation, state, commission, political subdivision of a state, any interstate body, or the federal government or any agency or subdivision thereof.
- 1.3.133 "Petroleum Contaminated Soil" shall mean soil that is contaminated from an above-ground or under-ground leak or spill of a petroleum product. The soil must be contaminated with only virgin (unused) petroleum products. Included in this group are the following products:
- (a) unused distillate and residual oil including, but not limited to, gasoline, aviation fuels, kerosene, diesel, and Nos. 2, 4, and 6 heating oil;
  - (b) unused crankcase oil, lubricants, hydraulic oils, penetrant oils, tramp oils, quench oils, and other industrial oils.
- 1.3.134 "pH" - shall mean the logarithm of the reciprocal of the hydrogen ion concentration (base 10) and shall be a measure of how acidic (pH less than 7) or basic (pH greater than 7) a material is. A pH of 7 is considered neutral.
- 1.3.135 "Physical Contaminants" - shall mean any non-biodegradable material such as plastic, metal, glass, stones or masonry debris.
- 1.3.136 "Phytotoxic" - shall mean detrimental, because of toxicity, to plant growth.
- 1.3.137 "Pollutant" means any material or effluent which may alter the chemical, physical, biological, or radiological characteristics and/or integrity of water, including but not limited to, dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, cellar dirt or industrial, municipal, agricultural, or other waste, petroleum or petroleum products, including but not limited to oil.
- 1.3.138 "Pollution" shall mean the entrance or discharge of any pollutant into any waters of the state including groundwaters, in such quantity, either by itself or in connection with other materials so discharged, as to alter the physical, chemical, biological or radiological characteristics and/or integrity of said waters, including change in temperature, taste, color, turbidity or odor, and, to cause or be likely to cause damage to the public, or to any person

having a right to use said waters for human consumption, commercial or domestic uses, for boating, fishing or other purposes, or owning property in, under or bordering upon same.

- 1.3.139 "Practice" shall mean the act of disposal of solid waste, as defined in 40 CFR Section 257.2 (1979) and as may be amended.
- 1.3.140 "PFRP" shall mean the Process to Further Reduce Pathogens required during the composting process.
- 1.3.141 "Project Engineer" shall mean the official representative of the permittee who is licensed to practice engineering in the State of Rhode Island, who is responsible for observing, documenting, and certifying that activities related to the quality assurance of the construction of the solid waste management facility conform to the engineering design contained in the permit to construct and the regulations specified in these Rules and Regulations. All certifications must bear his seal, his signature, and the date of certification.
- 1.3.142 "Putrescible Waste" - shall mean solid waste including, but not limited to, fish waste and other food wastes which contains organic matter capable of being decomposed by microorganisms and that has a tendency to form foul-smelling by-products, during decomposition, and may provide food for vectors or birds.
- 1.3.143 "Putrescible Waste Composting Facility" - shall mean a facility, that is required to be registered with the Department, that is designed and operated to receive and compost putrescible waste with or without other waste.
- 1.3.144 "Quality Assurance" shall mean the application of standards and procedures to insure that a product or facility meets or exceeds desired performance criteria, and documentation to verify the results obtained. "Quality assurance" includes "quality control" and refers to actions taken to assure conformity of the construction with the Department approved quality assurance plan, engineering plans, reports, and specifications.
- 1.3.145 "Quality Control" shall mean those actions which provide a means to measure and regulate the characteristics of an item or service to contractual and regulatory requirements. Quality control includes those actions taken before construction to ensure that the materials chosen and workmanship comply with the Department approved quality control plan, engineering plans, reports and specifications.
- 1.3.146 "Recycling" shall mean the reuse of recovered resources in manufacturing, agriculture, power production or other processes.
- 1.3.147 "Recyclable Material" shall mean any material listed as a recyclable material in the Rhode Island "Rules and Regulations for Reduction and Recycling of Municipal Solid Waste" and the "Rules and Regulations for Reduction and Recycling of Commercial and Non-Municipal Residential Solid Waste" or the Rhode Island Battery Deposit and Control

Regulations, or oil subject to the hard-to-dispose-of tax as stated in Chapter 37-15.1 of the Rhode Island General Law.

- 1.3.148 "Recyclables", for purposes of these Rules and Regulations, shall mean any residual recyclable material remaining in a solid waste stream after removal (source segregation) of recyclable material by the original generator(s) of the solid waste, in accordance with the "Rules and Regulations for Reduction and Recycling of Municipal Solid Waste" and the "Rules and Regulations for Reduction and Recycling of Commercial and Non-Municipal Residential Solid Waste" and/or other recyclable material not defined as such or not regulated by these municipal and commercial recycling rules and regulations.
- 1.3.149 "Refining" (relative to composting) - shall mean screening and other procedures (if applicable) which may be required to meet product quality standards and meet market requirements.
- 1.3.150 "Refuse" (see "Solid Waste").
- 1.3.151 "Refuse Derived Fuel" shall mean treated solid waste that is used as a fuel.
- 1.3.152 "Refuse Derived Fuel Processing Facility" shall mean the combination of structures, machinery, or devices utilized to reduce or alter the volume of mixed solid waste before delivery to a solid waste incinerator.
- 1.3.153 "Registered Compost Facility" - shall mean, relative to these Rules and Regulations, a leaf and yard waste composting facility or putrescible waste composting facility, that has received registration acceptance from the Department and shall operate in accordance with the information submitted on the composting facility registration form on file at the Department and in accordance with the Department's Leaf and Yard Waste Composting Rules and Regulations, or Putrescible Waste Composting Rules and Regulations.
- 1.3.154 "Release" shall mean any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment. For purposes of these Rules and Regulations, release also includes any storage, disposal, or abandonment of any substance or material in a manner which presents a substantial threat of release as herein defined.
- 1.3.155 "Residue" shall mean any solid that remains after completion of solid waste processing including incineration products such as bottom ash, fly ash and grate siftings.
- 1.3.156 "Resource Recovery" shall mean the processing of solid waste in such a way as to produce materials or energy which may be used in manufacturing, agriculture and other processes.
- 1.3.157 "Resource Recovery Facility" shall mean a processing facility which accepts solid waste for the purpose of resource recovery.

- 1.3.158 "Run - Off" - shall mean any rainwater, leachate, or other liquid that drains over land from any part of a facility.
- 1.3.159 "Run - On" - shall mean any rainwater, leachate, or other liquid that drains over land onto any part of a facility.
- 1.3.160 "Sanitary Landfill" shall mean a licensed land disposal site employing an engineered method of disposal of solid waste in a manner that absolutely minimizes environmental hazards, including: spreading the solid waste in thin layers, compacting the solid waste to the smallest practical volume; and applying cover material at the end of each operating day, or at such more frequent intervals as may be necessary. A sanitary landfill shall also mean a solid waste landfill.
- 1.3.161 "Screening of Compost" - shall mean the process of passing compost through a screen or sieve to remove large particles of organic and inorganic materials, so as to improve the consistency and quality of the end product.
- 1.3.162 "Screenings", as referred to facilities that separate or process construction and demolition debris, shall mean that material that is separated out of the construction and demolition debris waste stream by passage through or retention on a screen.
- 1.3.163 "Seed Materials" - shall mean, relative to composting, additives or inocula added to the waste to accelerate or activate the composting process.
- 1.3.164 "Segregated Solid Waste" shall mean material separated from other solid waste for reuse.
- 1.3.165 "Septic Waste" shall mean any solid, liquid, or semi-solid waste removed from septic tanks or cesspools, lagoons, trucks, or other sources.
- 1.3.166 "Sewage Sludge" shall mean a semi-liquid substance consisting of settled sewage solids combined with water and dissolved materials in varying amounts.
- 1.3.167 "Shredding" - shall mean breaking up waste materials into small pieces, usually in the form of irregularly shaped strips that is generally performed by mechanical methods.
- 1.3.168 "Size Reduction" - shall mean the breaking up of solid waste or other materials into smaller pieces, through abrasion, thermal dissociation, tearing, screening, tumbling, rolling, crushing, chipping, shredding, grinding, shearing, etc., in order to make the waste material easier to separate and relative to composting processes, to increase the surface area for composting.
- 1.3.169 "Soil Amendment" - shall mean a soil additive which stabilizes the soil, improves the resistance to erosion, increases its permeability to air and water, improves its texture and the resistance of the surface to crusting, makes it easier to cultivate, or otherwise improves its quality.

- 1.3.170 "Soil Amendment Ingredient" - shall mean a substitute which improves the physical characteristics of the soil.
- 1.3.171 "Solid Waste" shall mean garbage, refuse and other discarded solid materials generated by residential, institutional, commercial, industrial and agricultural sources but does not include solids or dissolved material in domestic sewage or sewage sludge, nor does it include hazardous waste as defined in the Rhode Island Hazardous Waste Management Act, Chapter 23-19.1, nor does it include used asphalt, concrete, Portland concrete cement, or tree stumps. For purposes of these Rules and Regulations, solid waste shall also include non-hazardous liquid, semi-solid, and containerized gaseous wastes, subject to any special conditions contained in these Rules and Regulations.
- 1.3.172 "Solid Waste Landfill (SWLF) Unit" - shall mean a discrete area of land or an excavation that receives solid waste and that is not a land application unit, surface impoundment, injection well, or a waste pile as defined per 40 CFR 257.2. A SWLF unit may receive all types of RCRA Subtitle D wastes, such as commercial solid waste, C & D wastes, certain non-hazardous sludges, and industrial solid waste. Such a landfill may be publicly or privately owned. A SWLF unit may be a new SWLF unit, an existing SWLF unit or a lateral expansion.
- 1.3.173 "Solid Waste Management Facility" shall mean any plant, structure, equipment, real and personal property, except mobile equipment or incinerators with a capacity of less than one thousand (1,000) pounds per hour, owned or operated for the purpose of processing, treating, or disposing of solid waste.
- 1.3.174 "Source Segregated Recyclable Materials" shall mean useful material which has been separated from the waste stream at the point of generation for the purpose of recovering and recycling these materials.
- 1.3.175 "Source Separated (Segregated) Solid Waste" shall mean solid waste that has been segregated into recyclable and non-recyclable materials at the point of generation and in compliance with the "Rules and Regulations for Reduction and Recycling of Municipal Solid Waste" and the "Rules and Regulations for Reduction and Recycling of Commercial and Non-Municipal Residential Solid Waste".
- 1.3.176 "Stability" (relative to composting) - shall mean the degree to which a composted material can be stored or used without giving rise to nuisances (odors or vectors) or can be applied to the soil without causing problems.
- 1.3.177 "Stabilization" - shall mean the second stage of composting (following decomposition) characterized by slow metabolic processes, lower heat production, and the formation of humus-like material.

- 1.3.178 "Staging Area" - shall mean the temporary holding area where solid waste is received, mixed, or debugged before moving it to the processing and/or composting area.
- 1.3.179 "State" shall mean the State of Rhode Island.
- 1.3.180 "Surface Public Water Supply" shall refer to surface water that supplies piped water for human consumption by means of a system having at least fifteen (15) service connections or regularly serving at least twenty-five (25) individuals for at least sixty (60) days of the year.
- 1.3.181 "Surface Water" shall mean a body of water whose top surface is exposed to the atmosphere including rivers, ponds, lakes, etc.
- 1.3.182 "Take" or "Taking" is defined in the Endangered Species Act, 16 U.S.C. Section 1533, as is or as amended.
- 1.3.183 "Thermophylic" shall mean occurring in a high temperature range, usually 45 degrees to 75 degrees centigrade.
- 1.3.184 "Toe" shall mean the bottom of the working face or side slope of a land disposal site where deposited solid waste is in contact with virgin ground or a previous lift.
- 1.3.185 "Transfer Station" shall mean a solid waste management facility, other than a materials recovery facility or intermediate processing facility that can have a combination of structures, machinery, or devices where solid waste is taken from collection vehicles and ultimately placed in other transportation units for movement to another solid waste management facility.
- 1.3.186 "Uppermost Aquifer" - shall mean, relative to Solid Waste Landfill Units, the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer within the facility's property boundary.
- 1.3.187 "Vector" shall mean a carrier, usually an insect or rodent, that is capable of transmitting a pathogen from one organism to another.
- 1.3.188 "Washout" shall mean the carrying away of solid waste by waters of the base flood, as defined in 40 CFR 257.3-1 (1979), as is or as amended.
- 1.3.189 "Waste" shall mean discarded or abandoned solid, semi-solid or liquid material.
- 1.3.190 "Waste Management" shall mean actions taken to effectuate the receipt, storage, transportation, processing for resource recovery, recycling, and/or the ultimate disposal of solid waste.

- 1.3.191 "Waste Management Unit Boundary" - shall mean, relative to Solid Waste Landfill Units, a vertical surface located at the hydraulically downgradient limit of the unit. This vertical surface extends down into the uppermost aquifer.
- 1.3.192 "Waste Tire Storage and Recycling Facility" shall mean a facility for used vehicle tire recycling or recovery and/or where greater than four hundred used vehicle tires are stored or are intended to be stored.
- 1.3.193 "Water Table" shall mean the upper surface of the zone of saturation in an unconfined aquifer.
- 1.3.194 "Wellhead Protection Area" shall mean the critical portion of a three-dimensional zone, designated by the Director, surrounding a public well or wellfield through which water will move toward and reach such well or wellfield.
- 1.3.195 "Windrow" - shall mean an elevated pile of solid waste, formed for the purpose of composting, no larger than any dimension constraints specified in these Rules and Regulations, and which is oriented along the fall line of the compost pad and fits within the perimeter of the compost pad.
- 1.3.196 "Windrow Composting" - shall mean the composting of organic materials that are arranged in a series of windrows and which are turned periodically to aerate and mix the waste materials to speed up decomposition and reduce or prevent odors.
- 1.3.197 "Working Face" shall mean that portion of a land disposal site where solid waste is discharged by collection and/or haulage vehicles and is spread and compacted prior to placement of cover material.
- 1.3.198 "Yard Waste" - shall mean leaves, grass clippings, weeds, herbaceous garden waste, shrub and tree prunings, and brush.

#### **1.4.00 PROHIBITIONS**

- 1.4.01 General: No person shall construct, develop, establish, manage, own or maintain a solid waste management facility or composting facility, without first having obtained approval issued by the Department. No person shall operate a solid waste management facility or composting facility without first having obtained a license or registration to operate from the Department.
- 1.4.02 Water:
- (a) Surface Water Pollution: A solid waste management facility, composting facility, or practice, whether licensed or unlicensed, shall not cause pollution of the waters of the United States so as to violate the Water Pollution Act, 1956 R.I.G.L., Chapter 46-12,

as is or as amended, or Section 402 of the Clean Water Act, 33 U.S.C. 12.51 et seq., nor shall the facility or practice cause a discharge of dredged material or fill in violation of Section 404 of the Clean Water Act, as is or as amended.

- (b) Groundwater Pollution: A solid waste management facility, composting facility, or practice, whether licensed or unlicensed, shall not cause pollution of groundwater beyond the licensed or registered area of the facility. In addition, the facility shall comply with the requirements of the Clean Water Act, 33 U.S.C. 1251 et seq., and the regulations adopted pursuant to the Act, specifically 40 CFR Section 257.3-4, as are or as amended.

1.4.03 Air:

- (a) Open Burning: Open burning of any type at a solid waste management facility or composting facility, whether licensed or unlicensed, shall be prohibited.
- (b) Air Standards: A solid waste management facility or composting facility, whether licensed or unlicensed, shall not violate the following:
  - (1) State implementation plans approved or promulgated pursuant to Chapter 23-23, 1956 RIGL, as is or as amended; the rules and regulations adopted to implement such Chapter, and any applicable provisions of the Clean Air Act, 42 U.S.C. 7410, as are or as amended.
  - (2) The State Air Pollution Control Act, and the rules and regulations promulgated thereunder.
- (c) Odors: A solid waste management facility or composting facility, whether licensed or unlicensed, shall not emit or cause to be emitted into the atmosphere any air contaminant or combination of air contaminants which creates an objectionable odor beyond the property line of said facility. Odor evaluations shall be conducted by Department personnel to determine if an odor is objectionable by taking into account its nature, concentration, location, duration, and source.

1.4.04 Low Level Radioactive Waste: The disposal of low level radioactive waste at a composting facility or solid waste management facility is prohibited. All low level radioactive waste must be managed in accordance with Rhode Island's Radioactive Waste Policy, 22 December 1989, and any subsequent amendments certified by the Governor of the State of Rhode Island.

1.4.05 Facilities Prohibited from Operating: Facilities that meet any of the following characteristics shall be prohibited from operating in the State of Rhode Island, and shall be subject to any and all enforcement actions under the authority of the 1956 Rhode Island General Laws, Chapters 23-18.9 (1989 Reenactment), 23-19 (1979 Reenactment) and 42-17.1 (1977 Reenactment), as are or as amended.

- (a) Facilities that accept or store co-mingled recyclable materials, including wood waste and construction and demolition debris, without obtaining a license, registration, or approval from the Department.
- (b) Facilities that accumulate material speculatively and/or facilities that accept or store co-mingled recyclable materials and operate outside the confines of a closed structure without obtaining a license, registration, or approval from the Department.

## **1.5.00 GENERAL REQUIREMENTS AND PROCEDURES**

### **1.5.01 Plans and Specifications**

- (a) Initial Application: Applications for licenses and registrations must include plans and specifications. All applicants, regardless of facility type, must demonstrate their ability to comply with all General Operating Standards set forth in Section 1.7.00 of these Rules and Regulations, as well as the general requirements in this rule. Each applicant must also submit all plans and specifications required for the particular type of facility, as enumerated in Solid Waste Regulations Numbers 2 through 8.
- (b) Renewal Application: Applications for renewal of licenses and registrations must include the submission of the facility's operating plan as required for the particular type of facility enumerated in Solid Waste Regulations Numbers 2 through 8. The operating plan must be updated to include all changes, additions or deletions that have occurred within the last licensing or registration period and that are anticipated for the new licensing or registration period.

1.5.02 Time of Application: The application for approval to construct, develop, establish, manage, own, or maintain a license or registration to operate a solid waste management facility or composting facility shall be submitted at least nine (9) months prior to the planned opening date for an original license or registration, and three (3) months prior to the expiration date for renewal of a license or registration.

1.5.03 Documentation of Ownership: Each application shall be accompanied by:

- (a) A list of the direct and indirect owners of the proposed composting facility or solid waste management facility and the underlying real property, whether individual, partnership, corporation, or other form of organization. If a corporation, the list shall include all officers, directors and other persons owning ten percent (10%) or more of the corporate stock.
- (b) In the event that a person other than the owner of the underlying real property or of the facility is responsible for the operation of the composting facility or solid waste

management facility, each person shall comply with the requirements of Rule 1.5.03 (a) above.

1.5.04 Certification: Each application, plan, report, or document or any associated progress reports shall include the following statements signed by an authorized representative of the party specified:

- (a) A statement signed by an authorized representative of the person who prepared the application, plan, report, or document certifying, to the best of their knowledge, the accuracy of the information contained in the submittal; and
- (b) A statement signed by the facility owner or operator responsible for the preparation and submittal of the application, plan, report, or document certifying, to the best of their knowledge, that the submittal is a complete and accurate representation, and that it includes all known facts required therein.
- (c) If the owner of the real property is different from the operator of the facility, then the owner must certify that he allows the operation, and is the guarantor of proper closure of the facility.

1.5.05 Zoning: Granting of a license, license renewal, registration or permission for an equipment addition shall in no way affect the applicant's responsibility to meet all zoning and other local ordinances, nor the applicant's responsibility to obtain any local permits, except as provided by Rhode Island General Laws.

1.5.06 General Plan Requirements:

- (a) All required plans and reports shall be stamped by a professional engineer, land surveyor, or landscape architect as appropriate and in accordance with each professional's discipline, as required by Rhode Island General Law 5-51-1.
- (b) At the time of application, the applicant shall submit for approval all operating, engineering, and other plans required by these rules. Said plans shall comprehensively identify all activities at the facility(s), and address impacts of activities on regulated operations.

1.5.07 Need: Application for a solid waste management facility license shall meet the criteria established by R.I.G.L. Section 23-18.9-8.1. All public projects shall meet the criteria for need established in Section 23-19-4(b), and the Director shall require no further demonstration of need. Private facilities shall meet all relevant criteria established by regulation to protect human health and the environment, and the Director shall require no further demonstration of need.

1.5.08 Equipment Addition: Plans as required by the Department must be submitted prior to the addition of any equipment to an existing facility.

1.5.09 Groundwater Quality Certification: In order to determine compliance with groundwater classification, groundwater quality certification in accordance with and pursuant to Section 17 of the Rules and Regulations for Groundwater Quality is required for the issuance of a solid waste disposal facility license.

- (a) Groundwater quality certification review shall be by the Department's Groundwater Section in accordance with and pursuant to Section 17.02 of the Rules and Regulations for Groundwater Quality, as is or as amended.
- (b) Criteria for groundwater quality certification approvals shall be in accordance with and pursuant to Section 17.03 of the Rules and Regulations for Groundwater Quality, as is or as amended.

1.5.10 Closure Procedures:

- (a) General: Each applicant shall submit a closure plan with the application for license or renewal or registration (where applicable) that shall contain information required by this rule. Each applicant shall also submit a closure plan required for the particular type of facility as enumerated in Solid Waste Regulations Numbers 2 through 8.
- (b) Financial Responsibility:
  - (1) The applicant and/or licensee shall file an estimate of the costs of closing the facility after its capacity is reached or operations have otherwise terminated, or when the Director may require it. The estimate shall take into account both the general information listed in this rule, as well as closure plans stipulated for the particular type of facility as enumerated in Solid Waste Regulations Numbers 2 through 8.
  - (2) Financial Requirement: Every applicant shall post a bond or other suitable form of financial assurance approved by the Director, unless the Director determines that such financial assurance is not necessary to insure proper closure, closures and/or post closure monitoring. Financial assurance shall equal the estimate in Rule 1.5.10(b)(1) or it may exceed such estimate if the Director determines that such estimate is not adequate to fund closure procedures, post closure monitoring or compliance with these Rules and Regulations.

Whenever the Director finds that the operator is in violation of any closure requirements for the facility, or at any other time deemed necessary by the Director to insure that these Rules and Regulations are complied with, the Director shall have the right to use part or all of the financial assurance to complete such closure or other requirements. Part or all of the financial assurance shall be forfeited upon receipt of an order entered after a hearing by the Director stating that the operator is in violation of any closure or other

requirements for the facility. Upon issuance of a certificate of closure, part of the financial assurance shall be released and a portion of said financial assurance may be kept by the Director as he determines is necessary to insure that the required monitoring procedures shall be completed.

- (c) Notification of Closure: The operator shall notify the Director of the impending closure of the facility at least ninety (90) days prior to such closure.

#### **1.6.00 ISSUANCE, RENEWAL, AND CONDITIONS OF LICENSES AND REGISTRATIONS**

- 1.6.01 General Issuance and Renewal of Licenses and Registrations: Any person who desires to construct, develop, establish, manage, own, operate, or maintain a solid waste management facility or composting facility must obtain a license or registration from the Department. A license or license renewal shall be issued for a period of three years from the date of issuance, unless sooner suspended or revoked. Relative to any composting facilities that require registration, the registration or registration renewal shall be issued to cover the calendar year or remaining portion thereof, unless sooner suspended or revoked. Each license, license renewal, registration, or registration renewal shall be issued only for the facility named in the application and shall not be transferable or assignable except with the written approval of the Department. Each license, license renewal, registration, or registration renewal shall show compliance with these Rules and Regulations.
- 1.6.02 Posting of License or Registration: A license or registration issued hereunder shall be the property of the State. It shall be kept posted in a conspicuous place on the licensed or registered facility and must be kept legible and protected from the weather. The license or registration conveys no property right to the licensee or registrant and the licensee or registrant acknowledges this fact through its submission of an application for a license or registration.
- 1.6.03 Change of Ownership, Administration and/or Location:
  - (a) Change in ownership or membership of the legal entity conducting, maintaining, or operating the facility:
    - (1) Prior to this change, all information requested by the Department shall be submitted for its review and approval, as required to perform an appropriate background check on the prospective new owner or legal entity.
    - (2) Prior to this change, an updated operating plan shall be submitted to the Department that shows all operating changes that will occur as a consequence of the owner or legal entity change. Note, any significant amendments and/or revisions to the operating plan or facility will require the issuance of a new license or registration (versus renewal).

(3) If the prospective new owner or legal entity is acceptable to the Department, per the background check, and if the updated operating plan is also acceptable to the Department, then the prospective new owner or legal entity shall submit a fee equal to the license renewal fee or registration renewal fee for the applicable type of solid waste management facility or composting facility, respectively. The Department shall, in turn, issue a full term renewal license for a facility that must be licensed or a registration renewal for any facility that must be registered.

(4) When the change in ownership or legal entity becomes effective, the previous owner's or legal entity's license or registration becomes void and must be immediately returned to the Department.

(b) Change in Facility Location or Sale or Lease of Facility:

(1) Prior to any of these changes, the Department shall be notified and the Department shall provide further guidance on the prospective change and any additional requirements. See also Rule 1.6.04.

(2) When the change becomes effective, the previous license or registration becomes void and must be immediately returned to the Department.

1.6.04 Approval for New Areas and/or Services: The license or registration shall apply only to the solid waste management facility or composting facility operating at the time the license or registration is issued. Additional areas or services shall be subject to the approval of the Department and requirements of licensure or registration.

1.6.05 Separate Licenses or Registrations:

(a) Separate licenses or registrations shall be required for solid waste management facilities or composting facilities which are located in separate geographical areas even though they are under the same management.

(b) A separate license or registration may be issued to a distinct part of a facility which can be identified as a separate unit.

1.6.06 Fees: The license or registration fee as well as any other necessary charges shall be determined by R.I.G.L. Section 23-18.9-9, as is or as amended or by R.I.G.L. Section 2-22-5 for composting facilities that must register. Licenses shall expire three years from the date of issue, unless sooner suspended or revoked. A license may be renewed every three years at a fee as determined by Section 23-18.9-9, as is or as amended. A fee schedule for composting facility or solid waste management facility applications and renewals is provided in Rule 1.13.00. Relative to any composting facilities that require facility registration, December 31 of each year is the expiration date of the registration, unless

sooner suspended or revoked. The registration renewal fee structure is provided in Rule 1.13.02.

1.6.07 Denial, Suspension, or Revocation of License or Registration:

- (a) Procedure and Grounds: The Department, after notice and opportunity for hearing to the applicant or licensee, is authorized to deny, suspend or revoke a license or deny a license renewal where it finds there has been a failure to comply with regulations established by the licensing agency, or where the applicant or licensee is not in compliance with any approved operating or engineering plans adopted pursuant to these Rules and Regulations. The Department may, after notice and opportunity for hearing to the registrant, deny, suspend, or revoke a facility registration or deny a facility registration renewal where it finds there has been a failure to comply with regulations established by the Department, or where the registrant is not in compliance with any approved operating or engineering plans adopted pursuant to these Rules and Regulations.
- (b) Corrective Action: Whenever the Department determines that a licensed solid waste management facility is not being operated in conformance with all of the regulations established by the licensing agency, or, that the licensed facility is not being operated in conformance with an approved operating or engineering plan adopted pursuant to these Rules and Regulations, it may, in lieu of or in addition to suspension or revocation of the license of that facility, order the licensee to take whatever corrective action is necessary to secure compliance with the regulations established by the licensing agency, subject to the provisions of R.I.G.L. Section 42-17.1-2 (u), as is or as amended. Whenever the Department determines that a registered facility is not being operated in conformance with all of the regulations established by the Department, or, that the registered facility is not being operated in conformance with an approved operating or engineering plan adopted pursuant to these Rules and Regulations, it may, in lieu of or in addition to suspension or revocation of the registration of that facility, order the registrant to take whatever corrective action is necessary to secure compliance with the regulations established by the Department, subject to the provisions of Section 42-17.1-2(u), as is or as amended.
- (c) No person shall operate any solid waste management facility, composting facility, or solid waste processing device which is subject to license or approval by the Department without a license or approval of the Department. No facility may operate after an approval or license has been denied. Any approval or license issued under these Rules and Regulations may be suspended, revoked or amended by the Director at any time upon a showing, after notice and hearing, that the permittee has failed to comply with the provisions of this chapter, rules and regulations promulgated by the Director pursuant to this chapter, or the terms and conditions of the approval or license or upon a showing, after notice and hearing, that the continued operation of the approved or licensed source constitutes a threat to the health and safety of the public or to the environment. In any proceeding for revocation, suspension, or amendment

of an approval or license pursuant to this regulation, the Director will provide the affected party with the opportunity for an adequate hearing. No revocation, annulment, or withdrawal of any approval or license is lawful unless the agency sent notice by mail to the licensee or possessor of an approval of the facts or conduct or violation which warrants the action, and the permittee or possessor of a license is given an opportunity at hearing to show compliance with all lawful requirements for the retention of the license. If the agency finds that public health, safety, or welfare imperatively requires emergency action, and incorporates a finding to that effect in its order, summary suspension of approval or license may be ordered pending proceedings for revocation or other action. These proceedings shall be promptly instituted and determined.

1.6.08 Inspections:

- (a) The Department shall make or cause to be made such inspections, take such tests and specimens and to make such investigations as it deems necessary.
- (b) The Department or other designated authorized personnel shall conduct inspections and shall have the right to enter without prior notice to inspect any solid waste management facility or composting facility for which an application has been received or for which a license or registration has been issued. Any application shall constitute permission for or willingness to comply with inspections, tests and investigations by the Director or his agents.
- (c) The Department shall be afforded reasonable opportunity by the applicant, licensee or registrant to view the facility, examine records (including any and all on-site or off-site locations where records are kept), and obtain such information as may be required for the inspection, testing and investigation. Refusal to permit reasonable inspections, tests and investigations shall constitute valid grounds for denial, revocation or suspension of a license; denial, revocation or suspension of a registration; and/or issuance of a Notice of Violation with Administrative Penalty.
- (d) The inspector may leave a copy of the inspection report at the facility and such report shall constitute notice of any deficiencies. Such deficiencies as are noted in the inspection report may be used as the basis of a notice of violation and may be taken into account in any license or registration renewal proceeding, in any request for new areas and/or services, and in any equipment addition request.
- (e) All solid waste management facilities and composting facilities shall maintain records and report to the Department, as required, relative to the amounts of materials received and recycled.

1.6.09 Inspection Reports and Correction of Deficiencies: Every composting facility or solid waste management facility shall be given prompt notice by the Department of deficiencies reported as a result of an inspection, test or investigation. Such notification may be made

by regular mail -- postage prepaid from the Director to the person or facility inspected, tested or investigated. Notice may also be made by leaving a copy of the inspection report with an employee at the facility.

1.6.10 Penalties:

- (a) Any person who constructs a solid waste management facility or composting facility, or installs equipment in the facility without first obtaining approval of the plans and specifications for the facility, or any person who operates the facility without obtaining a license or registration to do so from the Director, may be assessed an administrative penalty of up to \$25,000. For purposes of these Rules and Regulations, each and every day during which the violation shall be repeated shall be a separate and distinct offense.
- (b) Any person who disposes of solid waste at other than a licensed solid waste facility may be assessed an administrative penalty of up to five thousand dollars (\$5,000). For the purposes of these Rules and Regulations, each and every day during which the violation shall be repeated shall be a separate and distinct offense.

1.7.00 **GENERAL OPERATING STANDARDS**

1.7.01 Applicability: The following regulations contained in this rule shall apply to all composting facilities and solid waste management facilities. In addition, operating regulations for the particular type of facility must also be complied with as enumerated in these Rules and Regulations.

1.7.02 Access:

- (a) Time: Access to the composting facility or solid waste management facility shall be limited to the hours in which authorized operating personnel are on duty at the facility. Additional time shall be designated before and after normal operating hours to allow for "housekeeping chores", such as initial and intermediate cover application at sanitary landfills, wind-blown refuse control at all facilities, etc. There shall be no access to the facility for the acceptance of solid waste during these times.
- (b) Physical Restraints: There shall be gates at all entrances to facilities which will prevent access to the facility, except at such times as permitted under Rule 1.7.02(a) above. These gates should be locked when the site is unsupervised. Fences will be required around the facility to limit unauthorized access.

1.7.03 Salvage: Only controlled removal and handling of waste for utilization shall be permitted at the site. Material to be salvaged should be unloaded at a salvage area. Salvaging of refuse shall be conducted in such a manner so as not to impede the proper operation of the facility and to insure the health and safety of all persons engaging in such activities.

#### 1.7.04 Processing of Bulky Waste:

Bulky wastes including, but not limited to, clothes washers and dryers, stoves, refrigerators, freezers, microwave ovens, dishwashers, air conditioners, fluorescent lighting fixtures and computer parts potentially containing PCB capacitors, must meet the following requirements for disposal at all solid waste management facilities:

- (a) All capacitors must be removed prior to processing or disposal.
- (b) Once they are removed, capacitors must be stored in Department of Transportation approved 55 gallon drums with attachable covers. The drums shall contain a 6 inch layer of an approved absorbent material at the bottom. The attachable drum cover shall be secured at the end of each working day or before the drum is transported by any means.
- (c) Storage, transportation and final disposal of drums containing capacitors must be in accordance with all applicable State and Federal regulations including, but not limited to, the Rules and Regulations for Hazardous Waste Management and regulations promulgated in accordance with the Federal Toxic Substances Control Act.
- (d) Procedures for identifying, removing, storing and disposing of PCB capacitors must be outlined in the facilities operating plan.
- (e) Procedures for identifying, removing, storing and recycling of chlorinated fluorocarbons (CFCs or freon) must be outlined in the facility's operating plan.
- (f) Disposal facilities may contract with outside vendors to meet the requirements of this Rule. Details of the contract must be included in the facility's operating plan.

#### 1.7.05 Vector Control: The facility shall not operate unless an on-site vector population is minimized by periodic application of cover material and by other appropriate techniques that will protect public health.

- (a) Conditions shall be maintained that are sanitary and therefore unfavorable for the harboring, feeding, and breeding of vectors.
- (b) Control of insects and rodents, where needed, shall be effected by means of a program directed by a professional exterminator utilizing insecticides and/or rodenticides or other means approved by the Department.

#### 1.7.06 Signs:

- (a) There shall be erected at the entrance to the composting facility or solid waste management facility a sign, clearly legible and visible, which shall contain the following:
    - (1) Name of facility and operator
    - (2) Emergency phone number
    - (3) Restricted materials (if applicable)
    - (4) Operating hours
  - (b) There must be adequate directional signs within the facility to direct drivers to the appropriate unloading area, assist in traffic control, and to regulate speed within the facility.
- 1.7.07 Communication: A suitable means of communication (telephone, two-way radio, etc.) shall be available at every composting facility and solid waste management facility.
- 1.7.08 Inspections: All land, buildings, facilities and equipment used in the disposal, transfer, or processing of solid waste must be available for inspection by the Director at any time. Failure to allow an inspection will be sufficient grounds for revocation of a facility's license or registrations in accordance with Rule 1.6.07 and/or issuance of a Notice of Violation with Administrative Penalty.
- 1.7.09 Endangered Species: No facility or practice shall cause or contribute to the taking of any endangered or threatened species pursuant to the Endangered Species Act, 16 U.S.C. 1531 et seq., and/or the regulations adopted to implement such Act, as is or was amended. The facility or practice shall not cause or contribute to the destruction or adverse modification of the critical habitat of endangered or threatened species.
- 1.7.10 Dust Control: The operator must take suitable measures at all times to control dust at every composting facility or solid waste management facility, access roads to the facility and all other areas related to the facility's operation. This may be accomplished by spraying small amounts of water over the dust producing area and/or by the application of suitable chemicals or paving materials on access roads.
- 1.7.11 Control of Litter: Measures must be taken to eliminate the scattering of refuse. The operator shall provide for routine maintenance and general cleanliness of all areas related to the facility's operation.
- 1.7.12 Safety Provisions:
- (a) General: Composting facilities and solid waste management facilities shall be designed, operated and maintained in such a manner as to protect the health and safety

of users of the facility and personnel associated with the operation of the facility, and persons in close proximity to the facility.

- (b) Bird Hazard shall mean an increase in the likelihood of bird/aircraft collisions that may cause damage to the aircraft or injury to its occupants.
- (c) Composting facilities and solid waste management facilities shall be designed, operated, and maintained so as not to pose a bird hazard to aircraft.

1.7.13 Operating and Engineering Plans: A facility shall be operated in conformity with its approved operating and engineering plans. Variances from such plans shall be permitted only after prior written approval from the Director.

1.7.14 Closure Procedure:

- (a) All composting facilities and solid waste management facilities must notify the Department at least three (3) months prior to the anticipated date that closure operations are to begin.
- (b) The facility must implement the approved closure plan.
- (c) Requests for deviations from previously approved closure plans shall be in writing, and written approval from the Department must be obtained prior to implementation.
- (d) After the closure plans have been fully implemented, the Department shall be notified so that an inspection may be made by Department personnel. A list of the deficiencies, if any, will be returned to the owner of the facility. A final inspection will be required after all deficiencies are corrected.
- (e) A professional engineer registered in the State of Rhode Island must certify that the facility is properly closed in accordance with the approved closure plan.

1.7.15 Buffer Zones: All composting facilities and solid waste management facilities shall be required to maintain a buffer zone area that serves to mitigate nuisance impacts such as dust, litter, odor, and noise from composting facilities or solid waste management facilities to human activities. The buffer zone must be an area of undeveloped vegetated land retained in its natural undisturbed condition, or created to resemble a naturally occurring vegetated area, or approved equal, that is not used for any composting facility or solid waste management facility operations. The buffer zone may be utilized for vegetated drainage controls such as swales or storage ponds.

1.7.16 Active Gas Collection System: Any solid waste management facility that stores waste materials containing gypsum on site over three (3) months shall install and maintain an active gas collection system approved by the Department.

**1.8.00 EXISTING COMPOSTING FACILITIES AND SOLID WASTE MANAGEMENT FACILITIES**

1.8.01 General Applicability: Existing composting facilities and solid waste management facilities shall comply with the provisions of these Rules and Regulations on and after the effective date, except for the following:

- (a) Existing sanitary landfills shall comply with Rules 2.1.08(a)8, 2.1.08(a)9, and 2.1.08(a)10 for the placement of new groundwater monitoring wells. Water quality sampling and analysis must be performed in accordance with Rule 2.1.08(a)11 and Rule 2.1.08(c). Existing sanitary landfills must revise their facility operating plans to comply with these rules within (6) months of the effective date.
- (b) Existing sanitary landfills shall comply with Rules 2.1.09., 1.7.14, and 2.2.12 relating to closure of the facility. A revised closure plan in compliance with these rules must be submitted at the time of the facility's next license renewal date. An existing sanitary landfill that closes prior to its next license renewal date may do so in accordance with its existing approved closure plan.
- (c) Existing sanitary landfills shall continue to comply with its existing approved operating plan and with the General Operating Standards described in Rule 1.7.00 and with the Sanitary Landfill Operating Standards described in Rule 2.3.00, except for Rule 2.3.02. Existing sanitary landfills may continue to operate within the 200-foot buffer rule only in areas approved in their existing license and operating plan.
- (d) All lateral expansions into unfilled areas that have also been approved for landfilling in a facility's existing license and operating plan must comply with the liner requirements described in Rules 2.1.00, 2.2.00, and 2.3.00. These liner requirements apply to the placement of wastes in any unfilled licensed areas after October 9, 1993, as required by 40 CFR Parts 257 and 258.

1.8.02 Currently Licensed or Registered Facilities: Operators of all solid waste management facilities or composting facilities which are operating pursuant to a license or registration shall comply with these Rules and Regulations within six (6) months of the effective date, except as noted in Rule 1.8.01 provided, however, that if there is less than six (6) months time between the effective date of these Rules and Regulations and the expiration of said license or registration, the operator shall have an additional ninety (90) days beyond said expiration date to comply with these Rules and Regulations.

1.8.03 Other Existing Facilities: Operators of solid waste management facilities or composting facilities which are operating pursuant to R.I.G.L. Section 42-35-14(c), or by agreement with or orders of the Department, or which have applied but have not yet received a license

or registrations for the current year during which these Rules and Regulations take effect shall have six (6) months from the effective date of these Rules and Regulations to comply.

**1.8.04 Existing Rules and Regulations:**

- (a) Where operators of existing facilities are given time to comply with the provisions of these Rules and Regulations pursuant to Rules 1.8.01, 1.8.02, and 1.8.03, such operators shall continue to operate the facility in compliance with the provisions of the "Rules and Regulations for Solid Waste Management Facilities", effective December 1, 1982, amended February 6, 1991 and April, 1992 and any licenses, approvals, or orders issued prior to the effective date of these Rules and Regulations.
- (b) All notices and orders issued pursuant to the "Rules and Regulations for Operating and Licensing Solid Waste Management Facilities", effective March 16, 1975, December 11, 1975 and December 1, 1982 respectively, shall remain in full force and effect until further action of the Director.

**1.9.00 NEW COMPOSTING FACILITIES OR SOLID WASTE MANAGEMENT FACILITIES:**

Persons proposing new composting facilities or solid waste management facilities or expansion or modification of existing facilities shall comply with these Rules and Regulations.

**1.10.00 PROCEDURES FOR APPROVAL OR DENIAL OF VARIANCES**

- 1.10.01 Application for Variance: The application for a license, license renewal, registration, registration renewal or other approval under these Rules and Regulations may include or be amended to include a request for a variance from the provisions of the "Rules and Regulations for Composting Facilities and Solid Waste Management Facilities". Such request for a variance shall be in writing and signed by the owner and operator of the facility, and a registered professional engineer.
- 1.10.02 Review by Department: The Director, through the Office of Waste Management, shall evaluate each request for a variance. Such variance may be granted provided that the Director finds that such variance will not be contrary to the purposes and policy expressed in Rules 1.1.01 and 1.1.04 and that alternative methods proposed by the operator fulfill the purposes of the rule from which a variance is requested. The Director may require a public hearing prior to approving any variance where a substantial question exists as to the environmental or public health impacts of such variance. Denial of such variance may be appealed in accordance with the procedures delineated below.

### **1.11.00 OPPORTUNITY FOR HEARING**

- 1.11.01 Denials: Any person whose application for a registration, registration renewal, license, license renewal, other approval, or a variance has been denied by the Department, acting through the Office of Waste Management, may appeal to the Administrative Adjudication Division for review of the decision on which the denial is based.
- 1.11.02 Violations: Any person who has been issued a notice of violation of any of the provisions of these Rules and Regulations, may request a hearing from the Department's Administrative Adjudication Division, subject to the provisions of R.I.G.L. 42-17.1-2(u) and 42-17.7-9.
- 1.11.03 Time of Filing: All requests for a hearing shall be made in writing and must be filed with the clerk of the Administrative Adjudication Division within twenty (20) calendar days of receipt of any contested enforcement action. All license and registration appeals must be filed with the clerk of the Administrative Adjudication Division within thirty (30) calendar days of receipt of the contested action.
- 1.11.04 Hearings and Administrative Procedures: Pursuant to the authority granted to the Department in Chapter 42-17.1, 42-17.7, and Chapter 42-35, hearings and administrative procedures shall conform to the "Administrative Rules of Practice and Procedure for the Department of Environmental Management, Administrative Adjudication Division for Environmental Matters."

**1.12.00 EFFECTIVE DATES**: These Rules and Regulations shall take effect on the date specified in the attached certification of promulgation by the Director of the Department of Environmental Management.

### **1.13.00 FEES**

1.13.01 General Information:

This Rule has been prepared pursuant to R.I.G.L. Section 23-18.9-9(a), (b), and (c). Each application for a license to construct and operate a solid waste management facility, or application to renew a license to operate a solid waste management facility, must include a fee in accordance with the following schedule:

<u>Facility</u>	<u>Application Fee</u>	<u>Renewal Fee</u>
Lined Solid Waste Landfill	\$100,000.00	\$15,000.00
Resource Recovery Facility		

Solid Waste Incinerator	\$100,000.00	\$15,000.00
Transfer Station	\$ 10,000.00	\$ 3,000.00
Medical Waste Incinerator	\$ 20,000.00	\$10,000.00
Petroleum Contaminated Soil Processing Facility	\$ 20,000.00	\$10,000.00
Waste Tire Storage and Recycling Facility	\$ 50.00	\$ 25.00
Existing Unlined Solid Waste Landfill	---	\$ 3,000.00
Construction and Demolition Debris Processing Facility	\$ 10,000.00	\$ 3,000.00
Mixed Solid Waste Composting Facility License Fee	\$ 10,000.00	\$ 3,000.00

#### 1.13.02 Additional Compost Facility Fees:

- (a) Operation Fees The composter shall register the operation with the Department and shall identify their organic and any inorganic inputs used in the making of their compost. Per R.I.G.L. 2-22-5, the composter shall pay an annual registration fee for the operation based on the organic inputs allowed under the following compost designations.
- (b) Horticultural Grade, general use, no fee required. Organic inputs for this classification shall consist of leaf and yard waste only.
- (c) Non-Food Crop Use, one thousand dollars (\$1,000.00 per year) Organic inputs for this classification shall consist of leaves, yard waste, animal manures, organic putrescible wastes, and/or organic wastes generated from commercial or industrial sources, including but not limited to paper, cardboard, and maize or b. Sludges of any kind shall not be included in this classification.
- (d) Limited Landscape Use, two thousand five hundred dollars (\$2,500.00 per year) Organic inputs for this classification shall consist of leaves, yard waste, animal manures, organic putrescible wastes, organic wastes from commercial and industrial sources, and/or municipal waste water sludges, or any other sludges from commercial or industrial sources, and/or organic wastes generated from municipal solid waste collections.
- (e) Product Fee The composter shall also be required to register each separately identified products produced in accordance with RIGL 2-22-5. The registration shall be accompanied

by a fee of fifty dollars (\$50.00) per product. All registrations expire on December 31 of each year.

Agricultural Composting Facilities and municipally owned composting facilities shall be exempt from the payment of the fees described above.

- (f) Annual Reporting and Sales Fees In accordance with RIGL 2-22-15, the composter shall submit an annual report of compost sales quantity and a fee for these sales to the Department according to the following:
  - (1) Eight cents (\$.08) per ton of horticultural grade general use compost sales, per Rule 1.13.02(b).
  - (2) Twenty cents (\$.20) per ton of non-food crop use compost sales, per Rule 1.13.02(c).
  - (3) Twenty-five cents (\$.25) per ton of limited landscape use compost sales, per Rule 1.13.02(d).
- (g) Penalties for Violations Any person convicted of violating any provision of these rules and regulations for compost facility fees shall be subject to a penalty of not less than one hundred dollars (\$100.00). The penalty shall not be greater than five thousand dollars (\$5,000.00) or in addition to the penalty, the violators registration fee shall be increased four hundred percent (400%) for the four years subsequent to the penalty. All penalties shall be enforced by a summary proceeding in a court of competent jurisdiction. Nothing in this rule shall be constructed as requiring the Director to report for prosecution or for the institution of seizure proceedings as a result of minor violations when he or she believes that the public interest will best be served by a suitable written warning.

1.13.03 Multiple Operations at One Facility - Facilities that perform multiple operations shall apply for but may not be required to pay for separate licenses. A disposal facility, such as a landfill or incinerator, that includes recycling operations as part of its operating plans, would be required to pay for a license for a landfill or incinerator only. A transfer station that includes recycling operations as part of its operating plans would be required to pay for only a transfer station license. Two or more independently staffed facilities operating on the same site would require separate licenses for each independent facility, as well as both fees.

#### **1.14.00 SOLID WASTE MANAGEMENT FACILITIES OR ACTIVITIES LOCATED WITHIN THE ENVIRONMENTAL MANAGEMENT DISTRICT (EMD)**

##### **1.14.01 General Information:**

- (a) Applicability: This section shall apply to all solid waste management facilities or activities regulated pursuant to R.I.G.L. 23.18.9-1 et seq. that are undertaken within the area known as the Environmental Management District. The Department may at its sole discretion require facilities or activities in the vicinity of the Environmental Management District to comply with the onsite and offsite monitoring requirements pursuant to these regulations.

(b) Onsite Monitoring:

- (1) Currently Licensed or Registered Facilities: All existing facilities shall submit air and water monitoring plans to the Department for approval within ninety (90) days after the Effective Date of these Regulations. In addition, at the time of license or registration renewal, all facilities shall include a monitoring plan as part of their renewal application.
- (2) New Facilities: New facilities shall submit to the Department for approval air and water monitoring plans as part of their license or registration application.
- (3) Solid Waste Management Activities: Any person who processes, treats or disposes of solid waste within or in the vicinity of the Environmental Management District shall submit to the Department air and water monitoring plans for the Department's approval.
- (4) Implementation: All facilities and persons shall implement their approved monitoring plan within thirty (30) days of approval by Department.
- (5) Notification: The facility or person shall provide written notice to the Department at least one week prior to each monitoring event.
- (6) Duration: Onsite monitoring plans shall be implemented by the facility(s) or persons until notified in writing by the Department.
- (7) Modifications: Any modifications of plans shall be submitted in writing to the Department and shall require written approval from the Department prior to implementation. The Department also reserves its right to require plan modification by the facility or person as deemed necessary.

(c) Offsite Monitoring:

- (1) Any facility subject to the offsite monitoring requirement shall develop a monitoring plan within thirty (30) days of notification by the Department. Offsite monitoring plans must be implemented within thirty (30) days of Department approval.
  - (2) Offsite monitoring plans shall be implemented by the facility(s) or persons until notified otherwise in writing by the Department. Termination of offsite monitoring shall only be authorized after demonstration to the satisfaction of the Department that all impacts and adverse effects identified in the evaluation of the onsite data have been corrected.
- (d) Evaluation: Data collected under the onsite and offsite ambient air and water monitoring plans shall be evaluated by both the Department and HEALTH. HEALTH shall provide a written evaluation of these data to the host community(s), the facility(s), any oversight council or organization that focuses on the Environmental Management

District, and any members of the public who request said evaluation.

1.14.02 Onsite Monitoring Plan Requirements:

- (a) General Requirements: All monitoring plans shall address air, surface water, and groundwater quality concerns at each facility or solid waste management activity. In addition all monitoring plans shall include a site plan and a radius plan with the information required herein, in addition to information required in accordance with the Solid Waste Regulations for that type of facility or activity.
  - (1) All monitoring plans shall include detailed sampling and analysis criteria for both water and air monitoring. Said plans shall include, but not be limited to, a list of parameters to be monitored, sampling frequency, analytical methods including detection limits, and sampling locations.
  - (2) Site Plans: In addition to the site plan requirements in the Solid Waste Regulations relating to the type of operation or activity, all site plans shall show the topography of the facility or activity location and the locations of all activities and all operations conducted onsite. The site plan shall include the location of onsite buildings, paved areas, areas used for outdoor storage and/or disposal, and the location of all existing and/or proposed control measures used to reduce pollutants.
  - (3) Radius Plans: In addition to the radius plan requirements in the Solid Waste Regulations relating to the type of operation, all radius plans shall show the topography within one mile of the facility or activity location as illustrated in the appropriate US Geological Survey Topographic Map, 7.5 minute series, and the location of all activities and operations conducted onsite. The radius plan shall also show the location of any waterbodies, including wetlands, located both onsite and offsite within a radius of one-half mile of the site, and the location of residential and commercial areas within a one mile radius of the perimeter of the site.
  - (4) Monitoring Reports: Monitoring reports for each air or water sampling event shall be submitted by the facility or person to the Department within 45 days of the monitoring event unless directed otherwise by the Department. The facility or person shall notify the Department by telephone within 24 hours of receipt of the data if results warrant immediate action, and follow up in writing within seven (7) days of receipt of the data by the facility or person.
    - (A) Four (4) copies of the monitoring report shall be submitted to the Department in a hard copy report format that includes a detailed discussion of the sampling event, analytical results, and evaluation of data results.
    - (B) Reports of water data shall include maps clearly indicating sampling

locations, location and nature of site activities during the sampling period, and any other pertinent information.

- (C) The discussion of water data results shall incorporate and evaluate information from all groundwater and surface water sampling conducted at the site, including sampling required by other program or regulations, so as to produce a comprehensive assessment of the potential contribution of pollutants from the facility or activity.
- (D) Reports of air data shall include maps clearly indicating sampling locations, and shall include information about meteorological conditions and locations and nature of site activities during the sampling period, and any other pertinent information.
- (E) The facility or person shall submit reports upon request to the Department, in an electronic format to be determined by the Department.

(5) All plans must be approved by the Department prior to implementation.

(b) Air Monitoring Requirements: In addition to the general monitoring plan requirements set forth above, the air section of the monitoring plan shall include, but may not be limited to, the requirements set forth below:

- (1) A list of air pollutants including substances which may be emitted from the facility or activity that have been classified by the EPA as Hazardous Air Pollutants or Criteria Air Pollutants or by the Department as Air Toxics. In addition, the plan shall identify all indicator gases to be sampled such as, but not limited to, methane for landfills.
- (2) Landfills and C&D Processing Facilities: Air monitoring at landfills and facilities that process construction & demolition (C&D) debris shall be conducted at least quarterly (four times per year) at a minimum of four locations: at the facility's upwind perimeter; at two locations downwind of major activities on the facility's property, including one location immediately downwind of the active working face, processing area or storage area; and at the facility's downwind perimeter.
  - (A) In addition, sampling shall include, at a minimum, a quarterly survey of hydrogen sulfide concentrations at representative locations onsite and along the perimeter of the facility using a direct reading instrument.
  - (B) The air monitoring section of the plan shall also provide for an increased monitoring frequency if modeling or monitoring demonstrates exceedances of Regulation No. 22 Acceptable Ambient Levels (AALs) or other health criteria, or by objectionable odor violations. Increased monitoring frequency requirements shall include continuous monitoring

at the perimeter of the facility.

- (C) The air monitoring frequency may revert to quarterly if the exceedances or odors that triggered the increased frequency do not recur in a six month period, and if no other trigger situations have occurred in that time period.

- (3) All other Solid Waste Management Facilities or Activities: Air monitoring plans for other types of solid waste facilities or activities within or in the vicinity of the Environmental Management District shall provide for monitoring for pertinent pollutants and be conducted at least annually upwind and downwind of the facility. The Department may require, at its discretion, a greater frequency and greater number of locations if warranted by the nature of the facility.

- (A) Air monitoring at the above facilities or activities may be reduced with the approval of the Department if no exceedances of AALs or other health criteria are observed in two consecutive sampling rounds, the type and magnitude of solid waste management activities at the facility have remained constant, and no objectionable odors are observed by the Department during that period.

- (B) Sampling frequency may be increased if objectionable odors are observed by the Department or exceedances of AALs or other health criteria are measured or modeled from the results of sampling.

- (C) Any increase in sampling frequency may then be reduced if the situation does not recur in two consecutive test rounds and if none of the conditions listed in Rule 1.14.02 (b) (3) (B) have occurred in that time period.

- (c) Water Monitoring Requirements: In addition to the general monitoring plan requirements set forth above, the water section of the monitoring plan shall address, but may not be limited to, the requirements set forth below:

- (1) The water section of the monitoring plan shall describe how the facility or person shall evaluate and quantify the contribution of pollutants to the surface water from the site, including both point and non-point contributing sources.
- (2) Groundwater monitoring shall be required and shall include a sufficient number of wells to properly determine groundwater flow on the site and to properly characterize the hydrogeology of the site and surrounding area where required.
- (3) The list of water pollutants to be sampled shall include, but not be limited to, potential air (where applicable) and water pollutants associated with the activities conducted at the site; the list of parameters the facility is required to monitor and analyze for by any other state and federal program; a list of

parameters for which the waterbody is known to be impaired as identified in the most current Rhode Island 303(d) List of Impaired Waters; and any other identified surface or groundwater parameters of concern.

- (4) The surface water monitoring plan shall include a description of wet weather sampling procedures, that shall be implemented at least once annually. The wet weather sampling events shall be collected during a storm event that follows an antecedent dry period of at least three days. The storm event must be at least 0.5 inches per twenty-four hours in magnitude.
- (5) Quarterly water monitoring at the onsite location(s) shall be the minimum for all facilities or activities except where additional requirements exist. The Department may require more frequent monitoring based upon, but not limited to, verified complaints, enforcement actions, increase in pollutant loading or groundwater criteria, or other regulatory requirements. Additional requirements may also include monitoring of waterbody sediment, macroinvertebrate community, and/or fish tissue. Any increased monitoring that is required may be reduced if indicated by at least two acceptable monitoring results, or submitting and implementing a corrective action plan to the satisfaction of the Department.

1.14.03 Plan Review: The following criteria shall be utilized by the Department in review of submitted monitoring plans and reports.

- (a) References: In the evaluation of the monitoring plans, the Department may consider, but is not limited to, the following: any impacts that may be injurious to human, plant, animal, or aquatic life, or cause damage to property or which unreasonably interfere with the enjoyment of life and property; the Rhode Island Air Pollution Control Regulations; the Ambient Air Quality Standards; the Rhode Island Rules and Regulations for Composting Facilities and Solid Waste Management Facilities; the Rhode Island Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases; Rhode Island Water Quality Regulations; Rhode Island Pollutant Discharge Elimination System Regulations; Rules and Regulations for Governing the Administration and Enforcement of the Fresh Water Wetlands Act; Rules and Regulations for Groundwater Quality; the Rhode Island Soil Erosion and Sediment Control Handbook, State of Rhode Island Stormwater Design and Installation Standards Manual, the Technical Support Document for Water Quality-based Toxics Control, March 1991, EPA/505/2-90-001; Water Quality Standards Handbook, 2nd. Ed., August 1994, EPA-823-B-94-005a; and any other relevant standards, guidance, technical reference materials, or policies identified by the Department.
- (b) Decisions: The Department may decide on the adequacy of the monitoring plan by approving the plan, denying the plan, or approving the plan with conditions.

1.14.04 Public Notice Procedures: The following public notice procedures shall be followed prior to final onsite monitoring plan approval by the Department.

(a) General:

- (1) Currently Licensed or Registered Facilities: For all existing facilities, public notice shall be published in accordance with the Administrative Procedures Act, Rhode Island General Laws Section 42-35-1 et seq., after the air and water monitoring plan is reviewed and found to be substantially complete by the Department. The Department shall hold a public hearing when so requested in accordance with the Administrative Procedures Act, Rhode Island General Laws Section 42-35-1 et seq.
- (2) New Licenses: All new solid waste facility licenses shall follow the public hearing process defined by state statute.
- (3) New Registrations: For all new solid waste facility registrations, public notice shall be published in accordance with the Administrative Procedures Act, Rhode Island General Laws Section 42-35-1 et seq., after the air and water monitoring plan is reviewed and found to be substantially complete by the Department. The Department shall hold a public hearing when requested in accordance with the Administrative Procedures Act, Rhode Island General Laws Section 42-35-1 et seq.
- (4) Solid Waste Management Activities: For all solid waste management activities, public notice shall be published in accordance with the Administrative Procedures Act, Rhode Island General Laws Section 42-35-1 et seq., after the air and water monitoring plan is reviewed and found to be substantially complete by the Department. A written copy of the proposed notice shall be submitted to the Department by the facility for review and approval prior to publication. The Department shall hold a public hearing when so requested in accordance with the Administrative Procedures Act, Rhode Island General Laws Section 42-35-1 et seq.

- (b) Distribution: All facilities or persons shall provide written copies of the monitoring plan for distribution to the appropriate town halls, town libraries, the Department and HEALTH. The facilities or persons shall also provide an electronic copy of the monitoring plan to the Department and HEALTH to facilitate distribution and for publication on the Department and HEALTH websites. Each facility or person shall pay for the costs of distribution, public notice, and stenographic services associated with the public notice and hearing procedures for their facility.

- (c) Petitions and Appeals: Petitions and appeals shall be submitted in accordance with the Administrative Procedures Act, Rhode Island General Laws Section 42-35-1 et seq.

1.14.05 Offsite Monitoring Plan Requirements: The Offsite monitoring plan shall address, but may not be limited to, the requirements set forth below.

(a) General:

- (1) The development and implementation of offsite monitoring will be in accordance with the Rhode Island General Laws Section 23-18.9-14.
  - (2) If, upon the evaluation of the results of the onsite monitoring, the Department and HEALTH Directors jointly determine that any facility or activity within or in the vicinity of the Environmental Management District is causing emissions of air or water pollutants at levels that may cause adverse health impacts, create objectionable or nuisance odors, or otherwise adversely impact human health or the environment, either individually or in conjunction with other sources in the surrounding community(s), the Department Director, in consultation with the HEALTH Director, shall require the facility(s) or activity(s) to develop and implement offsite ambient air and/or water monitoring plans within and in the vicinity of the Environmental Management District and for areas impacted by the facilities as determined by Department or HEALTH.
  - (3) The offsite monitoring plans shall include all the requirements set forth in Rule 1.14.02.
- (b) Any facility or activity subject to the offsite monitoring requirement shall develop the monitoring plan within thirty (30) days of notification by the Department. Offsite monitoring plans must be implemented within thirty (30) days of Department approval.
  - (c) Offsite monitoring plans shall address all impacts and adverse effects identified in the evaluation of the onsite data. The plan shall be adequate to evaluate impacts to human health and the environment in the vicinity of the Environmental Management District. Onsite monitoring shall continue during the development and implementation of the offsite monitoring plan.
  - (d) Plan Review: The criteria specified in Rule 1.14.03 shall be utilized by the Department in reviewing submitted offsite monitoring plans and reports.
  - (e) Duration: Offsite monitoring plans shall be implemented by the facility(s) or persons until notified in writing by the Department. Termination of offsite monitoring shall only be authorized after demonstration to the satisfaction of the Department that all impacts and adverse effects identified in the evaluation of the onsite data have been corrected.
  - (f) Access to Offsite Properties:
    - (1) The facility or person shall use best efforts to secure access to offsite properties owned or controlled by persons other than the facility owner for implementation of the approved offsite monitoring plan.\_
    - (2) If any access required to conduct monitoring is not obtained within 45 days of the date the Department notifies the Facility or person in writing that offsite monitoring shall be performed, the facility or person shall promptly notify the

Department in writing, and shall include in that notification a summary of the steps the facility or person has taken to attempt to attain access.

- (3) If the facility or person is unable to obtain access, the Department may require the next best alternative location on accessible property, public or private.

1.14.06 Enforcement:

- (a) Any Facility or person not complying with any of the above requirements may be subject to enforcement action at the discretion of the Department including the assessment of penalties or other action pursuant to Rhode Island General Laws Chapter 23-18.9-1 et seq. The Department may also prepare and implement onsite and/or offsite monitoring plans for a non-compliant facility or person. Non-compliant facilities or persons shall be responsible for and required to reimburse the Department for all costs, including interest, incurred in developing and implementing such a plan(s). Failure to develop and/or implement such plans, or reimburse the Department for preparing and implementing such plans, shall be grounds for suspension, denial, and/or revocation of the facility license or registration.

## APPENDIX A- MANAGEMENT OF STREET SWEEPINGS IN RHODE ISLAND

- (a) Street Sweepings shall mean sand that may be mixed with salt used on streets, roads, highways, and parking areas, both public and private, during winter storm operations and that is ultimately swept or cleaned from these areas.
- (b) Acceptable Uses for Street Sweepings: Street sweepings are exempt from the Refuse Disposal Act, Rhode Island General Law 23-18.9-1 and the rules and regulations promulgated thereto and may be reused in the following ways without a requirement for analytical testing of petroleum hydrocarbon content, Toxicity Characteristic Leaching Procedure, and total lead content:
  - (1) Landfill cover material (may require screening);
  - (2) Road base or any base course application that will be covered with an asphalt or concrete layer;
  - (3) Backfill for public works construction projects such as drain pipes, culverts, and other drainage structures;
  - (4) Excess sand from resurfacing projects may be mixed with salt and reused for winter storm operations;
  - (5) Mixed with new or virgin sand and salt and reapplied during winter storm operations.

Any use of street sweepings beyond those listed above are subject to the requirements of the Refuse Disposal Act, RIGL 23-18.9-1, and the rules and regulations promulgated pursuant thereto.

- (c) Unacceptable Uses for Street Sweepings: Street sweepings may not be used as an unrestricted clean fill that may be placed in areas that will expose the street sweepings to human contact. This would include fill on residential properties, public parks or playgrounds. Street sweepings may not be used as a fill in environmentally sensitive areas such as near pristine waterways, drinking water watersheds, wellhead protection areas, areas with groundwater classified as GAA, and areas within 200 feet of a private drinking water well or in any other manner that would be inconsistent with state or federal law or regulation. In some instances, street sweepings may be used as an unrestricted clean fill if analytical testing for petroleum hydrocarbon content, Toxicity Characteristic Leaching Procedure, and total lead content prove that the street sweepings will not be a potential threat to human health or the environment. A sampling plan and analytical results must be submitted to the Department's Office of Waste Management for review and approval of applications for reuse of street sweepings as an unrestricted clean fill. Sampling plans and analytical results will be reviewed on a case by case basis.

## APPENDIX B- MANAGEMENT OF DREDGED MATERIALS FOR LAND DISPOSAL

**Policy:** In an effort to promote the environmentally responsible and cost-effective management of dredged materials, the Rhode Island Department of Environmental Management (DEM) has developed this policy to define the alternatives for disposal of dredged material on land. The processes and alternatives set forth in this policy are based on the physical and chemical characteristics of the dredged material and the environmental characteristics of the proposed disposal site. Disposal of dredged materials in compliance with these criteria prevents unnecessary adverse impacts on the waters of the state, prevents unnecessary destruction of aquatic habitat, protects public health, and preserves the limited and finite capacity of the State's solid waste landfills. In developing this policy, the Department recognizes the need to balance environmental degradation and improvements and will ensure that the use of dredge material will be done in areas suitable for those activities based on risk-based criteria. In the analysis of this issue, the Department has determined that the potential benefits of this policy far outweigh the impacts from land disposal of dredge materials as specified herein. This policy is formulated to ensure that all alternatives are within acceptable risk ranges set by Rhode Island law and regulation.

All dredged material, whether from a freshwater, brackish or saltwater environment shall be regulated in accordance with this policy until such time that a more direct system is developed for the regulation and reuse of dredged materials. This policy is **not** intended to be a guide to all of the agencies and regulatory programs that may have jurisdiction for a particular project (Army Corps of Engineers, Coastal Resources Management Council, DEM Freshwater Wetlands Program et cetera). This policy does not cover the disposal of dredged materials in the water, i.e., the return of dredged materials to the aquatic environment.

The Department recommends that anyone planning a dredging project contact the Office of Technical and Customer Assistance for a pre-application meeting.

With the exception of near shore disposal areas in the vicinity of the dredging activity, the land disposal of any dredge material from a salt water environment is prohibited in areas where the groundwater is classified as GAA, in areas classified GA where public water is not available, in the watershed of a drinking water reservoir, and in areas that are classified as a Wellhead Protection Area as they are defined in the Rules and Regulations for Groundwater Quality.

All dredging projects must receive a Water Quality Certificate from the Office of Water Resources (see WQC Dredge Guidance Document), which will also conduct the review for a Groundwater Quality Certification, where applicable. For any disposal location, the material cannot adversely impact, or have a substantial likelihood of adversely impacting, current uses of groundwater. The Office of Waste Management may also review the characterization of the dredged material, evaluate the proposed disposal location, and work with the applicant to develop and record an Environmental Land Use Restriction on the proposed disposal site, where required. All projects must meet the requirements for the control of fugitive dust and odors, as set out in Air Pollution Control Regulations Nos. 5 and 7, respectively.

## **Characterization of Materials**

Accurate characterization of the material that may be dredged is critical to determining the scope, cost, and feasibility of a project, as well as for determining the regulatory requirements that may apply to the dredged material. DEM will directly support the development of a sampling plan on a project-by-project basis through a pre-application process prior to the preparation and filing of the application package for the Water Quality Certificate. In many cases, the scope of the project will be determined by the results of the sampling and the availability of a disposal site (which is also directly related to the results of the sampling). Hopefully, these pre-application discussions will result in higher quality applications and may prevent further costs being incurred on infeasible or impractical projects.

For each project, DEM will provide the applicant with the opportunity for a pre-application meeting, arranged through the Office of Technical and Customer Assistance, to discuss a sampling plan. Prior to this meeting, the applicant must develop and submit a proposed site plan outlining the potential area of the project and proposed depth of dredging. Proposed sampling locations, based on activities at or around the site to be dredged, must be clearly identified and should be biased toward the locations of any historical spill areas or areas of known contamination. Activities that may be sources of pollutants, such as fueling docks, outfalls, and areas adjacent to maintenance areas, should be investigated. The applicant must include their rationale for selecting their proposed locations as part of the plan. This plan will be the basis for the discussions at the pre-application meeting.

The discussion of the sampling plan will also determine the parameters that the samples will be tested for and the extent that composite samples may be used, if applicable. At a minimum, the following parameters must be tested for:

- Grain Size Analysis (including percent moisture)
- Polychlorinated Biphenyls (PCBs)
- Total Petroleum Hydrocarbons (TPH)
- Total Metals

When developing a sampling plan and protocol, analysis of some samples using the Toxicity Characteristic Leaching Procedure (TCLP), test Method 1311 in "Test Methods for Evaluating Solid Waste" EPA Publication SW-846 (<http://www.epa.gov/epaoswer/hazwaste/test/1311.pdf>), may be necessary. If TCLP analysis is required, the applicant may hold the sample, following necessary holding time requirements, and determine whether to run the test based on the results of the total metals analysis. The appropriate sample containers and holding times are listed in the table below:

PARAMETER	VOL.	TCLP Samples		
		CONTAINER	PRES ERVATIVE	HOLDING TIME TO TCLP EXTRACTION
METALS	16 oz.	Glass	None	180 days
MERCURY	16 oz.	Glass	None	28 days
BASE/NEUTRAL & ACID COMPOUNDS	16 oz.	Glass	None	14 days
CHLORINATED PESTICIDES & HERBICIDES	16 oz.	Glass	None	14 days
VOLATILES	8 oz.	Glass	None	14 days

It may not be necessary to run TCLP analyses if the results of the total metals results are low enough. The TCLP laboratory procedure requires the sample to be diluted by a ratio of 20:1 when preparing a solid sample for acidic extraction, and subsequent leachate analysis. Assuming that the entire mass of the contaminants present in the sample will leach out during the extraction process, the dilution factor of 20 can be applied to the actual contaminant concentration to give a MAXIMUM POSSIBLE contaminant concentration obtainable in the leachate. Once the total contaminant concentration in the sample is known, and then the MAXIMUM POSSIBLE contaminant in the TCLP extract can be determined by dividing the contaminant concentration obtained from the total metals analysis by twenty (20). If the MAXIMUM POSSIBLE TCLP as determined by the above calculation is less than the Regulatory Level for the individual contaminant then this would be less than the threshold for definition as a hazardous waste or the leachability criteria (if the applicant chooses to use the TCLP test, as opposed to the SPLP test [EPA Method 1312], for leachability analysis).

Additional sampling and analysis, including analysis for semi-volatile organic compounds, pesticides and herbicides, may also be required based on identified site conditions and/or specific program requirements. Determinations will be made as part of the pre-application process for the specific site.

Once an approach and sampling plan is deemed acceptable, DEM will provide written acknowledgement and approval of the sampling plan and identify the person who will serve as the point of contact for the project. The target timeline for this written acknowledgement and approval of the sampling plan will be two weeks from the time of agreement. Once the plan has been approved, the applicant may go forward with implementation. If changes are made to the plan during implementation, the previous agreement and approval may not continue to apply. When such changes are found to be necessary, it is critical that they be immediately communicated to DEM through the point of contact identified above to avoid future problems on the project. The applicant may also develop and implement a sampling plan without DEM input or approval, although they do so at their own risk. If the applicant proceeds without DEM review and pre-approval, the sampling procedures will be reviewed as part of the Water Quality Certificate. Finally, the applicant may have to submit their sampling plan to the Army Corps of Engineers for review and approval, depending on the specific details of the project.

Once the results of the sampling have been received, the applicant may request a second pre-application meeting to help the applicant identify potential disposal sites based on results of sampling and discuss refinements of the project design. In order to assist the applicant in his identifying potential sites for the disposal and/or use of their dredge material or concluding that potential sites already identified by the applicant should be pursued further, DEM will provide written acknowledgement of the results of the sampling and a determination as to what category applies to the material based on the results provided (such as, “based on the results provided, the material appears to be below the Residential Direct Exposure Criteria and can be managed as such in accordance with these regulations”). The target timeline for this written acknowledgement will be two weeks from the time the results are received by DEM. If a second pre-application meeting is requested, DEM will notify CRMC of this meeting and invite them to participate to allow multi-agency coordinated input into the design. This meeting should result in a higher quality application for a Water Quality Certificate.

Once material has been characterized, the disposal of dredged materials on land is managed based on the following:

1. Use of dredged materials for beach nourishment;
2. Disposal of dredged materials that are below the Residential Direct Exposure Criteria noted in the *Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases* (The Remediation Regulations);
3. Disposal of dredged materials that are above the Residential Direct Exposure Criteria but below the Industrial/Commercial Direct Exposure Criteria in the Remediation Regulations; and
4. Disposal of dredged materials that exceed the Industrial/Commercial Direct Exposure Criteria in the Remediation Regulations.

### **1. Use of Dredged Materials for Beach Nourishment**

Projects that propose the use of dredge materials for beach nourishment must meet the criteria set forth in Section 5 of this policy for beach nourishment, based on sampling and analysis as described in the approved sampling plan, and must meet all applicable criteria for a Water Quality Certification.

Projects that propose the use of dredge materials for beach nourishment will be evaluated through a single review process administered by the Office of Water Resources. Review by the Office of Waste Management is not required.

### **2. Use of Dredged Materials that meet the Residential Direct Exposure Criteria**

Dredged materials that do not exceed the Residential Direct Exposure Criteria, based on sampling and analysis as described in the approved sampling plan, may be disposed on land under one of the following options:

- A) The proposed disposal site is in an area where groundwater is classified GB, provided it does not impact current uses of groundwater at or around the disposal site;

- B) The proposed disposal site is in an area where groundwater is classified GA that is not otherwise prohibited (areas where public water is not available and areas that are classified as Wellhead Protection Areas) provided the material meets GA Leachability standards, does not impact current uses of groundwater at or around the disposal site, and has acceptable chloride levels (establishment of acceptable chloride levels and desalting methods needs further study).

Also, where the disposal site is also in an area within 200 feet inland of Mean High Water, the land upon which the dredged materials will be disposed shall be in the vicinity of the dredging activity.

For all options noted above, no Conservation Easement, Environmental Land Use Restriction, or Notice on the Deed for the property is required.

### **3. Use of Dredged Materials that meet the Industrial/Commercial Direct Exposure Criteria**

Dredged Materials that are above the Residential Direct Exposure Criteria but meet the Industrial/Commercial Direct Exposure Criteria, based on sampling and analysis as described in the approved sampling plan, may be disposed on land under the following options:

- The property is currently used for industrial/commercial activities and the reasonably foreseeable future use of the site will be for commercial/industrial activities; AND,
- An Environmental Land Use Restriction, as described in the Remediation Regulations is required with respect to the property, or to the portion of the property containing the dredge material.

Additionally, at least one of the following scenarios must be present:

- A) The property is in an area where groundwater is classified GB, provided it does not impact current uses of groundwater at or around the disposal site; or,
- B) The property is in an area where groundwater is classified GA that is not otherwise prohibited (areas where public water is not available and areas that are classified as Wellhead Protection Areas), provided the dredge material meets GA Leachability criteria, does not impact current uses of groundwater at or around the disposal site, and has acceptable chloride levels (establishment of acceptable chloride levels and desalting methods needs further study);

Typically, marina operations are considered to be Commercial/Industrial uses of property, except where the marina property includes residential areas or recreational areas (such as playgrounds), in which case the property is considered residential.

### **4. Use of Dredged Materials that exceed the Industrial/Commercial Direct Exposure Criteria**

Dredged Materials that exceed the Industrial/Commercial Direct Exposure Criteria in the Remediation Regulations must be properly characterized and shall only be disposed at a facility licensed for the acceptance and management of such material.

### **5. Sediment Characterization Criteria**

Beach Nourishment Criteria are defined in the Office of Water Resources Guidance on Dredging and Disposal of Dredged Material in Rhode Island for Water Quality Certification.

Residential Direct Exposure Criteria are defined in Table 1 in Section 8 of the Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases. If that Table is amended, those amended criteria will be applicable.

GA Leachability Criteria are defined in Table 2 in Section 8 of the Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases. If that Table is amended, those amended criteria will be applicable.

Industrial/Commercial Direct Exposure Criteria are defined in Table 1 in Section 8 of the Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases. If that Table is amended, those amended criteria will be applicable.

Criteria for acceptable chloride content or desalting methods (when developed).

These criteria are outlined below for comparison purposes:

<b>Constituent</b>	<b>Beach Nourishment Criteria</b>	<b>Residential Direct Exposure Criteria<sup>1</sup></b>	<b>Commercial/ Industrial Direct Exposure Criteria<sup>2</sup></b>	<b>TCLP Criteria for Hazardous Waste Determination</b>	<b>GA Leachability Criteria<sup>3</sup></b>
% Solids	75	NA	NA	NA	NA
% Volatile Solids	1	NA	NA	NA	NA
% Hexane Sol Fraction	0.1	NA	NA	NA	NA
Total Petroleum HC	NA	500 ppm	2500 ppm	NA	500 ppm
PCB's	NA	10 ppm	10 ppm	NA	10 mg/kg
Arsenic (As)	5 mg/kg	1.7 mg/kg (subject to ongoing review)	3.8 mg/kg (subject to ongoing review)	5.0 mg/L	NA
Cadmium (Cd)	1 mg/kg	39 mg/kg	1000 mg/kg	1.0 mg/L	0.03 mg/L
Chromium (Cr)	10 mg/kg	390 mg/kg	10000 mg/kg	5.0 mg/L	1.1 mg/L
Copper (Cu)	10 mg/kg	3100 mg/kg	10000 mg/kg		
Lead (Pb)	25 mg/kg	150 mg/kg	500 mg/kg	5.0 mg/L	0.04 mg/L
Mercury (Hg)	0.5 mg/kg	23 mg/kg	610 mg/kg	0.2 mg/L	0.02 mg/L
Nickel (Ni)	5 mg/kg	1000 mg/kg	10000 mg/kg	NA	1 mg/L
Vanadium (V)	25 mg/kg	550 mg/kg	10000 mg/kg	NA	NA
Zinc (Zn)	25 mg/kg	6000 mg/kg	10000 mg/kg	NA	NA

Other TCLP criteria to be considered to determine if the material is hazardous waste:

<u>Constituent</u>	<b>TCLP Criteria for Hazardous Waste Determination</b>
Barium (Ba)	100.0 mg/L
Selenium (Se)	1.0 mg/L
Silver (Ag)	5.0 mg/L

<sup>1</sup> Residential Direct Exposure Criteria are defined in Table 1 in Section 8 of the Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases.

<sup>2</sup> Industrial/Commercial Direct Exposure Criteria are defined in Table 1 in Section 8 of the Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases.

<sup>3</sup>GA Leachability Criteria are defined in Table 2 in Section 8 of the Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases.

The foregoing "Solid Waste Regulation No. 1- General Requirements" of the "Rules and Regulations for Composting Facilities and Solid Waste Management Facilities, January 1997 and as amended April 2001" after due notice, are hereby adopted as amended and filed with the Secretary of State this \_\_\_\_ day of \_\_\_\_\_, 2001 to become effective twenty (20) days thereafter, in accordance with the provisions of Chapters 2-1, 2-22, 2-23, 5-51, 23-18.8, 23-18.9, 23-19, 23-19.1, 23-23, 23-63, 37-15.1, 42-17.1, 42-17.6, 42-35, 44-27, and 46-12 of the General Laws of Rhode Island of 1956, as amended.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Jan H. Reitsma, Director  
Department of Environmental Management

Public Notice on: \_\_\_\_\_

Public Workshops on: \_\_\_\_\_

Filing Date: \_\_\_\_\_

Effective Date: \_\_\_\_\_