RULES
OF
TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF SOLID WASTE MANAGEMENT

CHAPTER 1200-1-7
SOLID WASTE PROCESSING AND DISPOSAL

TABLE OF CONTENTS

1200-1-7-.01 SOLID WASTE DISPOSAL CONTROL SYSTEM: GENERAL.

(1) General

(a) Purpose, Scope, and Applicability - This rule provides definitions of terms, general standards, and overview information applicable to these rules.

(b) Use of Number and Gender - As used in these rules:

1. Words in the masculine gender also include the feminine and neuter genders; and

2. Words in the singular include the plural; and

3. Words in the plural include the singular.

(c) Rule Structure - These rules are organized, numbered, and referenced according to the following outline form:

(1) paragraph

(a) subparagraph

1. part

(i) subpart

(I) item

I. subitem

(d) Use of Calendar Days - Any referral to time frames, not specifying otherwise, refers to calendar days instead of working days.

(2) Definitions - Following, in alphabetical order, is a list of terms used in this rule chapter. Throughout this rule chapter these terms shall have the meanings given in this paragraph.

(Rule 1200-1-7-.01, continued)

"Act" means the Tennessee Solid Waste Disposal Act, as amended, T.C.A. §68-211-101 et. seq.

"Active life" means the period from the initial receipt of solid waste at the facility until the Commissioner approves final closure of the facility.

"Active portion" means that portion of a disposal facility where disposal operations are being or have been conducted and which is not a closed portion.

"Admixture" means chemicals added to earth materials to change the physical or chemical properties of the earth materials. Admixtures include, but are not limited to: lime, cement, bentonite and sodium silicate.

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

"Aquifer" means a geologic formation, group of formations, or part of a formation capable of yielding significant quantities of groundwater to wells or springs.

"Areas susceptible to mass movement" means those areas of influence (i.e., areas characterized as having an active or substantial possibility of mass movement) where the movement of earth material at, beneath, or adjacent to the SWLF unit, because of natural or man-induced events, results in the downslope transport of soil and rock material by means of gravitational influence. Areas of mass movement include, but are not limited to, landslides, avalanches, debris slides and flows, soil fluction, block sliding, and rock fall.

"Backyard composting" means the composting of organic solid waste, such as grass clippings, leaves or food waste, generated by a homeowner or tenant of a single or multi-family residential unit or an apartment complex unit, where composting occurs at that dwelling unit.

"Baling" means a method of reducing and restraining (binding) solid waste volume by mechanical compaction to achieve high density per unit volume.

"Bird hazard" means an increase in the likelihood of bird/aircraft collisions that may cause damage to the aircraft or injury to its occupants.

"Board" means the Tennessee Solid Waste Disposal Control Board established by T.C.A. §68-211-111.

"Bulky waste" means large items of solid waste such as white goods, furniture, autos or large auto parts, trees, branches, stumps and other oversize wastes whose large size precludes or complicates their handling by normal collection, processing, or disposal methods.

"Cell" means a discrete volume of compacted solid waste that is enclosed by means of a barrier in a disposal facility.

"Closed portion" means a formerly active portion of a landfill which has undergone closure.

"Closure" means the taking of those actions at the termination of a disposal operation which are necessary to finally close the disposal facility or disposal facility parcel.

(Rule 1200-1-7-.01, continued)

"Commercial solid wastes" means all types of solid waste generated by stores, offices, restaurants, warehouses, and other nonmanufacturing activities, excluding domestic and industrial wastes.

"Commissioner" means the Commissioner of the Tennessee Department of Environment and Conservation or his authorized representative.

"Compost" means solid waste which has undergone biological decomposition of organic matter, and has been disinfected using composting or similar technologies, and has been stabilized to a degree which is potentially beneficial to plant growth and which is suitable for use as a soil amendment, artificial top soil, growing medium amendment or other similar uses.

"Compost disinfection" means the selective destruction of pathogens indicated by a reduction in indicator organisms to less than or equal to 1000 fecal coliform most probable number per gram of volatile suspended solid where the organic solid waste was maintained at or above 55° C (= 131° F) for three consecutive days in a mechanical composter or in an aerated, insulated static pile, or for 15 cumulative days in an aerated windrow with at least one turning or a nonaerated windrow with at least four turnings of the windrow.

"Compostable material" means solid organic waste that may be decomposed under controlled conditions by micro-organisms under aerobic or anaerobic conditions which result in a stable humus-like material free of pathogenic organisms (e.g., food wastes, yard wastes, and low moisture content wastewater sludge).

"Composting" means the process by which biological decomposition of organic solid waste is carried out under controlled aerobic conditions, and which stabilizes the organic fraction into a material which can easily and safely be stored, handled and used in an environmentally acceptable manner. The presence of anaerobic zones within the composting material will not cause the process to be classified as other than composting.

"Composting facility" means a solid waste management facility where solid waste is processed using composting technology. Processing may include physical turning, windrowing, aeration or other mechanical handling of organic matter.

"Construction/demolition wastes" means wastes, other than special wastes, resulting from construction, remodeling, repair and demolition of structures and from road building. Such wastes include but are not limited to bricks, concrete and other masonry materials, soil, rock and lumber, road spoils, rebar, paving material.

"Convenience center" means any area which is staffed and fenced that has waste receptacles on site that are open to the public, when an attendant is present, to receive domestic waste, municipal solid waste and recyclable materials.

"Curing area" means an area where organic material that has undergone the rapid initial stage of composting is further stabilized into a humus-like material.

"Department" means the Tennessee Department of Environment and Conservation.

"Destruction or adverse modification" means a direct or indirect alteration of critical habitat which appreciably diminishes the likelihood of the survival and recovery of threatened or endangered species using that habitat.

"Displacement" means the relative movement of any two sides of a fault measured in any direction.

"Disposal facility" means a facility or part of a facility at which solid waste disposal occurs.

"Division" means the Division of Solid Waste Management of the Department.

"Division Director" means the Director of the Division of Solid Waste Management.

"Domestic wastes" means any solid waste (including garbage, trash) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas).

"Endangered or threatened species" means any species listed in 50 CFR Part 17, as such list exists on the effective date of this rule.

"Energy recovery" means beneficial use or reuse of solid waste through the controlled combustion of such waste to recover energy therefrom.

"Energy recovery facility" means a facility for the recovery of energy or energy producing materials from the controlled processing of solid waste and the production of energy from said solid waste and other materials, including coal, for a heating and cooling system and/or for the production of electricity and process steam.

"Explosive gas" means methane (CH4).

"Facility" means all contiguous land including structures and other appurtenances and improvements on the land used for processing, disposal or land application of solid waste by an owner or operator.

"Farming wastes" means the wastes from the customary and generally accepted activities, practices, and procedures that farmers adopt, use, or engage in during the production and preparation for market of poultry, livestock, and associated farm products; and in the production and harvesting of agricultural crops which include agronomic, horticultural, and silvicultural crops and wastes resulting from aquaculture activities. However, the term does not include special wastes such as waste oils or other lubricants, unused fertilizers, or pesticide containers or residues.

"Fault" means a fracture or a zone of fractures in any material along which strata on one side have been displaced with respect to that on the other side.

"Fill Area" means the area containing waste placed for final disposal not including earthen berms or other facility appurtenances.

"Final cover" means any cover material that is spread and compacted on the top and side slopes of a disposal facility which will be permanently exposed to the environment.

"Financial assurance" refers to a financial arrangement between the operator and the state which guarantees the availability of funds which the Commissioner may use to close and provide post-closure care to a landfill if the operator fails to properly execute his responsibilities under the Act, to include the requirements of these rules and the terms of his permit.

"Floodplain" means the lowlands and relatively flat areas adjoining inland waters, including flood prone areas, which are inundated by a flood. The "100-year floodplain" refers to a floodplain which is subject to a one percent or greater chance of flooding in any given year from any source.

"Foreign matter" means the inorganic and organic constituents in a solid waste stream that are not readily decomposed and that may be present in the compost. For purposes of this rule, foreign matter is metals, glass, plastics, rubber, bones, leather, and other similar materials, but does not include sand, grit, rocks or other similar materials.

"Geologic Buffer" means a geologic formation or engineered structure that provides resistances to hydraulic pressure gradients between a liner and the seasonal high water table.

"Geomembranes" means manufactured low permeability membrane liners and barriers used to control the migration of fluids or gases.

"Ground water" means water below the land surface in a zone of saturation.

"Hazardous wastes" means a hazardous waste as defined in rule 1200-1-11-.02(1)(c).

"Holocene" means the most recent epoch of the Quaternary period, extending from the end of the Pleistocene Epoch to the present.

"In operation" refers to a facility which is receiving or handling solid wastes.

"Incinerator" means an enclosed device using controlled flame combustion, the primary purpose of which is to thermally break down solid waste. Examples of incinerators are rotary kiln, fluidized bed, and liquid injection incinerators.

"Industrial Wastes" means solid wastes produced in, or generated by, industrial or manufacturing processes. The term does not include commercial, domestic, mining, or hazardous waste regulated under Subtitle C of RCRA, or oil and gas waste.

"Initial cover" means cover material that is spread and compacted on the top, on the side slopes and on the working face of compacted solid waste at a disposal facility.

"Institutional wastes" means all solid waste which are not special wastes, emanating from institutions such as, but not limited to, hospitals, health care facilities, nursing homes, laboratories, orphanages, correctional institutions, schools and universities.

"Intermediate cover" means cover material that is spread and compacted on the top and side slopes of a disposal facility which must resist erosion for a longer period of time than initial cover.

"Junkyard" means a place which is maintained, operated, or used for storing, keeping, buying, or selling dismantled or wrecked automobiles, or parts thereof, or other old or scrap ferrous or nonferrous metals.

"Karst" means a specific type of topography that is formed by dissolving or solution of carbonate formations, such as limestone or dolomite; it is characterized by closed depressions or sinkholes, caves, sinking and reappearing streams, and/or underground conduit drainage flow.

"Land application facility" means a facility where solid wastes are applied onto or incorporated into the soil surface (excluding manure spreading operations) for agricultural purposes.

"Land reclamation" means the restoration of productivity to lands made barren through processes such as erosion, mining or land clearing.

"Landfill" means a facility, other than a land application unit, where solid wastes are disposed of by burial in excavated pits or trenches or by placement on land and covering with soil or other approved material.

"Landscaping and land clearing wastes" means trees, stumps, brush, dirt, branches, leaves, clippings, etc. from landscaping and land clearing activities.

"Leachate" means a liquid that has passed through or emerged from solid waste and contains soluble, suspended, or miscible materials removed from such waste.

"Lift" means the compacted vertical thickness of a horizontal series of solid waste cells that have been constructed and upon which cover material has been placed. The cover may be either initial, intermediate, or final in application.

"Liner" means a continuous layer of natural or man-made materials, beneath or on the sides of a surface impoundment, landfill, or landfill cell, which restricts the downward or lateral escape of wastes, waste constituents, or leachate.

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

"Lithified earth material" means all rock, including all naturally occurring and naturally formed aggregates or masses of minerals or small particles of older rock that formed by crystallization of magma or by induration of loose sediments. This term does not include man-made materials, such as fill, concrete, and asphalt, or unconsolidated earth materials, soil, or regolith lying at or near the earth surface.

"Lower explosive limit" means the lowest percent of volume of a mixture of explosive gases which will propagate a flame in air at 25°C and atmospheric pressure.

"Manure" means a solid waste composed of excreta of herbivorous domestic animals, and residual materials that have been used for bedding, sanitary or feeding purposes for such animals.

"Market" means the transfer or sale of recovered materials to be used, reused, and recycled.

"Maximum horizontal acceleration in lithified earth material" means the maximum expected horizontal acceleration depicted on a seismic hazard map, with a 90 percent or greater probability that the acceleration will not be exceeded in 250 years, or the maximum expected horizontal acceleration based on a site-specific seismic risk assessment.

"Medical wastes" means the following solid wastes:

(a) Wastes generated by hospitalized patients who are isolated to protect others from communicable diseases (see the U. S. Centers for Disease Control *Guidelines for Isolation Precautions in Hospitals*, July, 1983 for definition of diseases requiring such isolation).

(b) Cultures and stocks of infectious agents, including specimen cultures from medical and pathological laboratories, cultures and stocks of infectious agents from research and industrial laboratories, wastes from the production of biologicals, discarded live and attenuated vaccines, and culture dishes and devices used to transfer, inoculate, and mix cultures.

(c) Waste human blood and blood products such as serum, plasma, and other blood components.

(d) Pathological wastes (i.e., tissues, organs, body parts, and body fluids) that are removed during surgery and autopsy.

(e) All discarded sharps (e.g., hypodermic needles, syringes, pasteur pipettes, broken glass, scalpel blades) used in patient care or which have come into contact with infectious agents during use in medical, research, or industrial laboratories.

(f) Contaminated carcasses, body parts, and bedding of animals that were intentionally exposed to pathogens in research, in the production of biologicals, or in the in vivo testing of pharmaceuticals.

(g) The following wastes from patients known to be infected with blood-borne disease:

Contaminated wastes from surgery and autopsy (e.g., soiled dressings, sponges, drapes, lavage tubes, drainage sets, underpads, surgical gloves).

Wastes from medical, pathological, pharmaceutical, or other research, commercial, or industrial laboratories that were in contact with infectious agents (e.g., specimen containers, slides and cover slips, disposable gloves, lab coats, aprons).

Wastes that were in contact with the blood of patients undergoing hemodialysis, including contaminated disposal equipment and supplies such as tubing, filters, disposable sheets, towels, gloves, aprons, and lab coats.

Discarded equipment and parts that were used in patient care, medical and industrial laboratories, research, and in the production and testing of certain pharmaceuticals and that may be contaminated with infectious agents.

"Mesophilic stage" means a biological stage in the composting process characterized by active bacteria which favor a moderate temperature range of 20° C to 45° C. It occurs later in a composting process after the thermophilic stage and is associated with a moderate rate of decomposition.

"Normal farming operations" means the customary and generally accepted activities, practices and procedures that farmers adopt use or engage in during the production and preparation for market of poultry, livestock, and associated farm products; and in the production and harvesting of agricultural crops which include agronomic, horticultural, and silvicultural crops. Included is the management, collection, storage, composting, transportation and use of organic agricultural waste, manure, and wastes solely derived from agricultural crops.

"On-site" means the geographically contiguous property with the same owner/operator which may be divided by public or private right-of-way. Non-contiguous properties owned or operated by the same person and connected by a right-of-way which he controls and to which the public does not have access, is also considered on-site property.

"Open burning" means the combustion of solid wastes without the following characteristics:

(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 emission of the gaseous combustion products.

"Operate" means to construct, alter, own, maintain, close, or care for after closure, or control a facility. In the event of an unpermitted facility the term shall include to place solid waste at the disposal site.

"Operator" means the person or persons applying for or holding a permit, or who are otherwise responsible for the operation of a facility.

"Parcel" means a discrete portion of a disposal facility. (See "Phased Development Plan.")

"Permit" means the written authorization granted to a person by the Commissioner, to operate a solid waste processing and/or disposal facility. The terms "permit" and "registration" are synonymous for purposes of this rule chapter.

"Permittee" means any person holding a valid permit under the Act to operate a processing and/or disposal facility.

"Person" means any and all persons, natural or artificial, including any individual, firm or association, and municipal or private corporation organized or existing under the laws of this state or any other state, and any governmental agency or county of this state and any department, agency, or instrumentality of the executive, legislative, and judicial branches of the federal government.

"Personnel" or "facility personnel" means all persons who work at or oversee the operations of a processing or disposal facility, and whose actions or failure to act may result in non-compliance with the requirements of the permit.

"Pesticide wastes" means wastes from the use, or preparation for use, of a substance or mixture of substances intended for destroying, preventing, repelling, or otherwise controlling plant or animal pests. The term pesticide is a generic term which includes herbicides, insecticides, fungicides, rodenticides, miticides, etc. Pesticide wastes include, but are not necessarily limited to, unused pesticide product, leftover mixed material, tanks and equipment rinsate, containers (excluding properly rinsed containers), and other residues of pesticide.

"Phased development plan" means a plan for developing a tract of land as a disposal facility in sequential segments, or parcels, provided that the entire tract of land is covered by a permit authorizing such use. As used in this rule, a parcel must be of adequate acreage to sustain at least five years of use based on estimated solid waste volumes to be handled over that period.

"Placing" includes, but is not limited to discharging, depositing, injecting, releasing, dumping, spilling, spreading, and leaking.

"Poor foundation conditions" means those areas where features exist which indicate that a natural or man-induced event may result in inadequate foundation support for the structural components of an SWLF unit.

"Post-closure care" refers to the taking of those actions after closure of a disposal facility or a disposal facility parcel which are necessary to meet the post-closure care requirements of rule 1200-1-7-.04(8).

"Post-closure care period" means the period of time following closure of the landfill or landfill parcel during which the operator must perform post-closure care.

"Privately owned solid waste disposal system" means a solid waste disposal system owned by a non-governmental entity which processes or disposes of its solid waste in facilities that have either a valid permit or a permit-by-rule.

"Processing facility" means a combination of structures, machinery or devices utilized to perform solid waste processing, including other storage and processing areas. The term does not include collection vehicles.

"Public water supply system" means a system that supplies to the public piped water for human consumption, if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days of the year.

"Putrescible Wastes" means solid wastes that contain organic matter capable of being decomposed by micro-organisms and of such a character and proportion as to be capable of attracting or providing food for birds.

"Qualified ground-water scientist" means a scientist or engineer who has received a baccalaureate or post-graduate degree in the natural science or engineering and has sufficient training and experience in groundwater hydrology and related fields as may be demonstrated by state registration, professional certification, or completion of accredited university programs that enable that individual to make sound professional judgments regarding groundwater monitoring, contaminant fate and transport, and corrective action.

"Reclaim," "recover," or "recycle" means any method, technique, or process utilized to separate, process, modify, convert, treat, or otherwise prepare solid waste so that component materials or substances may be beneficially used or re-used as products, raw materials, or energy sources, except that any use or reuse of a solid waste may not be used in a manner that would constitute solid waste disposal.

"Registration" means a process by which a solid waste disposal or processing operation is granted a permit to operate. In this rule chapter, the words "registration" and "permit" are synonymous and may be used interchangeably.

"Representative sample" means a sample of a universe or whole (e.g., leachate, sludge, surface impoundment, surface water, ground water) which can be expected to exhibit the average properties of the universe or whole.

"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.

"Run-off" means any rainwater, or other liquid that drains overland from any part of a facility.

"Run-on" means any rainwater, or other liquid that drains overland onto any part of a facility.

"Salvaging" means the controlled removal of solid waste for utilization from a solid waste processing or disposal facility.

"Sanitary landfill" means a method of disposing of solid waste into or on land without creating nuisances or hazards to public health or to the environment by utilizing the principles of engineering to confine the solid waste to the smallest practical area, to reduce it to the smallest practical volume, and to cover it with a layer(s) of an approved material.

"Saturated zone" means that part of the earth's crust in which all voids are filled with water.

"Scavenging" means the uncontrolled removal of solid waste from a solid waste processing or disposal facility.

"Seismic impact zone" means an area with a ten percent or greater probability that the maximum horizontal acceleration in lithified earth materials, expressed as a fraction of the earth's gravitational pull will exceed 0.10g in 250 years.

"Shredding" means a process of reducing the particle size of solid waste through the use of grinding, shredding, chopping, slicing, milling, or rasping machines.

"Sludge" means any solid, semi-solid, or liquid waste generated from a municipal, commercial, industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility, exclusive of the treated effluent from a wastewater treatment plant.

"Solid waste" means garbage, trash, refuse, abandoned material, spent material, byproducts, scrap, ash, sludge, and all discarded material including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, and agricultural operations, and from community activities. Solid waste includes, without limitation, recyclable material when it is discarded or when it is used in a manner constituting disposal. Solid waste does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to permits under Section 402 of the Federal Water Pollution Control Act (compiled at 33 U.S.C. Section 1342).

"Solid waste disposal" means the process of permanently or indefinitely placing, confining, compacting, or covering solid waste.

"Solid Waste Landfill (SWLF) Unit" means a discrete area of land or an excavation that receives waste, and that is not a land application unit, surface impoundment, injection well, or waste pile.

"Solid waste processing" means any process that modifies the characteristics or properties of solid waste, including, but not limited to, treatment, incineration, composting, separation, grinding, shredding, and volume reduction; provided, that it does not include the grinding or shredding of landscaping or land clearing wastes or unpainted, unstained, and untreated wood into mulch or other useful products.

"Source reduction" means any action or activity that reduces or eliminates the generation of waste.

"Special Wastes" are solid wastes that are either difficult or dangerous to manage and may include sludges, bulky wastes, pesticide wastes, medical wastes, industrial wastes, hazardous wastes which are not subject to regulations under Department rules 1200-1-11-.03 through 1200-1-11-.07, liquid wastes, friable asbestos wastes, and combustion wastes.

"Stabilized" means that the compost has at least passed through the thermophilic stage, and that biological decomposition of the solid waste has occurred to a sufficient degree that will allow beneficial use.

"Stream" means a watercourse which is not a wet weather conveyance.

"Structural components" means liners, leachate collection systems, final covers, run-on/run-off systems, and any other component used in the construction and operation of the SWLF that is necessary for protection of human health and the environment.

"Surface impoundment" means a facility or part of a facility which is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials), which is designed to hold an accumulation of liquid wastes, or wastes containing free liquids, and which is not an injection well. Examples of surface impoundments are holding, storage, settling and aeration pits, ponds, and lagoons.

"Taking" an endangered or threatened species means harassing, harming, pursuing, hunting, wounding, killing, trapping, capturing, or collecting or attempting to engage in such conduct.

"Thermophilic stage" means a biological stage in the composting process characterized by active bacteria which favor a high temperature range of 45° C to 75° C. It occurs early in a composting process before the mesophilic stage and is associated with a high rate of decomposition.

"Transfer station" means a combination of structures, machinery or devices at a place or facility which receives solid waste taken from public and/or private collection vehicles and which is placed in other transportation units for movement to another solid waste management facility.

"Underground drinking water source" means:

(a) An aquifer supplying drinking water for human consumption, or

(b) An aquifer in which the ground water contains less than 10,000 mg/1 total dissolved solids.

"Underground injection" means the subsurface emplacement of fluids through a bored, drilled, or driven well; or through a dry well, where the depth of the well is greater than the largest surface dimension.

"Unstable area" means a location that is susceptible to natural or human-induced events or forces capable of impairing the integrity of some or all of the landfill structural components responsible for preventing releases from a landfill. Unstable areas can include poor foundation conditions, areas susceptible to mass movements, and Karst terranes.

"Uppermost aquifer" means the geologic formation nearest the natural ground surface that is an aquifer, as well as, lower aquifers that are hydraulically interconnected with the aquifer within the facility's property boundary.

"Vector" means a carrier organism that is capable of transmitting a pathogen from one organism to another.

"Washout" means the carrying away of solid waste by waters of a flood.

"Waste management boundary" means a vertical surface located at the hydraulically downgradient limit of the solid waste landfill unit. This vertical surface extends down into the uppermost aquifer.

"Water table" means the surface of unconfined water at which pressure is atmospheric and is defined by the levels at which water stands in wells that penetrate the water.

"Well" means a shaft or pit dug, bored, drilled, jetted or driven into the earth. Wells are generally of a cylindrical form, and often walled with bricks or tubing to prevent the earth from caving in.

"Wet weather conveyances" means natural watercourses, including natural watercourses that have been modified by channelization, that flow only in direct response to precipitation in their immediate locality and whose channels are above the groundwater table and which do not support fish or aquatic life and are not suitable for drinking water supplies.

"Wetlands" means those areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas.

"White goods" means discarded refrigerators, ranges, washers, water heaters, and other similar domestic and commercial appliances.

"Working face" means that portion of a land disposal facility where solid wastes are discharged and are spread and compacted.

(3) Classification of Disposal Facilities

(a) Class I Disposal Facility refers to a sanitary landfill which serves a municipal, institutional, and/or rural population and is used or to be used for disposal of domestic wastes, commercial wastes, institutional wastes, municipal solid wastes, bulky wastes, landscaping and land clearing wastes, industrial wastes, construction/demolition wastes, farming wastes, shredded automotive tires, dead animals, and special wastes.

(b) Class II Disposal Facility refers to a landfill which receives waste which is generated by one or more industrial or manufacturing plants and is used or to be used for the disposal of solid waste generated by such plants, which may include industrial wastes, commercial wastes, institutional wastes, farming wastes, bulky wastes, landscaping and land clearing wastes, construction/demolition wastes, and shredded automotive tires. Additionally a Class II disposal facility may also serve as a monofill for ash disposal from the incineration of municipal solid waste.

(c) Class III Disposal Facility refers to a landfill which is used or to be used for the disposal of farming wastes, landscaping and land clearing wastes, demolition/construction waste, shredded automotive tires, and/or certain wastes having similar characteristics and approved in writing by the Department.

(d) Class IV Disposal Facility refers to a landfill which is used or to be used for the disposal of demolition/construction wastes, shredded automotive tires, and certain wastes having similar characteristics and approved in writing by the Department.

(4) Special Waste Approval Process

(a) Applicability - The procedures and other requirements of this paragraph shall apply only to all permitted Class I, Class II, Class III and Class IV disposal facilities and all permitted solid waste processing facilities.

(b) General Requirement - Except as may be specifically allowed in the permit, an operator may not accept for processing or disposal at his facility any special waste unless and until specifically approved to do so in writing by the Department. Facilities shall not

process or dispose of special waste for which approval by the Department has expired. Special waste generators shall not send off-site to processing or disposal facilities special waste for which approval by the Department has expired, unless the facility has specific authority in the permit to accept such waste.

(c) Procedures

1. Persons who generate and wish to process or dispose of a special waste must make application to the Commissioner for waste evaluation. Also such persons who generate and wish to process or dispose of sludges, bulky wastes, pesticide wastes, medical wastes, industrial wastes, hazardous wastes which are not subject to regulations under Department rule 1200-1-11-.03 through rule 1200-1-11.07, liquid wastes, friable asbestos wastes, and combustion wastes, must make application to the Commissioner for waste evaluation unless the Commissioner determines such is not necessary. Such application must be on a form provided by the Department and completed according to the accompanying instructions. This application shall include, but not necessarily be limited to, a chemical and physical description of the solid waste, the amounts of and frequencies such solid waste is to be managed at the facility, a description of the processes or operations generating the waste, and an identification of the facility which such person wants to handle his waste, and any additional information needed by the Commissioner to clarify the application.

2. Applications shall be evaluated by the Commissioner upon receipt. If it is determined by the Commissioner that the facility can safely and effectively manage the special waste, considering the nature of the special waste and the design and operation of the facility, the Commissioner shall notify the applicant in writing (with a copy to the facility operator) of his approval. If the Commissioner determines that the facility cannot so manage the special waste, he will notify the applicant (with a copy to the operator) in writing of his denial.

3. The Commissioner may inspect special waste generators as authorized at TCA 68-211-102(b) and take waste samples as deemed necessary to evaluate special waste or potential special waste.

4. Persons who generate and have special waste processed or disposed of at an off-site facility must:

(i) Annually recertify the accuracy of the information on a form provided by the Department, thereby certifying that there has been no change in the waste stream or the process generating the waste since the original special waste approval was granted by the Department; and

(ii) Submit all recertifications as required by subpart (i) as follows:

(I) Originals of such annual recertification forms shall be submitted to the off-site processing or disposal facility that receives the waste stream, and copies to the Department at the address indicated on the forms.

(II) Recertifications shall be submitted by July 1 of each year, except that the first recertification of a newly approved special waste shall be submitted by July 1 of the following year.

(III) All special waste approvals will expire on July 1 each year if not recertified as provided herein.

(iii) If a change in the waste stream or the process generating the waste has occurred since the original special waste approval was granted, the generator (applicant) shall submit a new special waste request to the Department.

5. Landfills and/or waste processing facilities shall not accept a special waste at their facilities without the written, special waste approval from the Department unless the waste is specifically authorized in the facility permit.

6. A request from a special waste generator to transfer special waste approval from one facility to another permitted facility does not require a new waste evaluation nor an application review fee.

(d) Conditional Approval

1. In his approval, the Commissioner shall specify those management conditions which he deems necessary to prevent or minimize potential adverse impacts to public health, and the environment in order to promote safe and efficient facility operation. Failure to meet the required management conditions is unlawful disposal under the Act.

2. The Commissioner may require the operator to keep records on the receipt and management of certain special wastes. The operator shall keep copies of special waste approvals by the Department which the facility has accepted into the landfill and all recertifications submitted by generators of such waste.

(e) Effect of a Special Waste Approval - A special waste approval granted by the Commissioner does not grant any right of disposal of the special waste at the designated facility. The operator may refuse to accept any special waste even if it has been approved by the Commissioner to be disposed of at his facility.

(5) Variances and Waivers - After public notice and an opportunity for public comment, any standard, or requirement in these rules may be waived by the Commissioner if the operator can demonstrate, to the satisfaction of the Commissioner, that the standard is inapplicable, inappropriate, or unnecessary to his facility, or that it is equaled in effect by alternative standards or requirements. Any requests for such requests must include the following:

(a) An identification of the specific requirement(s) for which a waiver is requested;

(b) An explanation of the reason(s) why the requirement(s) should be considered inapplicable, inappropriate, or unnecessary, and/or a description of the alternative procedures or mechanisms to be utilized and why they should be considered equal in effect to the standard(s) proposed to be waived; and

(c) Any other such information as the Commissioner deems necessary for his evaluation of the request.

(d) Any Class I variances or waivers granted will not be less stringent than the standards of 40 CFR 257 and 258 (Solid Waste Disposal Facility Criteria Final Rule, October 9, 1991).

(Rule 1200-1-7-.01, continued)

Authority: *T.C.A. §§4-5-201, 68-203-103(b)(3), 68-211-102(a), 68-211-105(b), 68-211-105(c), 68-211-106(a)(1), 68-211-107(a), 68-211-111(d)(1), 68-211-111(d)(2), 68-211-851(a), 68-211-852, 68-211-853, and 68-211-861.* ***Administrative History:*** *Original rule certified June 7, 1974. Amendment filed February 1, 1990; effective March 18, 1990. Amendment filed August 6, 1991; effective September 20, 1991. Amendment filed May 15, 1992; effective June 29, 1992. Amendment filed May 26, 1993; effective July 10, 1993. Amendment filed July 15, 1993; effective September 29, 1993. Amendment filed November 17,1995; effective January 31, 1996. Amendment filed April 22, 1997; effective July 6, 1997. Amendment filed October 8, 1998; effective December 28, 1998. Amendment filed April 17, 2000; effective July 1, 2000. Amendment filed July 27, 2001; effective October 10, 2001. Amendment filed July 1, 2003; effective September 14, 2003. Amendment filed November 17, 2004; effective January 31, 2005. Amendment filed May 23, 2006; effective August 6, 2006.*

1200-1-7-.02 PERMITTING OF SOLID WASTE STORAGE, PROCESSING, AND DISPOSAL FACILITIES.

(1) General

(a) Purpose - The purpose of this rule is to establish the procedures, documentation, and other requirements which must be met in order for a person to be permitted to operate a solid waste storage, processing or disposal facility in Tennessee.

(b) Scope/Applicability

1. The requirements of this rule apply as specified to operators of facilities in Tennessee. Except as otherwise provided in this rule, no facility can lawfully store, process, or dispose of solid waste unless the operator has a permit.

2. Each classification of disposal, processing, or transfer facility on a site must have a separate permit. However, a processing facility may have more than one unit.

3. The following facilities or practices are not subject to the requirement to have a permit:

(i) Disposal of septic tank pumpings;

(ii) Junkyards;

(iii) Reclamation of surface mines;

(iv) Disposal of farming wastes at facilities which are on the site of generation and with a fill area of less than one acre in areal extent when completed;

(v) Disposal of landscaping and land clearing wastes at facilities which are on the site of generation and with a fill area of less than one acre in areal extent when completed;

(vi) Disposal of construction/demolition wastes at facilities which are on-site of generation and with a fill area of less than one acre in areal extent when completed;

(vii) Burning solid wastes for energy recovery or processing solid wastes to produce a fuel or processing solid waste for materials recovery, provided such burning or processing occurs on the site of generation or at a site owned or operated by the same corporation or subsidiaries of such corporation;

(viii) Processing or disposal of solid wastes at hazardous waste management facilities authorized by permit or interim status under rule 1200-1-11-.07;

(ix) Baling, shredding, and mechanical or other processing of solid waste on the site of generation or at a site owned or operated by the same corporation or subsidiaries of such corporation;

(x) Processing of industrial wastewaters in on-site facilities subject to regulation under *T.C.A. §69-3-101 et seq.;*

(xi) Processing or disposal of the following materials:

(I) Domestic sewage and any mixture of domestic sewage and other wastes that passes through a sewer system to a publicly-owned wastewater treatment works for treatment;

(II) Industrial wastewater discharges that are point source discharges subject to permits under *T.C.A.. §69-3-101 et seq.;*

(III) Irrigation return flows;

(IV) Source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 *et seq.*);

(V) Materials subjected to in-situ mining techniques which are not removed from the ground as part of the extraction process;

(VI) Farming wastes which are returned to the soil as fertilizers; and

(VII) Mining overburden returned to the mine site;

(xii) Processing or disposal of solid wastes by deep underground injection which are permitted under the Water Quality Act pursuant to the Underground Injection Control Regulations chapter 1200-4-6.

(xiii) The use of solely natural rock, dirt, stumps, pavement, concrete and rebar, and/or brick rubble as fill material.

(xiv) The use and/or disposal of Petroleum contaminated soil and rock generated from the clean-up of leaking Underground Storage Tank sites regulated under rule 1200-1-15, provided such materials are treated and the benzene level is below 5 ppm and the total petroleum hydrocarbon level is below 100 ppm and provided that the method of treatment was reviewed and approved by the Division of Underground Storage Tanks.

(xv) The processing of waste tires at facilities that are permitted or otherwise authorized by this rule chapter to store and/or dispose of waste tires.

(xvi) The storage of solid waste that is incidental to its recycling, reuse, reclamation or salvage provided that upon request of the Commissioner, the operator demonstrates to the satisfaction of the Commissioner that there is a viable market for all stored waste and provided that all waste is stored in a manner that minimizes the potential for harm to the public and

the environment. Material may not be stored for more than one (1) year without written approval from the Division.

(xvii) The storage of solid waste incidental to its collection. (The storage of solid waste at permitted facilities and permit-by-rule facilities and storage in a manner constituting disposal are not exempt from permitting requirements).

(xviii) The collection of "used oil" and/or the processing of used oil filters, provided that the used oil and/or filters are received directly from "do-it-yourselfers" as the terms are defined at T.C.A. §68-211-1002.

(xix) The processing of landscaping or land clearing wastes or unpainted, unstained, and untreated wood into mulch.

(xx) The land application of both publicly-owned treatment works water sludges and publicly-owned treatment waste water sludges from facilities that are subject to regulatory standards of the Department's Division of Water Supply and Division of Water Pollution Control.

(xxi) The burning of natural and untreated wood, landscaping wastes, landclearing wastes in either an air curtain destructor or by open burning.

(xxii) The beneficial use of waste, which does not constitute disposal, provided that upon request of the Commissioner, the generator demonstrates to the satisfaction of the Commissioner that such use is not detrimental to public health, safety, or the environment.

4. The Commissioner may issue or deny a permit for one or more units at a facility without simultaneously issuing or denying a permit to all of the units at the facility.

5. No permit or other authorization shall be issued or renewed by the Division of Solid Waste Management pursuant to rule chapter 1200-1-7 until all fees and/or penalties owed by the applicant to the Division are paid in full, unless a time schedule for payments has been approved and all payments are current or contested fees or penalties are under appeal.

(c) Permits by Rule

1. All permit by rule facilities shall keep any records that are required by these rules and a copy of its permit by rule authorization at the facility or at another location approved by the Department. Notwithstanding any other provision of this rule, and provided they are not excluded pursuant to part (b) 2 of this paragraph, the following classes of activities shall be deemed to have a permit by rule if the conditions listed are met:

(i) A processing facility, if:

(I) The operator complies with the notification requirement of part 2 of this subparagraph;

(II) The facility is constructed, operated, maintained, and closed in such a manner as to minimize:

I. The propagation, harborage, or attraction of flies, rodents, or other disease vectors;

II. The potential for explosions or uncontrolled fires;

III. The potential for releases of solid wastes or solid waste constituents to the environment except in a manner authorized by state and local air pollution control, water pollution control, and/or waste management agencies; and

IV. The potential for harm to the public through unauthorized or uncontrolled access;

(III) The facility has an artificial or natural barrier which completely surrounds the facility and a means to control entry, at all times, through the gate or other entrances to the facility;

(IV) The facility, if open to the public, has clearly visible and legible signs at the points of public access which indicate the hours of operation, the general types of waste materials that either will or will not be accepted, emergency telephone numbers, schedule of charges (if applicable), and other necessary information;

(V) Trained personnel are always present during operating hours to operate the facility;

(VI) The facility has adequate sanitary facilities, emergency communications (e.g., telephone), and shelter available for personnel;

(VII) The facility's access road(s) and parking area(s) are constructed so as to be accessible in all weather conditions;

(VIII) Except for composting facilities utilizing landscaping and land clearing wastes only, all waste handling (including loading and unloading) at the facility is conducted on paved surfaces;

(IX) There is no storage of solid wastes at the facility except in the containers, bins, lined pits or on paved surfaces, designated for such storage;

(X) Except for incinerators or energy recovery units, there is no burning of solid wastes at the facility;

(XI) There is no scavenging of solid wastes at the facility and any salvaging is conducted at safe, designated areas and times;

(XII) Wind dispersal of solid wastes at or from the facility is adequately controlled, including the daily collection and proper disposal of windblown litter and other loose, unconfined solid wastes;

(XIII) All liquids which either drain from solid wastes or are created by washdown of equipment at the facility go to either (1) a wastewater treatment facility permitted to receive such wastewaters under Tennessee Code Annotated Sections 69-3-101 et seq. (Tennessee

Water Quality Control Act), or (2) other methods approved by the Commissioner.

(XIV) The facility receives no special wastes unless:

I. Such receipt has been specifically approved in writing by the Department, and

II. Special procedures and/or equipment are utilized to adequately confine and segregate the special wastes;

(XV) The operator can demonstrate, at the request of the Commissioner, that alternative arrangements (e.g., contracts with other facilities) for the proper processing or disposal of the solid wastes his facility handles are available in the event his facility can not operate;

(XVI) The facility has properly maintained and located fire suppression equipment (e.g., fire extinguishers, water hoses) continuously available in sufficient quantities to control accidental fires that may occur;

(XVII) All waste residues resulting from processing activities at the facility are managed in accordance with this rule chapter or rule chapter 1200-1-11 (Hazardous Waste Management), whichever is applicable, and/or with any other applicable state or federal regulations governing waste management;

(XVIII) The facility is finally closed by removal of all solid wastes and solid waste residues for proper disposal. The operator must notify the Division Director in writing of his completion of closure of the facility. Such notification must include a certification by the operator that the facility has been closed by removal of all the solid waste and residues. Within 21 days of the receipt of such notice the Division Director shall inspect the facility to verify that closure has been completed. Within 10 days of such verification, the Commissioner shall approve the closure in writing to the operator. Closure shall not be considered final and complete until such approval has been made.

(XIX) New solid waste processing facilities shall not be located in wetlands, unless the owner or operator makes the applicable demonstrations to the Commissioner as referenced at rule 1200-1-7-.04(2)(p).

(XX) The facility must not be located in a 100-year floodplain unless it is demonstrated to the satisfaction of the Commissioner that:

I. Location in the floodplain will not restrict the flow of the 100-year flood nor reduce the temporary water storage capacity of the floodplain.

II. The facility is designed, constructed, operated, and maintained to prevent washout of any solid waste.

(XXI) The facility does not:

I. Cause or contribute to the taking of any endangered or threatened species of plants, fish, or wildlife; or

II. Result in the destruction or adverse modification of the critical habitat of endangered or threatened species.

(XXII) The owner/operator may not store solid waste until the processing equipment has been installed on-site and is ready for use.

(XXIII) The owner/operator of a solid waste processing facility which has a solid waste storage capacity of 1000 cubic yards or greater shall file with the Commissioner a performance bond or equivalent cash or securities, payable to the State of Tennessee. Such financial assurance is intended to ensure that adequate financial resources are available to the Commissioner to insure the proper operation, closure, and post closure care of the facility. The types of financial assurance instruments that are acceptable are those specified in 1200-1-7-.03(3)(d). Such financial assurance shall meet the criteria set forth in T.C.A. §68-211-116(a) and at rule 1200-1-7-.03(3)(b).

(XXIV) The owners or operators proposing a new solid waste processing facility that handles putrescible wastes located within 10,000 feet (3,048 meters) of any airport runway end used by turbojet aircraft or within 5,000 feet (1,524 meters) of any airport runway end used only by piston-type aircraft must include in the permit-by-rule notification a demonstration that the facility does not pose a bird hazard to aircraft. The owners or operators proposing a new solid waste processing facility that handles putrescible wastes located within a five-mile radius of any airport runway end used by turbojet or piston-type aircraft must notify the affected airport and the appropriate Federal Aviation Administration (FAA) office.

(ii) A coal ash fill area, if:

(I) The coal ash disposed of is not hazardous as defined in rule 1200-1-11-.02(1)(c) of the *Hazardous Waste Management Regulations*.

(II) The coal ash disposed of is fly ash, bottom ash, or boiler slag resulting primarily from the combustion of fossil fuel.

(III) Disposal is limited to:

I. Coal ash in engineered structures for the following projects: a highway overpass, levee, runway, or foundation backfill.

II. Such other similar uses as the Commissioner may approve in writing. Financial assurance may be required by the Commissioner if deemed appropriate for these case-by-case projects.

(IV) The operator complies with the notification requirement of part 2 of this subparagraph;

(V) The fill area is constructed, operated, maintained, and closed in such a manner as to minimize:

I. The potential for harmful release of solid wastes or solid waste constituents to the environment; and

II. The potential for harm to the public through unauthorized or uncontrolled access;

(VI) The fill area, until development is complete, must have an artificial or natural barrier to control access of unauthorized entry.

(VII) There must be equipment available that is capable of spreading and compacting the coal ash, and capable of handling the earthwork required during the periods that coal ash is received at the fill area.

(VIII) The coal-ash fill project is designed with:

I. A geologic buffer of at least three feet with a maximum saturated conductivity of 1×10^{-6} centimeters per second between the base of the fill and the seasonal high water table of the uppermost unconfined aquifer or the top of the formation of a confined aquifer, or such other protection as approved by the Commissioner taking into account site specific coal ash and soil characteristics, ambient groundwater quality, and projected flows in and around the site; and

II. A ground water monitoring program approved by the department that reports sampling results to the department at least once each year. If sampling results indicate that the fill area has caused the ground water protection standards to be exceeded, the owner or operator of the facility shall commence an assessment monitoring program in accordance with regulations adopted by the board and carry-out all corrective measures specified by the Commissioner.

(IX) At the completion of the coal-ash fill project, and no later than 90 days after operations have ceased, the final cover must meet the requirement of at least 24 inches of compacted soil on the coal-ash project area, except for those areas covered by structures, asphalt, concrete (including concrete containing coal ash), or other similar barriers to water infiltration. The upper six inches of this cover shall be able to support the growth of suitable vegetation.

(X) The final surface of the coal-ash fill area is graded and/or provided with drainage facilities in a manner that:

I. Minimizes erosion of cover material (e.g., no steep slopes);

II. Promotes drainage of precipitation falling on the area (e.g., prevents pooling);

III. Provides a surface drainage system which is consistent with the surrounding area and in no way significantly adversely affects proper drainage from these adjacent lands; and

IV. The operator must take other erosion control measures (e.g., temporary mulching or seeding, silt barriers) as necessary to control erosion of the site.

(XI) Dust Control - The operator must take dust control measures as necessary to prevent dust from creating a nuisance or safety hazard to adjacent landowners or to persons engaged in supervising, operating, and using the site. The use of any oils or other chemicals (other than water) for dust suppression must be approved in writing beforehand by the Department.

(XII) Prior to excavation, all bore holes drilled or dug during subsurface investigation of the site, piezometers, and abandoned wells which are either in or within 100 feet of the areas to be filled must be backfilled with a bentonite slurry or other sealant approved by the Commissioner to an elevation at least ten feet greater than the elevation of the lowest point of the fill base (including any liner), or to the ground surface if the site will be excavated less than ten feet below grade.

(XIII) The fill area must not be located in a 100-year floodplain unless it is demonstrated to the satisfaction of the Commissioner that:

I. Location in the floodplain will not restrict the flow of the 100-year flood, nor reduce the temporary water storage capacity of the floodplain.

II. The fill area is designed, constructed, operated, and maintained to prevent washout of any solid waste.

(XIV) There must be installed on-site a permanent benchmark (e.g., a concrete marker) of known elevation.

(XV) New coal ash fill areas and lateral expansions shall not be located in wetlands, unless the owner or operator makes the applicable demonstrations to the Commissioner as referenced at rule 1200-1-7-.04(2)(p).

(XVI) A fill area must not be located in highly developed karst terrain (i.e., sink holes and caves).

(XVII) The coal-ash fill project does not:

I. Cause or contribute to the taking of any endangered or threatened species of plants, fish, or wildlife; or

II. Result in the destruction or adverse modification of the critical habitat of endangered or threatened species.

(XVIII) Notice in Deed to Property - Except for coal ash fills on federal, state or local government owned right-of-ways, the operator must ensure that, within 90 days of meeting final cover requirements and prior to the sale or lease of the coal ash fill area property, there is recorded, a notation on the deed to the property or on some other

instrument which is normally examined during a title search that will in perpetuity notify any person conducting a title search that coal ash has been placed on the property.

(iii) A tire storage facility, if:

(I) The county legislative body, of a county that does not own or operate a permitted Class I, Class III or Class IV facility which is accepting waste tires, complies with the notification requirement of part 2 of this subparagraph; and

(II) The facility is constructed, operated, maintained and closed in a manner consistent with rule 1200-1-7-.04(2)(k)3(i)(I) and (II) and items (III), (IV), (V), (VI), (VII), (X), (XI), (XIII), (XIV), (XVI), (XVII), (XVIII), (XIX), (XX) and (XXI) of rule 1200-1-7-.02(1)(c)1(i).

(III) Contracts for disposal or recycling of the shredded tires have been established.

(iv) A convenience center, if:

(I) The operator complies with the notification requirements of Part 2 of this subparagraph;

(II) The operator attaches to his notification all attachments required at rule 1200-1-7-.10(2)(b)1; and

(III) The facility is designed and operated in compliance with rule 1200-1-7-.10.

(v) A transfer station, if:

(I) The operator complies with the notification requirements of Part 2 of this subparagraph; and

(II) The facility is constructed, operated, maintained, and closed in a manner consistent with items II, III, IV, V, VI,VII,VIII, IX, X, XI, XII, XIII, XIV, XV, XVI, XVIII, XIX, XX, XXI, and XXIV of rule 1200-1-7-.02(1)(c)1(i).

(vi) A land application facility, if:

(I) The operator complies with the notification requirements of Part 2 of this subparagraph;

(II) The operator attaches to his notification all attachments required at rule 1200-1-7-.13 (1)(c); and

(III) The facility is designed and operated in compliance with rule 1200-1-7-.13.

2. The operator of a facility deemed to have a permit by rule must notify the Department in accordance with the requirements of this part.

(i) No person shall begin operation on a new facility without having submitted notification and received written approval from the Commissioner.

(ii) Notification must be submitted on forms provided by the Department and completed as per the accompanying instructions. It must include, but shall not necessarily be limited to, the following information:

(I) The processing and disposal activities conducted and the types of solid wastes handled;

(II) The name, mailing address, and location of the facility;

(III) The name, mailing address, and telephone number of the applicant and, if the applicant is a government agency, corporation, company, or partnership, that of the process agent or other contact person;

(IV) If different from the operator, the name, mailing address, and telephone number of the landowner, along with a signed letter from such owner to the Department allowing access to the property for purposes of inspection;

(V) A map (e.g., U.S.G.S. 7.5 minute topographic map) which clearly indicates the location of the facility;

(VI) A written narrative must be submitted that describes how the facility/operation will comply with all applicable standards listed in rule 1200-1-7-.02(1)(c) and any other information deemed necessary by the Commissioner; and

(VII) A design plan attached indicating boundaries of the site and all on-site appurtenances.

(iii) The notification under subpart (ii) shall be revised within 30 days of a change in facility ownership with new information as necessary but at a minimum to include changes to subitems (III) and (IV) along with payment of the fee specified at 1200-1-7-.07(2)(b)6.

3. Duty to Comply - The permittee must comply with all conditions of this permit-by-rule, unless otherwise authorized by the Department in writing. Any permit-by-rule noncompliance constitutes a violation of the Act and is grounds for the assessment of civil penalties by the Commissioner.

(2) Application for a Permit

(a) General

1. Any person who is required to have a permit shall complete, sign, and submit an application to the Commissioner as described in this paragraph.

2. If the property on which a facility is located is owned by a person(s) different from the operator, then that owner(s) must also sign the permit application.

3. The Commissioner shall not issue a permit before receiving a complete application for a permit. An application for a permit is complete when the

Commissioner receives an application form and any supplemental information which is completed to his satisfaction.

4. Operators shall keep records of all data and supplemental information used to complete permit applications until the end of the post-closure care period.

5. Five copies of the required permit application must be submitted to the Commissioner.

6. All reports, plans, specifications, and manuals must be prepared in proper technical format, typewritten, and bound (e.g., 3 ring loose-leaf binders).

7. All permit applications will be signed as follows:

   (i) For a corporation: by a responsible corporate officer. For the purpose of this part, a responsible corporate officer means (I) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy - or decision making functions for the corporation, or (II) the manager of one or more manufacturing, production, or operation facilities employing more than 250 persons or having gross annual sales or expenditures exceeding 25 million dollars (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

   (ii) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively.

   (iii) For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this part, a principal executive officer of a federal agency includes (I) the chief executive officer of the agency, or (II) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA) or for overall compliance with environmental regulatory requirements of the agency.

8. All reports required by permits and other information requested by the Commissioner shall be signed by a person described in part 7 of this paragraph, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

   (i) The authorization is made in writing by a person described in part 7 of this subparagraph;

   (ii) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, superintendent, or person of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and

   (iii) The written authorization is submitted to the Commissioner.

9. If an authorization under part 8 of this subparagraph is no longer accurate because a different individual or position has responsibility for the overall

operation of the facility, a new authorization satisfying the requirements of part 8 of this subparagraph must be submitted to the Commissioner prior to or together with any reports or information to be signed by an authorized representative.

10. Any person signing a document under parts 7 or 8 of this subparagraph shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information."

(b) Permitted Facilities - Permitted facilities shall not be subjected to public notice and public hearings when making permit modifications that are necessary to comply with rules passed subsequent to the issuance of the facility's original permit.

(c) Contents of the Permit Application

1. Contents of the Disposal Permit Application -- A complete permit application shall consist of a Part I with the applicant's disclosure statement and a Part II as described in this subparagraph.

(i) The Part I disposal permit application must be submitted on forms provided by the Department with appropriate attachments which includes a disclosure statement as required by T.C.A. 68-211-106(h). All forms must be completed as per the accompanying instructions. The Part I application must include, but shall not necessarily be limited to, the following information:

(I) The activities conducted or to be conducted by the applicant which require him to obtain a permit under this rule and the general types of wastes handled or to be handled;

(II) The name, mailing address, and location of the facility for which the application is submitted;

(III) The name, mailing address, and telephone number of the applicant and, if the applicant is a government agency, corporation, company, or partnership, that of the process agent or other person who will serve as the primary contact with the Department;

(IV) If different from the applicant, the name, mailing address, and telephone number of the land owner, along with a signed letter from such owner to the Department allowing access to the property for such investigations as may be necessary to determine its suitability as a disposal facility;

(V) The name, mailing address, and telephone number of the zoning authority of jurisdiction (if any), and the current zoning status of the property; and

(VI) A United States Geological Survey (U.S.G.S.) 7.5 minute topographic map extending one-half mile beyond the property boundaries of the facility which clearly depict:

I. The property boundaries;

II. The facility and each of its solid waste processing or disposal units and any hazardous waste treatment, storage, or disposal units (to include past waste disposal units); and

III. Those wells, springs, other surface water bodies, and drinking water wells listed in pubic records or otherwise known to the applicant within 1/4 mile of the facility property boundary.

(ii) The Part II disposal permit application shall consist of those reports, plans and specifications, or other documentation necessary to provide the information specified in rule 1200-1-7-.04(9).

2. Contents of the Compost Facility Permit Application -- A complete permit application shall consist of a Part I with the applicant's disclosure statement and a Part II as described in this subparagraph.

(i) The Part I compost facility permit application must be submitted on forms provided by the Department with appropriate attachments which includes a disclosure statement as required by T.C.A. 68-211-106(h). All forms must be completed as per the accompanying instructions. The Part I application must include, but shall not necessarily be limited to, the following information:

(I) The activities conducted or to be conducted by the applicant which require him to obtain a permit under this rule and the general types of wastes handled or to be handled;

(II) The name, mailing address, and location of the facility for which the application is submitted;

(III) The name, mailing address, and telephone number of the applicant and, if the applicant is a government agency, corporation, company, or partnership, that of the process agent or other person who will serve as the primary contact with the Department;

(IV) If different from the applicant, the name, mailing address, and telephone number of the land owner, along with a signed letter from such owner to the Department allowing access to the property for such investigations as may be necessary to determine its suitability as a composting facility;

(V) The name, mailing address, and telephone number of the zoning authority of jurisdiction (if any), and the current zoning status of the property; and

(VI) A United States Geological Survey (U.S.G.S.) 7.5 minute topographic map which clearly indicates the location of the facility.

(ii) The Part II compost facility permit application shall consist of those reports, plans and specifications, or other documentation necessary to provide the information specified in rule 1200-1-7-.11(5). The master plan, design plan, and narrative description of the facility and operation are components of the Part II application and each must be prepared by a registered engineer. Any registered engineer herein required shall be governed by the terms of T.C.A. Title 62, Chapter 2.

(d) Recertification by Disposal Facility Permittees for Facilities Whose Initial Operation is Delayed

1. If the facility does not initiate construction and/or operation within one year of the date a permit (issued pursuant to paragraph (3) of this rule) becomes effective, the permittee must submit a letter to the Commissioner 180 days prior to construction which either:

(i) Certifies that the information submitted in the permit application is still accurate and complete; or

(ii) Identifies those changes that have occurred in the information submitted in the permit application.

2. Such letter must be signed as set forth in part (a) 8 of this paragraph.

3. Upon his receipt of such letter or other information that indicates that a change has occurred in the information submitted in the permit application, the Commissioner shall:

(i) Determine if cause exists under paragraph (5) of this rule to modify, to revoke and reissue, or to terminate the permit; and

(ii) Take such action as he deems appropriate pursuant to that paragraph.

4. The permittee may not initiate construction and/or operation unless and until authorized by the Commissioner in writing.

(3) Processing the Permit

(a) Preliminary Notices - Within 30 days after the date of receipt, the Commissioner shall issue a preliminary public notice under subparagraph (e) of this paragraph for each Part 1 permit application received.

(b) Review of the Permit Application

1. The Commissioner shall review every permit application for completeness. Upon completing the review, the Commissioner shall notify the applicant in writing whether the application is complete. If the application is incomplete, the Commissioner shall list the information necessary to make the application complete. The Commissioner shall notify the applicant that the application is complete upon receiving the required information. After the application is completed, the Commissioner may request additional information from an applicant but only when necessary to clarify, modify, or supplement previously submitted material. Requests for such additional information will not render an application incomplete.

2. When the Commissioner decides that a site visit is necessary for any reason in conjunction with the processing of an application, he shall notify the applicant and a date shall be scheduled.

(c) Draft Permits

1. Once an application is complete, the Commissioner shall tentatively decide whether the permit should be issued or denied.

2. If the Commissioner tentatively decides the permit should be denied, he shall prepare a notice to deny. A notice of intent to deny the permit shall be sent to the applicant. The applicant may wish to appeal the Commissioner's decision to the Board by filing a written petition as provided at TCA 68-211-113(b) of the Act.

3. If the Commissioner tentatively decides the permit should be issued, he shall prepare a draft permit as set forth in part 4 of this subparagraph.

4. A draft permit shall contain (either expressly or by reference) all applicable terms and conditions from paragraph (4) of this rule.

5. All draft permits shall be subject to the procedures of subparagraphs (d), (e), (f), (g), (h), and (i) of this paragraph, unless otherwise specified in those subparagraphs.

(d) Fact Sheets

1. A fact sheet shall be prepared for every draft permit (or notice to deny the permit).

2. The fact sheet shall briefly set forth the principal facts and the significant factual, legal, methodological and policy questions considered in preparing the draft permit to include, when applicable:

(i) A brief description of the type of facility or activity which is the subject of the draft permit;

(ii) The type and quantity of wastes which are proposed to be or are being disposed of;

(iii) A brief summary of the basis for the draft permit conditions including references to applicable statutory or regulatory provisions and appropriate supporting references to the permit application;

(iv) Reasons why any requested waivers or alternatives to required standards do or do not appear justified.

(v) A description of the procedures for reaching a final decision on the draft permit, including:

(I) The beginning and ending dates of the comment period under subparagraph (e) of this paragraph and the address where comments will be received;

(II) Procedures for requesting a public hearing; and

(III) Any other procedures by which the public may participate in the final decision; and

(vi) Name and telephone number of a person to contact for additional information.

3. The Commissioner shall send this fact sheet to the applicant and, upon request, to any other person.

(e) Public Notices and Public Comments

1. Scope

(i) An applicant shall give public notice, as prepared and directed by the Commissioner, that the following actions have occurred:

(I) A permit application as described in subparagraph (a) of this paragraph has been received;

(II) A draft permit has been prepared under part (c)3 of this paragraph or a new draft permit prepared under subparagraph (5)(a) or (5)(b);

(III) A public hearing has been scheduled under subparagraph (g) of this paragraph; or

(IV) A change of ownership.

(ii) No public notice is required when a request for a permit modification, revocation and reissuance, or termination is denied under paragraph (5) of this rule. Written notice of that denial shall be given to the permittee.

(iii) Public notices may describe more than one permit or permit action.

(iv) An applicant shall provide proof of the completion of all notices required to be given by the Commissioner within 10 days following conclusion of the public notice procedures.

(v) The Commissioner shall give a public notice that a notice of intent to deny an original permit has been prepared under part (c)2 of this paragraph.

2. Timing

(i) Public notice of the preparation of a draft permit or a notice of intent to deny an original permit shall allow at least 45 days for public comment.

(ii) Public notice of a public hearing shall be given at least 15 days before the hearing. (Public notice of the hearing may be given at the same time as public notice of the draft permit and the two notices may be combined.)

3. Methods - Public notice of activities described in subpart 1(i) of this subparagraph shall be given by the following:

(i) By posting in a public place (e.g., post office, library, health department, etc) of the municipalities nearest the site under consideration; and

(ii) By publication of a notice in a daily or weekly local newspaper of general circulation as designated by the Commissioner; and

(iii) By any other method deemed necessary or appropriate by the Commissioner to give actual notice of the action in question to the persons potentially affected by it, including press releases or any other forum or medium to elicit public participation. Such additional notices shall be the financial responsibility of the Commissioner. The Commissioner is financially responsible for newspaper notices in excess of one in each county where coverage is deemed necessary.

4. Contents

(i) General Public Notices - Except for the preliminary public notices described in subparagraph (a) of this paragraph, all public notices issued under this part shall contain the following minimum information:

(I) Name, address and phone number of the office processing the permit action for which notice is being given;

(II) Name and address of the permittee or permit applicant and, if different, of the facility or activity regulated by the permit;

(III) A brief description of the business conducted at the facility or activity described in the permit application including the size and directions from a state highway or interstate, and/or a map (e.g., a sketched or copied street map if the location is remote or not easily accessible) to the facility and type of waste accepted;

(IV) A brief description of the comment procedures required by subparagraphs (f) and (g) of this paragraph, including a statement of procedures to request a public hearing (unless a hearing has already been scheduled), and other procedures by which the public may participate in the final permit decision;

(V) Name, address, and telephone number of a person from whom interested persons may obtain further information, including copies of draft permits and fact sheets;

(VI) A description of the time frame and procedure for making a final determination on this facility application approval or disapproval;

(VII) If the notice is announcing a public hearing it will state the time and location of the hearing and make reference to any prior public notice issued for each site.

(VIII) Any additional information considered necessary or proper.

(ii) Public Notices for Public Hearing - In addition to the general public notice described in subpart (i) of this part, the public notice of a public hearing shall contain the following information:

(I) Reference to the dates of previous public notices relating to the permit action;

(II) Date, time, and place of the public hearing; and

(III) A brief description of the nature and purpose of the public hearing, including the applicable rules and procedures.

(IV) A concise statement of the issues raised by the persons requesting the hearing.

(iii) Preliminary Notices - The preliminary public notice described in subparagraph (a) of this paragraph shall contain the following information:

(I) The information from items (I), (II), (III), (V), (VI), and (VII) of subpart (i) of this part; and

(II) A brief description of the permitting procedures that will be followed, focusing especially upon the opportunities for public participation in the process.

(f) Public Comments and Requests for Public Hearings - During the public comment period provided, any interested person may submit written comments on the draft permit and may request a public hearing, if no hearing has already been scheduled. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. All comments shall be considered in making the final decision and shall be answered as provided in subparagraph (j) of this paragraph.

(g) Public Hearings

1. (i) The Commissioner shall hold a public hearing whenever he finds, on the basis of requests, a significant degree of public interest in a draft permit(s).

(ii) The Commissioner may also hold a public hearing at his discretion whenever, for instance, such a hearing might clarify one or more issues involved in the permit decision.

(iii) The Commissioner shall hold a public hearing whenever he receives written notice of significant public concern or opposition to a draft permit and a request for a hearing, within 45 days of public notice under subpart (e)2(i) of this paragraph.

(iv) Public hearing held pursuant to this rule shall be at a location convenient to the nearest population center to the subject facility.

(v) Public notice of the hearing shall be given as specified in subparagraph (e) of this paragraph.

2. Any person may submit oral or written statements and data concerning the draft permit. Reasonable limits may be set upon the time allowed for oral statements, and the submission of statements in writing may be required. The public comment period under subparagraph (e) of this paragraph shall automatically be extended to the close of any public hearing under this subparagraph. The hearing officer may also extend the comment period by so stating at the hearing.

3. A tape recording or written transcript of the hearing shall be made available to the public.

(Rule 1200-1-7-.02, continued)

(h) Reopening of the Public Comment Period

1. If any data, information, or arguments submitted during the public comment period appear to raise substantial new questions concerning a permit action, the Commissioner may (at his discretion or as directed by the Board) take one or more of the following actions:

(i) Prepare a new draft permit, appropriately modified, under subparagraph (c) of this paragraph;

(ii) Prepare a fact sheet or revised fact sheet under subparagraph (d) of this paragraph and reopen the comment period under subparagraph (e) of this paragraph; or

(iii) Reopen or extend the comment period under subparagraph (e) of this paragraph to give interested persons an opportunity to comment on the information or arguments submitted.

2. Comments filed during the reopened comment period shall be limited to the substantial new questions that caused its reopening. The public notice under subparagraph (e) of this paragraph shall define the scope of the reopening.

3. Public notice of any of the actions of part 1 of this subparagraph shall be issued under subparagraph (e) of this paragraph.

(i) Final Permit Decision

1. After the close of the public comment period under subparagraph (e) of this paragraph on a draft permit (including a notice of intent to deny a permit), the Commissioner shall issue a final permit decision. The Commissioner shall notify the applicant and each person who has submitted a written request for notice of the final permit decision. For the purposes of this subparagraph, a final permit decision means a final decision to issue, deny, modify, revoke and reissue, or terminate a permit.

2. A final permit decision shall become effective upon the date of the service of notice of the decision unless a later date is specified in the decision.

(j) Response to Comments

1. At the time that a final permit decision is issued under subparagraph (i) of this paragraph, the Commissioner shall issue a response to comments. This response shall:

(i) Specify which provisions, if any, of the draft permit have been changed in the final permit decision, and the reasons for the change; and

(ii) Briefly describe and respond to all significant comments on the draft permit raised during the public comment period, or during any public hearing.

2. The response to comments shall be made available to the public.

(k) Appeals - If, in his final permit decision under subparagraph (i) of this paragraph, the Commissioner denied the permit or issued it subject to conditions with which the permit applicant disagrees, the applicant may appeal the decision to the Board as set

forth in T.C.A. §68-211-113. If the Commissioner fails to take any action on a permit application within 45 days after it was submitted to him, the permit applicant may appeal to the Board as set forth in T.C.A. §68-211-113.

(4) Terms of the Permit

(a) Conditions Applicable to all Permits - The following conditions apply to all permits, and shall be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to this subparagraph must be included in the permit.

1. Duty to Comply - The permittee must comply with all conditions of this permit, unless otherwise authorized by the Department in writing. Any permit noncompliance constitutes a violation of the Act and is grounds for termination, revocation and/or reissuance, or modification of the permit and/or the assessment of civil penalties by the Commissioner.

2. Need to Halt or Reduce Activity Not a Defense - It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

3. Duty to Mitigate - In the event of noncompliance with the permit, the permittee shall take all reasonable steps to minimize releases to the environment, and shall carry out such measures as are reasonable to prevent adverse impacts on human health or the environment.

4. Proper Operation and Maintenance - The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

5. Permit Actions - This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any existing permit condition.

6. Property Rights - This permit does not convey any property rights of any sort, or any exclusive privilege.

7. Duty to Provide Information - The permittee must furnish to the Commissioner, within a reasonable time, any information which the Commissioner may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee must also furnish to the Commissioner, upon request, copies of records required to be kept by this permit. All records, including a copy of the permit and the approved Part I and Part II application, must be maintained at the facility or other locations as approved by the Commissioner.

8. Inspection and Entry - The permittee shall allow the Commissioner, or an authorized representative, to:

   (i) Enter at any reasonable time the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

   (ii) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

   (iii) Inspect at any reasonable time any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit (Note: If requested by the permittee at the time of sampling, the Commissioner shall split with the permittee any samples taken.);

   (iv) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Act, any substances or parameters at any location; and

   (v) Make photographs for the purpose of documenting items of compliance or noncompliance at waste management units, or where appropriate to protect legitimate proprietary interests, require the permittee to make such photos for the Commissioner.

9. Monitoring and Records

   (i) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

   (ii) The permittee shall retain records of all required monitoring information. The permittee shall maintain records from all ground-water monitoring wells and associated ground-water surface elevations, for the active life of the facility, and for the post-closure care period as well. This period may be extended by request of the Commissioner at any time.

   (iii) Records of monitoring information shall include:

      (I) The date, exact place, and time of sampling or measurements;

      (II) The individual(s) who performed the sampling or measurements;

      (III) The date(s) analyses were performed;

      (IV) The individual(s) who performed the analyses;

      (V) The analytical techniques or methods used (including equipment used); and

      (VI) The results of such analyses.

10. Reporting Requirements

   (i) The permittee shall give notice to the Commissioner as soon as possible of any planned physical alterations or additions to the permitted facility.

(ii) Monitoring results shall be reported at the intervals specified in the permit.

(iii) The permittee shall report orally within 24 hours from the time the permittee becomes aware of the circumstances of any release, discharge, fire, or explosion from the permitted solid waste facility which could threaten the environment or human health outside the facility. Such report shall be made to the Tennessee Emergency Management Agency, using 24-hour toll-free number 1/800/262-3300.

(iv) Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Commissioner, it shall promptly submit such facts or information.

11. Periodic Survey of Disposal Facility

(i) Within 60 days of his receipt of the written request of the Commissioner to do so, the permittee shall cause to be conducted a survey of active and/or closed portions of his facility in order to determine if operations (e.g., cut and fill boundaries, grades) are being conducted in accordance with the approved design and operational plans. The permittee must report the results of such survey to the Commissioner within 90 days of his receipt of the Commissioner's request.

(ii) The Commissioner may request such a survey:

(I) If he has reason to believe that operations are being conducted in a manner that significantly deviates from the approved plans; and/or

(II) As a periodic verification (but no more than annually) that operations are being conducted in accordance with the approved plans.

(iii) Any survey performed pursuant to this part must be performed by a qualified land surveyor duly authorized under Tennessee law to conduct such activities.

(b) Facility - Specific Permit Conditions

1. In addition to the conditions required in all permits (subparagraph (a) of this paragraph), the Commissioner shall, as required on a case-by-case basis, establish conditions in permits pursuant to this subparagraph.

2. Each permit shall include such terms and conditions as the Commissioner determines are:

(i) Necessary to achieve compliance with the Act and regulations, including each of the applicable requirements specified in this rule chapter, (Note: In satisfying this provision, the Commissioner may incorporate applicable requirements of these rules directly into the permit or establish other permit conditions that are based on these rules.); and

(ii) Otherwise necessary to protect human health and the environment.

3. An applicable requirement is a state statutory or regulatory requirement which takes effect prior to final administrative disposition of a permit. Subparagraph (3)(h) of this rule provides a means for reopening permit proceedings at the discretion of the Commissioner when applicable new requirements become effective during the permitting process and are of sufficient magnitude to make additional proceedings desirable. An applicable requirement is also any requirement which takes effect prior to the modification or revocation and reissuance of a permit, to the extent allowed in paragraph (5) of this rule.

4. All permit conditions shall be incorporated either expressly or by reference. If incorporated by reference, a specific citation to the applicable regulations or requirements must be given in the permit.

(c) Duration of Permits - Permits shall be effective for the operating life of the facilities.

(d) Effect of a Permit

1. A permit may be modified, revoked and reissued, or terminated during its term for cause as set forth in paragraph (5).

2. The issuance of a permit does not convey any property rights of any sort, or any exclusive privilege.

3. The issuance of a permit does not authorize the permittee to injure persons or property or to invade other private rights, or to violate any local law or regulations.

(5) Transfer, Modification, Revocation and Reissuance, and Termination of Permits

(a) Transfer of Permits

1. A permit may be transferred by the permittee to a new operator only if the permit has been modified or revoked and reissued (under subparagraph (b) of this paragraph) to identify the new permittee and incorporate such other requirements (e.g., financial requirements) as may be necessary under the Act or this rule. A permit transfer may be performed as a minor modification, but does require the preparation and issuance of a public notice.

2. (i) For the purpose of this rule chapter, the "owner or operator" of a processing, storage or disposal facility has the ultimate responsibility for the operation of the facility, including the final authority to make or control operational decisions and legal responsibility for the business management. A "change of ownership" occurs whenever this ultimate authority to control the activities and the policies of the facility is transferred to another individual, group, or legal entity.

(ii) A "change of ownership" also occurs whenever there is a change in the legal form under which the controlling entity is organized.

(iii) Transactions constituting a change of ownership include, but are not limited to, the following:

(I) Sale or donation of the facility's legal title;

(II) Lease of the entire facility's real and personal property;

(III) A sole proprietor becomes a member of a partnership or corporation, succeeding him as the new operator;

(IV) A partnership dissolves;

(V) One partnership if replaced by another through the removal, addition or substitution of a partner;

(VI) A general partnership becomes a limited partnership, or limited partnership becomes general;

(VII) Two (2) or more corporations merge and the originally-permitted corporation does not survive;

(VIII) Corporations consolidate;

(IX) A non-profit corporation becomes a general corporation, or a for-profit corporation becomes non-profit.

(X) Transfers between levels of government; and

(XI) Corporate stock transfers or sales, when the controlling interest is transferred.

(iv) Transactions which do not constitute a change of ownership include, but are not limited to, the following:

(I) Changes in the membership of a corporate board of directors or board of trustees;

(II) Two (2) or more corporations merge and the originally-permitted corporation survives;

(III) Changes in the membership of a non-profit corporation; and

(IV) Transfer between departments of the same level of government.

3. Changes in the ownership or operational control of a facility may be made as a modification with prior written approval of the Commissioner in accordance with rule 1200-1-7-.02(5)(b)2. The new owner or operator must submit a transfer of ownership form no later than 90 days prior to the scheduled change. A written agreement containing a specific date for transfer of permit responsibility between the current and new permittees must also be submitted to the Commissioner. When a transfer of ownership or operational control occurs, the old owner or operator of the disposal facility shall comply with the financial assurance requirements of rule 1200-1-7-.03(3) and. likewise, the owner or operator of a composting facility shall comply with the financial assurance requirements of rule 1200-1-7-.11(2)(p) until the new owner or operator has demonstrated that he or she is complying with the requirements of that rule. The new owner or operator must demonstrate compliance with the referenced financial requirements within six months of the date of the change of ownership or operational control of the facility. Upon demonstration to the Commissioner by the new owner or operator of compliance with the referenced financial requirements, the Commissioner

shall notify the old owner or operator that he or she no longer needs to comply with the referenced financial requirements as of the date of demonstration.

(b) Modification or Revocation and Reissuance of Permits

1. General - Except as otherwise provided in these rules, permits may only be modified or revoked and reissued for the reasons shown in parts 3, 4, or 5 of this subparagraph and only according to the procedures set forth in part 2 of this subparagraph. This process may be initiated either by the Commissioner or at the request of the permittee. All such requests from the permittee shall be in writing and shall contain the reasons for the request.

2. Procedures

(i) When the Commissioner receives a request from the permittee or other information (e.g., complaints, inspection findings, monitoring data, required reports) indicating that modification or revocation and reissuance of the permit may be in order, he may determine whether or not one or more of the causes listed in parts 3, 4, or 5 of this subparagraph exist.

(ii) If the Commissioner determines cause exists, he may proceed to modify or revoke and reissue the permit accordingly, subject to the limitations of part 6 of this subparagraph. If a permit modification satisfies the criteria in part 5 of this subparagraph for "minor modifications", the permit may be modified without following further the procedures of this part, except for subpart (vi).

(iii) If the Commissioner determines cause does not exist under parts 3, 4, or 5 of this subparagraph, he shall not modify or revoke and reissue the permit. If the modification or revocation and reissuance was requested by the permittee, the Commissioner shall give to the permittee such notice as is required by T.C.A. §4-5-320.

(iv) If the Commissioner tentatively decides to cause a major modification or revoke and reissue a permit, he shall prepare a draft permit under subparagraph (3)(c) of this rule incorporating the proposed changes. This draft permit shall be processed as set forth in paragraph (3) of this rule. The Commissioner may request additional information and, in the case of a modified permit, may require the submission of an updated permit application. In the case of revoked and reissued permits, the Commissioner shall require the submission of a new application.

(v) In a permit modification under this part, only those conditions to be modified shall be reopened when a new draft permit is prepared. All other aspects of the existing permit shall remain in effect for the duration of the unmodified permit. When a permit is revoked and reissued under this part, the entire permit is reopened just as if the permit had expired and was being reissued. During any revocation and reissuance proceeding, the permittee shall comply with all conditions of the existing permit until a new final permit is reissued.

(vi) No minor modification to a permit shall be made under subpart (ii) of this part, and no draft permit shall be prepared under subpart (iv) of this part, until the permittee has been given such notice as is required by T.C.A. §4-5-320.

3. Causes for Modification - The following are causes for modification but not revocation and reissuance of permits. However, the following may be causes for revocation and reissuance as well as modification when the permittee requests or agrees:

   (i) There are changes to the permitted facility which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit.

   (ii) The Commissioner has received information which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and would have justified the application of different permit conditions at the time of issuance.

   (iii) The standards or regulations on which the permit was based have been substantially changed by legislation or promulgation of amended standards or regulations or by judicial decision after the permit was issued.

   (iv) A major modification of a closure plan or post-closure plan is required.

   (v) To include conditions applicable to units at a facility that were not previously included in the facility's permit.

   (vi) When a land treatment unit is not achieving adequate treatment under its current permit conditions.

4. Causes for Modification or Revocation and Reissuance - The following are causes to modify or, alternatively, revoke and reissue a permit:

   (i) Cause exists for termination under subparagraph (c) of this paragraph and the Commissioner determines that modification or revocation and reissuance is appropriate.

   (ii) The Commissioner has received notification of a proposed transfer of the permit.

5. Minor Modification of Permits - Upon the consent of the permittee, the Commissioner may modify a permit to make the corrections or allowances for those changes in the permitted activity deemed by the Commissioner to be a minor modification without following the procedures of paragraph (3) of this rule. A minor modification is a change in the plans for a facility which will not alter the expected impact of the facility on the public, public health, or the environment. Major modifications shall include at least changes in final contour elevations, increase in capacities, changes in direction of site drainage, and other changes deemed major by the Commissioner.

6. Facility Siting - Suitability of the facility location will not be reconsidered at the time of permit modification or revocation and reissuance unless new information or standards indicate that a threat to human health or the environment exists which was unknown at the time of the permit issuance.

(c) Termination of Permits

(Rule 1200-1-7-.02, continued)

1. General - Permits may be terminated only for the reasons shown in part 3 of this subparagraph and only according to the procedures set forth in part 2 of this subparagraph. This process may be initiated either by the Commissioner or at the request of the permittee. All such requests from the permittee shall be in writing and shall contain the reasons for the request.

2. Procedures

   (i) When the Commissioner receives a request from the permittee or other information (e.g., complaints, inspection findings, monitoring data, reports) indicating that termination of the permit may be in order, he may determine whether or not one or more of the causes listed in part 3 of this subparagraph exist.

   (ii) If the Commissioner determines cause exists, he may proceed to terminate the permit.

   (iii) If the Commissioner tentatively decides to terminate a permit, he shall issue a notice of intent to terminate. A notice of intent to terminate is a type of draft permit which follows the same procedures as any draft permit prepared and processed under paragraph (3) of this rule.

   (iv) No notice of intent to terminate shall be issued under subpart (iii) of this part until the permittee has been given such notice as is required by T.C.A. §4-5-320.

3. Causes for Termination - The following are causes for terminating a permit during its term, or for denying a permit renewal application:

   (i) Noncompliance by the permittee with any condition of the permit which the Commissioner deems to be significant noncompliance, repeated noncompliance, and/or failure to comply with the Division's compliance schedule relative to permit conditions;

   (ii) The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the permittee's misrepresentation of any relevant facts at any time;

   (iii) A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit termination; or

   (iv) The request of the permittee, providing he has complied with all closure and post-closure requirements in the permit conditions.

   (v) The permittee's failure to file and maintain financial assurance in the amount required by rule 1200-1-7-.03 and 1200-1-7-.11(2)(p).

   (vi) Non-payment of any fees owed to the Department.

Authority: *T.C.A. §§4-5-201, et seq., 68-203-103(b)(3), 68-211-102(a), 68-211-103, 68-211-105(b), 68-211-105(c), 68-211-105(g), 68-211-106(a)(1), 68-211-107, 68-211-107(a), 68-211-111(d)(1), 68-211-111(d)(2), 68-211-116, 68-211-851(a), 68-211-852, 68-211-853, and 68-211-861.* ***Administrative History:*** *Original rule certified June 7, 1974. Amendment filed February 1, 1990; effective March 18, 1990. Amendment filed August 6, 1991; effective September 20, 1991. Amendment filed May 15, 1992;*

effective June 29, 1992. Amendment filed May 26, 1993; effective July 10, 1993. Amendment filed June 21, 1993; effective August 5, 1993. Amendment filed April 22, 1997; effective July 6, 1997. Amendment filed May 7, 1997; effective July 21, 1997. Amendment filed October 8, 1998; effective December 28, 1998. Amendment filed April 17, 2000; effective July 1, 2000. Amendment filed July 27, 2001; effective October 10, 2001. Amendment filed July 1, 2003; effective September 14, 2003. Amendment filed September 29, 2003; effective December 13, 2003. Amendment filed November 17, 2004; effective January 31, 2005. Amendments filed May 23, 2006; effective August 6, 2006. Amendments filed September 12, 2008; effective November 26, 2008.

1200-1-7-.03 REQUIREMENTS FOR FINANCIAL ASSURANCE.

(1) General

(a) Purpose/Scope - The purpose of this rule is to establish requirements for establishing and maintaining acceptable financial assurance for the proper operation, closure and post-closure care of certain solid waste disposal facilities in Tennessee. These financial assurance requirements are intended to ensure that adequate financial resources are available to the Commissioner to insure proper operation, closure and post-closure care. This rule also establishes criteria and procedures to be used by the Commissioner in setting the amount of financial assurance required and in use and release of these funds.

(b) Applicability

1. The requirements of this rule apply to disposal facilities in operation on March 18, 1990 or thereafter.

2. The requirements of paragraph (3) of this rule do not apply if the operator is the State of Tennessee or Federal Government.

(2) Closure/Post-Closure Care Plan

(a) General Requirements - Operators of facilities must submit a closure/post-closure care plan to the Department, obtain approval of the plan, and amend the plan when necessary, as set forth in this paragraph.

(b) Contents of Plan

1. The closure/post-closure plan must identify the steps necessary to completely or partially close the facility at any point during its intended operating life and to completely close the facility at the end of its intended operating life, and must identify the activities which will be carried on after closure and the frequency of these activities. For facilities being developed or to be developed according to a phased development plan, the closure/post-closure care plan must address each parcel separately as well as the whole.

2. The closure/post-closure plan must include, at a minimum:

(i) A description of how and when the facility will be partially closed, if applicable, and finally closed. If minimum closure areas are used, they must be delineated in the engineering plans. The description must identify how the applicable closure standards of rule 1200-1-7-.04(8) will be met. It must also include an estimate of the expected year of closure and a schedule for completing the steps of final closure;

(ii) A description of the planned ground and surface water monitoring and other monitoring and maintenance activities and frequencies at which they will be performed. The description must identify how the applicable post-closure care standards of rule 1200-1-7-.04(8) and the applicable Ground Water Protection/Monitoring Standards of rule 1200-1-7-.04(7) will be met; and

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

(iv) An itemized estimate in current dollars of the cost based on hiring a third party to perform the closure and post-closure care activities.

(v) A description of the planned uses of the property during the post-closure care period.

3. In the closure portion of his plan, the operator must address the closure of active portions and future active portions of the facility. In the post-closure care portion of his plan, the operator must address the post-closure care of closed portions, active portions, and future active portions of the facility. If a facility which was in operation on March 18, 1990 closes prior to the date the closure/post-closure care plan is to be submitted, the plan need address only the post-closure care of closed portions of the facility provided that the closure is in accordance with applicable rules.

(c) Amendment of Plan - The approved closure/post-closure care plan may be amended at any time during the active life of the facility or during the post-closure care period as set forth in this subparagraph.

1. The operator may request to amend the plan to alter the closure requirements, to alter the post-closure care requirements, or to extend or reduce the post-closure care period based on cause. The request must include evidence demonstrating to the satisfaction of the Commissioner that:

(i) The nature of the facility makes the closure or post-closure care requirement(s) unnecessary; or

(ii) The nature of the facility supports reduction of the post- closure care period; or

(iii) The requested extension in the post-closure care period or alteration of closure or post-closure care requirements is necessary to prevent threats to human health and the environment.

2. Such plan amendments shall be processed as modifications to the permit. However, the Commissioner may decide to modify the plan if he deems it necessary to prevent threats to human health and the environment. He may extend or reduce the post-closure care period based on cause or alter the closure or post-closure care requirements based on cause. However, no such modifications shall be initiated until the operator has been notified of such proposed action and provided the opportunity to be heard on the matter.

3. The cost estimate of the approved closure/post closure care plan must be adjusted annually for inflation. Such inflation adjustment shall not be considered an amendment of the plan.

(3) Financial Assurance Requirements

(a) General Requirement - Operators of facilities must file and maintain financial assurance with the Commissioner as set forth in this paragraph. As used in this paragraph operator includes, but is not limited to, parent corporations and any other person who owns a controlling interest in a corporation.

(b) Amount of Financial Assurance Required

1. The amount of financial assurance required of the operator shall be established by the Commissioner based upon the estimated cost of operating the facility for a thirty (30) day period plus the estimated closure and post-closure care costs included in the approved closure/post-closure care plan established in paragraph (2) of this rule. This required amount may be adjusted as the plan is amended. The operator shall be notified of the required amount as set forth in subparagraph (c) of this paragraph. In no case, however, shall the amount of financial assurance be less than 1,000 dollars per acre, or fraction thereof, affected by the facility operation.

For facilities being developed or to be developed according to a phased development plan, the Commissioner may establish the amount of financial assurance required on a parcel-by-parcel basis.

2. The operator may appeal the Commissioner's decision in part 1 of this subparagraph as set forth in Section 68-211-113 of the act.

3. The operator must file with the Commissioner a financial assurance instrument chosen from subparagraph (d) of this paragraph in the amount determined by the Commissioner. The original of the instrument must be received and approved by the Commissioner prior to construction/operation of the solid waste management facility.

4. During the active life of the solid waste management facility, the operator must annually adjust the closure/post-closure cost estimate and the financial assurance instrument for inflation by no later than the anniversary date of the establishment of the financial assurance instrument(s) used to comply with subparagraph (b) of this paragraph. For operators using the financial test or corporate guarantee, the closure/post-closure cost estimate and the financial assurance instrument must be adjusted for inflation by no later than 90 days after the close of the firm's fiscal year and concurrent with the submission of the updated financial information to the Division Director as specified in subparagraph (d)4(v) of this paragraph. The adjustment may be made by recalculating the maximum cost of closure/post-closure in current dollars, or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its Survey of Current Business. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

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

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

5. During the post-closure care period of the solid waste management facility, the cost estimate for post-closure care may be reduced annually by the estimated cost of post-closure work performed the previous year according to the approved post-closure plan. The work must be performed to the satisfaction of the Division Director. The estimated remaining cost of post-closure care and the post-closure financial assurance instrument must be adjusted annually for inflation by no later than the anniversary date of the issuance of the instrument. The inflation adjustment may be made by recalculating the maximum cost of post-closure care for the remaining years in current dollars or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product or Gross Domestic Product published by the U.S. Department of Commerce in its Survey of Current Business. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

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

(ii) Subsequent annual inflation adjustments to post-closure care cost estimates and financial assurance instruments are made by multiplying the estimated remaining cost of post-closure by the latest inflation factor.

(c) Filing of Financial Assurance

1. Permits - After his final decision to issue a permit for a facility, the Commissioner will notify the operator in writing of the amount of financial assurance required (as established per subparagraph (b) of this paragraph). The operator must, before the permit can be effective, file with the Commissioner financial assurance meeting the requirements of this paragraph in at least that amount, except as provided in part 3 of this subparagraph. The Commissioner will evaluate the financial assurance filed for compliance with the requirements of this paragraph and notify the operator of his findings in writing within 30 days of the filing date.

2. Facilities Permitted Before March 18, 1990.

(i) In his notice to the operator initially approving the closure/post-closure care plan, the Commissioner will specify the amount of financial assurance required (as established per subparagraph (b) of this paragraph). The operator must, within 60 days of receipt of that notice, file with the Commissioner financial assurance meeting the requirements of this paragraph in at least that amount, except as provided in part 3 of this subparagraph.

(ii) After his final decision to issue a modified permit incorporating amendments to the closure/post-closure care plan, the Commissioner will notify the operator in writing of any changes in the amount of financial assurance required (as established per subparagraph (b) of this paragraph). The operator must, within 60 days of receipt of that notice, file with the Commissioner any required additional financial assurance, subject to the provisions of part 3 of this subparagraph. Such additional financial assurance filed must also meet the requirements of this paragraph.

3. Partial Filing

(i) For facilities which are in operation and being developed according to a phased development plan, the operator may initially file financial assurance covering only closure and post-closure care of the parcel currently in operation and post-closure care of closed parcels. For facilities which are not yet in operation and are to be developed according to a phased development plan, the operator may initially file financial assurance covering only closure and post-closure care of the initial parcel to be operated.

(ii) For facilities being developed according to a phased development plan whose operators initially filed only partial financial assurance as provided in subpart (i) of this part, the operator must, at least 30 days prior to beginning operation of a parcel not covered by financial assurance on file with the Commissioner, file the required financial assurance for that parcel with the Commissioner.

(d) Mechanisms of Financial Assurance - Following are acceptable financial assurance mechanisms:

1. Surety Bond - An operator may satisfy the requirements of subparagraph (c) of this paragraph by obtaining and filing a surety bond which conforms to the requirements of this part.

(i) The surety company issuing the bond must be licensed to do business as a surety in Tennessee and must be among those listed as acceptable by the Commissioner.

(ii) The wording of the surety bond must be identical to the wording specified in part (l)1 of this paragraph.

(iii) Under the terms of the bond, the surety will become liable on the bond obligation when the operator fails to perform as guaranteed by the bond. Following a determination by the Commissioner that the operator has failed to so perform, under the terms of the bond the surety will perform final closure and post-closure care as guaranteed by the bond or will forfeit the amount of the penal sum, as provided in subparagraph (j) of this paragraph.

(iv) The penal sum of the bond must be in an amount at least equal to the amount of financial assurance required per subparagraph (b) of this paragraph.

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

(vi) The surety will not be liable for deficiencies in the performance of operation or closure and post-closure care by the operator after the Commissioner releases the operator from the financial assurance requirements as provided in subparagraph (i) of this paragraph.

2. Personal Bond Supported by Securities - An operator may satisfy the requirements of subparagraphs (c) of this paragraph by filing his personal performance guarantee accompanied by collateral in the form of securities. He must guarantee to properly operate and perform final closure/post-closure in accordance with the closure/post-closure care plan, other requirements of the permit, the cct and the rules whenever required to do so. The securities supporting this guarantee must be fully registered as to principal and to also identify that person filing such collateral. These securities must have a current market value at least equal to the amount of financial assurance required per subparagraph (b) of this paragraph, and must be included among the following types:

   (i) Negotiable certificates of deposit assigned irrevocably to the state.

      (I) Such certificates of deposit must be automatically renewable and must be assigned to the state in writing and recorded as such in the records of the financial institution issuing such certificate.

      (II) Such certificates of deposit must also include a statement signed by an officer of the issuing financial institution which waives all rights of lien which the institution has or might have against the certificate.

   (ii) Negotiable U.S. Treasury securities assigned irrevocably to the state.

   (iii) Negotiable general obligation municipal or corporate bonds which have at least an "A" rating by Moody's and/or Standard and Poor's rating services and which are assigned irrevocably to the state.

3. Personal Bond Supported by Cash - An operator may satisfy the requirements of subparagraph (c) of this paragraph by filing his personal performance guarantee accompanied by cash in an amount at least equal to the amount of financial assurance required per subparagraph (b) of this paragraph. He must guarantee to perform final closure/post-closure in accordance with the closure/post-closure care plan, other requirements of the permit, the act and the rules whenever required to do so.

4. Financial Test and Corporate Guarantee for Closure and/or Post-closure - An owner or operator may satisfy the requirements of subparagraph (c) of this paragraph by demonstrating that he passes a financial test as specified in this part. The same document (with appropriate wording modifications) may be used by a company, with prior approval by the Commissioner to demonstrate financial assurance for a solid waste unit and a hazardous waste unit, both of which are owned/operated by the company.

   (i) To pass this test the owner or operator must meet the criteria of either item (I) or item (II) of this subpart.

      (I) The owner or operator must have:

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

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

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

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

(II) The owner or operator must have:

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

II. Tangible net worth at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates; and

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

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

(ii) The phrase "current closure and post-closure cost estimates" as used in this part refers to the cost estimates required to be shown in the letter from the owner's or operator's chief financial officer worded as required at subparagraph (I) of this paragraph.

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

(I) A letter signed by the owner's or operator's chief financial officer and worded as required in subparagraph (I) of this paragraph; and

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

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

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

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

(iv) An owner or operator of a new facility must submit the items specified in subparts (i), (ii), and (iii) of this part to the Commissioner.

(v) After the initial submission of items specified in subparts (i), (ii), and (iii) of this part, the owner or operator must send updated information to the Commissioner within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in subpart (iv) of this part.

(vi) If the owner or operator no longer meets the requirements of subpart (i), (ii), and (iii) of this part, he must sent notice to the Commissioner of intent to establish alternate financial assurance as specified in the subparagraph. The notice must be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements. The owner or operator must provide the alternate financial assurance within 120 days after the end of such fiscal year.

(vii) The Commissioner may, based on a reasonable belief that the owner or operator may no longer meet the requirements of this part, require reports of financial condition at any time from the owner or operator in addition to those specified in subpart (i) of this part. If the Commissioner finds, on the basis of such reports or other information, that the owner or operator no longer meets these requirements, the owner or operator must provide alternate financial assurance as specified in this subparagraph within 30 days after notification of such a finding.

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

(ix) The owner or operator is no longer required to submit the items specified in subparts (i), (ii), and (iii) of this part, when:

(I) An owner or operator substitutes alternate financial assurance; or

(II) The Commissioner releases the owner or operator from the requirements of this part.

(x) An owner or operator may meet the requirements of this part by obtaining a written guarantee. The guarantor must be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a "substantial business relationship" with the owner or operator. The guarantor must meet the requirements for the owner or operators in subparts (i), (ii), and (iii) of this part and must comply with the terms of the

guarantee. The wording of the guarantee must be identical to the working specified in subparagraph (l) of this paragraph. The certified copy of the guarantee must accompany the items sent to the Commissioner. One of these items must be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, the letter must describe the value received in consideration of the guarantee. If the guarantor is a firm with a "substantial business relationship" with the owner or operator, this letter must describe this "substantial business relationship" and the value received in consideration of the guarantee. The terms of the guarantee must provide that:

(I) If the owner or operator fails to perform final closure and/or post-closure of a facility covered by the corporate guarantee in accordance with the closure/post-closure plan and other permit requirements whenever required to do so, the guarantor will do so or establish a trust fund worded as required in subparagraph(l) of this paragraph in the name of the owner or operator.

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

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

5. Municipality or County Contract of Obligation - A municipality or county may execute a contract of obligation with the Commissioner. Such contract of obligation shall be a binding agreement on the municipality or county, allowing the Commissioner to collect the required amount from any funds being disbursed or to be disbursed from the State to the municipality or county. The contract shall be filed with the State Commissioner of Environment and Conservation and with the State Commissioner of Finance and Administration.

6. Closure/post-closure trust fund - An owner or operator may satisfy the requirements of subparagraph (c) of this paragraph by establishing a closure and/or post-closure trust fund which conforms to the requirements of this part and filing an originally signed duplicate of the trust agreement. The trustee must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

(i) The wording of the trust agreement must be worded as required at subparagraph (l) of this paragraph and the trust agreement must be accompanied by a formal certification of acknowledgment worded as required at subparagraph (l) of this paragraph. Schedule A of the trust agreement must be updated within 60 days after a change in the amount of

the current closure and/or post-closure cost estimate covered by the agreement as specified in subparagraph (c)2(ii) of this paragraph.

(ii) Payments into the trust fund must be made annually by the owner or operator over the term of the initial permit or over the remaining operating life of the facility as estimated in the closure plan, whichever period is shorter; this period is hereafter referred to as the "pay-in-period." The payments into the closure and/or post-closure trust fund must be made as follows:

(I) For a new facility, the first payment must be made before the initial operation is begun. A receipt from the trustee for this payment must be filed by the owner or operator before the operation begins. The first payment must be at least equal to the current closure cost estimate, divided by the number of years in the pay-in-period. Subsequent payments must be made no later than 30 days after each anniversary date of the first payment. The amount of each subsequent payment must be determined by this formula:

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

In this formula, CE is the current closure and/or post-closure cost estimate; CV is the current value of the trust fund; Y is the number of years remaining in the pay-in period.

(II) The owner or operator may accelerate payments into the trust fund or he may deposit the full amount of the current closure and/or post-closure cost estimate at the time the fund is established. However, he must maintain the value of the fund at no less than the value that the fund would have if annual payments were made as specified in item (I) of this subpart.

(III) If the owner or operator establishes a closure and/or post-closure trust fund after having used on or more alternate mechanisms specified in this subparagraph, his first payment must be in at least the amount that the fund would contain if the trust fund were established initially and annual payments made according to specifications of this part.

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

(iv) If the value of the trust fund is greater that the total amount of the current closure and/or post-closure cost estimate, the owner or operator may submit a written request for release of the amount in excess of the current cost estimate.

(v) If an owner or operator substitutes other financial assurance as specified in this subparagraph for all or part of the trust fund, he may submit a written request for release of the amount in excess of the current cost estimate covered by the trust fund.

(vi) Within 60 days after receiving a request from the owner or operator for release of funds as specified in subparts (iv) and (v) of this part, the Commissioner will instruct the trustee to release to the owner or operator such funds as the Commissioner specifies in writing.

(vii) After beginning partial or final closure of a facility, an owner or operator may request reimbursements for partial or final closure expenditures by submitting itemized bills to the Commissioner. The owner or operator may request reimbursements for partial closure only if sufficient funds are remaining in the trust fund to cover the maximum cost of closing the facility over its remaining operating life. Within 60 days after receiving bills for partial or final closure activities, the Commissioner will instruct the trustee to make reimbursements in those amounts as the Commissioner specifies in writing, if the Commissioner determines that the partial or final closure expenditures are in accordance with the approved closure plan, or otherwise justified. If the Commissioner has reason to believe that the maximum cost of closure over the remaining life of the facility will be significantly greater than the value of the trust fund, he may withhold reimbursements of such amounts as he deems prudent until he determines, that the owner or operator is no longer required to maintain financial assurance for the final closure of the facility. If the Commissioner does not instruct the trustee to make such reimbursements, he will provide the owner of operator with a detailed written statement of reasons.

(viii) Within 60 days after receiving bills for post-closure activities, the Commissioner will instruct the trustee to make reimbursements in those amounts as the Commissioner specifies in writing, if the Commissioner determines that the post-closure expenditures are in accordance with the approved closure plan, or otherwise justified. If the Commissioner has reason to believe that the maximum cost of post-closure over the remaining life of the facility will be significantly greater than the value of the trust fund, he may withhold reimbursements of such amounts as he deems prudent until he determines, that the owner or operator is no longer required to maintain financial assurance for post-closure of the facility. If the Commissioner does not instruct the trustee to make such reimbursements, he will provide the owner or operator with a detailed written statement of reason.

(ix) The Commissioner will agree to termination of the trust when:

(I) An owner or operator substitutes alternate financial assurance as specified in this subparagraph.

(II) The Commissioner releases the owner or operator from the requirements of this paragraph.

7. Closure and/or post-closure letter of credit. An owner or operator may satisfy the requirements of subparagraph (c) of this paragraph by obtaining and filing an irrevocable standby letter of credit which conforms to the requirements of this

part. The issuing institution must be an entity which has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a Federal or State agency.

(i) The wording of the letter of credit must be worded according to the wording provided by the Department through subparagraph (l) of this paragraph.

(ii) The letter of credit must be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution, and date, and providing the following information: the permit identification Number, name, and address of the facility, and the amount of funds assured for closure and/or post-closure of the facility by the letter of credit.

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

(iv) The letter of credit must be issued in an amount at least equal to the current closure and/or post-closure cost estimate, except as provided in subparagraph (e) of this paragraph.

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

(vi) Following a final administrative determination that the owner or operator has failed to perform final closure and/or post-closure activities in accordance with the closure and/or post-closure plan and other permit requirements when required to do so, the Commissioner may draw on the letter of credit.

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

this part and obtain written approval of such assurance from the Commissioner.

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

(I) An owner or operator substitutes alternate financial assurance as specified in this subparagraph; or

(II) The Commissioner releases the owner or operator from the requirements of this paragraph.

8. Closure and/or post-closure insurance. An owner or operator may satisfy the requirements of subparagraph (c) of this paragraph by obtaining insurance which conforms to the requirements of this part and filing a certificate of such insurance. At a minimum, the insurer must be licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer in the State of Tennessee and have an A. M. Best rating of at least A or A- or have special approval from the Commissioner.

(i) The wording of the certificate of insurance must be worded as required at subparagraph (I) of this paragraph. The wording of the policy itself is subject to the review and approval of the Commissioner prior to acceptance as a financial assurance mechanism.

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

(iii) The insurance policy must guarantee that funds will be available to close the facility whenever final closure occurs and to provide post-closure care requirements. The policy must also guarantee that during the period of final closure and post-closure, the insurer will be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the Commissioner, to such party or parties as the Commissioner specifies.

(iv) After beginning partial or final closure and during post-closure, an owner or operator may request reimbursements for closure expenditures by submitting itemized bills to the Commissioner. The owner or operator may request reimbursement for partial closure only if the remaining value of the policy is sufficient to cover the maximum cost of closing the facility over its remaining operating life and to cover the cost of post-closure care requirements. Within 60 days after receiving bills for closure activities, the Commissioner will instruct the insurer to make reimbursements in such amounts as the Commissioner specifies in writing, if the Commissioner determines that the partial or final closure expenditures are in accordance with the approved closure and/or post-closure plan or otherwise justified. If the Commissioner has reason to believe that the maximum cost of closure over the remaining life of the facility and the cost of post-closure will be significantly greater than the face amount of the policy, he may withhold reimbursements of such amounts as he deems prudent until he determines

that the owner or operator is no longer required to maintain financial assurance for final closure and/or post-closure care of the facility. If the Commissioner does not instruct the insurer to make such reimbursements, he will provide the owner or operator with a detailed written statement of reasons.

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

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

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

(I) The Commissioner deems the facility abandoned; or

(II) The permit is terminated or revoked or a new permit is denied; or

(III) Closure is ordered by the Commissioner or a U.S. District court of competent jurisdiction; or

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

(V) The premium due is paid.

(viii) Whenever the current closure and/or post-closure cost estimate increases to an amount greater than the face amount of the policy, the owner or operator, within 60 days after the increase, must either cause the face amount to be increased to an amount at least equal to the current closure and/or post-closure cost estimate and submit evidence of such increase to the Commissioner, or obtain other financial assurance as specified in this subparagraph to cover the increase. Whenever the current closure and/or post-closure cost estimate decreases, the face amount may be reduced to

the amount of the current cost estimate following written approval by the Commissioner.

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

(I) An owner or operator substitutes alternate financial assurance as specified in this subparagraph.

(II) The Commissioner releases the owner or operator from the requirements of this paragraph.

9. Other financial Assurance Mechanisms - An operator may satisfy the requirements of subparagraph (c) by use of financial assurance instruments other than those specified in parts 1-8 if such mechanisms are as authorized by and in accordance with criteria required by 40 CFR 258.74 (Solid Waste Disposal Facility Criteria Final Rules, October 9, 1991, Allowable Mechanism(s) and a variance is applied for and granted in accordance with procedure specified in Rule 1200-1-7-.01(5).

(e) Use of Multiple Financial Mechanisms - In meeting the requirements of subparagraph (c) of this paragraph, an operator may utilize more than one financial assurance mechanism per facility.

(f) Use of a Financial Mechanism for Multiple Facilities - An operator may use a financial assurance mechanism allowed in subparagraph (d) of this paragraph to meet the requirements of subparagraph (c) of this paragraph for more than one facility he operates in Tennessee. If so, the mechanism submitted to the Commissioner must include a list showing, for each facility, the permit number, name, address, and amount of funds for closure and post-closure care assured by the mechanism. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism had been filed and maintained for each facility. In a financial assurance forfeiture action taken under subparagraph (j) of this paragraph for closure and post-closure care of any of the facilities covered by the mechanism, the Commissioner may order forfeiture of only the amount of funds designated for that facility, unless the operator agrees to the use of additional funds available under the mechanism.

(g) Substituting Alternate Financial Assurance - In meeting the requirements of subparagraph (c) of this paragraph, an operator may substitute alternate financial assurance meeting the requirements of this paragraph for the financial assurance already filed with the Commissioner for the facility. However, the existing financial assurance shall not be released by the Commissioner until the substitute financial assurance has been received and approved by him.

(h) Incapacity of Operator or Financial Institutions

1. An operator must notify the Commissioner by certified mail of the commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming the operator as debtor, within 10 days after commencement of the proceeding.

2. In the event of the bankruptcy of the institution issuing a financial assurance instrument, or a suspension or revocation of the authority of the institution to

issue such instruments, the operator must establish other financial assurance within 60 days after such an event.

(i) Maintenance/Release of Financial Assurance - The financial assurance must be maintained until the Commissioner releases it as specified in this subparagraph, or until the Commissioner orders forfeiture of the financial assurance as provided in subparagraph (j) of this paragraph.

1. If the closure/post-closure care plan is amended and the amendments result in a reduction in the amount of financial assurance required under that currently filed with the Commissioner, the Commissioner shall, upon the operator's request, cause to be released to the operator (or issuing institution, if appropriate) the excess financial assurance.

2. In his notice to the operator that closure of the facility or facility parcel is approved (refer to rule 1200-1-7-.04(8)(c)9), the Commissioner will also notify the operator that he is no longer required by this paragraph to maintain financial assurance for such closure. At such time the Commissioner shall cause to be released to the operator (or issuing institution, if appropriate) the financial assurance filed to provide for such closure.

3. During the period of post-closure care, the Commissioner may reduce the amount of financial assurance required for the facility if the operator demonstrates to the Commissioner that the amount currently filed exceeds the remaining cost of post-closure care. Upon such occurrence, the Commissioner shall cause to be released to the operator the excess financial assurance on file.

4. When an operator has completed, to the satisfaction of the Commissioner, all post-closure care requirements in accordance with the approved closure/post-closure care plan the Commissioner will, at the request of the operator, notify him in writing that he is no longer required by this paragraph to maintain financial assurance for such post-closure care. At such time the Commissioner shall also cause to be released to the operator (or issuing institution, if appropriate) the financial assurance filed to provide for such post-closure care.

5. Financial assurance will normally be released in the form(s) it was submitted. However, where such release involves an amount equal to only a portion of the funds assured by a financial assurance mechanism (see subparagraphs (e) and (f) of this paragraph), the Commissioner shall, as appropriate considering the type of mechanism involved, either cause to be released to the operator cash or collateral equal to that amount or allow the owner or operator to substitute for the mechanism(s) on file a new mechanism(s) reduced by that amount.

(j) Forfeiture of Financial Assurance - The Commissioner may order that any financial assurance filed by an operator pursuant to this paragraph be forfeited if the Commissioner determines that the operator has failed to comply with the act, rules and regulations adopted pursuant thereto, or orders of the Commissioner, or to perform closure and/or post-closure care when required to do so, or to perform closure and/or post-closure care in accordance with the closure/post-closure care plan and other permit requirements. Any such forfeiture action shall follow the procedures provided in this subparagraph.

1. Upon his determination that the operator has failed to comply with the act, rules and regulations adopted pursuant thereto, or orders of the Commissioner, or to perform closure and/or post-closure care when required to do so, or to perform

closure and/or post-closure care in accordance with the closure/post-closure care plan and/or other permit requirements, the Commissioner shall cause a notice of non compliance to be served upon the operator. Such notice shall be hand delivered or served by certified mail. The notice of non compliance shall specify in what respects the operator has failed to perform as required, and shall establish a schedule of compliance.

2. If the Commissioner determines that the operator has failed to perform as specified in the notice of non compliance, or as specified in any subsequent compliance agreement which may have been reached by the operator and the Commissioner, the Commissioner may order forfeiture of the financial assurance filed to guarantee such performance and may revoke the facility's permits.

3. Upon issuance, a copy of the order shall be hand delivered or forwarded by certified mail to the operator. Any such order issued by the Commissioner shall become final 30 days after receipt by the operator unless it is appealed to the Board as provided in section 68-211-113 of the act.

4. If necessary, upon the effective date of the order of forfeiture, the Commissioner shall give notice to the State Attorney General who shall collect the forfeiture.

5. All forfeited funds shall be deposited in a special departmental account known as the "solid waste disposal site restoration fund" for use by the Commissioner as set forth in T.C.A. § 68-211-116.

(k) Effect on Transfer of Permits - No permit may be transferred until the proposed new operator has filed, in accordance with the requirements of this paragraph, the required financial assurance. When such is done, the Commissioner shall cause to be released to the former operator (or the issuing institution, if appropriate) the financial assurance that operator had filed.

(l) Wording of the Instruments

1. The financial mechanisms and supporting documents guaranteeing proper operation and performance of closure and/or post closure care, as specified in subparagraph (d) of this paragraph, must utilize the wording required by the Department.

2. Copies of approved financial mechanisms and supporting documents may be obtained by contacting the financial assurance office of the Division of Solid Waste Management. Approved financial mechanisms include at least the following:

(i) Surety Bond

(ii) Personal Bond Supported By Securities

(iii) Personal Bond Supported By Cash

(iv) Financial Test and Corporate Guarantee

(v) Municipality and/or County Contract of Obligation

(vi) Closure/Post-Closure Trust Fund

(vii) Closure/Post-Closures Letter of Credit

(viii) Closure/Post-Closure Insurance

(ix) Combined Hazardous and Solid Waste Financial Test

(I) Letter From Chief Financial Officer (Closure and/or Post-Closure)

(II) Letter From Chief Financial Officer (Liability Coverage or Liability Coverage and Closure/Post-Closure)

(III) Corporate Guarantee for Closure or Post-Closure Care

Authority: *T.C.A. §§4-5-201, et seq., 68-203-103(b)(3), 68-211-102(a), 68-211-105(b), 68-211-105(c), 68-211-106(a)(1), 68-211-107(a), 68-211-111(d)(1), 68-211-111(d)(2), 68-211-116, 68-211-851(a), 68-211-852, 68-211-853, and 68-211-861.* ***Administrative History:*** *Original rule certified June 7, 1974. Amendment filed February 1, 1990; effective March 18, 1990. Amendment filed May 26, 1993; effective July 10, 1993. Amendment filed April 22, 1997; effective July 6, 1997. Amendment filed April 17, 2000; effective July 1, 2000. Amendment filed July 27, 2001; effective October 10, 2001. Amendment filed September 29, 2003; effective December 13, 2003. Amendment filed May 23, 2006; effective August 6, 2006.*

1200-1-7-.04 SPECIFIC REQUIREMENTS FOR CLASS I, II, III, AND IV DISPOSAL FACILITIES.

(1) General

(a) Purpose and Scope- The purpose of this rule is to establish:

1. The standards which Class I, II, III, and IV facilities must meet in order to obtain a permit under the act for such activity; and

2. The specific information required in Part II of the permit application for such facilities in order to demonstrate compliance with the appropriate standards and to provide other necessary information.

(b) Applicability - Except as otherwise specified in rule 1200-1-7-.02(1)(b) and (c), and unless a waiver(s) is obtained pursuant to rule 1200-1-7.01(5), the requirements of this rule apply as follows to Class I, II, III, and IV disposal facilities in Tennessee:

1. Class I facilities shall be subject to all applicable requirements;

2. Class I facilities permitted prior to March 18, 1990 shall not be subject to paragraph (3) Buffer Zone Standards.;

3. Class II, III and IV facilities permitted prior to March 18, 1990 shall not be subject to the requirements of subparagraphs (n), (p), (q), (r), (u), (v), and (w) of paragraph (2) General Facility Standards, and paragraph (3) Buffer Zone Standards.

4. All facilities shall be subject to applicable requirements of paragraph (9) when applying for a permit or permit modification as specified in rule 1200-1-7-.02.

5. No Class IV facility permits will be issued after July 1, 2008.

(c) Project Supervision - A registered engineer must plan, design, and inspect the construction of any Class I, II, III, or IV disposal facility; also, a registered engineer must assist in the start-up of and outline correct operating procedures for any new or altered facility. Any registered engineer herein required shall be governed by the terms of T.C.A. §62-2.

(2) General Facility Standards - Unless specifically noted otherwise, the standards of this paragraph apply to Class I, Class II, Class III, and Class IV disposal facilities.

(a) Overall Performance Standard - The facility must be located, designed, constructed, operated, maintained, closed, and cared for after closure in such a manner as to minimize to the extent practicable:

1. The propagation, harborage, or attraction of birds and flies, rodents, or other disease vectors;

2. The potential for explosions or uncontrolled fires;

3. The potential for releases of solid wastes, solid waste constituents, or other potentially harmful materials to the environment except in a manner authorized by state and local air pollution control, water pollution control, and/or waste management control agencies; and

4. The exposure of the public to potential health and safety hazards through uncontrolled or unauthorized public access.

(b) Control of Access and Use

1. The facility must have an artificial or natural barrier which completely surrounds the active portion of the facility and must have a means to control entry, at all times, through the gate or other entrances to the active portion of the facility.

2. If open to the public, the facility must have clearly visible and legible signs at the points of public access which indicate the hours of operation, the types of waste materials that either will or will not be accepted, emergency telephone numbers, schedule of charges (if applicable), and any other necessary information.

3. If the facility is open to the public, or if it is otherwise necessary for proper operation, roads within the facility, easements, and parking areas shall be designed, constructed, and maintained so as to be accessible in all weather conditions. Traffic control signs shall be provided as necessary to promote an orderly traffic pattern to and from the solid waste discharge area to maintain efficient operating conditions.

4. The facility must have trained personnel present and on duty at all times it is in operation to assure compliance with operational requirements and to prevent entry of unauthorized wastes.

5. Class I landfill facilities shall have a certified operator or attendant on site during the hours of operation who is trained and certified as provided at Rule 1200-1-7-.12.

6. There must be no scavenging at the facility. Any salvaging or recycling operations must be conducted at safe, designated areas (not the working face) and times, and in a sanitary manner.

(c) Fire Safety

1. Except as may be specifically authorized by the Department:

(i) The operator must not permit or engage in open burning of solid wastes at the facility. Any open burning that does occur must be immediately extinguished.

(ii) The operator must not allow solid wastes which are burning or smoldering to be deposited into the active portion of the facility. Any such wastes that are received must be deposited at a location safely removed from the active portion and extinguished before being deposited into the active portion.

2. The facility must have, on-site and continuously available, properly maintained fire suppression equipment in sufficient quantities to control accidental surface fires that may occur, or arrangements must be made with the local fire protection agency to provide immediate fire fighting services when needed. Additional earth moving equipment shall be brought to the facility as necessary to help suppress an underground fire.

(d) Litter Control - A facility must be operated and maintained in a manner to minimize litter. Fencing, diking and/or other practices shall be provided as necessary to confine solid wastes subject to dispersal. All litter must be collected for disposal in a timely manner.

(e) Personnel Services - At Class I disposal facilities, and at Class II, Class III and Class IV disposal facilities as may be specified in the permits, there must be provided:

1. A building or other shelter which is accessible to facility personnel and which has adequate screening, heating facilities, and lighting;

2. Safe drinking water; and

3. Sanitary hand-washing and toilet facilities.

(f) Communications - The facility must have operating and effective communications devices (e.g., telephone, 2-way radio) capable of summoning emergency assistance on-site and available to facility personnel at all times the facility is in operation.

(g) Operating Equipment - At Class I disposal facilities, and at Class II, Class III and Class IV disposal facilities unless the Commissioner deems some other arrangement as adequate for proper facility operation, there must be maintained on-site operating equipment capable of spreading and properly compacting the volume of solid wastes received, and capable of handling the earthwork required. Back-up equipment must be available within 24 hours of primary equipment breakdown.

(h) Availability of Cover Material - Cover material sufficient to meet the initial and intermediate cover requirements of this rule must be available at the facility. If such material must be hauled in from off-site, at least a 30-day supply shall be maintained on-site at all times.

(i) Run-on, Run-off, and Erosion Control

1. The operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the facility for all flow up to and including peak discharge from a 24-hour, 25-year storm.

2. The operator must design, construct, operate, and maintain a run-off management system to collect and control at least the peak flow volume resulting from a 24-hour, 25-year storm.

3. Holding facilities (e.g., sediment basins) associated with run-on and run-off control systems must be designed to detain at least the water volume resulting from a 24 hour, 25 year storm and to divert through emergency spillways at least the peak flow resulting from a 24-hour, 100-year storm.

4. Collection and holding facilities associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

5. Run-on and run-off must be managed separately from leachate unless otherwise approved by the Commissioner.

6. The operator must take other erosion control measures (e.g., temporary mulching or seeding, silt barriers) as necessary to control erosion of the site.

(j) Dust Control - The operator must take dust control measures as necessary to prevent dust from creating a nuisance or safety hazard to adjacent landowners or to persons engaged in supervising, operating, and using the site. The use of any dust suppressants (other than water) must be approved in writing beforehand by the Department.

(k) Waste Restrictions

1. A facility may receive for disposal only those solid wastes it is allowed to manage under the terms of its permit.

2. Liquid wastes.

(i) Bulk or non-containerized liquid waste may not be placed in disposal facilities/units unless:

(I) The waste is domestic waste; or

(II) The waste is leachate or gas condensate derived from the disposal facilities/units which are designed with a liner and leachate collection system.

(ii) Containers holding liquid waste may not be placed in disposal facilities/units unless:

(I) The container is a small container similar in size to that normally found in domestic waste;

(II) The container is designed to hold liquids for use other than storage; or

(III) The waste is domestic waste.

3. Discarded Tires

(i) No landfill shall accept for disposal any whole tires. Tires received at class I, class II, class III and class IV disposal facilities shall be managed as follows:

(I) Tires may be disposed of in the same manner as other waste after they have been shredded, chipped, chopped, sliced, or have been otherwise processed and are rendered not whole to effectively prevent floating.

(II) Whole tires or shredded, chipped, chopped or circumferentially sliced tires may be stored on site provided that the tire storage areas conform with the following standards:

I. The storage area shall be surrounded by an 18 inch high earthen berm to manage run-on and run-off and be sufficient to contain water in the event of a fire, and to provide that:

A. All surface run-off is directed around the site;

B. All rain water collected within the berm must be directed to an appropriate release point; and

C. All fire control water can be contained until release is approved.

II. Tire piles shall be restricted to the following dimensions - 200 feet long, 50 feet wide, and 15 feet high. Whole tires shall be covered by a material sufficient to shield the tires from precipitation or an effective insect vector and rodent control program shall be established.

III. A buffer zone of at least 50 feet wide shall separate tire piles from each other and from active disposal areas.

IV. In order to reduce the risk of fires;

A. The storage areas and the buffer zone shall be kept free of brush and high grass;

B. No flammable liquids may be stored nor may equipment with an open flame be utilized in or within 50 feet of the storage area;

C. Communication equipment, capable of immediately notifying the responding fire department, shall be maintained; and

D. A letter assuring response from the responding fire district must be filed with the Division and the telephone number of the responding fire district must be posted at the facility. If service is not available specific fire control measures must be specified by letter to the Division.

V. The storage area may not be located:

A. On an active disposal area;

B. On a closed disposal area, unless no remaining area is available and remedial closure is specified in writing to the Division;

C. On an area to be utilized for disposal within one year;

D. In the 100 year floodplain, unless the demonstration is made to the Commissioner as required at Rule 1200-1-7-.04(2)(n); and

E. In wetlands, unless the demonstration is made to the Commissioner as required at Rule 1200-1-7-.04(2)(p).

VI. Tires or shredded tires may not be stored for more than one (1) year without the written approval of the Division. The operator shall maintain records sufficient to establish the date each tire pile within a storage area was begun.

4. Medical waste.

(i) Sharps must be securely packaged in puncture-proof containers prior to landfilling.

(ii) Cultures and stocks of infectious agents and associated biologicals must not be landfilled unless and until they have been treated (e.g., autoclaved, incinerated) to render them non-infectious.

(iii) Human blood and blood products and other body fluids may not be landfilled. This restriction applies to bulk liquids or wastes containing substantive amounts of free liquids, but does not apply to simply blood-contaminated materials such as emptied blood bags, bandages, or "dirty" linens.

(iv) Recognizable human organs and body parts may not be landfilled.

5. Dead animals may:

(i) Not be disposed of in a Class II, Class III or Class IV disposal facility except as may be specifically approved in writing by the Commissioner.

(ii) Be disposed of in Class I disposal facilities only if managed as follows:

(I) Dead animals must be covered upon receipt with a minimum of two feet of cover and placed in an area which will receive additional waste and cover within 48 hours; or covered with three feet of compacted cover soil if placed in an area which will not receive additional waste and cover within 48 hours.

(II) Dead animals must not be disposed of in an area of a landfill which will not accommodate a minimum of five feet of depth from the

finished landfill surface elevation when final cover has been put in place.

(III) Dead animals must be distributed for disposal over the landfill area in such a manner as to minimize the occurrences of future sinks and depressions in the final landfill cover caused by carcass decay.

6. Ash generated from municipal solid waste combustion (MSWC), may only be disposed of in a unit meeting all applicable standards for a Class II disposal facility, including a liner system and a leachate collection system. Such a unit may be located at a Class I facility.

(l) Sealing of Bore Holes - Prior to excavation, all bore holes drilled or dug during subsurface investigation of the site, piezometers, and abandoned wells which are either in or within 100 feet of the areas to be filled must be backfilled with a bentonite slurry or other sealant approved by the Commissioner to an elevation at least ten feet greater than the elevation of the lowest point of the landfill base (including any liner), or to the ground surface if the site will be excavated less than ten feet below grade.

(m) Endangered Species - Facilities shall be located, designed, constructed, operated, maintained, closed, and cared for during the post-closure care period in a manner that does not:

1. Cause or contribute to the taking of any endangered or threatened species of plants, fish, or wildlife; or

2. Result in the destruction or adverse modification of the critical habitat of endangered or threatened species.

(n) Location In Floodplains - Facilities must not be located in a 100-year flood-plain unless it is demonstrated to the satisfaction of the Commissioner that:

1. Location in the floodplain will not restrict the flow of the 100-year flood nor reduce the temporary water storage capacity of the floodplain.

2. The facility is designed, constructed, operated, and maintained to prevent washout of any solid waste.

(o) Permanent Benchmark - There must be installed on-site a permanent benchmark (e.g., a concrete marker) of known elevation.

(p) Wetlands - Disposal facilities shall not be located in wetlands, unless the owner or operator can make the following demonstrations to the Commissioner:

1. Where applicable under section 404 of the Clean Water Act or Tennessee Water Pollution Control Act, the presumption that practicable alternative to the proposed landfill is available which does not involve wetlands is clearly rebutted;

2. The construction and operation of the landfill will not:

(i) Cause or contribute to violations of any applicable State water quality standard;

(ii) Violate any applicable toxic effluent standard or prohibition under Section 307 of the Clean Water Act; and

(iii) Violate subparagraph (m) of this paragraph regarding the protection of endangered species;

3. The landfill will not cause or contribute to significant degradation of wetlands. The owner or operator must demonstrate the integrity of the landfill unit and its ability to protect ecological resources by addressing the following factors:

(i) Erosion, stability, and migration potential of native wetland soils, mud and deposits used to support the landfill;

(ii) Erosion, stability, and migration potential of dredged and fill materials used to support the landfill;

(iii) The volume and chemical nature of the waste managed in the landfill;

(iv) Impacts on fish, wildlife, and other aquatic resources and their habitat from release of the solid waste;

(v) The potential effects of catastrophic release of waste to the wetland and the resulting impacts on the environment; and

(vi) Any additional factors, as necessary, to demonstrate that ecological resources in the wetland are sufficiently protected.

4. To the extent required under Section 404 of the Clean Water Act or Tennessee Water Pollution Control Act, steps have been taken to attempt to achieve no net loss of wetlands (as defined by acreage and function) by first avoiding impacts to wetlands to the maximum extent practicable as required by paragraph (a)(1) of this section, then minimizing unavoidable impacts to the maximum extent practicable, and finally offsetting remaining unavoidable wetland impacts through all appropriate and practicable compensatory mitigation actions (e.g., restoration of existing degraded wetlands or creation of man-made wetlands); and

5. Sufficient information is available to make a reasonable determination with respect to these demonstrations.

(q) Karst Terrane - If a facility is proposed in an area of highly developed karst terrane (i.e., sink holes, caves, underground conduit flow drainage, and solutionally enlarged fractures) the applicant must demonstrate to the satisfaction of the Commissioner that relative to the proposed facility siting:

1. There is no significant potential for surface collapse;

2. The ground water flow system is not a conduit flow which would contribute significant potential for surface collapse or which would cause significant degradation to the ground water; and

3. Location in the karst terrane will not cause any significant degradation to the local ground water resources.

The above referenced demonstration may require the installation of piezometers, the developing of a potentiometric-surface map of ground water, conducting

geophysical surveys, dye tracing or other specific requirements deemed necessary by the Commissioner to evaluate the proposed site to his satisfaction.

(r) Airport Safety - The owners or operators of class I disposal facilities located within 10,000 feet (3,048 meters) of any airport runway end used by turbojet aircraft or within 5,000 feet (1,524 meters) of any airport runway end used only by piston-type aircraft must include in the Narrative Description of the Facility and Operations Manual a demonstration that the unit does not pose a bird hazard to aircraft. The owners or operators proposing new class I disposal facility within a five-mile radius of any airport runway end used by turbojet or piston-type aircraft must notify the affected airport and the appropriate Federal Aviation Administration (FAA) office.

(s) Random Inspection Program - The owner or operator of a permitted landfill must implement a program at the facility for detecting and preventing the disposal of regulated hazardous waste, unauthorized special waste, PCB's(>50 ppm), whole tires, lead-acid batteries, and liquid wastes. This program must include at a minimum:

1. Random inspection of five percent of the daily incoming loads.

2. Inspection of all suspicious loads.

3. Records of all inspections must be maintained in a bound notebook, and include the inspection date, vehicle identification, driver signature, identification of any unauthorized waste, disposition of any unauthorized waste, and facility inspector signature.

4. Training of facility personnel to recognize regulated hazardous waste.

5. Procedures for notifying the appropriate Division field office if an unauthorized waste is identified and left at the facility.

(t) Future Planning - All operators of Class I disposal facilities within the state of Tennessee shall file with the department, by May 1st of every year, an estimate of the remaining life of their site. This report shall include the original usable acreage of the site and the remaining unused portion at the time of the report. Where measuring facilities are available, an average monthly weight (or volume) estimate of the incoming waste shall be supplied. The department shall have final determination of the accuracy of the estimate. If the operator plans to operate a new landfill, a suitable site for the new facility shall be selected at least twelve months before the estimated date for expiration of the operating life of the existing facility, and as applicable, design and construction plans shall be submitted at least six months prior to the estimated date for expiration of the operating life of the existing facility to assure continued operation in an approved facility or site.

(u) Fault areas - Class I and II disposal facilities shall not be located within 200 feet (60 meters) of a fault that has had displacement in Holocene time unless the owner or operator demonstrates in the Narrative Description of the Facility and Operations Manual that an alternative setback distance of less than 200 feet (60 meters) will prevent damage to the structural integrity of the SWLF unit and will be protective of human health and the environment.

(v) Seismic Impact zones - Class I and II disposal facilities shall not be located in seismic impact zones, unless the owner or operator demonstrates that all containment structures, including liners, leachate collection systems, and surface water control systems, are designed to resist the maximum horizontal acceleration in lithified earth

material for the site. The owner or operator must place the demonstration in the Narrative Description of the Facility and Operations Manual.

(w) Unstable areas - Owners or operators of Class I and II disposal facilities located in an unstable area must demonstrate that engineering measures have been incorporated into the SWLF units design to ensure that the integrity of the structural components of the SWLF unit will not be disrupted. The owner or operator must place the demonstration in the Narrative Description of the Facility and Operations Manual operating record. The owner or operator must consider the following factors, at a minimum, when determining whether an area is unstable:

1. On-site or local soil conditions that may result in significant differential settling;

2. On-site or local geologic or geomorphologic features; and

3. On-site or local human-made features or events (both surface and subsurface).

(x) Holding and Processing Tanks- Holding and processing tanks for any liquids brought to a landfill facility for waste processing shall not be located within the waste management boundary of the landfill.

(3) Buffer Zone Standards for Siting Landfills

(a) Class I Disposal Facilities must be located, designed, constructed, operated, and maintained such that the fill areas are, at a minimum:

1. 100 feet from all property lines;

2. 500 feet from all residences, unless the owner of the residential property agrees in writing to a shorter distance;

3. 500 feet from all wells determined to be downgradient and used as a source of drinking water by humans or livestock; and

4. 200 feet from the normal boundaries of springs, streams, lakes, (except that this standard shall not apply to any wet weather conveyance nor to bodies of water constructed and designed to be a part of the facility);

5. A total site buffer with no constructed appurtenances within 50 feet of the property line.

(b) Class II Disposal Facilities must meet the same buffer zone standards for siting as Class I facilities (subparagraph (a) of this paragraph).

(c) Class III and Class IV Disposal Facilities must meet the same buffer zone standards for siting as Class I facilities (subparagraph (a) of this paragraph).

(4) Leachate Migration Control Standards

(a) Class I Disposal Facilities

1. Such facilities must have a liner designed to function for the estimated life of the site and the post-closure care period. It shall be designed, constructed, and installed to ensure that the concentration values listed in Appendix III of this rule

will not be exceeded in the uppermost aquifer at the relevant point of compliance. The liner must be:

(i) A composite liner consisting of two components; the upper component must consist of a minimum 30-mil flexible membrane liner (FML), and the lower component must consist of at least a two-foot layer of compacted soil with a hydraulic conductivity of no more than 1.0×10^{-7} cm/sec. FML components consisting of high density polyethylene (HDPE) shall be at least 60-mil thick. The FML component must be installed in direct and uniform contact with the compacted soil component;

(ii) Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients, physical contact with the waste or leachate to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation;

(iii) Placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression, or uplift;

(iv) Installed to cover all surrounding earth likely to be in contact with the waste or leachate;

(v) Of sufficient strength and durability to function for the life of the facility plus the post-closure care period; and

(vi) Sloped such that, excluding excavation side slopes, the slope of the liner shall not exceed 25%.

2. Underlying the liners shall be a geologic buffer which shall have:

(i) A maximum hydraulic conductivity of 1.0×10^{-5} cm/s and measures at least ten (10) feet from the bottom of the liner to the seasonal high water table of the uppermost unconfined aquifer or the top of the formation of a confined aquifer or

(ii) Have a maximum hydraulic conductivity of 1.0×10^{-6} cm/s and measures not less than five (5) feet from the bottom of the liner to the seasonal high water table of the uppermost unconfined aquifer or the top of the formation of a confined aquifer or

(iii) Other equivalent or superior protection as defined in (ii) of this subpart.

3. The compacted soil component of the composite liner shall be as follows:

(i) The compacted soil liners shall be free of sharp objects and be compatible with supporting soils and with leachate expected to be generated.

(ii) Admixtures (i.e., cement, bentonite, etc.) and special construction techniques may be used to improve the properties of the compacted soil liner provided that:

(I) In no case shall the liner thickness be less than two (2) feet;

(II) The modified liner shall achieve equivalent or superior performance to requirements of the minimum performance standard as described in this subparagraph.

4. Alternate liner designs may be used provided that:

(i) It is demonstrated to the satisfaction of the Commissioner that the liner design provides equivalent or superior performance to the minimum performance standard for a Class I facility as described in this subparagraph, and

(ii) When approving a design the Commissioner, shall consider at least the following factors:

(I) The hydrogeologic characteristics of the facility and surrounding land;

(II) The climatic factors of the area; and

(III) The volume and physical and chemical characteristics of the leachate.

5. A leachate collection and removal system is required immediately above the liner that is designed, constructed, maintained, and operated to collect and remove leachate from the facility. The leachate collection and removal system must be:

(i) Constructed of materials that are:

(I) Chemically resistant to the waste managed in the facility and the leachate expected to be generated; and

(II) Of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes, waste cover materials, and by any equipment used at the facility. Other equivalent or superior protection may be substituted for this buffer as approved by the Commissioner.

(ii) Protected, by design and/or operational features, from equipment mishandling that might reasonably be expected during operation.

6. Such facilities must be designed, constructed, operated, and maintained such that the final cover includes a cap which will:

(i) Provide long-term minimization of migration of liquids through the closed facility;

(ii) Function with minimum maintenance;

(iii) Promote drainage;

(iv) Accommodate settling and subsidence so that the cap's integrity is maintained; and

(v) Meet the closure requirements of paragraph (8) of this rule.

7. The leachate collection and removal system must, at a minimum, meet the following requirements:

   (i) The leachate collection and removal system must be designed, constructed, operated, and maintained such that the leachate depth over the liner does not exceed one foot as calculated referencing the infiltration volume of the 25-year 24-hour storm through the intermediate cover.

   (ii) Leachate interception surfaces and associated piping must be designed, constructed, operated, and maintained to function without clogging throughout the scheduled post-closure care period;

   (iii) Leachate collection reservoirs must:

      (I) Be constructed (e.g., lined) such that collected leachate is contained;

      (II) Have sufficient capacity to store the volume of leachate expected to be generated in 30 days, or other adequate provisions approved by the Commissioner; and

      (III) Have a reliable and convenient means of detecting the level of collected leachate in the reservoir and of sampling such leachate.

8. Collected leachate:

   (i) Must be managed in accordance with any other applicable state and local regulations; and

   (ii) Must be sampled and analyzed, at least annually for Appendix I constituents, or for those ground water monitoring parameters listed in the permit, using sampling and analysis procedures as found in the facility permit. All leachate analysis results with all pertinent supporting data must be reported to the Commissioner with the next semi-annual ground water analysis report.

   (iii) Nothing in this rule shall prohibit the recirculation of leachate through the emplaced waste provided that the requirements of this rule chapter are met.

9. During construction or installation, liners and cover systems (e.g., membranes, sheets, or coatings) must be inspected for uniformity, damage, and imperfections (e.g., holes, cracks, thin spots, or foreign materials). Immediately after construction or installation:

   (i) Geomembrane liners and covers must be inspected to ensure tight seams and joints and the absence of tears, punctures, or blisters; and

   (ii) Soil-based and admixed liners and covers must be inspected for imperfections including lenses, cracks, channels, root holes, or other structural non-uniformities that may cause an increase in the permeability of the liner or cover.

(b) Class II Disposal Facilities must be located, designed, constructed, operated, and maintained in accordance with the standards for Class I disposal facilities in

subparagraph (a) of this paragraph unless a waiver from one or more of those standards is obtained as set forth in rule 1200-1-7-.01(5).

(c) Class III and Class IV facilities must be located, designed, constructed, operated, and maintained such that there is immediately underlying all solid wastes a geologic buffer which shall have:

1. A maximum hydraulic conductivity of 1.0×10^{-5} cm/s and measures at least ten (10) feet from the bottom of the liner to the seasonal high water table of the uppermost unconfined aquifer or the top of the formation of a confined aquifer; or

2. A maximum hydraulic conductivity of 1.0×10^{-6} cm/s and measures not less than five (5) feet from the bottom of the liner to the seasonal high water table of the uppermost unconfined aquifer or top of the formation of confined aquifer; or

3. Other equivalent or superior protection as defined in part 2 of this subparagraph.

(5) Gas Migration Control Standards

(a) Class I Disposal Facilities must be designed, constructed, operated, and maintained such that any gases generated by decomposition or other reaction of solid waste are collected and vented, recovered, or otherwise managed such that:

1. There is no buildup of gas pressure under the final cover such that the functions of such cover (including any cap) are compromised;

2. The concentration of explosive gases in facility structures (excluding gas control or recovery system components) does not exceed 25 percent of the lower explosive limit for the gases;

3. The concentration of explosive gases at the property boundary does not exceed the lower explosive limit for the gases;

4. The minimum frequency of monitoring shall be quarterly and the operator shall keep records to comply with the monitoring and records requirements at rule 1200-1-7-.02(4)(a)9; and monitoring shall include at least the following locations:

(i) Underneath or in the low area of each on-site building;

(ii) At locations along the boundary as shown in the permit;

(iii) At any potential gas problem areas, as revealed by dead vegetation or other indicators; and

(iv) At any other points required by the permit.

5. Within 60 days of detection above the limits set in parts 1,2,and 3 of this subparagraph, implement a Department approved remediation plan for the methane gas releases. Pending the remediation, the owner/operator must take all necessary steps to ensure immediate protection of human health.

(b) Class II and Class III Disposal Facilities must meet the standards for Class I disposal facilities in subparagraph (a) of this paragraph unless the operator demonstrates to the satisfaction of the Commissioner that, due to the nature of his solid wastes or operation, no significant amounts of gas will be generated within his facility.

(c) Class IV Disposal Facilities shall not be required to have gas migration control features.

(6) Waste Handling and Cover Standards

(a) Class I Disposal Facilities

1. The unloading of solid wastes at the disposal area must be confined to the smallest practicable area, and must be supervised by trained facility personnel to ensure safety and compliance with waste restriction requirements.

2. Promptly upon unloading, solid wastes (except in the case of solid waste balefills or other instances specifically approved in writing by the Commissioner) shall be spread in shallow (less than three-foot) layers and compacted with appropriate equipment to the maximum practicable density. Special wastes must be handled as specified either in the permit or in the special waste approval granted by the Commissioner.

3. The compacted solid waste must be covered at the end of each operating day with an initial cover consisting of at least a six inch layer of compacted soil or an adequate standard of other material as approved by the Commissioner.

4. Except for those completed portions to be finally closed (e.g., the final lift), all surfaces which will be left exposed for a period of over thirty days (e.g., initial and intermediate lifts) must be covered by an intermediate cover consisting of at least a one-foot layer of compacted soil or other material approved by the Commissioner.

5. All initial and intermediate cover depths must be maintained until either additional wastes are placed over the area or final cover is applied.

6. Upon achieving final grade or as otherwise required by the Commissioner, final cover shall be placed as set forth in the closure standards of paragraph (8) of this Rule.

(b) Class II, Class III, and Class IV Disposal Facilities

1. Solid waste disposal activities shall be confined to the smallest practicable area. Compaction will be performed as necessary to ensure a stable fill.

2. Emplaced solid wastes shall be covered with soil or other material approved by the Commissioner of such depths and at such intervals as the Commissioner deems necessary to prevent fire hazards, promote a stable fill, minimize potential harmful releases of solid wastes or solid waste constituents, and control disease vectors.

(i) Class II disposal facilities shall have a frequency and depth of initial and intermediate cover specified in its permit conditions.

(ii) Unless otherwise specified by the Commissioner, Class III disposal facilities must be covered at least once every 14 days with at least a six inch layer of compacted soil or an adequate standard of other material as approved by the Commissioner.

(iii) Unless otherwise specified by the Commissioner, Class IV disposal facilities must be covered at least once every 30 days with at least a six inch layer of compacted soil or an adequate standard of other material as approved by the Commissioner.

3. Upon achieving final grade or as otherwise required, final cover shall be placed as set forth in the closure standards of paragraph (8) of this rule.

(7) Ground Water Protection/Monitoring Standards

(a) Class I Disposal Facilities must be designed, constructed, operated, maintained, closed, and cared for after closure such that the following standards are met:

1. General Ground Water Protection Standard for solid waste facilities

(i) This subpart will establish a ground water protection standard for parameters in the facilities' permits, in Appendix I, and in Appendix II. The ground water protection standard shall be:

(I) For constituents for which a maximum contaminant level (MCL) is listed in Appendix III of this rule, the MCL for that constituent; or

(II) For constituents for which MCLs have not been promulgated, the background concentration for the constituent established from wells installed in accordance with Rule 1200-1-7-.04(7)(a)3; or

(III) For constituents for which the background level is higher than the MCL identified under subpart (i) of this part or health based levels identified under Rule 1200-1-7-.04 (7) (a) 1 (ii), the background concentration.

(ii) The Commissioner may establish an alternative ground water protection standard for constituents for which MCLs have not been established. These ground water protection standards shall be appropriate health based levels that satisfy the following criteria;

(I) The level is derived in a manner consistent with Environmental Protection Agency guidelines for assessing the health risks of environmental pollutants (51 CFR 33992, 34006, 34014, 34028, Sept. 24, 1986);

(II) The level is based on scientifically valid studies conducted in accordance with the Toxic Substances Control Act Good Laboratory Practice Standards (40 CFR part 792, August 17, 1989) or equivalent;

(III) For carcinogens, the level represents a concentration associated with an excess lifetime cancer risk level (due to continuous lifetime exposure) within the 1.0×10^{-4} to 1.0×10^{-6} range; and

(IV) For systemic toxicants, the level represents a concentration to which the human population (including sensitive subgroups) could be exposed to on a daily basis that is likely to be without appreciable risk of deleterious effects during a lifetime. For purposes of this

subpart, systemic toxicants include toxic chemicals that cause effects other than cancer or mutation.

(iii) In establishing ground water protection standards under subpart (ii) of this section, the Commissioner may consider the following:

(I) Multiple contaminants in the ground water;

(II) Exposure threats to sensitive environmental receptors; and

(III) Other site-specific exposure or potential exposure to ground water.

2. Compliance Monitoring Boundary - The compliance monitoring boundary shall be:

(i) The waste management boundary of the facility; or

(ii) If the facility contains more than one solid waste landfill unit, the imaginary boundary circumscribing the waste management boundaries of the solid waste landfill units; or

(iii) An alternative boundary as may be established by the Commissioner in the permit. An alternative compliance boundary shall not exceed 150 meters from the waste management unit boundary and shall be located on land owned by the owner of the SWLF unit. The Commissioner may establish an alternative boundary only if he finds that the change to such a boundary would not result in contamination of ground water, which such selection may be in consideration of all of the following factors that are relevant:

(I) The hydrogeological characteristics of the facility and surrounding land, including any natural attenuation and dilution characteristics of the aquifer;

(II) The volume and physical and chemical characteristics of the leachate;

(III) The quantity, quality, and direction of flow of ground water underlying the facility;

(IV) The proximity and withdrawal rates of ground water users;

(V) The availability of alternative drinking water supplies;

(VI) The existing quality of the ground water, including other sources of contamination and their cumulative impacts on the ground water; and whether the ground water is currently used or reasonably expected to be used for drinking water; and

(VII) Public health, safety, and welfare effects.

3. Monitoring System for New and Existing Facilities

(i) The facility must have a ground water monitoring system consisting of a sufficient number of wells and/or springs, with not less than 1 upgradient and 2 downgradient monitoring points, unless other monitoring points and

locations are otherwise approved by the Commissioner, with installations at appropriate locations and depths, to yield ground water samples from the uppermost aquifer that:

(I) Represent the quality of background ground water that has not been affected by leakage from the facility; and

(II) Represent the quality of ground water passing the compliance boundary hydraulically downgradient (i.e., static head) from the waste disposal area.

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

(iii) The Commissioner may allow the use of monitoring points or devices other than wells if he determines that such will reliably yield samples that are representative of the entire flow zone depth to be evaluated.

(iv) The Commissioner may require site specific investigation measures if he determines such is necessary to adequately evaluate proposed monitoring well locations.

4. Sampling, Analysis, and Recordkeeping Requirements

(i) The ground water monitoring program must include consistent sampling and analysis procedures that are designed to ensure monitoring results that provide an accurate representation of ground water quality at the upgradient and downgradient wells installed pursuant to Rule 1200-1-7-.04(7)(a)3.

(I) At a minimum, the program must include procedures and techniques for:

I. Sample collection;

II. Sample preservation and shipment;

III. Analytical procedures;

IV. Chain of custody control; and

V. Quality assurance and quality control.

(II) The ground water monitoring program must include sampling and analytical methods that are appropriate for ground water sampling and that accurately measure hazardous constituents and other monitoring parameters in ground water samples. Ground water samples shall not be field-filtered prior to laboratory analysis.

(ii) Ground water elevations must be measured in each well prior to purging each time ground water is sampled. The owner or operator must determine the rate and direction of ground water flow each time ground water is sampled. Ground water elevations in wells which monitor the same waste management area must be measured in a period of time short enough to avoid temporal variations in ground water flow which could preclude accurate determination of ground water flow rate and direction.

(iii) The owner or operator must establish background ground water quality in a hydraulically upgradient or background well(s) for each of the monitoring parameters or constituents of the particular ground water program that applies to the SWLF unit, as determined in parts 5 or 6 of this subparagraph.

(iv) The number of samples collected to establish ground water quality data must be consistent with the appropriate statistical procedures determined pursuant to subpart (v) of this part.

(v) The owner or operator must select and report to the Commissioner a statistical method to be used in evaluating ground water monitoring data. The statistical test chosen shall be conducted separately for each hazardous constituent in each well and shall be one of the following statistical methods:

(I) A parametric analysis of variance (ANOVA) followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance monitoring well's mean and the background mean levels for each constituent.

(II) An analysis of variance (ANOVA) based on ranks followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance monitoring well's median and the background median levels for each constituent.

(III) A tolerance or prediction interval procedure in which an interval for each constituent is established from the distribution of the background data, and the level of each constituent in each compliance monitoring well is compared to the upper tolerance or prediction limit.

(IV) A control chart approach that gives control limits for each constituent.

(V) Another statistical test method that meets the performance standards of Rule 1200-1-7-.04 (7) (a) 4. (vi).

(vi) The owner or operator must obtain a variance as provided at Rule 1200-1-7-.01(5) in order to use an alternative statistical method. Any statistical method chosen under subpart (v) above shall comply with the following performance standards if appropriate:

(I) The statistical method used to evaluate ground water monitoring data shall be appropriate for the distribution of chemical parameters

or hazardous constituents. If the distribution of chemical parameters or hazardous constituents is shown by the owner or operator to be inappropriate for normal theory test, then the data should be transformed or a distribution - free theory test should be used. If the distributions of the constituents differ, more than one statistical method may be needed.

(II) If an individual well comparison procedure is used to compare an individual compliance well constituent concentration with background concentrations or a ground water protection standard, the test shall be done at a Type I error level no less than 0.01 for each testing period. If a multiple comparisons procedure is used, the Type I experiment wise error rate for each testing period shall be no less than 0.05; however, the Type I error of no less than 0.01 for individual well comparisons must be maintained. This performance standard does not apply to tolerance intervals, prediction intervals, or control charts.

(III) If a control chart approach is used to evaluate ground water monitoring data, the specific type of control chart and its associated parameter values shall be protective of human health and the environment. The parameters shall be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.

(IV) If a tolerance interval or a predictional interval is used to evaluate ground water monitoring data, the levels of confidence and, for tolerance intervals, the percentage of the population that the interval must contain, shall be protective of human health and the environment. These parameters shall be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.

(V) The statistical method shall account for data below the limit of detection with one or more statistical procedures that are protective of human health and the environment. Any practical quantitation limit (PQL) that is used in the statistical method shall be the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility.

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

(vii) The operator must keep records of all ground water sampling activities conducted, the sample analysis results, and the associated ground water surface elevation throughout the active life of the facility and throughout the post-closure care period as well. Such records must be kept at the facility or at some other location within Tennessee as specified in the permit.

(viii) All ground water sample analysis results with any statistical determinations and the associated recording of ground water surface elevations must be

submitted to the Commissioner within sixty days of the sampling event. To facilitate handling and evaluation of this data, the Commissioner may specify the manner and form in which the data must be reported.

(ix) The owner or operator must determine whether or not there has been a statistically significant increase over background values for each parameter or constituent required in the required monitoring program in part 5 of this subparagraph. Comparison must be made of subsequent sample analysis results to background concentrations or values established using a statistical procedure selected which will at least meet the general performance standard of assuring with a reasonable degree of confidence that the migration of waste constituents from the facility into or through the uppermost aquifer at the compliance monitoring boundary will be detected.

5. Detection Monitoring Program

(i) The operator must obtain and analyze samples from the installed ground water monitoring system in accordance with the ground water monitoring program established in the permit or as otherwise required by the Commissioner. Detection monitoring is required at solid waste landfill units, and at a minimum, this type of monitoring must include analysis of samples for the constituents listed in Appendix I to this rule provided that:

(I) The Commissioner may delete any of the Appendix I monitoring parameters for a SWLF unit if it can be shown that the removed constituents are not reasonably expected to be in or derived from the waste contained in the unit and

(II) The Commissioner may establish an alternative list of inorganic indicator parameters for a SWLF unit, in lieu of some or all of the heavy metals (constituents 1-17 in Appendix 1 to this rule), if the alternative parameters provide a reliable indication of inorganic releases from the SWLF unit to the ground water. In determining alternative parameters, the Commissioner shall consider the following factors:

I. The types, quantities, and concentrations of constituents in wastes managed at the SWLF unit;

II. The mobility, stability, and persistence of waste constituents or their reaction products in the unsaturated zone beneath the SWLF unit;

III. The detectability of indicator parameters, waste constituents, and reaction products in the ground water; and

IV. The concentration or values and coefficients of variation of monitoring parameters or constituents in the ground water background.

(ii) The monitoring frequency for all constituents listed in Appendix I to this rule, or in the alternative list approved in accordance with Rule 1200-1-7-.04(7)(a)5(i)(I) or (II) above, shall be at least semi-annual during active life of the solid waste disposal facility (including closure) and the post-closure period.

(I) The number of samples collected to establish ground water quality data must be consistent with an appropriate statistical procedure to be selected by the operator which will provide with reasonable confidence that the migration of waste constituents from the facility into and through the uppermost aquifer at the compliance monitoring boundary will be indicated.

(II) A minimum of four independent samples from each monitoring well (upgradient and down gradient) must be collected and analyzed for the constituents contained in Appendix I of this Rule, or those in the alternative list approved under Rule 1200-1-7-.04(7)(a)5(i)(I) or (II), during the first semi-annual sampling event period. Each of the four independent samples (of each monitoring well) are to be collected and analyzed at approximately equally dispersed intervals throughout the six month long semi-annual sampling event. At least one sample from each well must be collected and analyzed during subsequent semi-annual sampling events.

(III) The elevation of the ground water surface must be determined and recorded at each monitoring well each time a sample is obtained, but prior to pumping or bailing any wells.

(iii) If the owner or operator determines that there is a statistically significant increase [reference Rule 1200-1-7-.04(7)(a)4(v)] over background for one or more of the constituents listed in Appendix I to this rule or in the alternative list approved in accordance with Rule 1200-1-7-.04(7)(a)5(i)(II), at any monitoring well at the compliance monitoring boundary, the owner or operator:

(I) Must, within 14 days of this finding, send a notice to the Commissioner indicating which constituents have shown statistically significant changes from background levels, and

(II) Must establish an assessment monitoring program meeting the requirements of part 6 of this paragraph within 90 days except as provided for in item (III) of this subpart.

(III) The owner/operator may demonstrate that a source other than a SWLF unit caused the contamination or that the statistically significant increase resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. A report documenting this demonstration must be certified by a qualified ground water scientist and approved by the Commissioner.

If a successful demonstration is made, documented and approved, the owner or operator may continue detection monitoring as specified in subpart (ii) of this part. If, however, a demonstration is not made and approved within 90 days from sampling analysis showing a statistically significant increase over background in one or more constituents, then the owner or operator must initiate an assessment monitoring program as required in part 6.

6. Assessment Monitoring Program

(i) Assessment monitoring is required whenever a statistically significant increase over background has been detected for one or more of the constituents listed in the Appendix I to this rule or in the alternative list approved in accordance with Rule 1200-1-7-.04(7)(a)5(i)(I) or (II).

(ii) Within 90 days of triggering an assessment monitoring program, the owner or operator must sample and analyze the ground water for all constituents identified in Appendix II to this rule and annually thereafter. A minimum of one sample from each downgradient well must be collected and analyzed during each sampling event. For any constituent detected in the downgradient wells as a result of the complete Appendix II analysis, a minimum of four independent samples from each well (upgradient and downgradient) must be collected and analyzed to establish background for the constituents. The Commissioner may specify an appropriate subset of wells to be sampled and analyzed for Appendix II constituents during assessment monitoring. The Commissioner may delete any of the Appendix II monitoring parameters for a SWLF unit if it can be shown that the removed constituents are not reasonably expected to be in or derived from the waste contained in the unit.

(iii) After obtaining the results from the initial or subsequent sampling events required by subpart (ii) of this part, the owner or operator must:

(I) Within 14 days, give a notice to the Commissioner identifying the Appendix II constituents that have been detected.

(II) Within 90 days and at least on a semiannual basis thereafter, re-sample all wells, conduct analyses for all constituents in Appendix I to this rule or in the alternative list approved in accordance with Rule 1200-1-7-.04(7)(a)5(i); and for those constituents in Appendix II to this rule that are detected in response to subpart (ii) of this part, and report their concentrations to the Commissioner. At least one sample from each well (upgradient and downgradient) must be collected and analyzed during these sampling events.

(III) If the concentrations of all Appendix II constituents are shown to be at or below background values, using the statistical procedures approved by the Commissioner for two consecutive sampling events, the owner or operator must notify the Commissioner and may return to detection monitoring upon approval by the Commissioner.

(IV) If the concentrations of any Appendix II constituents are above background values, but all concentrations are below the ground water protection standard, the owner or operator must continue assessment monitoring in accordance with this section.

(iv) If one or more Appendix II constituents are detected at levels above the ground water protection standard, or statistically significant levels if the standard is based on background concentrations, the owner or operator must within 14 days of this finding give notice to the Commissioner of the finding and identify the Appendix II constituents which have exceeded the general ground water protection standard. The owner or operator also:

(I) Must, after giving the notice required by part 6(iv) above identifying Appendix II constituents which have exceeded the general ground

water protection standard, develop and submit to the Commissioner in a timely manner for his approval a specific ground water quality assessment plan for the facility. To the satisfaction of the Commissioner, the ground water quality assessment plan must:

I. Be capable of determining whether solid waste or solid waste constituents from the facility have entered the ground water, the rate and extent of migration of waste or waste constituents in the ground water, and the concentration in the ground water of such wastes or waste constituent(s):

II. Specify the number, location, and depth of wells; the sampling and analytical methods to be used for detecting the solid wastes and solid waste constituents in the ground water; the evaluative procedures, including any use of previously gathered ground water quality information; and a schedule of implementation and reporting to the Commissioner; and

III. Be certified by a qualified ground water scientist and

IV. Include provisions for identifying all domestic and commercial water use within an area determined by the Commissioner.

(II) During such time the assessment plan is being developed during implementation of corrective action, and until the successful completion of corrective action, or until the Commissioner gives notice to cease, the owner or operator must conduct quarterly sampling and analysis for those parameters with a statistically significant increase.

(III) Must characterize the nature and vertical and horizontal extent of the release by installing additional monitoring wells as necessary.

(IV) Must install at least one additional monitoring well at the facility boundary in the direction of contaminant migration and sample this well in accordance with part 6(iii)(II).

(V) Must notify all persons who own the land or reside on the land that directly overlies any part of the plume of contamination if contaminants have migrated off-site as indicated by sampling of wells in accordance with part 6(iii)(IV) of this subparagraph.

(VI) May demonstrate that a source other than a SWLF unit caused the contamination, or that the statistically significant increase resulted from error in sampling, analysis, statistical evaluation, or natural variation in ground water quality. A report documenting this demonstration must be certified by a qualified ground water scientist. If a successful demonstration is made, the owner or operator must continue monitoring in accordance with the assessment monitoring program pursuant to part 6, and may return to detection monitoring if the Appendix II constituents are at or below background as specified in part 6(iii)(III) of this subparagraph. Until a successful demonstration is made, the owner or operator must comply with part 6(iv) including initiating an assessment of corrective measures as provided at part 7 of this subparagraph.

(VII) If the Commissioner determines, based on the results of the ground water quality assessment program, that no solid wastes or solid waste constituent from the facility have entered the ground water, then the owner or operator may, upon being so notified, reinstate the detection monitoring program described in part 5 of this subparagraph.

(VIII) Any time during investigation, during assessment, or any time deemed necessary by the Commissioner, the owner or operator may be required to develop a corrective action plan or may be required to take specific actions for assessment or specific corrective actions the Commissioner deems necessary and appropriate.

7. Assessment of Corrective Measures

(i) Within 90 days of finding that any of the constituents listed in Appendix II to this rule have been detected at a statistically significant level exceeding the ground water protection standards defined under 1200-1-7-.04 (7)(a)1 of this rule, the owner or operator must initiate an assessment of corrective measures. Such an assessment must be completed within a reasonable period of time.

(ii) The owner or operator must continue to monitor in accordance with the assessment monitoring program as specified in Rule 1200-1-7-.04(7)(a)6 of this rule.

(iii) The assessment shall include an analysis of the effectiveness of potential corrective measures to meet the requirements and objectives of a remedy as described in part 8 of this subparagraph below. Analyses to assess and evaluate potential remedies shall address at least the following:

(I) The performance, reliability, ease of implementation, and potential impacts of appropriate potential remedies, including safety impacts, cross-media impacts, and control of exposure to any residual contamination;

(II) The time required to begin and complete the remedy;

(III) The cost of remedy implementation; and

(IV) The institutional requirements such as State or local permit requirements or other environmental or public health requirements that may substantially affect implementation of the remedy(s).

(iv) The owner or operator must discuss the results of the corrective measures assessment, prior to the selection of remedy, in a public meeting with interested and affected parties.

8. Selection of Remedy

(i) Based on the results of the assessment of corrective measures conducted under part 7 of this subparagraph, the owner or operator must select a remedy that, at a minimum, meets the standards listed in subpart (ii) of this part. The owner or operator must submit to the Commissioner, within 14

days of selecting a remedy, a report describing the selected remedy, and how it meets the standard in subpart (ii) of this part.

(ii) Remedies must:

(I) Be protective of human health and the environment,

(II) Attain the groundwater protection standard as specified pursuant to Rule 1200-1-7-.04(7)(a)1 of this rule.

(III) Control the source(s) of releases so as to reduce or eliminate, to the maximum extent practicable, further releases of Appendix II constituents into the environment that may pose a threat to human health or the environment; and

(IV) Comply with standards for management of wastes as specified in subpart (iv) of part 9 of this subparagraph.

(iii) In selecting a remedy that meets the standards of subpart (ii) of this part, the owner or operator shall consider the following evaluation factors:

(I) The long-and short-term effectiveness and protectiveness of the potential remedy(s), along with the degree of certainty that the remedy will prove successful based on consideration of the following:

I. Magnitude of reduction of existing risks;

II. Magnitude of residual risks in terms of likelihood of further releases due to waste remaining following implementation of a remedy;

III. The type and degree of long-term management required, including monitoring, operation, and maintenance;

IV. Short-term risks that might be posed to the community, workers, or the environment during implementation of such a remedy, including potential threats to human health and the environment associated with excavation, transportation, and re-disposal or containment;

V. Time until full protection is achieved;

VI. Potential for exposure of humans and environmental receptors to remaining wastes, considering the potential threat to human health and the environment associated with excavation, transportation, re-disposal, or containment;

VII. Long-term reliability of the engineering and institutional controls; and

VIII. Potential need for replacement of the remedy.

(II) The effectiveness of the remedy in controlling the source to reduce further releases based on consideration of the following factors:

I. The extent to which containment practices will reduce further releases;

II. The extent to which treatment technologies may be used.

(III) The ease or difficulty of implementing a potential remedy(s) based on consideration of the following types of factors:

I. Degree of difficulty associated with constructing the technology;

II. Expected operational reliability of the technologies;

III. Need to coordinate with and obtain necessary approvals and permits from other agencies;

IV. Availability of necessary equipment and specialists; and

V. Available capacity and location of needed treatment, storage, and disposal services.

(IV) The degree to which community concerns are addressed by a potential remedy(s).

(iv) The owner or operator shall specify as part of the selected remedy a schedule(s) for initiating and completing remedial activities. Such a schedule must require the initiation of remedial activities within a reasonable period of time taking into consideration the factors set forth in items (I) through (VI) of this subpart. The owner or operator must consider the following factors in determining the schedule of remedial activities:

(I) Extent and nature of contamination;

(II) Practical capabilities of remedial technologies in achieving compliance with ground water protection standards established under Rule 1200-1-7-.04(7)(a)1 of this rule and other objectives of the remedy;

(III) Availability of treatment or disposal capacity for wastes managed during implementation of the remedy;

(IV) Desirability of utilizing technologies that are not currently available, but which may offer significant advantages over already available technologies in terms of effectiveness, reliability, safety, or ability to achieve remedial objectives;

(V) Potential risks to human health and the environment from exposure to contamination prior to completion of the remedy; and

(VI) Resource value of the aquifer including:

I. Current and future uses;

II. Proximity and withdrawal rate of users;

III. Ground water quantity and quality;

IV. The potential damage to wildlife, crops vegetation, and physical structures caused by exposure to waste constituent;

V. The hydrogeologic characteristic of the facility and surrounding land;

VI. Ground water removal and treatment costs;

VII. The cost and availability of alternative water supplies; and

VIII. Other relevant factors.

(v) The Commissioner may determine that remediation of a release of an Appendix II constituent from a SWLF unit is not necessary if the owner or operator demonstrates to the satisfaction of the Commissioner that:

(I) The ground water is additionally contaminated by substances that have originated from a source other than a SWLF unit and those substances are present in concentrations such that cleanup of the release from the SWLF unit would provide no significant reduction in risk to actual or potential receptors; or

(II) The constituent(s) is present in ground water that:

I. Is not currently or reasonably expected to be a source of drinking water; and

II. Is not migrating or is not likely to migrate in a concentration(s) that would exceed the ground water protection standard to other hydraulically connected waters; or

(III) Remediation of the release(s) is technically impracticable; or

(IV) Remediation results in unacceptable cross-media impacts.

(vi) A determination by the Commissioner pursuant to subpart (v) of this part shall not affect the authority of the State to require the owner or operator to undertake source control measures or other measures that may be necessary to eliminate or minimize further releases to the ground water, to prevent exposure to the ground water, or to remediate the ground water to concentrations that are technically practicable and significantly reduce threats to human health or the environment.

9. Implementation of the Corrective Action Program.

(i) Based on the schedule established under subpart (iv) of part 8 for initiation and completion of remedial activities the owner/operator must:

(I) Establish and implement a corrective action ground water monitoring program to:

I. At a minimum, meet the requirements of an assessment monitoring program under subpart (iii) of part 6;

II. Indicate the effectiveness of the corrective action remedy; and

III. Demonstrate compliance with the ground water protection standard pursuant to Rule 1200-1-7-.04(7)(a)1 of this rule.

(II) Implement the corrective action remedy selected under part 8; and

(III) Take any interim measure necessary to ensure the protection of human health and the environment. Interim measures should, to the greatest extent practicable be consistent with the objectives of and contribute to the performance of any remedy that may be required pursuant to part 8 of this subparagraph. The following factors must be considered by an owner or operator in determining whether interim measures are necessary:

I. Time required to develop and implement a final remedy;

II. Actual or potential exposure of nearby populations or environmental receptors to hazardous constituents;

III. Actual or potential contamination of drinking water supplies or sensitive ecosystems;

IV. Further degradation of the ground water that may occur if remedial action is not initiated expeditiously;

V. Weather conditions that may cause hazardous constituents to migrate or be released;

VI. Risks of fire or explosion, or potential for exposure to hazardous constituents as a result of an accident or failure of a container or handling system; and

VII. Other situations that may pose threats to human health and the environment.

(ii) The Commissioner may determine, based on information developed after implementation of the remedy has begun or, through other information, that compliance with requirements of subpart (ii) of part 8 is not being achieved through the remedy selected. In such cases, the owner or operator must implement other methods or techniques that could practicably achieve compliance with the requirements, unless the owner or operator makes the determination under subpart (iii) of this part.

(iii) If the owner or operator determines that compliance with requirements under subpart (ii) of part 8 cannot be practically achieved with any currently available methods, the owner or operator must:

(I) Obtain certification of a qualified ground water scientist or approval by the Commissioner that compliance with requirements under subpart (ii) of part 8 cannot be practically achieved with any currently available methods;

(II) Implement alternate measures to control exposure of humans or the environment to residual contamination, as necessary to protect human health and the environment; and

(III) Implement alternate measures for control of the sources of contamination, or for removal or decontamination of equipment, units, devices, or structures that are:

I. Technically practicable; and

II. Consistent with the overall objective of the remedy.

(IV) Submit to the Commissioner within 14 days of such determination a report justifying the alternative measures prior to implementation of the alternative measures.

(iv) All solid wastes that are managed pursuant to a remedy required under part 8 of this subparagraph, or an interim measure required under item (III) of subpart (i) of this part, shall be managed in a manner:

(I) That is protective of human health and the environment; and

(II) That complies with applicable RCRA requirements.

(v) Remedies selected pursuant to part 8 of this subparagraph shall be considered complete when:

(I) The owner or operator complies with the ground water protection standard at all points within the plume of contamination that lie beyond the ground water monitoring well system established under part 3 of (a) of this paragraph.

(II) Compliance with the ground water protection standard has been achieved by demonstrating that concentrations of Appendix II constituents have not exceeded the ground water protection standard(s) for a period of three consecutive years using approved statistical procedures and performance standards. The Commissioner may specify an alternative length of time during which the owner or operator must demonstrate that concentrations of Appendix II constituents have not exceeded the ground water protection standard(s) taking into consideration:

I. Extent and concentration of the release(s);

II. Behavior characteristics of the hazardous constituents in the ground water;

III. Accuracy of monitoring or modeling techniques, including any seasonal, meteorological, or other environmental variables that may affect the accuracy; and

IV. Characteristics of the ground water.

(III) All actions required to complete the remedy have been satisfied.

(vi) Upon completion of the remedy, the owner or operator must submit to the Commissioner within 14 days a certification that the remedy has been completed in compliance with the requirements of subpart (V) of this part. The certification must be signed by the owner or operator and by a qualified ground water scientist and approved by the Commissioner.

(b) Class II Disposal Facilities – Class II disposal facilities must meet the same ground water protection/monitoring standards for Class I facilities in subparagraph (a) of this paragraph except that:

1. Class II disposal facilities are not required to perform the analysis for the volatile organic compounds in Appendix I unless specifically required by the Commissioner.

2. Class II disposal facilities are not required to perform the analysis for the Appendix II parameters unless specifically required by the Commissioner.

3. Class II disposal facilities are required every six months to conduct the sampling and perform the analysis for all or certain indicator parameters selected by the Commissioner and to annually conduct sampling and analysis for parameters specified by the Commissioner to be characteristic of the wastes to be disposed at the facility.

4. Class II facilities are required to establish reliable background concentrations of values against which future comparisons can be made. The operator must sample each well quarterly for the first year and analyze each sample for the parameters selected by the Commissioner. The Commissioner will establish background values for all the parameters required.

5. Since the operator of a Class II facility may or may not be required by the Commissioner to conduct sampling and analysis for the Appendix II list, the operator shall develop and submit a ground water quality assessment plan as required in Part 6 of this paragraph and shall conduct corrective action as required in Part 8 of this paragraph based on sampling and analysis of ground water monitoring parameters specified by the Commissioner to be characteristic of the wastes and/or the Appendix II parameters. The Commissioner, at his discretion based on statistical increases in sampling parameters, may expand the number of parameters that characterize the waste.

6. All ground water monitoring parameters for Class II facilities will be selected and established in the permit for new facilities, and for existing facilities, the parameters will be established in the permit modification which will be established in the new closure/post-closure care plan care as required in Rule .03(2)(c)2(ii).

7. Class II facilities shall meet all other requirements for the ground water protection and monitoring standards of paragraph (7).

(c) Class III and Class IV Disposal Facilities – Class III and Class IV disposal facilities must meet the same ground water protection/monitoring standards for Class I facilities in subparagraph (a) of this paragraph.

(8) Closure and Post-Closure Standards - Unless specifically noted otherwise, the standards of this paragraph apply to Class I, Class II, Class III, and Class IV disposal facilities.

(a) General Performance Standard

1. The operator must close the disposal facility or disposal facility parcel in a manner that:

(i) Minimizes the need for further maintenance; and

(ii) Controls, minimizes, or eliminates, to the extent necessary to prevent threats to public health and the environment, post-closure escape of solid waste, solid waste constituents, leachate, contaminated rainfall, or waste decomposition products to the ground or surface waters or to the atmosphere.

2. The operator must care for a disposal facility or disposal facility parcel for the period of time after closure, specified in subparagraph (d) of this Rule, in a manner that assures that the performance objectives of part 1 of this subparagraph are continuously met.

(b) Adherence to Plan - The operator must initiate and complete closure activities and conduct post-closure care activities in accordance with the approved closure/post-closure care plan, if such plan has been prepared and approved for the disposal facility or disposal facility parcel being closed.

(c) Closure Requirements - The following requirements apply to active portions of the facility:

1. The operator must notify the Division Director of his intent to close at least 60 days prior to the date he expects to begin final closure of the disposal facility or disposal facility parcel.

2. The operator must complete closure activities including grading and establishing vegetative cover in the shortest practicable time, not to exceed 180 days, after any fill areas or any portion of the fill areas have achieved final grade, unless the Commissioner allows otherwise in the permit. Permits may provide, or be modified to provide, minimum areas for closure which will be shown in closure plans. Such modifications of closure plans, for the sole purpose of identifying minimum closure areas, shall be deemed minor modifications. When these complete closure areas reach final grade, these areas shall be closed as otherwise provided in this part and within the 180 day time frame provided herein.

3. Unless otherwise noted in the permit a depth of compacted final cover material (e.g., soil) shall be placed on the disposal facility or disposal facility parcel in the shortest practicable time, not to exceed 90 days, after achieving final grade of any fill area or any portion of a fill area. At least the top twelve inches of this cover material shall be soil which will support the growth of suitable vegetation (e.g., topsoil).

(i) At Class I and Class II facilities the depth of final cover system shall be at least 36 inches of soil of which a minimum of 12 inches shall be for the support of vegetative cover.

The design of the final cover system shall be such that the infiltration volume of water will be equal to or less than the percolation volume

through the bottom liner system or a design which includes a compacted soil layer of at least 24 inches which has a permeability no greater than 1 x 10^{-7} cm/sec, whichever is less. This design shall be supported by the use of the HELP model or other equivalent method approved by the Commissioner.

An alternate final cover system may be used provided that it is demonstrated to the satisfaction of the Commissioner that the final cover system provides equivalent or superior performance to the minimum performance standard in this subpart.

(ii) At Class III and Class IV facilities, unless the Commissioner determines that a greater depth is needed to achieve the general performance standard of subparagraph (a) of this paragraph, the depth of final cover shall be at least 30 inches of compacted soil. The final cover consists of an 18 inch low permeability layer overlain by a 12 inch protective layer.

(iii) At Class I, II, III, and IV facilities, with approval of the Commissioner any other low permeability layer construction techniques or materials may be used to provide the final cover, provided that it provides equivalent or superior performance to the requirements of this part.

4. The final surface of the disposal facility or disposal facility parcel shall be graded and/or provided with drainage facilities in a manner that:

(i) Minimizes precipitation run-on from adjacent areas onto the disposal facility or disposal facility parcel;

(ii) Minimizes erosion of cover material (e.g., no steep slopes);

(iii) Optimizes drainage of precipitation falling on the disposal facility or disposal facility parcel (e.g., prevent pooling); and

(iv) Provides a surface drainage system which is consistent with the surrounding area and in no way significantly adversely affects proper drainage from these adjacent lands.

5. In order to minimize soil erosion, as soon as practicable after final grading, the operator shall take steps as necessary to establish a protective vegetative cover of acceptable grasses over disturbed areas of the site. These steps shall include seeding, mulching, and any necessary fertilization at a minimum, and may include additional activities such as sodding of steeper slopes and drainage ways if such are necessary.

6. In addition to the drainage and grading requirements and vegetative cover requirements, the operator shall take other measures as may be necessary to minimize and control erosion and sedimentation (e.g., soil stabilization, sediment ponds) at the site.

7. As required in his permit, or as otherwise necessary to prevent threats to human health and the environment, the operator shall establish and/or complete a system for collecting, removing, and treating leachate generated by the disposal facility or disposal facility parcel.

8. As required in his permit, or as otherwise necessary to prevent threats to human health and the environment, the operator shall establish and/or complete a system for collecting and venting or otherwise controlling the vertical and horizontal escape of gases generated in the disposal facility or disposal facility parcel.

9. The operator must notify the Division Director in writing within 60 days of his completion of closure of the disposal facility or disposal facility parcel. Such notification must include a certification by the operator that the disposal facility or disposal facility parcel has been closed in accordance with the approved closure/post-closure care plan. Within 21 days of the receipt of such notice the Division Director shall inspect the facility to verify that closure has been completed and in accordance with the approved plan. Within 10 days of such verification, the Commissioner shall approve the closure in writing to the operator. Closure shall not be considered final and complete until such approval has been made.

(d) Post-Closure Care Period – For Class I and Class II disposal facilities, post-closure care must continue for 30 years after the date of final completion of closure of the disposal facility or facility parcel unless a shorter period is established in the approved closure/post-closure care plan. For Class III and IV disposal facilities, post-closure care must continue for 2 years after the date of final completion of closure of the facility or facility parcel. The post-closure care period may be reduced or extended based on cause by amendment of the approved closure/post-closure care plan as provided in Rule 1200-1-7-.03(2)(c).

(e) Post-Closure Care Activities - During the post-closure care period, the operator must, at a minimum, perform the following activities on closed portions of his facility:

1. Maintain the approved final contours and drainage system of the site such that the objectives of part (c)4 of this paragraph are continuously met;

2. Ensure that a healthy vegetative cover is established and maintained over the site;

3. Maintain the drainage facilities, sediment ponds, and other erosion/sedimentation control measures (if such are present at the landfill), at least until the vegetative cover is established sufficiently enough to render such maintenance unnecessary;

4. Maintain and monitor the leachate collection, removal, and treatment system (if such is present at the facility);

5. Maintain and monitor the gas collection and control system (if such is present at the facility);

6. Maintain and monitor the ground and/or surface water monitoring system (if such is present at the facility). The monitoring system and sampling and analysis program established in the permit shall be continued during the post-closure care period, unless the permit is modified to establish a different system or program. Monitoring data must be reported in writing to the Division Director within 30 days after the completion of the analyses.

7. Following completion of the post closure care period for each SWLF unit, the owner or operator must file with the Department a certification verifying that post-closure has been completed in accordance with the post-closure plan.

(f) Notice in Deed to Property - The operator must ensure that, within 90 days of completion of final closure of the facility and prior to sale or lease of the property on which the facility is located, there is recorded, in accordance with State law, a notation on the deed of property or on some other instrument which is normally examined during a title search that will in perpetuity notify any person conducting a title search that the land has been used as a disposal facility and its use is restricted in accordance with the approved closure/post-closure plan.

(g) Open Dump or Unauthorized Dump Closing - A person discontinuing the use of an open dump or unauthorized dump, whether on his own initiative or at the direction of the Commissioner, shall take all the actions determined by the Commissioner to be necessary, including but not limited to, the following:

1. Restrict access.

2. Implement effective rodent or vector controls, including baiting for at least two weeks after closing, to prevent rodent migration to adjacent properties and spraying of containers to control mosquitoes, or other measures as determined necessary by the Commissioner.

3. Compact and cover existing solid waste. The barrier layer of the final cover for the entire area shall be two feet or more of compacted soil or as otherwise determined by the Commissioner. Soil cover shall be of a quality to be easily managed and with sufficient clay content to provide an adequate seal on the wastes.

4. The application of a one foot soil layer to support vegetative or some other appropriate cover to minimize erosion and, when applicable, maximize evapotranspiration shall be established. Within 30 days after completion of final grading, the owner or operator of the dump shall prepare the final cover for the establishment of a vegetative or alternative cover. For the establishment of a vegetative cover, such preparation shall include, but not be limited to:

(i) Placement of appropriate species of grass seed, fertilizer and mulch or other practices to effectively establish vegetative cover.

(ii) Watering and maintenance necessary such that germination and/or established growth can reasonably be anticipated.

(iii) Implement and maintain erosion control measures by grading and re-establishing vegetative cover as needed or determined necessary.

5. Post signs indicating the dump site closure.

6. The Commissioner, if deemed necessary, based on site geology, hydrology, waste types, quantities and other pertinent factors may require the solid waste to be removed from the site and placed in an approved disposal facility. The Commissioner may also require monitoring of the site for unpermitted discharges to waters of the state as may be necessary to protect public health and the environment.

7. If the dump is closed on-site, the owner/operator must ensure that, within 45 days of the dump closure and prior to sale or lease of the property on which the dump is located, there is recorded a notation on the deed to the property or on some other instrument which is normally examined during title search that will in perpetuity notify any person conducting a title search, that the land has been used as a disposal facility.

8. If the dump closed has been closed on-site after an order has been issued by the Commissioner or Board and become final pursuant to T.C.A. § 68-211-113 or 4-5-322, the Commissioner may present for recording in the office of the county register an instrument in the chain of title that will in perpetuity notify any person conducting a title search that the land has been used as a disposal facility.

(9) Contents of the Part II Permit Application – This paragraph establishes the information that must be included in the Part II permit application in order for the Commissioner to determine the facility's compliance with the standards of paragraphs (2) through (8) of this Rule. The information requirements of this paragraph apply to applicants for permits for all Class I, II, and III disposal facilities unless the standard addressed by the information requirement does not apply to such facility.

(a) Hydrogeological Report - The Part II permit application must include a report assessing the hydrogeological characteristics of the site which meets the requirements of this subparagraph. This report shall be submitted prior to submission of the information required by subparagraph (b) of this paragraph.

1. The report must be prepared and certified by a qualified geologist who is registered with the State of Tennessee as required for such persons at T.C.A. 62-36-102 or a qualified engineer who is registered with the State of Tennessee as required for such persons at T.C.A. Title 62, Chapter 2.

2. The report must be based on an analysis of existing data (e.g., well drillers' logs) and site-specific soil borings and drillers' logs or other subsurface investigations. The soil borings performed must be of such number, locations, and depths deemed by the Commissioner to be necessary to provide a complete and accurate description of relevant subsurface conditions.

3. The report must include, but not necessarily be limited to, the following information:

(i) A description of the soil sampling and analytical procedures used including, but not necessarily limited to, a characterization of the soils underlying the site providing, at a minimum:

(I) Unified soil classifications;

(II) The saturated hydraulic conductivities of undisturbed samples of soils underlying the site which are to be used in meeting soil buffer requirements;

(III) The saturated hydraulic conductivity of remolded samples of soils taken from the site which are to be used in meeting liner and cover requirements; and

(IV) A description of the soil sampling and analytical procedures used;

(ii) A tabulation of water table elevations (if encountered within the limits of drillings) measured at the time borings were performed and at least two additional measurements over a period of at least one week so as to allow water elevations to stabilize. If an estimation of the seasonal high water table cannot be made utilizing this data and other existing information, then the Commissioner may require water table elevations to be collected over a period up to one year.

(iii) A boundary plat locating soil borings with accurate horizontal and vertical controls which are tied to a permanent on-site bench-mark (reference elevation may be site specific). The plat must include the boundary of the proposed fill areas;

(iv) A potentiometric map of the uppermost aquifer (if such can be determined by information obtained within the limits of drilling) based on stabilized water elevations;

(v) A description of local ground water recharge and discharge features in the vicinity of the proposed landfill site and, if the Commissioner deems appropriate, a description of the regional ground water regime;

(vi) The locations of any springs and existing and abandoned wells within a one mile radius;

(vii) The locations of public water supply system intakes within a two mile radius; and

(viii) A narrative summary and analysis of geological and hydrological evaluations performed as they relate to the suitability of the site for a disposal facility, and addressing in particular compliance with appropriate standards of this rule.

4. Undisturbed soil samples for hydraulic conductivity shall be collected in thin walled Shelby tubes per ASTM D-1587. The hydraulic conductivity shall be determined in accordance with ASTM D-5084.

5. Remolded soil samples for hydraulic conductivity shall be re-compacted in accordance with ASTM D-698 or ASTM D-1557. The hydraulic conductivity shall be determined in accordance with ASTM D-5084.

6. The report must include:

(i) A comprehensive environmental site assessment that includes an evaluation of the quality of ground water beneath the proposed facility. At a minimum, the applicant must provide analytical information for all constituents specified in regulations adopted by the board. The requirement for a comprehensive environmental assessment shall apply only to new sites for proposed solid waste disposal facilities and does not include expansions, modifications, or new units for existing permitted facilities or sites; and

(ii) Proof satisfactory to the Commissioner that the geological formation of the proposed site and the design of the proposed facility are capable of containing the disposed wastes so that ground water protection standards are not exceeded.

(b) Engineering Plans - The Part II permit application must include:

1. Plans drawn at a scale of not less than one inch equals 100 feet, or one inch equals 200 feet if approved by the Commissioner, and with a contour interval not greater than five feet which clearly show:

(i) The proposed waste disposal areas;

(ii) The existing topography of the site and pertinent geological features (e.g., site drainage, streams, springs, sinks, outcrops);

(iii) The location(s) of the permanent on-site benchmark(s), with reference to Tennessee datum;

(iv) Planned ground water and surface water monitoring locations and the proposed compliance boundary;

(v) Soil boring locations;

(vi) The proposed excavated contours and the locations and elevations of dikes, berms, and/or trenches to be utilized in waste disposal operations or for prevention of flooding;

(vii) The location of on-site borrow areas and cover material storage areas;

(viii) The planned development of the site, illustrating the phases or progression of operational areas and parcels to be filled (with methods to be used);

(ix) How run-on will be diverted from, and run-off will be removed from, the work areas, illustrating the locations and slopes of ditches, dikes, etc., to be utilized for such diversion/removal and the directions of flow;

(x) The locations of planned temporary erosion control measures (e.g., temporary sediment basins, stone filters, terraces, silt fences) and permanent erosion control measures (e.g., permanent sediment basins, riprap, energy dissipaters, ditch stabilization, pipe drains);

(xi) The locations of all existing and proposed utilities, structures (including fences and gates), and roads;

(xii) The proposed final contours of the site and how run-off will be removed from, and run-on will be diverted from, the completed facility, illustrating the locations and slopes of ditches, drains, drop structures, etc., to be utilized for such removal/diversion and the directions of flow;

(xiii) The location of all 100-year floodplain boundaries on the site;

(xiv) The locations of leachate collection/treatment reservoirs and associated piping (if required); and

(xv) The locations of all gas migration control devices or structures (if required) including gas monitoring points;

2. Detailed diagrams, drawn at a suitable scale, showing:

(i) Typical sections of dikes, trenches, diversion ditches, sediment basins, energy dissipaters, and other erosion and run-on/run-off control structures;

(ii) Typical sections of leachate collection/treatment reservoirs and associated piping (if required);

(iii) Typical sections of gas migration control devices and structures (if required);

(iv) Typical ground-water monitoring well installations;

(v) Typical sections of soil buffer/liner/leachate collection systems (including collection piping);

(vi) Typical sections of final cover systems (including any required cap); and

(vii) Typical sections of access roads to and on the site.

3. Appropriate cross-sections (minimum of two per operational area), drawn at a scale of not less than one inch equals 100 feet, or may be one inch equals 200 feet if approved by the Commissioner, which clearly show:

(i) The original ground surface elevations;

(ii) The proposed excavation depths;

(iii) The proposed final elevations;

(iv) Soil borings;

(v) The configuration of the soil buffer/liner/leachate collection system, including slopes;

(vi) Typical cells and lifts and associated berms and dikes and on-site roadways;

(vii) The configuration of the final cover system (including any required cap), including slopes; and

(viii) The configurations of any gas migration control features.

(c) Narrative Description of the Facility and Operations - The Part II permit application must include, with appropriate references to the engineering plans and hydrogeological report, a narrative which clearly:

1. Identifies the name of the individual responsible for operation and maintenance of the facility;

2. Describes the location of the facility using roads and highways;

3. Describes its compliance with all applicable buffer zone standards listed in paragraph (3) of this Rule. Each buffer zone standard must be specifically addressed referencing the closest property lines, residences, wells, and bodies

of water as appropriate, and maps may be attached for easy descriptions and reference or otherwise demonstrate compliance.

4. Describes its compliance with applicable siting requirements for fault areas.

5. Describes its compliance with applicable siting requirements for seismic impact zones.

6. Describes its compliance with applicable siting requirements for unstable areas.

7. Describes the barriers, signs, procedures and other measures to be used to control access to and use of the facility;

8. Describes the methods and sequence of operation;

9. Describes the types and anticipated volumes of solid wastes to be disposed of and the sources which generate the waste, and for special wastes, the physical and chemical characteristics of the wastes and any special handling procedures to be utilized;

10. Identifies the number of acres to be filled and the total number of acres to be permitted, including buffer zone acreage (Note: If the site is to be developed in accordance with a phased development plan, each parcel must be separately addressed. If minimum closure areas are to be utilized such proposal must be described here and delineated in the closure plans);

11. Describes the waste handling and covering program, to include but not necessarily be limited to, descriptions of:

    (i) Unloading, spreading, and compacting operations;

    (ii) The frequencies and depths of initial, intermediate, and final cover; and

    (iii) The cover material(s) to be utilized, including the estimated volumes to be needed (show initial, intermediate, and final earthwork calculations) and their sources and availability.

12. Describes the operating equipment to be utilized (including back-up equipment), and their source and availability;

13. Describes the structures and procedures to be used in controlling and collecting litter;

14. Describes how run-on and run-off collection and holding and erosion control facilities will be managed, including the disposition of collected waters and residues and a comparison of before and after flows in drainageways leaving the site;

15. Describes how leachate collection and holding facilities will be managed, including the disposition of collected leachate;

16. Describes the dust control measures to be taken and when they would be implemented;

17. Describes the fire safety precautions and procedures to be taken, the types and availability of on-site fire suppression equipment, and/or the arrangements made with the local fire protection agency;

18. Describes the facilities and services available to facility personnel, including shelter, drinking water, handwashing and toilet facilities, and communications equipment;

19. Describes in a construction quality assurance plan:

    (i) How each new "as built" solid waste landfill unit(s) liner(s) and/or lateral expansion liner(s) and cover system(s) will be inspected and/or tested by a registered engineer as required at rule 1200-1-7-.04(1)(c) during construction or installation for uniformity, damage, and imperfections, and

    (ii) How each constructed section of the liner system or final cover system will be certified by a registered engineer.

20. Describes how the migration of explosive gases will be controlled and monitored;

21. Describes the planned ground water monitoring program, to include but not necessarily be limited to, descriptions of:

    (i) The number and location of wells or other monitoring points;

    (ii) Monitoring well construction;

    (iii) The parameters to be monitored for and the frequency they will be checked;

    (iv) Sampling and analytical procedures and methods to be used; and

    (v) How the sampling and analytical results will be recorded and reported to the State.

22. Includes an engineering statement of the site flood frequency exposure and describes flood protection measures to be taken;

23. Describes the impacts the facility will have on endangered or threatened species of plants, fish, or wildlife or their habitat; and

24. Describes the random inspection program required under rule 1200-1-7-.04(2)(s).

(d) Closure/Post-Closure Plan - The Part II permit application must include a closure/post-closure plan as described in rule 1200-1-7.03(2).

APPENDIX I
CONSTITUENTS FOR GROUNDWATER MONITORING

INORGANIC CONSTITUENTS

1. Antimony
2. Arsenic
3. Barium
4. Beryllium

(Rule 1200-1-7-.04, continued)

5. Cadmium
6. Chromium
7. Cobalt
8. Copper
9. Fluoride
10. Lead
11. Mercury
12. Nickel
13. Selenium
14. Silver
15. Thallium
16. Vanadium
17. Zinc

ORGANIC CONSTITUENTS

18. Acetone
19. Acrylonitrile
20. Benzene
21. Bromochloromethane
22. Bromodichloromethane
23. Bromoform; Tribromomethane
24. Carbon disulfide
25. Carbon tetrachloride
26. Chlorobenzene
27. Chloroethane; Ethyl chloride
28. Chloroform; Trichloromethane
29. Dibromochloromethane; Chlorodibromomethane
30. 1,2-Dibromo-3-chloropropane; DBCP
31. 1,2-Dibromoethane; Ethylene dibromide; EDB
32. o-Dichlorobenzene; 1,2-Dichlorobenzene
33. p-Dichlorobenzene; 1,4-Dichlorobenzene
34. trans-1,4-Dichloro-2-butene
35. 1,1-Dichloroethane; Ethylidene chloride
36. 1,2-Dichloroethane; Ethylene dichloride
37. 1,1-Dichloroethylene; 1,1,-Dichloroethene; Vinylidene chloride
38. cis-1,2-Dichloroethylene; cis-1,2-Dichloroethene
39. trans-1,2-Dichloroethylene; trans-1,2-Dichloroethene
40. 1,2-Dichloropropane; Propylene dichloride
41. cis-1,3-Dichloropropene
42. trans-1,3-Dichloropropene
43. Ethylbenzene
44. 2-Hexanone; Methyl butyl ketone
45. Methyl bromide; Bromomethane
46. Methyl chloride; Chloromethane
47. Methylene bromide; Dibromomethane
48. Methylene chloride; Dichloromethane
49. Methyl ethyl ketone; MEK; 2-Butanone
50. Methyl iodide; Iodomethane
51. 4-Methyl-2-pentanone; Methyl isobutyl ketone
52. Styrene
53. 1,1,1,2-Tetrachloroethane
54. 1,1,2,2-Tetrachloroethane
55. Tetrachloroethylene; Tetrachloroethene; Perchloroethylene

56. Toluene
57. 1,1,1-Trichloroethane; Methylchloroform
58. 1,1,2-Trichloroethane
59. Trichloroethylene; Trichloroethene
60. Trichlorofluoromethane; CFC-11
61. 1,2,3-Trichloropropane
62. Vinyl acetate
63. Vinyl chloride
64. Xylenes

APPENDIX II

GROUND-WATER MONITORING LIST

Common Name	Chemical Abstracts Service Index Name
Acenaphthene	Acenaphthylene, 1,2-dihydro-
Acenaphthylene	Acenaphthylene
Acetone	2-Propanone
Acetonitrile; Methyl cyanide	Acetonitrile
Acetophenone	Ethanone, 1-phenyl
2-Acetylaminofluorene; 2-AAF	Acetamide, N-9H-fluoren-2-yl-
Acrolein	2-Propenal
Acrylonitrile	2-Propenenitrile
Aldrin	1,4:5,8-Dimethanonaphthalene, 1,2,3, 4,10,10-hexachloro-1,4,4a,5,8, 8a-hexahydro-(1a,4a,4aB,5a,8a,8aB)-
Allyl chloride	1-Propene, 3-chloro-
4-Aminobiphenyl	[1,1'-Biphenyl]-4-amine
Anthracene	Anthracene
Antimony	Antimony
Arsenic	Arsenic
Barium	Barium
Benzene	Benzene
Benzo[a]anthracene; Benzantracene	Benz[a]anthracene
Benzo[b]fluoranthene	Benz[e]acephenanthrylene
Benzo[k]fluoranthene	Benzo[k]fluoranthene
Benzo[ghi]perylene	Benz[ghi]perylene
Benzo[a]pyrene	Benzo[a]pyrene
Benzyl alcohol	Benzenemethanol
Beryllium	Beryllium
alpha-BHC	Cyclohexane, 1,2,3,4,5,6-hexachloro- (1a,2a,3B,4a,5B,6B)-
beta-BHC	Cyclohexane, 1,2,3,4,5,6-hexachloro- (1a,2B,3a,4B,5a,6B)-
delta-BHC	Cyclohexane, 1,2,3,4,5,6-hexachloro- (1a,2a,3a,4B,5a,6B)-
gamma-BHC; Lindane	Cyclohexane, 1,2,3,4,5,6-hexachloro- (1a,2a,3B,4a,5a,6B)-
Bis(2-chloroethoxy)methane	Ethane, 1,1'-[methylenebis(oxy)]bis[2- chloro-
Bis(2-chloroethyl)ether Dichloroethyl ether	Ethane, 1,1'-oxybis[2-chloro-
Bis(2-chloro-1methylethyl)ether;	Propane, 2,2'-oxybis[1-chloro-

2,2-Dichlorodiisopropyl ether; Bis(2-ethylhexyl) phthalate	1,2-Bexenedicarboxylic acid, bis(2-ethyihexyl)ester
Bromochloromethane; Chlorobromomethane	Methane, bromochloro-
Bromodichloromethane Dibromochloromethane	Methane, bromodichloro-
Bromoform; Tribromomethane	Methane, tribromo-
4-Bromophenyl phenyl ether	Benzene, 1-bromo-4-phenoxy-
Butyl benzyl phthalate; Benzyl butyl phthalate	1,2-Benzenedicarboxylic acid, butyl phenylmethyl ester
Cadmium	Cadmium
Carbon disulfide	Carbon disulfide
Carbon tetrachloride	Methane, tetrachloro-
Chlordane	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro
p-Chloroaniline	Benzenamine, 4-chloro-
Chlorobenzene	Benzene, chloro-
Chlorobenzilate	Benzeneacetic acid, 4-chloro-a-(4-chlorophenyl)a-hydroxy,ethyl ester
p-Chloro-m-cresol 4-Chloro-3-methylphenol	Phenol, 4-chloro-3-methyl-
Chloroethane; Ethyl chloride	Ethane, chloro-
Chloroform; Trichloromethane	Methane, trichloro-
2-Chloronaphthalene	Napthalene, 2-chloro-
2-Chlorophenol	Phenol, 2-chloro-
4-Chlorophenyl phenyl ether	Benzene, 1-chloro-4-phenoxy
Chloroprene	1,2-Butadiene, 2-chloro-
Chromium	Chromium
Chrysene	Chrysene
Cobalt	Cobalt
Copper	Copper
m-Cresol; 3-methylphenol	Phenol, 3-methyl-
o-Cresol; 2-methylphenol	Phenol, 2-methyl-
p-Cresol; 4-methylphenol	Phenol, 4-methyl-
Cyanide	Cyanide
2,4-D; 2-4-Dichlorophenoxyacetic acid	Acetic acid, (2,4-dichlorophenoxy)-
4,4'-DDD	Benzene, 1,1'-(2,2-dichloroethylidene) bis[4-chloro-
4,4'-DDE	Benzene, 1,1'-(dichloroethylidene) bis[4-chloro-
4,4'-DDT	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro-
Diallate	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester
Dibenz[a,h]anthracene	Dibenz[a,h]anthracene
Dibenzofuran	Dibenzofuran
Dibromochloromethane; Chlorodibromomethane	Methane, dibromochloro-
1,2-Dibromo-3-chloropropane; DBCP	Propane, 1,2-dibromo-3-chloro-
1,2-Dibromoethane; Ethylene dibromide	Ethane, 1,2-dibromo-
Di-n-butyl phthalate	1,2-Benzenedicarboxylic acid, dibutyl ester

(Rule 1200-1-7-.04, continued)

o-Dichlorobenzene 1,2-Dichlorobenzene	Benzene, 1,2-dichloro-
m-Dichlorobenzene 1,3-Dichlorobenzene	Benzene, 1,3-dichloro-
p-Dichlorobenzene 1,4-Dichlorobenzene	Benzene, 1,4-dichloro-
3,3'-Dichlorobenzidine	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-
trans-1,4-Dichloro-2-butene	2-Butene, 1,4-dichloro-, (E)-
Dichlorodifluoromethane	Methane, dichlorodifluoro-
1,1-Dichloroethane Ethyldidene chloride	Ethane, 1,1-dichloro-
1,2-Dichloroethane; Ethylene dichloride	Ethane, 1,2-dichloro-
1,1-Dichloroethylene; Vinylidene chloride 1,1-Dichloroethene	Ethene, 1,1-dichloro-
cis-1,2-Dichloroethylene; cis-1,2-Dichloroethene	Ethene, 1,2-dichloro-,(Z)-
trans-1,2-Dichloroethylene trans-1,2-Dichloroethene	Ethene, 1,2-dichloro-, (E)-
2,4-Dichlorophenol	Phenol, 2,4-dichloro-
2,6-Dichlorophenol	Phenol, 2,6-dichloro-
1,2-Dichloropropane Propylene dichloride	Propane, 1,2-dichloro-
1,3-Dichloropropane; Trimethylene dichloride	Propane, 1,3-dichloro-
2,2-Dichloropropane; Isoprophylidene chloride	Propane, 2,2-dichloro-
1,1-Dichloropropene	1-Propene, 1,1-dichloro-
cis-1,3-Dichloropropene	1-Propene, 1,3-dichloro-, (Z)-
trans-1,3-Dichloropropene	1-Propene, 1,3-dichloro-,(E)-
Dieldrin	2,7;3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a, 7,7a-octahydro-,(1aa,2B,2aa,3B,5B, 6aa,7B,7aa)-
Diethyl phthalate	1,2-Benzenedicarboxylic acid, diethyl ester
O,O-Diethyl O-2-pyrazinyl phosphorothioate; Thionazin	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
Dimethoate	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester
p-(Dimethylamino)azobenzene	Benzenamine, N,N-dimethyl-4-(phenylazo)-
7,12-Dimethylbenz[a]anthracene	Benz[a]anthracene, 7,12-dimethyl-
3,3'-Dimethylbenzidine	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-
2,4-Dimethylphenol; m-xylenol	Phenol, 2,4-dimethyl-
Dimethyl phthalate	1,2-Benzenedicarboxylic acid, dimethyl ester
m-Dinitrobenzene	Benzene, 1,3-dinitro-
4,6-Dinitro-o-cresol; 4,6-Dinitro2-methylphenol	Phenol, 2-methyl-4,6-dinitro-
2,4-Dinitrophenol	Phenol, 2,4-dinitro-
2,4-Dinitrotoluene	Benzene, 1-methyl-2,4-dinitro-
2,6-Dinitrotoluene	Benzene, 2-methyl-1,3-dinitro-
Dinoseb; DNBP; 2-sec-Butyl-4,6-	Phenol, 2-(1-methylpropyl)-4,6-dinitro-

dinitrophenol	
Di-n-octyl phthalate	1,2-Benezenedicarboxylic acid, dioctyl ester
Diphenylamine	Benzenamine, N-phenyl-
Disulfoton	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester
Endosulfan I	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9, 9a-hexahydro-,3-oxide,
Endosulfan II	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9, 9a-hexahydro-,3-oxide, (3a,5aa,6B, 9B,9aa)-
Endosulfan sulfate	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9, 9a-hexahydro-,3,3-dioxide
Endrin	2,7;3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6, 6a,7,7a-octahydro-,(1aa,2B,2aB,3a, 6a, 6aB,7B,7aa)-
Endrin aldehyde	1,2,4-Methenocyclopental[cd]pentalene-5-carboxal-dehyde,2,2a,3,3,4,7-hexachlorodecahydro-,(1a,2B,2aB, 4B,4aB,5B,6aB,6bB,7R*)-
Ethylbenzene	Benzene, ethyl-
Ethyl methacrylate	2-Propenoic acid, 2-methyl-, ethyl ester
Ethyl methanesulfonate	Methanesulfonic acid, ethyl ester
Famphur	Phosphorothioic acid, O-[4] (dimethylamino)sulfonyl[phenyl]-O,O-dimethyl ester
Fluoranthene	Fluoranthene
Fluorene	9H-Fluorene
Heptachlor	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-
Heptachlor epoxide	2,5-Methano-2H-indeno[1,2b]oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b, 5,5a,6,6a-hexahydro-,(1aa,1bB, 2a,5a,5aB,6B,6aa)
Hexachlorobenzene	Benzene,hexachloro-
Hexachlorobutadiene	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-
Hexachlorocyclopentadiene	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-
Hexachloroethane	Ethane, hexachloro-
Hexachloropropene	1-Propene, 1,1,2,3,3,3-hexachloro-
2-Hexanone	2-Hexanone
Methyl butyl ketone	
Indeno[1,2,3-cd]pyrene	Indeno[1,2,3-cd]pyrene
Isobutyl alcohol	1-Propane, 2-methyl-
Isodrin	1,4,5,8-Dimethanonaphthalene, 1,2,3, 4,10,10-hexachloro-,1,4,4a,5,8,8a-hexahydro-(1a,4a,4aB,5B,8B,8aB)-
Isophorone	2-Cyclohexen-1-one, 3,5,5-trimethyl
Isosafrole	1,3-Benzodioxole, 5-(1-propenyl)-
Kepone	1,3,4-Metheno-2H-cyclobuta[cd]pentalen-2-one,1,1a,3,3a,4,5,5a,5b,6-

	decachlorooctahydro-
Lead	Lead
Mercury	Mercury
Methacrylonitrile	2-Propanenitrile, 2-methyl-
Methapyrilene	1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-
Methoxychlor	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-methoxy-
Methyl bromide; Bromomethane	Methane, bromo-
Methyl chloride; Chloromethane	Methane, chloro-
3-Methylcholanthrene	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-
Methyl ethyl ketone; MEK: 2-Butanone	2-Butanone
Methyl iodide; iodomethane	Methane, iodo-
Methyl methacrylate	2-Propenoic acid, 2-methyl-, methyl ester
Methyl methanesulfonate	Methanesulfonic acid, methyl ester
2-Methylnaphthalene	Naphthalene, 2-methyl-
Methyl parthion; Parathion methyl	Phosophorothioic acid, O,O-dimethyl O-(4-nitrophenyl) ester
4-Methyl-2-pentanone; Methyl isobutyl ketone	2-Pentanon, 4-methyl-
Methylene bromide; Dibromomethane	Methane, dibromo-
Methylene chloride; Dichloromethane	Methane, dichloro-
Naphthalene	Naphthalene
1,4-Naphthoquinone	1,4-Naphthalenedione
1-Naphthylamine	1-Naphthalenamine
2-Naphthylamine	2-Naphthalenamine
Nickel	Nickel
o-Nitroaniline; 2-Nitroaniline	Benzenamine, 2-nitro-
m-Nitroaniline; 3-Nitroaniline	Benzanamine, 3-nitro-
p-Nitroaniline; 4-Nitroaniline	Benzenamine, 4-nitro-
Nitrobenzene	Benzene, nitro-
o-Nitrophenol; 2-Nitropherol	Phenol, 2-nitro
p-Nitrophenol; 4-Nitrophenol	Phenol, 4-nitro-
N-Nitrosodi-n-butylamine	1-Butanamine, N-butyl-N-nitroso-
N-Nitrosodiethylamine	Ethanamine, N-ethyl-N-nitroso-
N-Nitrosodimethylamine	Methamine, N-methyl-N-nitroso-
N-Nitrosodiphenylamine	Benzenamine, N-nitroso-N-phenyl-
N-Nitrosodipropylamine; Di-n-propyl-nitrosamine; N-Nitroso-N-dipropylamine	1-Propanamine, N-nitroso-N-propyl
N-Nitrosomethylethylamine	Ethanamine, N-methyl-N-nitroso-
N-Nitrosomorpholine	Morpholine, N-nitroso-
N-Nitrosopiperidine	Piperidine, 1-nitroso-
N-Nitrosopyrrolidine	Pyrrolidine, 1-nitroso-
5-Nitro-o-toluidine	Benzenamine, 2-methyl-5-nitro-
Parathion	Phosphorothioic acid, O,O-diethyl-O-,(4-nitrophenyl) ester
Pentachlorobenzene	Benzene, pentachloro-
Pentachloronitrobenzene	Benzene, pentachloronitro-

(Rule 1200-1-7-.04, continued)

Pentachlorophenol	Phenol, pentachloro-
Phenacetin	Acetamide, N-(4-ethoxyphenyl)-
Phenanthrene	Phenanthrene
Phenol	Phenol
p-Phenylenediamine	1,4-Benzenediamine
Phorate	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester
Polychlorinated biphenyls; PCBs Aroclors	1,1'-Biphenyl, chloro derivatives
Pronamide	Benzamide, 3,5-Dichloro-N-(1,1-dimethyl-2-propynyl)-
Propionitole; Ethyl cyanide	Propanenitole
Pyrene	Pyrene
Safrole	1,3-Benzodioxole, 5-(2-propenyl)-
Selenium	Selenium
Silver	Silver
Silvex; 2,4,5-TP	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-
Styrene	Benzene, ethenyl-
Sulfide	Sulfide
2,4,5-T; 2,4,5-Trichlorophenoxy-acetic acid	Acetic acid, (2,4,5-trichlorophenoxy)-
1,2,4,5-Tetrachlorobenzene	Benzene, 1,2,4,5-tetrachloro-
1,1,1,2-Tetrachloroethane	Ethane, 1,1,1,2-tetrachloro-
1,1,2,2-Tetrachloroethane	Ethane, 1,1,2,2-tetrachloro-
Tetrachloroethylene; Tetrachlorothene Perchloroethylene;	Ethene, tetrachloro-
2,3,4,6-Tetrachlorophenol	Phenol, 2,3,4,6-tetrachloro-
Thallium	Thallium
Tin	Tin
Toluene	Benzene, methyl-
o-Toluidine	Benzenamine, 2-methyl-
Toxaphene	Toxaphene
1,2,4-Trichlorobenzene	Benzene, 1,2,4-trichloro-
1,1,1-Trichloroethane; Methylchloroform	Ethane, 1,1,1-trichloro-
1,1,2-Trichloroethane	Ethane, 1,1,2-trichloro-
Trichloroethylene; Trichloroethene	Ethene, trichloro
Trichlorofluoromethane	Methane, trichlorofluoro-
2,4,5-Trichlorophenol	Phenol, 2,4,5-trichloro-
2,4,6-Trichlorophenol	Phenol, 2,4,6-trichloro-
1,2,3-Trichloropropane	Propane, 1,2,3-trichloro-
O,O,O-Triethyl phosphorothioate	Phosphorothioic acid, O,O,O-triethyl ester
sym-Trinitrobenzene	Benzene, 1,3,5-trinitro-
Vanadium	Vanadium
Vinyl acetate	Acetic acid, ethenyl ester
Vinyl Chloride; Chloroethene	Ethene, chloro-
Xylene (total)	Benzene, dimethyl-
Zinc	Zinc

Appendix III

Contaminant Inorganic Chemicals	Maximum Contaminant Level in Milligrams/Liter
Antimony	0.006
Arsenic	0.01
Barium	2.0
Beryllium	0.004
Cadmium	0.005
Chromium (total)	0.1
Fluoride	4.0
Lead[1]	0.015
Mercury	0.002
Nickel[2]	0.1
Nitrate	10.0
Selenium	0.05
Silver[3]	0.1
Thallium	0.002
Volatile Organic Chemicals	
Benzene	0.005
Carbon Tetrachloride	0.005
1,2-Dichloroethane	0.005
1,1-Dichloroethylene	0.007
cis-1,2-Dichloroethylene	0.07
trans-1,2,-Dichloroethylene	0.1
O-Dichlorobenzene	0.6
1,4-Dichlorobenzene	0.075
Dichloromethane (methylene chloride)	0.005
1,2-Dichloropropane	0.005
Ethylbenzene	0.7
Monochlorobenzene	0.1
Styrene	0.1
Tetrachlorethylene	0.005
Toluene	1.0
1,1,1-Trichloroethane	0.20
1,1,2-Trichloroethane	0.005
Trichloroethylene	0.005
Trihalomethanes (total)	0.1
Vinyl Chloride	0.002
Xylenes	10.0
Organic Chemicals	
Alachlor	0.002
Aldicarb	0.003
Aldicarb sulfoxide	0.004
Aldicarb sulfone	0.002
Atrazine	0.003
Benzo(a)pyrene	0.0002
Carbofuran	0.04
Chlordane	0.002

(Rule 1200-1-7-.04, continued)

2,4-D	0.07
Dalapon	0.2
1,2-Dibromo-3-chloropropane	0.0002
Di (ethylhexy)adipate	0.4
Di (ethylhexyl)phthalate	0.006
Dinoseb	0.007
Diquat	0.02
Endothall	0.1
Endrin	0.002
Ethylene dibromide	0.00005
Glyphosate	0.7
Heptachlor	0.0004
Heptachlor epoxide	0.0002
Hexachlorobenzene	0.001
Hexachlorocyclopentadiene (HEX)	0.05
Lindane	0.0002
Methoxychlor	0.04
Oxamyl (Vydate)	0.2
Pentachlorophenol	0.001
Picloram	0.5
Polychlorinated biphenyls (PCB)	0.0005
Simazine	0.004
Toxaphene	0.003
2,4,5 TP (Silvex)	0.05
1,2,4-Trichlorobenzene	0.07

[1] Action level concentration obtained from TN Division of Water Supply rule 1200-5-1-.33(1)(c)1.
[2] MCL value obtained from TN Division of Water Supply rule 1200-5-1-.06(1)(b)11.
[3] MCL value obtained from TN Division of Water Supply rule 1200-5-1-.12(1)(n). (EPA Secondary Drinking Water Standard)

All other values are MCLs currently applicable under the National Primary Drinking Water Regulations.

Authority: *T.C.A. §§4-5-201, et seq., 68-203-103(b)(3), 68-211-102(a), 68-211-105(b), 68-211-105(c), 68-211-105(g), 68-211-106(a)(1), 68-211-107, 68-211-107(a), 68-211-111(d), 68-211-111(d)(1), 68-211-111(d)(2), 68-211-851(a), 68-211-852, 68-211-853, and 68-211-861.* ***Administrative History:*** *Original rule certified June 7, 1974. Amendment filed December 17, 1976; effective January 16, 1977. Amendment filed February 1, 1990; effective March 18, 1990. Amendment filed August 6, 1991; effective September 20, 1991. Amendment filed May 15, 1992; effective June 29, 1992. Amendment filed May 26, 1993; effective July 10, 1993. Amendment filed November 17,1995; effective January 31, 1996. Amendment filed April 22, 1997; effective July 6, 1997. Amendment filed April 17, 2000; effective July 1, 2000. Amendment filed July 27, 2001; effective October 10, 2001. Amendment filed July 1, 2003; effective September 14, 2003. Amendments filed May 23, 2006; effective August 6, 2006. Amendments filed September 12, 2008; effective November 26, 2008.*

1200-1-7-.05 REPEALED.

Authority: *T.C.A. §53-4307.* ***Administrative History:*** *Original rule certified June 7, 1974. Amendment filed December 17, 1976; effective January 16, 1977. Repealed February 1, 1990; effective March 18, 1990.*

1200-1-7-.06 REPEALED.

Authority: *T.C.A. §§53-4307, 68-211-105(d), 68-211-106(a)(1) and (a)(2) , 68-211-107(a), and 68-211-111(d).* ***Administrative History:*** *Original rule certified June 7, 1974. Amendment filed September 10, 1975; effective October 10, 1975. Amendment filed December 17, 1976; effective January 16, 1977.*

(Rule 1200-1-7-.06, continued)

Amendment filed April 4, 1977; effective May 4, 1977. Repealed February 1, 1990; effective March 18, 1990.

1200-1-7-.07 FEE SYSTEM FOR NON-HAZARDOUS DISPOSAL AND CERTAIN NON-HAZARDOUS PROCESSORS OF SOLID WASTE.

(1) General

(a) Purpose - The purpose of this rule is to establish a system and schedule whereby certain fees shall be levied and collected by the Commissioner. Expenditure of such fees collected shall be restricted to operation of the non-hazardous solid waste management program established pursuant to the Act. Any unencumbered and any unexpended balance shall be maintained in the fund until expended in accordance with this Act.

(b) Applicability - The requirements of this rule apply as specified to the following persons:

1. All disposal, processing, and transfer facilities having a permit issued under the Act or subject to the permit requirements of rule 1200-1-7-.01 et. seq.

2. Facilities having a permit-by-rule pursuant to rule 1200-1-7-.02.

3. Persons requiring a waste evaluation that requires reviewing analytical data and/or material safety data sheets.

4. The annual maintenance fee shall not apply to any facility that recovers and/or recycles seventy-five (75) percent of materials received. The owner/operator must maintain records that support the seventy-five percent recovery and / or recycling rate. Records shall be maintained as per rule 1200-1-7-.08(3).

5. These fees shall not apply to facilities that are required by regulatory mandate to submit revised plans.

6. These fees shall not apply to convenience centers.

7. Each classification of disposal, processing, or transfer facility on a site must pay fees as specified in paragraph (2) and (3) of this rule.

(2) Application Filing/Processing Fees

(a) Any person who applies for a permit, permit-by-rule, or waste evaluation pursuant to part (1)(b)3 of this rule, shall pay the specified amount in subparagraph (b) of this paragraph with the application.

(b) Fee Schedule

1. Disposal Facility

(i) Class I

Hydrogeologic	$ 4,000.00
Design and Construction Plans	$ 6,000.00

(ii) Class II

		Hydrogeologic	$ 4,000.00
		Design and Construction Plans	$ 6,000.00
	(iii)	Class III	$ 3,000.00
2.	Processing Facility		$ 1,000.00
3.	Major Modifications		$ 2,000.00
4.	Waste Evaluation		$ 250.00
5.	Transfer Station		$ 500.00
6.	Transfer of Ownership		$ 1,000.00

(3) Annual Maintenance Fees

(a) Any person who has a permit during any year shall pay the fee specified in subparagraph (c) of this paragraph by October 1 of that year.

(b) Any person who receives a permit or completes final closure after July 1 of any year shall pay a proportionate share of the fee based on the number of days the facility is permitted.

(c) Fee Schedule

1.	Disposal Facilities			
	(i)	Class I (Tons/Year)		
		(I)	Greater than 100,000	$15,000.00
		(II)	50,000 to 100,000	$10,000.00
		(III)	25,000 to 50,000	$ 6,000.00
		(IV)	10,000 to 25,000	$ 2,000.00
		(V)	Less than 10,000	$ 1,000.00
	(ii)	Class II (Tons/Year)		
		(I)	Greater than 1,000 T	$ 5,000.00
		(II)	Less than 1,000 T	$ 2,000.00
	(iii)	Class III		$ 2,000.00
	(iv)	Class IV		$ 2,000.00
2.	Processing Facilities			$ 2,000.00
3.	Transfer Station			$ 1,000.00

(Rule 1200-1-7-.07, continued)

(4) Baled Waste Inspection Fee - Any facility that intends to receive baled waste that was not baled in accordance with a permit issued in accordance with the Solid Waste Management Act, shall pay a $3.00 per bale inspection fee prior to the receipt of the waste.

(5) Facility Inspection Fee – Any person who has a municipal solid waste disposal facility permit or incinerator permit that receives waste until June 30, 2006 is assessed a facility inspection fee of $0.20 on each ton of municipal solid waste received. Any person who has a municipal solid waste disposal facility permit or incinerator permit that receives waste on July 1, 2006, or thereafter, is assessed a facility inspection fee of $0.35 on each ton of municipal solid waste received. This fee shall be calculated in the same manner and paid at the same time as the surcharge in rule 1200-1-7-.08.

(6) Schedule for timely action on permit applications:

(a) A completeness determination must be reviewed and the applicant notified within the following time frames:

1.	Hydrogeologic Report for Disposal Facilities	30 days
2.	Design and Construction Plans for Disposal & Compost Facilities	45 days

(b) Permit application shall be acted upon (issued or denied) by the Department within the following time after the application is certified to be complete:

1.	Disposal Facility		
	(i)	Class I	270 days
	(ii)	Class II	270 days
	(iii)	Class III	240 days
2.	Processing Facility		
	Permit By Rule		90 days
	Compost Facility		120 days
3.	Major Modification		
	(i)	Regulatory Requirement	180 days
	(ii)	Application	
		(I) Plans Only	240 days
		(II) Hydrogeologic	270 days
4.	Waste Evaluation		30 days

(c) The above time periods shall be stayed if:

1. The applicant requests that review be suspended.

(Rule 1200-1-7-.07, continued)

2. The department issues a written notice of deficiency and until the applicant adequately addresses said deficiency.

3. Local government approval is required under T.C.A. §68-211-701.

(d) Should the Department not issue or deny a permit as specified in subparagraph (b) of this paragraph, the application fee shall be refunded with interest. The Board shall be provided a quarterly update as to the status of all permits.

Authority: *T.C.A. §§4-5-201, et seq., 68-203-103(a)(1), 68-203-103(b)(3), 68-211-102(a), 68-211-105(b), 68-211-105(c), 68-211-106(a)(1), 68-211-107(a), 68-211-111 (d), 68-211-111(d)(1), 68-211-111(d)(2), 68-211-851(a), 68-211-852, 68-211-853, and 68-211-861.* ***Administrative History:*** *Original rule filed September 12, 1991; effective October 27, 1991. Amendment filed June 21, 1993; effective August 5, 1993. Amendment filed April 22, 1997; effective July 6, 1997. Amendment filed April 17, 2000; effective July 1, 2000. Amendment filed November 27, 2000; effective February 10, 2001. Amendment filed July 27, 2001; effective October 10, 2001. Amendment filed June 5, 2002; effective August 19, 2002. Amendment filed July 1, 2003; effective September 14, 2003. Amendment filed February 4, 2004; effective April 19, 2004. Amendment filed January 11, 2006; effective March 27, 2006. Amendment filed May 23, 2006; effective August 6, 2006. Amendments filed September 12, 2008; effective November 26, 2008.*

1200-1-7-.08 SOLID WASTE MANAGEMENT FUND.

(1) General

(a) Purpose - The purpose of this Rule is to establish the procedures, documentation, and other requirements which will be followed to establish and maintain the Solid Waste Management Fund (the fund).

(b) The requirements of this Rule shall apply as specified to owners and operators of municipal solid waste disposal facilities and incinerators.

(2) Fee Collection - All owners/operators of municipal solid waste disposal facilities or incinerators shall pay the appropriate surcharge per T.C.A. 68-211-835(d) to the Department as follows:

(a) Fee Schedule - All fees shall be due and payable as per the following schedule:

1.	July 1 to September 30	October 31
2.	October 1 to December 31	January 31
3.	January 1 to March 31	April 30
4.	April 1 to June 30	July 31

(b) All fees shall be paid by check or other negotiable instrument.

(c) Payment shall be accompanied by a monthly total of tons for the designated quarter.

(3) Records - The owner/operators of all municipal solid waste disposal facilities or incinerators shall maintain written records of waste received in tons. All records for the current month shall be maintained at the facility and open for inspection by the Department during normal operating hours. All other records shall be maintained at suitable office space in order that they may be protected from damage or loss. These records shall also be open for inspection

during normal working hours. The maintenance site for these records shall be designated on the date of the first payment to the Department. Any change in location shall be designated on the payment to the fund. Records shall be maintained for three years. In the event that records are damaged or destroyed, the amount of waste received for that month or quarter shall be based on the maximum day on record multiplied by the number of working days in the month or quarter. Records shall be maintained on a daily basis organized by month. Waste shall be measured at the gate on a vehicle by vehicle basis. Each facility must use a standard reporting form provided by the Department.

Authority: *T.C.A. §§68-211-102(a), 68-211-106(a), 68-211-107(a), 68-211-111, and 68-211-851.* ***Administrative History:*** *Original rule filed September 12, 1991; effective October 27, 1991. Amendment filed May 7, 1997; effective July 21, 1997.*

1200-1-7-.09 WASTE DISPOSAL REDUCTION GOAL.

(1) General Purpose

(a) The goal of the state is to reduce by twenty-five percent (25%) the amount of solid waste disposed of at municipal solid waste disposal facilities and incinerators by December 31, 2003, as measured on a per capita basis within Tennessee by weight. The goal shall also apply to each municipal solid waste region; but does not apply to individual disposal facilities or incinerators. Individual disposal facilities or incinerators are used only as measurement locations for assessing the achievement of a region's waste reduction efforts. As an alternative to calculating the waste reduction goal on a per capita basis, regions shall have the option of calculating the goal on an economic growth basis using the method prescribed by the Department and approved by the Municipal Solid Waste Advisory Committee.

(2) Waste Reduction Methods

(a) The Department may consider a variety of options that a region shall take into account in meeting the twenty-five percent (25%) goal. As used in rule 1200-1-7-.09, "municipal solid waste" (MSW) means any garbage, refuse, industrial lunchroom or office waste, household waste, household hazardous waste, yard waste and any other material resulting from the operation of residential, municipal, commercial or institutional establishments and from community activities which are required to be disposed of in a Class I landfill, as defined in regulations adopted pursuant to T.C.A. Title 68, Chapter 211; provided, that "municipal solid waste" does not include the following:

1. Radioactive waste;

2. Hazardous waste as defined in T.C.A. §68-212-104;

3. Infectious wastes;

4. Materials that are being transported to a facility for reprocessing or reuse; provided further, that reprocessing or reuse does not include incineration or placement in a landfill; and

5. Industrial waste which may include office, domestic or cafeteria waste, managed in a privately owned solid waste disposal system or resource recovery facility, if such waste is generated solely by the owner of the solid waste disposal system or resource recovery facility.

(b) Waste reduction methods or activities include, but are not limited to, the following:

1. Any "municipal solid waste" diverted from a Class I disposal facility to a Class III or Class IV disposal facility as provided under rules 1200-1-7-.01 through 1200-1-7-.04 adopted pursuant to the provisions of T.C.A. Title 68, Chapter 211, Part 1.

2. Composting of "municipal solid waste". The composting of municipal solid waste must have a market for such composted product in order to be considered as a method for waste reduction.

3. Recycling. Recycling constitutes a method of waste reduction so long as the recovered materials are marketed for recycling, or are stored for recycling at a solid waste management facility and at least seventy-five percent (75%) of the stored material must be marketed within the succeeding twelve (12) months. The following processes shall not be considered as marketing of recyclable materials nor counted toward the 25% waste reduction goal:

   (i) Collection or material handling in preparation for buyers.

   (ii) Storage of unprocessed or processed materials. Unprocessed municipal solid waste is not considered as being recyclable.

4. Source reduction of "municipal solid waste". Source reduction measures as a method of waste reduction may include industrial process modification, feedstock substitutions or improvements in feedstock purity, various housekeeping and management practices, increases in the efficiency of machinery, and recycling within a process.

   (i) Source reduction may also include reduction in the amount and toxicity of waste generated by residential and commercial sectors, through such measures as product substitution, home composting and recycling.

   (ii) Source reduction may also be achieved through the encouragement of consumer habits that include the selection of products that have reduced and recyclable packaging, and the re-use of durable goods.

5. Problem waste diversion. The diversion of waste tires, used oil, lead-acid batteries, paints and other problem waste, as determined and identified by the Department, from a Class I disposal facility for recycling constitutes waste reduction. Problem wastes diverted from a Class I disposal facility and stored for recycling at a municipal solid waste management facility until marketed qualifies as waste reduction when diverted.

6. Mulching of "municipal solid waste". Any non-treated wood waste that may be converted to a mulch must have a market in order to be considered as a method for waste reduction.

(3) Region's Waste Reduction Plan

(a) A region's waste reduction plan shall be consistent with the guidelines issued by the Division. Such a plan shall explain the region's waste reduction methods. The region may use any combination of methods; however, the following methods or practices will not be considered in the calculation for the region's waste reduction plan:

1. Incineration;

2. Unmarketed municipal solid waste compost;

3. Recovered materials (other than problem wastes) stored for recycling without being marketed as prescribed by rule 1200-1-7-.09(2)(b)3; and

4. Illegal or unauthorized storage or disposal of municipal solid waste.

(b) The twenty-five percent (25%) goal applies to only the waste that has been going to Class I landfills or municipal solid waste incinerators. Measurements of waste are to be based on the amount of waste entering a disposal facility prior to combustion or landfilling. Materials recovered or collected for recycling at these facilities prior to combustion or landfilling shall be weighed and deducted from the total amount being disposed.

(c) The region shall present its calculation of the twenty-five percent (25%) reduction on a per capita basis or the economic growth basis to be prescribed by the Department in accordance with paragraph (1) of this rule.

(d) The region plan shall utilize the base year of 1995 for measuring waste reduction unless a region can demonstrate that the 1995 data is clearly in error. A region may receive credit toward the waste reduction goal from recycling and source reduction programs prior to 1995, but no earlier than 1985. The region shall notify in writing the Division Director of such an error and request approval of any adjustment to the 1995 data.

(e) By March 31 of each year, each region shall submit an annual report to the Division. Pursuant to T.C.A. §§ 68-211-863 and 68-211-871, such reports shall include, at a minimum, the amount and type of recycled materials collected in the region.

(4) Qualitative Assessment Methods

(a) An assessment method shall be developed by the Department of Environment and Conservation and approved by the Municipal Solid Waste Advisory Committee. This assessment will be applied to Municipal Solid Waste Planning Regions that failed to meet the twenty-five percent (25%) waste reduction and diversion goal stated in T.C.A. §68-211-861(a) according to the 2003 Annual Progress Report submitted to the Division. The qualitative assessment will objectively assess the activities and expenditures of both the Municipal Solid Waste Planning Region and the local governments in the region to determine whether the region's program is qualitatively equivalent to other regions that meet the goal and whether the failure is due to factors beyond the control of the region.

(b) The qualitative assessment shall be done in the following two steps:

1. The Department shall use the waste and diversion reported by the solid waste region for the most current reporting period to determine whether in that year twenty-five percent of the solid waste generated in that year was either diverted from class I facilities or recycled. If it was, the region meets the qualitative assessment and the department does not proceed to the next step.

2. The Department shall evaluate the programs in those regions that do not satisfy subparagraph (2)(a) above to determine if they are qualitatively equivalent to those that did meet the 25% recycling and diversion goal by evaluating at least

the following solid waste program activities for the most current reporting period, giving the first two items the greatest weight:

(i) waste reduction and recycling programs and systems;

(ii) waste diversion programs and systems;

(iii) solid waste education programs and systems;

(iv) waste collection and handling systems; and

(v) solid waste program budgets and staffing.

The methodology shall make comparisons between regions that are as similar as possible in terms of population and socio-economic level to the region that failed to meet the goal.

Authority: *T.C.A. §§68-203-103(b)(3), 68-211-102(a), 68-211-105(c), 68-211-106(a)(1), 68-211-107(a), 68-211-111(d)(1), 68-211-111(d)(2), 68-211-851(a), 68-211-852, 68-211-853, 68-211-861, and Uniform Administrative Procedures Act (T.C.A., Title 4, Chapter 5 et seq.).* ***Administrative History:*** *Original rule filed July 15, 1993; effective September 29, 1993. Amendment filed May 7, 1997; effective July 21, 1997. Amendment filed April 17, 2000; effective July 1, 2000. Amendment filed July 27, 2001; effective October 10, 2001. Amendments filed May 23, 2006; effective August 6, 2006.*

1200-1-7-.10 CONVENIENCE CENTERS / COUNTY PUBLIC COLLECTION RECEPTACLES.

(1) Purpose

(a) This rule shall establish the minimum level of service which every county must provide in order to assure that all residents of a county are provided with collection and disposal service.

(b) This rule shall establish minimum standards for the design and operation of convenience centers if such service is selected by a County.

(c) This rule shall establish the economic index and local matching rates for grant assistance to counties to establish and upgrade convenience centers.

(d) This rule shall establish requirements for operation and use of county public collection receptacles for municipal solid waste.

(2) Minimum level of service -

(a) Household collection - A county shall be deemed to have met minimum level of service if at least ninety percent (90%) of all residents have access to household collection.

(b) Convenience centers - A county shall be deemed to have a minimum level of service if convenience centers are established as provided in this subparagraph. Each county must have at least one convenience center unless a higher level of service is provided.

1. Convenience centers must meet the permit by rule requirements at Rule 1200-1-7-.02(1)(c)1(iv). The operator must make attachments to the notification as follows:

(i) The operator attaches a written narrative to his notification describing the specific manner in which the facility complies with Rule 1200-1-7-.10(3).

(ii) A design plan attached indicating boundaries of the site and all appurtenances.

(iii) A site location map is submitted on a USGS Topo map.

2. Number of centers - The service area of a county is defined as follows:

(i) Service area - The service area of a county is defined as follows:

(I) County area in square miles less in square miles the following;

I. Federal lands or reservations;

II. State lands or reservations;

III. Forestry reserves as held by wood processing industry;

IV. Municipal corporations served by mandatory collection;

V. Federally managed water bodies or rivers; or;

(II) Population as certified by the most recent census as per the U.S. Bureau of Census less the population served by mandatory collection service.

(ii) The minimum number of centers shall be established as follows:

(I) The service area in square mile divided by one hundred eighty square miles (180 mi^2); or

(II) The service area population divided by 12,000.

(All calculations shall be rounded to the nearest whole number).

(c) Higher Level of Service - If a county or region proposes an alternative system, said system shall be approved by the Commissioner. The proposed system must provide a higher level of service than convenience centers. The county or region must, at a minimum, provide a review as per paragraph (4) of this rule and state in detail the criteria by which the system provides a higher level of service.

(3) Design and operation standards

(a) Access - The facility shall restrict unauthorized access by means of fencing with the ability to secure access points. Operating hours shall be posted at the facility.

(b) Dust and Mud Control - In order to prevent the creation of a nuisance or safety hazard all surfaces utilized for access and general operation shall be paved (includes compacted stone).

(c) Run-on and Run-off Control

1. In order to prevent operational hazards all run-on surface water shall be diverted around the facility.

2. In order to prevent ponding of water, the surface of the facility shall be graded to assure proper runoff control. All runoff shall be diverted to an area that can be controlled with reference to release from the property. The release area shall be properly graded and stabilized to prevent erosion or other damage to adjoining properties. Release of solids in the runoff must be controlled.

(d) Fire safety - The facility must have on-site, properly maintained, fire suppression equipment. Arrangements must be made with the nearest available fire protection agency to provide additional protection.

(e) Communication - There shall be maintained during operating hours on-site equipment capable of notifying the appropriate authorities of an emergency, unless it is demonstrated to the Commissioner's satisfaction that such requirement would be an unreasonable hardship at the convenience center location.

(f) Personnel facilities

1. In order to provide shelter during inclement weather and store necessary records and supplies a suitable structure shall be provided on-site.

2. Sanitary facilities shall be provided.

(g) Water - Service water should be provided to the facility if equipment and/or the facility management requires such water for maintenance.

(h) Process water - If mechanical compaction is utilized all liquid generated by this equipment shall be collected and properly managed.

(i) Waste Handling

1. Recycled material shall be placed in separate receiving containers;

2. All waste handling (including loading and unloading) shall be conducted on paved surfaces (pavement includes compacted stone);

3. There is no storage of solid waste at the facility except in containers, bins, or on paved surface designed for such storage;

4. All litter shall be collected at the beginning and end of each working day. Incidents of illegal dumping shall be referred to local authorities and addressed in the annual revision of the solid waste plan.

(j) Facility supervision - Trained personnel must always be present during operating hours. Training will be established as per T.C.A. §68-211-853.

(k) Siting restrictions

1. Convenience centers shall not be located within wetlands, unless the owner or operator makes the applicable demonstrations to the Commissioner as referenced at Rule 1200-1-7-.04(2)(p).

2. The facility must not be located in a 100 year floodplain, unless the demonstration is made to the Commissioner as required at Rule 1200-1-7-.04(2)(n).

3. The facility must not cause or contribute to the taking of any endangered or threatened species of plants, fish or wildlife; or result in the destruction or adverse modification of a critical habitat.

4. New convenience centers must not be located within fifty (50) feet of streams. In order to protect these, the area within the fifty feet must have a stable vegetative cover.

(l) The facility shall not receive special waste unless approval is received from the Department in writing. Approval will require the construction of special containment areas.

(m) The facility shall not receive medical waste.

(4) Municipal Solid Waste Collection and Plan

(a) Annually each solid waste disposal region shall revise the local plan as required by T.C.A. §68-211-814. This annual revision shall consider:

1. Survey of roadside dumps;

2. Citizen complaints;

3. Alternative systems available;

4. Volume of waste received or collection by the existing systems.

(b) This report shall be submitted to the Department of Environment and Conservation by March 31 of each year.

(5) Economic Index

(a) Matching rates for convenience center grants shall be determined using the mean of a county's rank for equalized property tax generation and per capita income. Property tax generation shall be the equalized value of property as published in the Tennessee State Tax Aggregate Report by the State Board of Equalization. Per capita income shall be the income figure published by the United States Department of Commerce, Bureau of Economic Analysis.

(b) The Department shall issue annually in March the County ranking based on this mean.

(c) The local share required to match grant funds shall be 10% for those counties in the lower one-half (½) of the economic index. Those counties in the upper one-half (½) of the economic index shall be required to provide a 20% local match.

(6) Requirements for Operation and Use of County Public Collection Receptacles for Municipal Solid Waste

(a) By March 31 of each year, each county which maintains and uses receptacles for the collection of municipal solid waste from the general public at sites separate from a

convenience center, shall include the following information as part of the Solid Waste Region's annual report (which is submitted to the Division):

1. The number of receptacles in the County;

2. The location of all receptacles;

3. Collection times for such receptacles; and

4. Operation procedures and security measures adopted and enforced to maintain and service the receptacles and to ensure the protection of public health and safety. Such information in this part must be in the form of a narrative manual and meet the minimum requirements in subparagraph (b).

(b) Minimum operation and security requirements shall be as follows:

1. All containers must be emptied at a minimum of once every 7 days, except the commissioner may provide an extension of time for severe weather or other emergency conditions.

2. Litter and / or solid waste outside the receptacles must be controlled. Such wastes must be removed at a minimum frequency of at least once every 7 days.

3. Receptacles must be maintained and managed in a manner to minimize disease vectors.

4. Receptacles must be located on an all weather surface (such as gravel).

(c) Per TCA 68-211-851, as amended, counties which did not have receptacles in place as of January 1, 1996 or which subsequent to such date discontinues use of any receptacle authorized in this paragraph, shall be prohibited from installing or maintaining additional receptacles.

Authority: *T.C.A. §§4-5-201, et seq., 68-203-103(b)(3), 68-211-102(a), 68-211-106(a)(1), 68-211-107(a), 68-211-111(d)(1), 68-211-111(d)(2), 68-211-105(b), 68-211-851(a), and 68-211-853.* ***Administrative History:*** *Original rule filed June 21, 1993; effective August 5, 1993. Amendment filed December 8, 1993; effective February 27, 1994. Amendment filed November 17, 1995; effective January 31, 1996. Amendment filed April 22, 1997; effective July 6, 1997. Amendment filed May 7, 1997; effective July 21, 1997. Amendment filed April 17, 2000; effective July 1, 2000. Amendment filed May 23, 2006; effective August 6, 2006.*

1200-1-7-.11 REQUIREMENTS FOR COMPOST AND COMPOSTING FACILITIES.

(1) General

(a) Purpose - The purpose of this rule is to establish procedures, documentation, and other requirements which must be met in order for a person to operate a composting facility or offer for sale compost in Tennessee.

(b) Scope/Applicability

1. The requirements of this rule apply as specified to operators of composting facilities in Tennessee. Except as specifically provided elsewhere in these rules, no facility may compost solid waste without a permit as provided in rule 1200-1-7-.02(2). Composting facilities, subject to a full permit on the effective date of

this rule, must submit a part I and part II permit application to describe how it will comply with this rule. The application must be filed within 180 days of the effective date of this rule and implemented upon approval. The Division will not charge an application fee, nor require public notice of the application for facilities which already have permit-by-rule for composting.

2. Compost produced from the solid waste classification criteria outside the State of Tennessee, which is used or sold for use within the state, shall comply with rule 1200-1-7-.11(4) subparagraphs (a) classification criteria; (b) labeling requirements; and (c) testing.

3. Composting facilities that process domestic sludge as a feedstock shall also comply with all other applicable federal or state laws regarding sludge management.

4. The following facilities or activities are not subject to the requirement to have a permit.

   (i) Backyard composting and the resulting compost;

   (ii) Normal farming operations. For the purpose of this rule, composting of only landscaping/land clearing waste, hereafter referred to as landscaping waste, or manure by persons on their own property for their own use on that property as part of agronomic or horticultural operations will be considered normal farming operations;

5. A composting facility processing up to 10,000 cubic yards per year of only landscaping waste and manure may receive a permit pursuant to rule 1200-1-7-.02(1)(c) Permits by Rule, for Solid Waste Processing.

6. A composting facility processing only landscaping waste may receive a permit pursuant to rule 1200-1-7-.02(1)(c) Permits by Rule, for Solid Waste Processing.

7. A processing facility composting sewage sludge that is one acre or less in size may apply for a permit by rule pursuant to rule 1200-1-7-.02(1)(c).

(2) General Facility Standards - Unless specifically noted otherwise, the standards of this paragraph shall apply to all compost facilities subject to a permit as provided at rule 1200-1-7-.02(2).

(a) Performance Standards - The facility must be located, designed, constructed, and maintained, and closed in such a manner as to minimize to the extent practicable:

1. The propagation, harborage, or attraction of birds, flies, rodents, or other vectors;

2. The potential for releases of solid waste, solid waste constituents, or other potentially harmful material to the environment except in a manner authorized by state law;

3. The exposure of the public to potential health and safety hazards through uncontrolled or unauthorized public access;

4. The presence of odors that constitute a nuisance.

(b) Control of Access and Use

1. The facility shall have a natural or an artificial barrier which completely surrounds the active portion of the facility and must have a means to control entry, at all times, through the gate or other entrances to the active portion of the facility.

2. If open to the public, the facility shall have clearly visible and legible signs at the points of public access which indicate the hours of operation, the types of waste materials that either will or will not be accepted, emergency telephone numbers, schedules of charges (if applicable), and any other necessary information.

3. The facility shall have paved (paved includes compacted stone) access roads and parking areas. Traffic control signs shall be provided as necessary.

4. The facility shall have trained personnel present and on duty during operating hours to assure compliance with operational requirements and to prevent entry of unauthorized wastes.

5. There shall be no scavenging.

6. Scales for weighing all waste received at the facility shall be provided, unless the Commissioner approves an alternative method of measurement.

(c) Leachate Collection

1. The facility shall have a leachate collection and removal system that is designed, constructed, and maintained such that all leachate from the waste receiving, storage, processing, and curing areas is collected. All washdown, stormwater or other water coming into contact with solid waste or compost must be collected and properly managed.

2. Leachate shall be reused in the process or otherwise properly managed as per all applicable laws and rules.

(d) Waste Management

1. The type [defined at rule 1200-1-7-.11(4)(a)1] and source of solid waste to be received shall be determined and categorized for review. This listing shall be updated as appropriate.

2. The type and source of any additives to be used in the production of compost shall be specified.

3. The facility's waste inspection procedures shall be established to prevent the receipt of unauthorized or unacceptable waste. Inspection of all loads received is required.

4. Contingency operations shall identify proper management of all waste in the event of equipment failure, facility disaster, or receipt of unauthorized material such as oil, hazardous waste, etc.

5. The surfaces for all waste receiving areas, storage areas, and processing and curing areas shall be paved to minimize release of any contaminants to the groundwater. The paved areas shall be capable of withstanding wear and tear

during normal operations. The standards for surfaces for facilities shall be as follows:

(i) Facilities receiving waste types categorized as solid waste or landscaping waste and manure shall utilize a surface of asphalt or concrete or other surface approved by the Commissioner.

(ii) Facilities receiving only the landscape waste type may utilize a surface of compacted gravel or the surfaces authorized in subpart (i) above.

6. Landscaping waste shall be stored separately from other solid waste at the facility. Solid waste shall be stored in a manner to prevent vectors. Unusable material must be identified and removed within 48 hours.

7. Recovered materials removed from the solid waste stream shall be stored in a manner that prevents vector problems and shall be sent to a vendor or processor at least every thirty (30) days.

(e) Fire Safety

1. No open burning is allowed.

2. The facility shall have, on-site and continuously available, properly maintained fire suppression equipment capable of controlling accidental fires. If available, local fire fighting service shall be acquired.

(f) Litter Control - Fencing and/or other control shall be provided to confine loose waste to the area designated for storage or processing: Accidental dispersal from the designated areas shall be recovered daily.

(g) Personnel Facilities - There shall be provided:

1. A building or other shelter which is accessible to facility personnel which has adequate heating and light.

2. Potable water for washing and drinking.

3. Toilet facilities.

(h) Communication - The facility shall have available during operating hours equipment capable of summoning emergency assistance as needed.

(i) Operating Equipment - The facility shall have on-site operational and monitoring equipment capable of maintaining the waste processing as designed.

(j) Dust Control - The operator must take dust control measures as necessary to prevent dust from creating a nuisance or safety hazard to adjacent landowners or to persons engaged in supervising, operating, and using the site. The use of any dust suppressants (other than water) must be approved in writing beforehand by the Department.

(k) Run-on/Run-off Control

1. The operator shall design, construct, and maintain a run-on control system capable of preventing the 25 year, 24 hour storm from flowing onto all operational and storage areas.

2. The operator shall design, construct, and maintain a run-off management system capable of minimizing impact to adjoining properties during the 25 year, 24 hour storm.

3. Run-off shall be managed separately from leachate unless otherwise approved by the Commissioner.

(l) Endangered Species - Facilities shall be located, designed, constructed, operated, maintained, closed, and cared for during the post-closure care period in a manner that does not:

1. Cause or contribute to the taking of any endangered or threatened species of plants, fish, or wildlife; or

2. Result in the destruction or adverse modification of the critical habitat of endangered or threatened species.

(m) Location in Floodplains- Facilities shall not be located in a 100-year floodplain, unless the demonstration is made to the Commissioner as required at rule 1200-1-7-.04(2)(n).

(n) Wetlands - The facility shall not be located in a wetland unless the demonstration is made to the Commissioner as required at rule 1200-1-7-.04(2)(p).

(o) Closure - The facility must meet closure requirements described herein. The facility is finally closed by removal of all solid wastes and solid waste residues for proper disposal. The operator must notify the Commissioner in writing of his completion of closure of the facility. Such notification must include a certification by the operator that the facility has been closed by removal of all the solid waste and residues. Within 21 days of the receipt of such notice the Commissioner shall inspect the facility to verify that closure has been completed. Within 10 days of such verification, the Commissioner shall approve the closure in writing to the operator. Closure shall not be considered final and complete until such approval has been made.

(p) The owner/operator of a compost facility permitted pursuant to 1200-1-7-.02(2) shall file with the Commissioner a performance bond or equivalent cash or securities, payable to the State of Tennessee. Such financial assurance is intended to ensure that adequate financial resources are available to the Commissioner to insure 30 days operation and proper closure of the facility. The types of financial assurance instruments that are acceptable are those which are specified in rule 1200-1-7-.03(3)(d). Such financial assurance shall meet the criteria set forth in T.C.A. §68-211-116 and at rule 1200-1-7-.03(3)(b).

(q) Compost from facilities subject to a full permit in this rule must meet the appropriate criteria for "compost disinfection" as defined in definitions at rule 1200-1-7-.01.

(3) Buffer Zone Standards for Siting New Facilities - All waste management areas shall be located so as to conform to the distance standards at rule 1200-1-7-.04(3)(a).

(4) Classification of Compost - Compost shall be classified based on type of waste processed, product maturity, amount of foreign material, and the concentration of heavy metals.

(Rule 1200-1-7-.11, continued)

(a) Classification Criteria

1. Type of waste processed

(i) Landscaping waste only

(ii) Landscaping waste and manure

(iii) Solid waste (may include sewage, sludge, and other solid waste)

2. Product maturity

(i) Mature compost is a highly stabilized compost material that has been exposed to prolonged periods of decomposition. It will not reheat upon standing to greater than 20° C above ambient temperature. The material should be brown to black in color. This level of maturity is indicated by a reduction of organic matter of greater than 60 percent.

(ii) Semi-mature compost is compost material that is at the mesophilic stage. It will reheat upon standing to greater than 20° C above ambient temperature. The material should be light to dark brown in color. This level of maturity is indicated by a reduction of organic matter of greater than 40 percent but less than or equal to 60 percent.

(iii) Fresh compost is compostable material that has been through the thermophilic stage and has undergone partial decomposition. The material will reheat upon standing to greater than 20° C above ambient temperature. It has beneficial use, but proper care is needed as further decomposition and stabilization will occur. This level of maturity is indicated by a reduction of organic matter of greater than 20 percent but less than or equal to 40 percent.

3. Compost shall be classified as either Type A Compost or Type B Compost according to its metal content characterization as shown in this part. Metal concentrations in finished compost shall not exceed the concentrations shown in Type B Compost below:

METAL CONSTITUENT	TYPE A COMPOST TOTAL METAL CONCENTRATION (PPM)	TYPE B COMPOST TOTAL METAL CONCENTRATION (PPM)
Arsenic	10	16
Cadmium	3	39
Chromium	210	1200
Cobalt	200	200
Copper	300	1500
Lead	100	250
Mercury	1.0	17
Molybdenum	10	18
Nickel	50	420
Selenium	3.0	36
Zinc	500	2800

4. Foreign matter shall be expressed as a percent as provided at part 4 of subparagraph (c).

(b) Labeling Requirements.

Compost shall be labeled in accordance with the classification criteria of subparagraph (a) above. This label shall be prominently displayed on individually packaged material, or a written statement providing the classification criteria and certifying its accuracy will be deemed sufficient on all bulk sales. This label shall be of sufficient contrast to the packaging to be easily visible and shall be a bordered label with dimensions of three inches by five inches. The lettering shall be one quarter inch block characters.

(c) Testing

1. Compost shall be sampled and analyzed as follows:

(i) A composite sample of the compost produced at each composting facility shall be analyzed at intervals of every 20,000 tons of compost produced or every three months, whichever comes first, for:

Parameter	Unit	Method
Moisture	%	EPA 160.3
Total Nitrogen	% by dry weight	EPA 351 and 353
Total Phosphorus	% by dry weight	EPA 365
Total Potassium	% by dry weight	EPA 3050/7610
Reduction in Organic Matter	%	EPA 160.4
PH	Standard Units	EPA 9045

(ii) In addition to (i) of this part all compost utilizing the solid waste classification at rule 1200-1-7-.11(4)(a)1(iii), shall be analyzed at intervals of every 20,000 tons of compost produced or every three months, whichever comes first, for:

Parameter	Unit	Method
All metals of Rule 1200-1-7-11(4)(a)3.	mg/kg of dry Weight	SW-846 Method
Foreign Matter	%	See 4 Below **
Fecal Coliform	most probable number	SM 9221***
Volatile Residue	mg/l	See 5 Below **
PCB	part per million*	SW-846 Method

* (detection above 1 ppm, the Commissioner shall be immediately notified by the operator and the source identified)

** Methods for Chemical Analysis of Water and Wastes (EPA-600/4-79-020), 1983.

*** Standard Methods For the Examination of Waste and Wastewater, 21st Edition, 2005.

2. The Department may decrease or increase the parameters to be analyzed for or the frequency of analysis based on monitoring data, changes in the waste stream or processing, or the potential presence of toxic substances. Sample collection, preservation, and analysis shall assure valid and representative results pursuant to a Department-approved quality assurance plan.

3. Composite samples shall consist of at least three individual samples of equal volume taken from separate areas along the side of the pile of the compost produced. Each sampling point shall be at a depth of two feet into the pile and four feet from the outside edge of the pile.

4. Foreign matter content shall be determined by passing a dried, weighed sample of the compost product through a one-quarter inch or six millimeter screen. EPA Method 160.3 shall be used to dry the sample. The material remaining on the screen shall be visually inspected, and the foreign matter that can be clearly identified shall be separated and weighed. The weight of the separated foreign matter divided by the weight of the total sample multiplied by 100 shall be the percent dry weight of the foreign matter content.

5. The organic matter reduction is determined by measuring the volatile solids content using EPA method 160.4.

(d) Reporting - Facility owner or operators shall record and maintain at the facility for three years the following information regarding their activities for each month of operation of the facility. Records shall be available for inspection by Department personnel during normal business hours and shall be sent to the Department upon request to include:

1. Analytical results on composting testing;

2. The quantity, type [described at rule 1200-1-7-.11(4)(a)1] and source of waste received;

3. The quantity and type of waste [described at rule 1200-1-7-.11(4)(a)1] processed into compost;

4. The quantity and type of compost Type A or Type B [described at rule 1200-1-7-.11(4)(a)3] produced; and

5. The quantity and type of compost Type A or Type B [described at rule 1200-1-7-.11(4)(a)3] removed for use or for disposal, and the market or permitted disposal facility. The operator must identify the market for compost removed for use. The operator must identify the permitted disposal facility for compost removed for disposal.

(e) Annual Report

Owners and operators of facilities producing compost made from solid waste shall submit to the Department an annual report by March 1 of each year. The report and shall include at a minimum:

1. The facility name, address and permit number;

2. The reporting year with all quantities expressed in tons (sludge expressed in dry weight);

3. The total quantity and type of waste [described at rule 1200-1-7-.11(4)(a)1] received at the facility during the year covered by the report;

4. The total quantity and type of waste [described at rule 1200-1-7-.11(4)(a)1] processed at the compost facility;

5. The total quantity and types of compost Type A or Type B [described at rule 1200-1-7-.11(4)(a)3] produced during the year covered by the report; and

6. The total quantity and types of compost Type A or Type B [described at rule 1200-1-7-.11(4)(a)3] removed for use or for disposal, and the market(s) or permitted disposal facility(s). The operator must identify the market for compost removed for use. The operator must identify the permitted disposal facility for compost removed for disposal.

(5) Design and Construction Plans

(a) Master Plan -A master plan shall be provided that is drawn at a scale of not less than 1" = 400' with not more than 20 foot contour interval and which clearly depicts:

1. The boundary of the proposed facility;

2. The existing drainage pattern of all site runoff;

3. Runoff monitoring stations;

4. Primary access roads;

5. Wells within one quarter mile of the site boundary;

6. The location of all 100-year floodplain boundaries; and

7. All residences within one quarter mile of the site boundary (If in an urban area residential properties may be delineated).

(b) Design Plans- Design plans shall be provided that are drawn at a suitable scale of not less than 1" = 50 feet and with contour intervals of not greater than five feet, which clearly depicts:

1. All structures;

2. Proposed waste processing areas;

3. Proposed waste storage areas;

4. All drainage appurtenances that control run-on/run-off and the direction of flow;

5. The location of all existing and proposed utilities and roads (defining surface material); and

6. The location of all leachate collection/treatment structures, piping, storage appurtenances, and any other associated unit.

(c) Narrative Description of the Facility and Operation - A narrative description of the facility and operation shall be provided that defines all procedures and activities pertinent to the design and operation of the facility. This narrative shall include, but not necessarily be limited to:

1. A description of how the facility will achieve the compliance of all standards defined in paragraphs (2), (3), (4), and (6) of this rule;

2. A description of the waste handling and processing equipment to be used;

3. A description of the management of run-on/runoff with design calculations of all appurtenances;

4. A description of the management of the leachate system and the disposition of the leachate;

5. A description of the odor control measures; and

6. A description of the procedures for the final closure of the facility.

(6) Technological Standards / Best Available Technology

In order to assure that the public health and environment of the State of Tennessee is provided the optimum protection from unwarranted releases of metals, as restricted by rule 1200-1-7-.11(4) (a) 3, these rules shall require that any facility permit incorporate the best available technology. This requirement is restricted to facility processing standards and shall not be interpreted to include source management of the waste stream. The applicant shall submit to the Department documentation of the most technologically advanced system that is currently in operation and is compatible with the proposed design criteria. Representative product analysis shall be provided in accordance with the testing requirements of rule 1200-1-7-.11(4)(c) "Testing" of this rule.

Authority: *T.C.A. §§68-203-103(b)(3), 68-211-102(a), 68-211-105(b) and (c), 68-211-106(a)(1), 68-211-107(a), 68-211-111(d)(1), 68-211-111(d)(2), 68-211-116, 68-211-851(a), 68-211-852, 68-211-853, and 68-211-861.* ***Administrative History:*** *Original rule filed October 8, 1998; effective December 28, 1998. Amendment filed April 17, 2000; effective July 1, 2000. Amendment filed July 27, 2001; effective October 10, 2001. Amendment filed September 29, 2003; effective December 13, 2003. Amendment filed May 23, 2006; effective August 6, 2006.*

1200-1-7-.12 REQUIREMENTS FOR CERTIFICATION OF OPERATORS, ATTENDANTS, AND RESPONSIBLE PERSONS FOR SOLID WASTE LANDFILLS.

(1) General

(a) Purpose

The purpose of this Rule is to establish procedures and requirements for training and certification of operators, attendants, and other responsible persons for municipal solid waste landfills. This rule will identify those persons who must receive certification and will impose fees for training and certification.

(b) Applicability

The training and certification requirements of this rule apply to operators, attendants, and responsible persons for Class I landfills. One certified operator is required to be on-site during the hours of operation. However, a certified operator is not required to be on-site during the post closure period.

(c) Training and Certification for Class I Landfill Personnel

The Department shall either conduct or approve another person to conduct training for the persons as provided at Rule 1200-1-7-.12(1)(b).

1. Training for landfill personnel shall include at least the following:

   (i) Reading the Plans

   (ii) Basic Design and Landfill Operation

   (iii) Stormwater and Leachate Management

   (iv) Landfill Gas Management

   (v) QAQC for Performance Standard Requirements

   (vi) Random Inspection Program

   (vii) Ground Water Monitoring

2. Certification Required

   Those facilities identified in subparagraph (1)(b) of this rule are required to have a certified operator and one certified attendant with their certification from a training program approved by the Department.

3. Certificate of Completion

   The training course must be provided or approved by the Department. Those persons required to obtain certification must attend the training course and must pass an exam. The Department will issue a "certificate of completion" to such individuals successfully completing the training course.

4. Term of Certification

   A certificate of completion issued by the Department under part 3 of this subparagraph shall be valid for three (3) years, unless revoked or invalidated for cause as provided by T.C.A. § 68-211-853.

   All persons required to obtain certification must become recertified within 3 years by attending 24 hours of Department approved training.

5. Application

   A person desiring to be certified must file an application with the Department on a form provided by the Department.

6. Examination

   An applicant must pass the written examination developed, prepared, and given by the Department or developed, prepared, and given by another person who has been approved by the Department.

   An applicant who fails to pass an examination may repeat the examination at the next regularly scheduled examination date. If the applicant again fails to pass, he may then re-apply for the training and certification and pay the appropriate application fees.

   Examination papers will not be returned to the applicant.

An applicant who fails to pass an examination may review his examination by making an appointment to do so within thirty (30) days following notification of the exam grade.

7. Recognition of Other Certification

Successful completion of a Department approved training course will adequately satisfy the initial certification requirements. The Department will maintain a list of approved training programs recognized by the Department.

8. Reciprocity

(i) Certification of competency may be issued, without examination, to a person who holds a current valid certificate from another state or a private company that has entered into a reciprocity agreement with the Department.

(ii) Reciprocity agreements may be established if the Department determines that the certification and training program of another state or a private company meets or exceeds that of the Department.

9. Fees

Fees are imposed for the operator and attendant training and certification. Application for landfill operator and/or attendant certification by the Department must be made on forms provided by the Department completed in full according to the instructions.

(i) Applications for initial certification must be accompanied by a $400 certification fee.

(ii) Applications for recertification must be accompanied by a $100 re-certification fee.

Authority: *T.C.A. §§4-5-201, et seq., 68-203-103(b)(3), 68-211-102(a), 68-211-105(c), 68-211-106(a)(1), 68-211-107(a), 68-211-111(d)(1), 68-211-111(d)(2), 68-211-851(a), 68-211-852, 68-211-853, and 68-211-861.* ***Administrative History:*** *Original filed April 22, 1997; effective July 6, 1997. Amendment filed April 17, 2000; effective July 1, 2000. Amendment filed July 27, 2001; effective October 10, 2001. Amendment filed September 12, 2008; effective November 26, 2008.*

1200-1-7-.13 REQUIREMENTS FOR LAND APPLICATION FACILITIES.

(1) General

(a) Purpose – The purpose of this rule is to establish procedures, documentation, and other requirements which must be met in order for a person to design, construct and operate a land application facility in Tennessee.

(b) Scope/Applicability

1. The requirements of this rule apply to land application facilities in Tennessee. Except as specifically provided elsewhere in these rules, no person may land apply solid waste without a permit as provided in rule 1200-1-7-.02(1)(b)1.

2. The land application of landscaping and landclearing wastes and farming wastes are exempt from the permit requirements of this rule.

3. The land application of solid wastes from food processing facilities are subject to the requirements to have a permit-by-rule.

4. Land application of all other solid wastes will be subject to rule 1200-1-7-.02(1)(b)3(xxii).

(c) Notification Requirements – The operator must comply with the notification requirements of rule 1200-1-7-.02(1)(c)1(vi). The operator must make attachments to the notification as follows:

1. The operator attaches a written narrative to his notification describing the specific manner in which the facility complies with rule 1200-1-7-.13 paragraph (2)(a) through 1200-1-7-.13 paragraph 2(g) – inclusive.

2. The operator attaches any sampling, monitoring, or other plans required by these rules or by the Commissioner.

3. The operator of an existing permit-by-rule land application facility must modify the notification if:

(i) Adding a waste stream from a new generator, or a waste stream from an existing generator which has not been previously approved for land application at that site; or

(ii) Adding new acreage to the land application operations.

(2) Unless specifically noted otherwise, the standards of this paragraph shall apply to all land application facilities subject to a permit-by-rule as provided at rule 1200-1-7-.13(1).

(a) Performance Standards

1. The facility must be constructed, operated, maintained, and closed in such a manner as to minimize:

(i) The propagation, harborage, or attraction of flies, rodents, or other disease vectors;

(ii) The potential for releases of solid wastes or solid waste constituents to the environment except in a manner authorized by state and local air pollution control, water pollution control and/or waste management agencies; and

(iii) The potential for harm to the public through unauthorized or uncontrolled access.

(b) Design Standards – In addition to satisfaction of the performance criteria detailed in paragraph (2)(a) of this rule, land application facilities must be designed and constructed in compliance with Tennessee rule 1200-1-7-.13.

1. The facility must designate and describe in the attachments to the permit-by-rule notification any on-site storage of solid wastes at the land application facility. Any storage must be restricted to containers, bins, lined pits or on paved surfaces, designed for such storage, or other storage provisions approved by the

Commissioner. Any lagoons/surface impoundments must be of an engineered design. Such design must include a liner and groundwater monitoring system capable of detecting leakage from the storage unit. Additionally, detailed engineering drawings and a design/operational narrative must be provided to the Division as an attachment with the permit-by-rule notification for review and approval.

2. The facility must not be located in a floodplain unless it is demonstrated to the satisfaction of the Commissioner that the land application area is operated and maintained to prevent washout of any solid waste.

3. The facility shall not be located in wetlands.

4. If a facility is proposed in an area of highly developed karst terrain, the applicant must demonstrate to the satisfaction of the Commissioner that the facility will not cause any significant degradation to the local groundwater resources.

5. The facility must be located such that the waste application boundaries are greater than:

   (i) 500 feet from a dwelling;

   (ii) 500 feet from any domestic water supply well;

   (iii) 100 feet from a stream;

   (iv) 1000 feet from a public water supply well; and

   (v) 20 feet from a public roadway.

6. There must be a vegetative buffer zone between the facility and any wet weather conveyance, stream, or karst feature.

7. Analytical data for each of the waste streams proposed for land application must be submitted to the Division. The analytical data must completely characterize the wastes proposed for land application.

(c) Operational Standards – In addition to satisfaction of the performance and design criteria detailed in subparagraphs (2)(a) and (2)(b) of this rule, land application facilities must be operated in compliance with Tennessee rule 1200-1-7-.13.

1. Facilities at which wastes are to be land applied for agronomic benefits, must demonstrate that the rate at which waste is to be land applied will benefit crop production without exceeding crop nutrient needs or hydraulically overloading the receiving soils.

2. For wastes which are to be land applied for soil amendment benefits, the facility must demonstrate the amendment value of land application by soil and waste analysis, and that application rates must not exceed the soil amendment needs of, or hydraulically overload the receiving soils.

3. The land application of waste must not result in an accumulation of harmful levels of waste constituents in crops or in the environment. It must be demonstrated that the rate at which waste is to be land applied will not result in an

accumulation of harmful levels of waste constituents or waste degradation by-products in the receiving soils, produced crops, or in the environment.

4. The soils analytical data, the waste constituent analytical data and waste application rate calculations must be included as an attachment to the permit-by-rule notification.

5. Land application methods must be appropriate for the waste being land applied. Wastes which have a potential for attraction of vectors or for the generation of objectionable odors must be immediately incorporated into the soil matrix, either through direct injection or tilling.

6. Except as provided at part (b)1 of this paragraph, there must be no storage of solid wastes at the facility.

7. Wind dispersal of solid wastes at or from the facility must be adequately controlled.

8. The facility must be operated in a manner such that the rate at which waste is to be land applied would be at a rate beneficial to crop production.

9. The facility must submit a sampling plan for the periodic monitoring for waste materials, waste constituents in soil, and in surface waters. In this plan, the facility must propose a sampling frequency, proposed parameters and indicate the report format in which it will be submitted.

10. Ground water monitoring may be required by the Commissioner. If groundwater monitoring is required by the Commissioner, a groundwater monitoring plan must be submitted for approval.

(d) Recordkeeping Requirements – The operator must maintain for the operational life of the facility the following records:

1. A list of all generators of solid wastes land applied by the permittee; and

2. For each solid waste stream land applied, the total quantity applied, and the number of acres to which the waste was applied.

(e) Reporting Requirements

1. Annual Reporting – On or before March 1 of each year, the operator must submit to the Division an annual report. This annual report must contain, at a minimum, the following information:

(i) The full name and permanent mailing address of the permittee;

(ii) The street address(es) for all locations at which the permittee has land applied solid wastes during the previous calendar year;

(iii) A list of all generators of solid wastes land applied by the permittee during the previous calendar year;

(iv) For each solid waste stream land applied during the preceding year, the total quantity applied, and the number of acres to which the waste was applied;

(v) Copies of any analytical data generated during the preceding year for any solid waste materials that the permittee has land applied; and

(vi) Copies of any analytical data generated during the preceding year from surface waters, groundwater monitoring or soil samples at each site where solid waste materials have been land applied.

(f) Financial Assurance – Financial assurance is intended to ensure that adequate financial resources are available to the Commissioner for the proper operation and closure of the facility. The types of financial assurance instruments that are acceptable are those specified in 1200-1-7-.03(3)(d). Such financial assurance shall meet the criteria set forth in T.C.A. §68-211-116 and Tennessee rule 1200-1-7-.03. Financial assurance must be provided for land application facilities having a waste storage capacity in excess of 100,000 gallons for liquids and/or sludges, or 1000 cubic yards for solids. The applicant shall file with the Commissioner a performance bond or equivalent cash or securities, payable to the State of Tennessee.

(g) Duty to Comply – The permittee must comply with all relevant notification and permit-by-rule requirements, unless otherwise authorized in writing by this Department. Any permit-by-rule condition noncompliance, except as otherwise authorized by the Department, constitutes a violation of the Act and is grounds for enforcement action, or for termination of the permit-by-rule, revocation and reissuance, or modification.

Authority: *T.C.A. §§ 68-211-102(a), 68-211-105(b), 68-211-105(c), 68-211-106(a)(1), 68-211-107(a), and 68-211-111(d)(1).* ***Administrative History:*** *New rule filed November 17, 2004; effective January 31, 2005.*