
Resource Recovery and Management
Parts I-V,
Chapter 17-7, F.A.C.
Department of Environmental Regulation
Effective 12/10/1985

Effective 12-10-85

CHAPTER 17-7

RESOURCE RECOVERY AND MANAGEMENT

PART I
SOLID WASTE FACILITIES

- 17-7.001 Declaration and Intent.
- 17-7.020 Definitions.
- 17-7.030 Solid Waste Resource Recovery and Management Permit Requirements.
- 17-7.040 Prohibitions.
- 17-7.050 Sanitary Landfill Criteria.
- 17-7.060 Special Waste Handling.
- 17-7.070 Closure of Landfills.
- 17-7.071 Closure Schedule.
- 17-7.072 Closure Permit Application Submittal.
- 17-7.073 Closure Plan Requirements.
- 17-7.074 Closure Procedures.
- 17-7.075 Long Term Care.
- 17-7.076 Financial Responsibility.
- 17-7.077 Permit Application Requirements.
- 17-7.078 Approval of Alternative Procedures and Requirements.
- 17-7.080 Supervision and Inspection.
- 17-7.090 Volume Reduction Plants.
- 17-7.091 Transfer Stations.
- 17-7.10 Applications for Permit.
- 17-7.11 Permit Forms.
- 17-7.120 Notification of Disposal Activity.
- 17-7.130 Forms.

See 91000

17-7.012

See prior rule

17-7.070(1)

PART II
STATE RESOURCE RECOVERY AND MANAGEMENT PROGRAM

- 17-7.200 Declaration and Intent.
- 17-7.210 Definitions.
- 17-7.220 State Agency Responsibilities.
- 17-7.23 Guidelines for Resource Recovery and Management Programs.
- 17-7.240 Resource Recovery Area Designations.
- 17-7.250 Local Agency Responsibilities.
- 17-7.251 Guidelines for a Resource Recovery and Management Program.
- 17-7.260 Local Program Submittal.
- 17-7.270 Extension Procedures.
- 17-7.28 Permitting.
- 17-7.290 Amendment to an Approved Program.
- 17-7.30 Approval of Local or Regional Resource Recovery and Management Program.

PART III
CERTIFICATION OF RESOURCE RECOVERY EQUIPMENT

- 17-7.400 Declaration and Intent.
- 17-7.410 Definitions.
- 17-7.420 Preliminary Examination of Resource Recovery Equipment.
- 17-7.430 Final Examination and Certification of Resource Recovery Equipment.
- 17-7.440 Criteria for Resource Recovery Equipment.

PART IV
DOMESTIC SLUDGE CLASSIFICATION, UTILIZATION, AND
DISPOSAL CRITERIA

- 17-7.500 Declaration and Intent.
- 17-7.510 Definitions.
- 17-7.520 Permit Requirements.
- 17-7.530 General Prohibitions For Domestic Sludges.
- 17-7.540 Criteria for Land Application or Disposal of Domestic Wastewater Treatment Sludge.
- 17-7.550 Criteria for Land Application or Disposal of Domestic Septage.
- 17-7.560 Criteria for Land Application or Disposal of Food Service Sludges.
- 17-7.570 Criteria for Land Application or Disposal of Processed Domestic Sludges.
- 17-7.580 Criteria for Land Application or Disposal of Composted Domestic Sludges.
- 17-7.590 Effective Date.

PART V
USED OIL

- 17-7.600 Declaration and Intent.
- 17-7.610 Definitions.
- 17-7.620 Prohibitions.
- 17-7.630 Registration.
- 17-7.640 Recordkeeping.
- 17-7.650 Reporting.
- 17-7.660 Exemptions.

PART I

SOLID WASTE FACILITIES

17-7.001 Declaration and Intent.

It is the intention of the Environmental Regulation Commission that the Department of Environmental Regulation encourage, in all appropriate ways, reclamation processes which will reclaim waste material for beneficial uses.

The Florida Department of Environmental Regulation finds and declares that improper disposal of solid waste and use of open dumps as a means of final disposal results in or contributes to air pollution, water pollution, and land blight. The Department further finds that proper methods of disposal of solid waste will reduce air pollution, water pollution and the use of the land as an uncontrolled receptacle for improperly treated waste. The Department further finds that properly designed, operated and monitored disposal of solid waste enhances the environment.

It is the intent of the Department to require that solid waste disposal be conducted in a manner and under conditions which will reduce the waste of recoverable resources and eliminate the dangerous and deleterious effects of improper solid waste disposal upon air quality, water quality, and human health, safety and welfare.

The purpose of this rule is to implement the provisions of the Florida Resource Recovery and Management Act, which directs the Department to plan for and regulate the storage, collection, transportation, separation, processing, recycling and disposal of solid waste in order to protect the public safety, health and welfare, to enhance the environment for the people of the state, and to recover resources which have the potential for further use, and to assure that the final irreducible residue is disposed of in a manner which enhances the environment.

The Department shall establish, maintain and promote a cooperative state program of planning and technical assistance for resource recovery and management; encourage and require designated counties and municipalities to plan for and provide efficient, environmentally acceptable resource recovery and management; review the design of and issue permits for construction and operation of resource recovery and management facilities; promote the application of resource recovery systems which preserve and enhance the quality of air, water and land resources; and establish a system for the examination and certification of resource recovery equipment.

Pursuant to Sections 403.061 and Sections 403.701 through 403.713, Florida Statutes, the execution and enforcement of any section regarding actual or potential pollution of air or waters is under the jurisdiction of the Department of Environmental Regulation. Chapter 17-7 F.A.C. replaces all applicable sections of Chapter 10 D-12 F.A.C.

Specific Authority: 403.061, 403.704, F.S.

Law Implemented: 403.021, 403.061, 403.087, 403.701 through 403.715, F.S.

History: New 10-1-74, Amended 5-24-79, Previously Numbered as 17-7.01.

17-7.001 -- 17-7.001(History)

12-10-85

17-7.020 Definitions.

The following words, phrases or terms as used in this Chapter, unless the context indicates otherwise, shall have the following meaning:

(1) "Agricultural Wastes" means the solid wastes resulting from the rearing and slaughtering of animals and the processing of animal products, orchard and field crops which are stored, transported or disposed of as an unwanted waste material.

(2) "ASTM" means the American Society for Testing and Materials.

(3) "Aquifer" means a geologic formation, group of formations, or part of a formation capable of yielding a significant amount of groundwater to wells, springs or surface water.

(4) "Available Market" means any person, user or enterprise, willing to enter into a long-term contract or agreement to purchase materials or energy recovered from solid waste.

(5) "Base Flood" means a flood that has a 1% or greater chance of recurring in any year, or a flood of a magnitude equalled or exceeded once in 100 years on the average over a long period. In any given 100 year interval such a flood may not occur, or more than one such flood may occur.

(6) "Bulky Wastes" means items whose large size or weight precludes or complicates their handling by normal collection, processing, or disposal methods.

(7) "Cell" means a volume of solid waste received since the last previous application of initial cover. The compacted waste and subsequent initial cover constitute a cell.

(8) "Closing" means the time at which a resource recovery and management facility ceases to accept wastes, and includes those actions taken by the owner or operator of the facility to prepare the facility for any necessary monitoring and maintenance after closing.

(9) "Closure" means the cessation of operation of a resource recovery and management facility and the act of securing such a facility so that it will pose no significant threat to human health or the environment. This includes closing, long term monitoring, maintenance and financial responsibility.

(10) "Closure Plan" means written reports and engineering plans detailing those actions that will be taken by the owner or operator of a resource recovery and management facility to effect proper closure of that facility.

(11) "cm/sec" means centimeters per second.

(12) "Composting" means a controlled process of degrading organic matter by micro-organisms which results in a humus material.

(13) "Composting Facility" means a facility where organic matter is processed by natural or mechanical means to aid the microbial decomposition of the organic matter. Processing may include simple exposure resulting in a natural decay or physically turning, windrowing, aerating or other mechanical reduction of the organic matter.

(14) "Construction and Demolition Debris" means non-hazardous material generally considered not to be water soluble, including but not limited to steel, concrete, glass, brick, asphalt roofing material, or lumber from a construction or demolition project including trees and vegetation from land clearing for a construction project. Contamination of construction and

demolition debris with any amount of other types of solid waste will cause it to be classified as other than construction and demolition debris.

(15) "Controlled Burning" means forced draft burning used for the combustion of solid waste with control of combustion air to maintain adequate temperature for efficient combustion, containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion, and control of the emission of combustion products.

(16) "Designated Counties" means those counties which are designated pursuant to Sections 403.705, .706 and .710, F.S., to plan for and engage in resource recovery and management programs and are listed as follows:

Alachua	Hillsborough	Pasco
Bay	Lee	Pinellas
—Brevard	Leon	Polk
Broward	Manatee	Sarasota
Dade	—Orange	—Seminole
Duval	Palm Beach	—Volusia
Escambia		

(17) "Disposal" means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or upon any land or water so that such solid waste or hazardous waste or any constituent thereof may enter other lands or be emitted into the air or discharged into any waters, including groundwaters, or otherwise enter the environment.

(18) "Disposal facility" means a facility at which disposal of solid waste occurs.

(19) "Energy Recovery" means the conversion of solid waste into energy or a marketable fuel.

(20) "Final Cover" means the material used to cover the top and sides of a landfill when fill operations cease.

(21) "Garbage" means all kitchen and table food waste, animal or vegetative waste that is attendant with or results from the storage, preparation, cooking or handling of food materials.

(22) "Generation" means the act or process of producing either solid waste or a marketable fuel.

(23) "Ground Water" means water beneath the surface of the ground, whether or not it is flowing through known and definite channels.

(24) "Hazardous Wastes" means a solid waste identified by the Department as a hazardous waste in Florida Administrative Code Rule 17-30.

(25) "Implement" means to carry out, accomplish, give practical effect to and ensure actual fulfillment by concrete means or by providing instruments or means of accomplishment.

(26) "Implementation Schedule" means a timetable for carrying out a local plan.

(27) "Infectious Wastes" means those wastes which may cause disease or reasonably be suspected of harboring pathogenic organisms; included are wastes resulting from the operation of medical clinics, hospitals, and other facilities producing wastes which may consist of, but are not limited to, diseased human and animal parts, contaminated bandages, pathological specimens, hypodermic needles, contaminated clothing, and surgical gloves.

(28) "Initial Cover" means a 6-inch layer of compacted earth, or other suitable material as approved by the Department, used to enclose a volume of solid waste prior to intermediate or final cover.

(29) "Intermediate Cover" means a layer of compacted earth one (1) foot in depth applied to a partially completed landfill.

(30) "Landfill" or "Sanitary Landfill" means a disposal facility, excluding those exempted under Subsection 17-7.030(1)(a)1. of this rule, which meets the criteria of Chapter 17-7 Florida Administrative Code. This term shall not include:

(a) a land spreading site; or

(b) a surface impoundment; or

(c) an injection well defined under and subject to the provisions of Chapter 17-28, Florida Administrative Code.

(31) "Leachate" means liquid that has passed through or emerged from solid waste and contains soluble, suspended or miscible materials.

(32) "Lift" means a completed horizontal series of cells.

(33) "Liner" means a continuous layer of low permeability natural or man-made materials, beneath or on the sides of a landfill, or landfill trench, which controls the downward or lateral escape of waste constituents, or leachate.

(34) "Local Agency" means any special district, authority, a county, a municipality, or any other political subdivision.

(35) "Local Solid Waste Program" means a local resource recovery and management program as described in Part II of this rule which includes a plan and an implementation schedule.

(36) "Materials Recovery" means any process by which one or more of the various components in solid waste was separated, concentrated, and reused.

(37) "Milled Refuse" means refuse that has been mechanically ground, shredded or pulverized.

(38) "Monitoring Wells" are strategically located wells from which water samples are drawn for water quality analysis.

(39) "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 utilization of organic agricultural waste, manure, and wastes solely derived from agricultural crops. For the purposes of Part IV of this Chapter, normal farming operations include the land application of Grade I sludge in accordance with the utilization criteria of Part IV, Chapter 17-7, Florida Administrative Code. Not included in normal farming operations is the use of Grade II or Grade III sludges (except Grade II processed domestic sludge).

(40) "Open Burning" means the burning of any material under such conditions that the products of combustion are emitted directly into the open atmosphere.

(41) "Open Dump" means a site for the disposal of solid waste which does not comply with the criteria of Chapter 17-7, F.A.C.

(42) "Person" means any and all persons, natural or artificial, including any individual, firm, or association; any municipal or private corporation organized or existing under the laws of Florida or any other state; any county of this state; and any governmental agency of this state or the Federal Government.

(43) "Planning Area" means the area defined by a local agency or agencies for solid waste management and resource recovery management planning.

(44) "Promiscuous Dump" means an unauthorized site where indiscriminate deposits of solid waste are made.

(45) "Recovered Materials" means materials which are recovered from the solid waste stream by separation, collection, or other means for reuse or resale.

(46) "Recycling" means the reuse of solid waste in manufacturing, agriculture, power production, or other processes.

(47) "Regional Agency" means one or more public agencies joined together by inter-local agreements for a stated period of time or by special Act of the Legislature, to assume the responsibility for resource recovery and management.

(48) "Residential waste" means a mixture of garbage and trash resulting from the normal housekeeping activities of a residential unit.

(49) "Resource Management" means the process by which solid waste is collected, transported, stored, separated, processed, or disposed of in any other way according to an orderly, purposeful, and planned program.

(50) "Resource Recovery" means the process by which materials, excluding those under control of the Nuclear Regulatory Commission, which still have useful physical or chemical properties after serving a specific purpose are reused or recycled for the same or other purpose, including use as an energy source.

(51) "Resource Recovery and Management Facility" means any solid waste disposal area, volume reduction plant, or other facility the purpose of which is resource recovery or the disposal, recycling, processing, or storage of solid waste.

(52) "Rural Containerized Collection System" means a collection system which involves mechanically serviceable containers, strategically located throughout an area, the contents of which are picked up on a regular schedule by a truck and their contents delivered to a transfer station or solid waste processing or disposal facility.

(53) "Sanitary Nuisance" means a condition created by any person, or the keeping, maintaining, propagation, existence, or permitting of anything by a person which the health or lives of individuals may be threatened or impaired, or by which disease may be caused or transmitted.

(54) "Shallow Water Supply Well" means any potable water well which pumps water from an unconfined water table aquifer.

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

(56) "Site" means the area of land or water within the property boundaries of a resource recovery and management facility where one or more solid waste treatment, resource recovery, recycling, storage or disposal areas are located.

(57) "Sludge" means any solid, or semi-solid, or liquid generated from any waste water treatment plant, water supply treatment plant, air pollution control facility, septic tank, grease trap, portable toilets and related operations, or any other such waste having similar characteristics or effects.

(58) "Solid Waste" means sludge from a waste treatment works, water supply treatment plant, or air pollution control facility or garbage, rubbish, refuse, or other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from domestic, industrial, commercial, mining, agricultural, or governmental operations. Materials not regulated as solid wastes pursuant to Florida Administrative Code Rule 17-7 are: nuclear source or byproduct materials regulated under Chapter 404 F.S. or under the Federal Atomic Energy Act of 1954 as amended; suspended or dissolved materials in domestic sewage effluent or irrigation return flows, or other regulated point source discharges; regulated air emissions; fluids or wastes associated with natural gas or crude oil exploration or production. Solid waste does not include scrap, or new or used material, separated at the point of generation and held for purposes of recycling, subject to state and local public health and safety laws.

(59) "Source Separation" means the setting aside of separated recyclable waste materials at their point of generation (household or commercial) by the generator.

(60) "Special Wastes" means those wastes that require extraordinary management. They include but are not limited to, abandoned automobiles, white goods, used tires, waste oil, sludges, dead animals, agricultural and industrial wastes, septic tank pumpings, and infectious and hazardous wastes.

(61) "Stabilized" means that biological and chemical decomposition of the wastes has ceased or diminished to a level so that such decomposition no longer poses a pollution, health, or safety hazard.

(62) "State Program" means the Resource Recovery and Management Program described in Chapter 403.705 and 403.706, FS, and this rule.

(63) "Ton" means a short ton, 2,000 pounds (.9078 metric tons).

(64) "Transfer Station" means a facility where solid waste from several relatively small vehicles is placed into a larger vehicle before being transferred to a solid waste processing or disposal facility.

(65) "Trash" means combinations of yard trash and construction and demolition debris along with other debris such as paper, cardboard, cloth, glass, street sweepings, vehicle tires and other like matter.

(66) "Treatment" means the process of altering the character, or physical or chemical condition of the waste to prevent pollution of water, air or soil, to safeguard the public health or enable the waste to be recycled.

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

(68) "Volume Reduction Plant" includes, but is not limited to, incinerators, pulverizers, compactors, shredding and baling plants, composting plants and other plants which accept and process solid waste for recycling or disposal. *VRP's must have permits. See 17-7.020(1)*

(69) "Waste Oil" means all types of waste oils, including waste

automotive lubricants, industrial waste oils, and petroleum compounds.

(70) "White Goods" means inoperative and discarded refrigerators, ranges, washers, water heaters, and other similar domestic and commercial appliances.

(71) "Working Face" means that portion of a sanitary landfill where waste is discharged, spread and compacted prior to placement of initial cover.

(72) "Yard Trash" means vegetative matter resulting from landscaping maintenance or land clearing operations and includes materials such as tree and shrub trimmings, grass clippings, palm fronds, trees and tree stumps.

All other definitions found in Chapter 403, F.S., and Chapter 17-7, F.A.C., to the extent that they are consistent with the definitions of this Chapter, are applicable to the terms used in this Chapter.

Specific Authority: 403.061, 403.704, F.S.

Law Implemented: 403.021, 403.031, 403.061, 403.087, 403.701 through 403.715, F.S.

History: Transferred from 10D-12.02, 10-1-74; Revised 7-20-76; Amended 5-24-79, 6-13-84, 4-25-85, 7-1-85; Previously Numbered as 17-7.02; Amended 12-10-85.

17-7.030 Solid Waste Resource Recovery and Management Permit Requirements.

(1) Permit Requirements. No resource recovery and management facility or site shall be operated, maintained, constructed, expanded, modified, or closed without an appropriate and currently valid permit issued by the Department as defined in Florida Administrative Code Rule 17-4.

(a) However, no permit under this section shall be required for the following activities provided that no public nuisance or condition adversely affecting the public health, safety and welfare is created and provided that the activity does not violate other state or local laws, ordinances, rules, regulations or orders including the Florida Air and Water Pollution Control Act, the Florida Safe Drinking Water Act, and standards adopted thereunder.

1. Disposal by persons of solid waste resulting from their own activities on their own property. This exemption shall not apply when solid wastes, other than construction and demolition debris and waste from normal farming operations, generated on non-contiguous property are collected and disposed of at one disposal site. However, persons disposing of solid wastes resulting from their own activities on their own property shall file a written notification to the Department of their disposal activities pursuant to the requirements of Florida Administrative Code Rule 17-7.120.

2. Normal farming operations.

3. Solid waste disposal areas limited to the disposal of construction and demolition debris.

(b) A determination by the department of whether an activity creates a public nuisance or condition adversely affecting the public health, safety or welfare shall include consideration of whether the activity violates the prohibitions set forth in Section 17-7.040 of this rule.

(2) Permit Application. The person making application for a resource recovery and management facility permit shall submit to the respective Department district office having jurisdiction where the facility is located a minimum of 6 copies of a permit application, engineering plans, and all supporting data and reports for the proposed construction, operation, and

closure of the facility prepared by a Professional Engineer registered in the State of Florida in accordance with provisions of Chapter 471, F.S. Said Engineer or another qualified Professional Engineer shall be required to make periodic inspections during construction of the facility to ensure that design integrity is maintained. If the person is acting as a public officer employed by the State, a county or a municipality and where that person estimates the initial construction cost is less than ten thousand dollars, this requirement may be waived in accordance with Chapter 471.003(2), F.S. Any law to the contrary notwithstanding, for purposes of this subsection, the construction cost of a solid waste disposal area shall not include land acquisition cost or the cost of equipment used to construct and maintain the same.

(3) Preparation of application. The application for a permit shall be prepared and signed by the applicant on form 17-7.130(1). The application shall include all information necessary for the Department to make an evaluation of the proposed facility to ensure that it will pose no significant threat to public health or the environment. The permit application and supporting information shall include the following:

- (a) A letter of transmittal to the Department;
- (b) A table of contents listing the main sections of the application;
- (c) The permit fee specified in Florida Administrative Code Rule 17-4.05 in check or money order payable to the Department;
- (d) Engineer seal. Data presented in support of the application shall be sealed in accordance with requirements of Section 471.025 F.S. by a registered professional engineer authorized to practice in the State of Florida;
- (e) Engineer's appointment to act on behalf of the applicant;
- (f) All construction, operation, closure, and ground water monitoring plans, data, drawings, photographs, and reports to support the application;
- (g) All maps, plan sheets, drawings, isometrics, cross-sections, or aerial photographs shall be legible and:
 1. Signed and sealed by the registered professional engineer responsible for their preparation. Wherever possible drawings should be no larger than 24 by 36 inches, folded to 9x12 inches. Illustrations, tables or drawings reduced in size should be no smaller than 8 1/2 by 11 inches;
 2. Of appropriate scale to show clearly all required details;
 3. Numbered, referenced to the narrative, titled, have a legend of symbols used, contain horizontal and vertical scales (where applicable), and specify drafting or origination dates;
 4. Use uniform scales as much as possible, contain a north arrow, use National Geodetic Vertical Datum (NGVD) as a basis for all elevations.
- (h) A copy of any lease agreement, transfer of property agreement with right of entry for long-term care, or any other agreement between operator and property owner by which the facility may be affected;
- (i) Financial documents assigned to the Department which ensure the financial responsibility for the closing and long-term care of the facility.

(4) An applicant for a permit to construct, expand, or close a resource recovery and management facility shall publish and provide proof of publication to the Department, at his own expense, a Notice of Application in

See 17-103.150(1)

17-7.030(2) -- 17-7.030(4)

12-10-85

a newspaper of general circulation in accordance with Florida Administrative Code Rule 17-103.150.

(5) Water Management District Report. Upon receipt of a construction permit application for a Class I or Class II landfill the Department shall, within 7 days, provide a copy of the application to the water management district having jurisdiction where the landfill is to be located. The water management district shall prepare a report as to the impact on water resources and shall submit the report to the Department no later than 30 days prior to the deadline for final agency action by the Department.

(6) Construction, Operation and Closure Permits. The Department, following an evaluation of a permit application and all supporting information, shall:

(a) Issue a construction permit for a new solid waste management facility. After all significant initial construction has been completed and prior to operation or acceptance of any solid waste the engineer or the authorized public officer shall complete an Application to Operate Only Resource Recovery and Management Facility - Certification of Construction Completion, Department Form 17-7.130(2), and contact the Department to arrange for Department representatives to inspect the facility in the company of the permittee, the engineer, and the proposed on-site facility operator. The inspection is to ensure that the facility has been developed in accordance with the approved permit. The facility shall not be operated or accept solid waste until the Department has found that all applicable submissions required for the permit, including financial responsibility documentation have been received and found acceptable; or

(b) Issue an operation permit for new facilities that have been satisfactorily constructed, or to existing facilities which are being operated in accordance with this rule at the time for renewal of their permit; or

(c) Issue a closure permit for closing and long term care of landfills that have satisfied the requirements of Florida Administrative Code Rules 17-7.070 through 17-7.076 and other applicable laws and rules. Permits shall be renewed in accordance with Florida Administrative Code Rule 17-4.07; or

(d) Deny the issuance of a permit if reasonable assurances are not provided that the requirements of Florida Administrative Code Rule 17-7 and other applicable laws and rules will be satisfied.

(7) Time period for construction and operation permits. Landfills are generally long term projects which may be constructed in sections or phases at different time periods throughout the lifetime of the landfill. The Department may approve a permit for construction and operation of the entire facility with permit conditions requiring the permittee to advise the Department when construction is begun on each new section or phase of the landfill and when each section or phase is completed. Permits are issued subject to modification in accordance with Florida Administrative Code Rule 17-4.08.

(8) A copy of the Department approved engineering drawings, plans, reports, operational plan, and supporting information shall be kept at the facility at all times for reference and inspections.

Specific Authority: 403.061, 403.704, F.S.

Law Implemented: 403.021, 403.061, 403.087, 403.702, 403.704, 403.705, 403.707, 403.708, F.S.

History: Transferred from 10-D12.03, 10D-12.04, 10D-12.07, 10-1-74 Amended 5-24-79, 6-13-84, 7-1-85; Previously Numbered as 17-7.03; Amended 12-10-85.

17-7.040 Prohibitions.

(1) No solid waste shall be disposed of except by sanitary landfill, incineration, recycling process, or other method approved by the Department and consistent with this chapter and applicable approved local agency programs or regulations.

(2) No solid waste shall be disposed of by being placed:

(a) in an open sink hole or in an area where geological formations or subterranean features would not provide support for a landfill.

(b) in a limestone, or gravel pit.

(c) in an area immediately adjacent to or within 500 feet of an existing or approved shallow water supply well unless disposal takes place in a sanitary landfill which was originally permitted before the shallow water supply well was in existence.

(d) in a dewatered pit unless permanent leachate containment and special design techniques are used to ensure the integrity of the landfill liner.

(e) in an area subject to frequent and periodic flooding unless drainage provisions approved by the Department are installed.

(f) in any natural or artificial body of water including ground water.

(g) within 200 feet of any natural or artificial body of water, except bodies of water contained completely within the sanitary landfill site, which do not discharge from the site. A person may dispose of solid waste within the 200 foot setback area upon demonstration to the Department that permanent leachate control methods will result in compliance with water quality standards under Chapter 17-3, F.A.C. Stormwater control methods shall meet stormwater requirements of Chapter 17-25, F.A.C. However, nothing contained herein shall prohibit the Department from imposing conditions necessary to assure that solid waste disposed of within the 200 foot setback area will not cause pollution from the site in contravention of Department rules.

(h) in any area open to public view from any major thoroughfare without proper screening where it can practically be provided.

(i) on the right of way of any public highway, road, or alley.

(j) within the boundaries of any airport property whether such airport be for public, private or limited use.

(k) within ten thousand (10,000) feet of the closest point of any runway at any airport licensed by the State of Florida, owned or operated by the United States, or subject to regulation by the Federal Aviation Administration which may be used by turbo-jet aircraft; or within five thousand (5,000) feet of any runway at any such airport used only by piston engine type aircraft unless it has been determined by the Federal Aviation Administration, the Florida Department of Transportation, or other appropriate federal or state agency charged with preventing airport hazards, that the proposed solid waste facility poses no safety hazards, that the proposed solid waste facility poses no safety hazard to aircraft in the vicinity.

(3) Burning of solid waste shall not be permitted at any landfill except in accordance with Florida Administrative Code Rule 17-7.060(1) and (3).

(4) Hazardous Waste: Any hazardous waste which is intended to be disposed of by land disposal or incineration and which can be reasonably expected to create a condition harmful to human health or air or water quality shall ~~be~~ at the owner's expense, be rendered non-hazardous prior to delivery to the disposal facility. Should a hazardous waste be of such composition that it cannot be rendered non-hazardous, the producer of such wastes must confer with the Department to determine a safe disposal or storage method and shall dispose of or store the waste by a method which is approved by the department. The approved method shall be determined on a case by case basis and shall be governed by the nature of the hazardous waste and its potential impact on air and water resources and public health, safety and welfare.

(5) Infectious waste shall be properly incinerated or processed by an alternate method which has been approved by the Department. No untreated infectious waste shall be deposited in any sanitary landfill.

(6) Transportation and disposal of solid wastes into or through the State, into or across county or municipal boundaries shall not be impeded provided such transport and disposal is in accordance with the provisions of this rule, does not degrade the environment, create a physical or aesthetic nuisance, or endanger or impair the public's health or welfare.

(7) The Department shall not issue a construction permit for a new sanitary landfill within 3,000 ft. of Class I surface waters.

Specific Authority: 403.061, 403.704, F.S.

Law Implemented: 403.021, 403.061, 403.087, 403.702, 403.704, 403.705, 403.707, 403.708, F.S.

History: Transferred from 10D-12.06, 10D-12.07, 10-1-74; Amended 5-24-79, 5-27-82; Previously Numbered as 17-7.04; Amended 12-10-85.

17-7.050 Sanitary Landfill Criteria.

Applicability. The criteria contained in Florida Administrative Code Rules 17-7.050 and 17-7.060 are applicable to all new landfill construction permits issued by the Department after the effective date of this rule. All permits issued prior to the effective date of this rule which contain conditions not in conformance with this rule shall be re-submitted to the District Office of the Department which issued the permit for purposes of modification of the permit to conform to this rule. The re-submission shall occur at least 90 days prior to the initial placement of waste into any trench or disposal area after January 1, 1987.

(1) Classification of Sanitary Landfills. Sanitary landfills are classified into three (3) different classes based on the amount and type of wastes received at the landfill. There are varying requirements throughout this rule depending upon the class of landfill.

(a) Class I landfills are those which receive an average of 20 tons or more of solid waste per day as weighed by scale if available, or 50 cubic yards or more of solid waste per day as measured in place after covering. Such sites shall receive an initial cover at the end of each working day in accordance with Florida Administrative Code Rule 17-7.050(5)(m).

17-7.040(3) -- 17-7.050(1)(a)

12-10-85

(b) Class II landfills are those which receive an average of less than 20 tons of solid waste per day as weighed by scales if available, or less than 50 cubic yards of solid waste per day as measured in place after covering. Such sites shall receive an initial cover at least once every four days. If Class II sites receive sewage or industrial sludges, dead animals, rendering wastes, or other nuisance wastes, Class I covering frequency shall be required.

(c) Class III landfills are those which receive only trash or yard trash. Class III sites which are operated as trash facilities, based on site specific information, may be exempt from the liner and leachate and gas controls required in Florida Administrative Code Rules 17-7.050(4)(a), (b), (c), (d), (e), (f), (i), (j), and 17-7.050(5)(i), and are required to apply initial cover once every week. In determining whether a Class III landfill qualifies for the exemptions from certain requirements of Rule 17-7.050 the Department shall consider the hydrogeology, types of waste, and methods used to control types of waste received for disposal. Class III sites which are operated as yard trash composting facilities are not required to apply initial cover and, additionally, are exempt from Florida Administrative Code Rules 17-7.050(2)(a) and (b); (3); (4) and 17-7.050(5)(a), (c)4., (d), (f), (h), (i), (j), (k), (l), (m), (n), and (o). If trash or yard trash is mixed with other types of solid waste, the disposal site shall be classified as a Class I or II landfill.

(d) More frequent cover may be required at Class II and Class III sites if necessary to prevent health and environmental problems. The department shall consider proximity to nearby residences and wells, evidence of dumping of unauthorized wastes, unlawful fires, littering of nearby property, odor problems, presence of vectors, and any other demonstrable potential or existing problems at such sites when making this determination.

(2) Location Requirements.

(a) Solid waste shall be disposed of only in landfills where a ground water monitoring plan, including a hydrogeological survey, has been completed in accordance with Florida Administrative Code Rules 17-4.245(6) and 17-7.050.

(b) The land disposal site location shall provide support for the landfill including total wastes to be disposed of, cover material, and structures to be built on the site. Site structural acceptability will be subject to Department approval. A hydrogeological survey is required and it shall comply with Florida Administrative Code Rule 17-4.245(6)(d)1. and include a foundation analysis, prior to construction, to determine the structural integrity of the subgrade to support the loads and stresses imposed by the landfill; or, if feasible, acceptable geotechnical measures necessary to modify the structural integrity to accommodate the imposed loads and stresses. These loads shall not cause failure of the liner or other containment system. The strength of the subgrade shall be determined using appropriate ASTM methods, or equivalent methods, and the foundation shall be analyzed for all appropriate short-term, end of construction, and long term conditions.

(c) Site Requirements.

The land disposal site location shall:

1. be easily accessible by collection vehicles, automobiles and where applicable, transfer vehicles;

17-7.050(1)(b) -- 17-7.050(2)(c)1.

2. safeguard against water pollution originating from the disposal of solid waste;

3. have an adequate quantity of acceptable earth cover available. The cover material shall be easily workable and compactable.

4. conform with the proper zoning.

(3) Landfill Design. Class I and Class II landfills shall have a liner. Landfills may be designed for sectioned, or phased, construction and closure at scheduled intervals throughout the life of the landfill. Landfill closure design shall address applicable requirements of Florida Administrative Code Rules 17-7.071 through 17-7.076. Landfill design plans shall include:

(a) A map or aerial photograph of the area showing land use and zoning within 1 mile of the landfill. This map, or photograph which shall be taken within one year of the permit application, shall be of sufficient scale to show all homes, industrial buildings, wells, watercourses, dry runs, rock out-croppings, roads and other significant details. All significant features shall be indicated and labeled on the map or aerial photograph;

(b) A plot plan of the site showing dimensions, location of soil borings, proposed trenching or disposal areas plan, original elevations, and proposed final contours, any previously filled waste disposal areas, and fencing. Cross sections shall be included on the plot plan or on separate sheets showing both the original and proposed fill elevations. The scale of the plot plan should not be greater than 200 feet to the inch;

(c) Topographic maps at a scale of not over 200 feet to the inch with 5-foot contour intervals. These maps shall show: the proposed fill area; any borrow area; access roads; grades required for proper drainage and a typical cross section of a lift; special drainage devices, if necessary; fencing; equipment facilities; and all other pertinent information;

(d) A report on the:

1. Current and projected population and area to be served by the proposed site.

2. Anticipated type, annual quantity and source of solid waste, expressed in tons or cubic yards of compacted materials.

3. Anticipated life of the site.

4. Source and characteristics of cover material.

(e) Ground water monitoring plan.

(4) Landfill performance and design standards. Performance standards established by the following criteria are the standards which the landfill is to achieve. Design standards are also presented herein which may be used to achieve the performance standards. Alternative designs which achieve performance standards may be used upon approval by the Department.

(a) Liner construction or installation. Construction or installation of liners shall be in accordance with the methods and procedures given in Lining of Waste Impoundment and Disposal Facilities, EPA publication SW-870, March 1983, which is hereby incorporated into this rule by reference. Copies of this document may be inspected at the Department's district offices.

(b) Liner performance standards. The liner must be:

1. Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients

Class I & II
Landfills
17-7.071

Landfill Design
17-7.071 through
17-7.076

Performance
vs
Design
Standards

Performance
Standards

(including static head and external hydrogeologic forces), physical contact with the waste or leachate to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation;

2. Installed upon a base, or in a hydrogeological setting 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; and

3. Installed to cover all surrounding earth likely to be in contact with the waste or leachate.

(c) Liner Quality Control Plans.

1. Soil liners shall have a soil and liner quality control plan to provide construction and operating personnel with adequate information to assure continuous compliance with the soil and liner construction requirements. The plan shall include specifications and construction methods which use established engineering practices for compaction of clay soils to form a liner and provide for soil and liner quality control testing procedures and sampling frequency. Sampling and testing shall be conducted in the field during construction and after completion by qualified personnel under the direction of the professional engineer in charge to assure the liner will meet the performance standards.

2. Synthetic liners shall be installed in accordance with a Department approved quality control plan which incorporates the manufacturer's specifications and recommendations.

(d) Liner Design Standards.

1. Soil liners:

a. Shall be a minimum of 3 feet of soil e.g., clay, with an in-place saturated hydraulic conductivity not greater than 1×10^{-7} cm/sec. Saturated hydraulic conductivity shall not be increased above 1×10^{-7} cm/sec as a result of contact with the leachate generated by the landfill. Testing of the saturated hydraulic conductivity and the effect of leachate on soil permeability shall be performed in accordance with test methods given in EPA publication SW-870, ASTM test procedures or other tests which may be approved by the Department;

b. Shall not have any lenses, cracks, channels, root holes, pipes or other structural inconsistencies that can increase the saturated hydraulic conductivity of the liner above 1×10^{-7} cm/sec. The design shall illustrate and describe those instances in which over excavation of permeable areas and backfilling may be necessary to seal the permeable area e.g., when sand filled sinkholes are encountered. Where recompacted emplaced soil liners are used, they shall be placed in layers not exceeding 12 inches before compaction to maximize the effectiveness of compaction;

c. May consist of in-situ soils provided they meet the specifications for soil liners. Testing of in-situ soil shall be performed in accordance with the soil liner quality control plan.

2. Synthetic liners:

a. Shall consist of at least a reinforced 30 mil membrane or a 60 mil unreinforced membrane that meets minimum requirements of the National Sanitation Foundation Standard Number 54, Flexible Membrane Liners, November, 1983, which standard is hereby incorporated into this rule by reference, copies of

this document may be inspected at the Department's district offices;

b. Shall be protected from physical damage from above and below the membrane, by bedding soil material underlying the liner and a minimum 24 inch thick protective soil layer on top of the membrane; both the bedding and protective layer shall be free of rocks, roots, debris, sharps or particles larger than 1/4 inch. The lower 12 inches of material in contact with the top of the liner, if sufficiently permeable, may be used as a drainage layer; and

c. Shall have factory and field seams that equal or exceed the strength requirements defined by National Sanitation Foundation Standard 54 for that lining material. All field seams must be visually inspected and pressure or vacuum tested for seam continuity using suitable non-destructive techniques.

3. Other liner materials. Constructed liners other than compacted clay soils e.g., asphalt, polymeric membranes, concrete, bentonite slurry or admixture or other suitable material, may be approved by the Department if it can be shown that these alternative materials will have performance equivalent to those stated for soil liners.

(e) Leachate control performance standards. Landfills shall have a leachate collection and removal system immediately above the liner that is designed, constructed, maintained, and operated to collect and remove leachate from the landfill. The leachate depth on top of the liner shall not exceed one foot depth of leachate. The leachate collection and removal system shall:

≤ 1' head

1. Be constructed of materials that are chemically resistant to the waste disposed of in the landfill and the leachate expected to be generated;

2. Be of sufficient strength and thickness to prevent collapse under pressures exerted by overlying wastes, cover materials, and by any equipment used at the landfill;

3. Be designed and operated to function without clogging through the active life and closure period of the landfill; and

4. Be designed and constructed to provide for removal of the leachate within the drainage system to a central collection point for treatment and disposal.

(f) Leachate Control System Design Standards. Leachate collection and removal systems shall have:

1. At least a 12 inch drainage layer above the liner with a hydraulic conductivity permeability of not less than 1×10^{-3} cm/sec at a slope to promote drainage;

2. A drainage tile or pipe collection system of appropriate size and spacing, sumps and pumps or other means to efficiently remove leachate. The design shall demonstrate through calculations in the permit application that a maximum one-foot depth of leachate on the liner will be achieved; and

3. Granular material or synthetic fabric filter overlying or surrounding the leachate collection and removal system to prevent clogging of the collection system by infiltration of fines from the waste or drainage layer; and have a method to test that the system is not clogged and a method for cleaning the system if it becomes clogged.

(g) Surface water management system performance standards. Landfills shall have surface water management systems designed, constructed, operated, and maintained to prevent surface water flow onto waste filled

areas, and a storm water run-off control system designed, constructed, operated, and maintained to collect and control stormwater to meet requirements of Florida Administrative Code Rule 17-25 and requirements of the respective water management district.

(h) Surface Water Management System Design Standards.

1. Storm water controls should be specifically designed and sized according to local drainage patterns, soil permeability, annual precipitation, area land use, and other characteristics of the contributing watershed;

2. Retention and detention ponds and drainage ways shall be designed, constructed, and maintained to meet the requirements of Florida Administrative Code Rule 17-25, or requirements of the water management district where the Department has delegated storm water permitting to a water management district;

3. Stormwater management systems shall be designed to minimize to the maximum extent possible the mixing of stormwater with leachate. Stormwater or other surface water which comes into contact with the solid waste or mixes with leachate shall be considered leachate and shall be treated to meet applicable standards of Florida Administrative Code Rules 17-3 and 17-4 at the point of discharge.

(i) Gas control system performance standards. Landfills shall have a gas control system to prevent: Explosion and fires due to the accumulation of methane concentrations on-site or off-site; damage to vegetation on final cover of closed portions of the landfill or vegetation beyond the perimeter of the property on which the landfill is located; and objectionable odors off site.

(j) Gas control system design standards. Landfill gas control systems may:

1. Be designed for site-specific conditions and be installed in each section of the landfill that has been filled to design dimensions; and

2. Be installed to reduce gas pressure in the interior of the landfill by collecting the gasses to prevent them from moving laterally. Collection pipes, pathways, or vents shall be installed to the lower regions of the filled waste or where the more anaerobic conditions exist. The gas control system shall not interfere with or cause failure of the liner or leachate control systems.

(5) Operations.

(a) Ground Water Monitoring.

1. Monitor well location, construction, and collection of samples shall be as specified in Florida Administrative Code Rules 17-3.401, 17-4.245, and 17-4.246. Guidance for construction of monitor wells and collection of samples is contained in Procedures Manual for Ground Water Monitoring at Solid Waste Disposal Facilities (EPA/530/SW-611).

2. Sampling and testing of ground water at landfills shall be in accordance with Florida Administrative Code Rule Sections 17-3.401, 17-4.245, 17-4.246, and 17-22.105.

3. When requested by the Department the facility operator shall inform the department of the next sampling schedule so that a representative of the Department may be present to collect a split sample.

(b) Operation Plan. An operation plan shall be submitted with all landfill construction permit applications. The operation plan shall provide written instructions for the daily operation of the landfill. The plan shall be revised when operational procedures change. The plan shall include detailed procedures such as:

1. Designation of persons responsible for operation and maintenance of the facility;
2. Contingency operations, alternate waste handling and disposal methods in case of emergency such as a natural disaster or equipment failure;
3. Controlling the type of waste received at the site. The plan shall specify inspection procedures, number and location of spotters and procedures to be followed if prohibited wastes are discovered;
4. Weighing or measuring incoming waste;
5. Vehicle traffic control and unloading;
6. Method and sequence of filling waste;
7. Waste compaction and application of cover;
8. Operations of gas, leachate, and storm water controls;
9. Ground water monitoring.

(c) Operational design features. The disposal site shall be provided with operation features and appurtenances necessary to maintain a clean and orderly operation. These minimum features are:

1. An effective barrier designed to prevent unauthorized entry and dumping into the landfill site.
2. An all-weather access road to the site. A special area with a stabilized roadway shall be provided within the site for wet weather operations.
3. Signs indicating name of operating authority, traffic flow hours of operation, and charges for disposal (if any).
4. Scales for weighing solid waste received at the landfill, or in lieu thereof, estimates the number of cubic yards received at all Class I and Class II sites. Quantitative records shall be forwarded to the Department upon request.
5. Dust control methods such as approved chemicals, oils, or water sprays.
6. Litter control devices, portable fences, or other suitable means.
7. Fire protection and fire-fighting facilities adequate to insure the safety of employees and provisions to deal with accidental burning of solid waste within the sanitary landfill.

(d) Personnel and Facilities. In order to insure proper staffing and suitable facilities the following shall be required:

1. During hours of operation, an attendant at Class I sites. The Department may require an attendant at Class II or Class III sites if the Department affirmatively demonstrates that such a requirement is necessary to prevent unlawful fires, unauthorized dumping, or littering of nearby property.
2. Communication facilities for use in emergencies at Class I sites.

(e) Equipment. To insure adequate operation the following is required:

1. Equipment sufficient for excavating, spreading, compacting, covering operations, and other transportation and earthmoving needs.
2. Sufficient reserve equipment, or arrangements to provide alternate

equipment within 24 hours following equipment breakdown.

3. Safety devices on equipment to shield and protect the operators from potential hazards during operation.

(f) The Department recommends but does not require:

1. A potable water supply.
2. A suitable employee shelter.
3. Handwashing and toilet facilities.
4. Equipment wash-out facilities.
5. Electric service for operations and repairs.
6. Equipment shelter for maintenance and storage of parts, equipment and tools.
7. Emergency first aid equipment to provide adequate treatment of an injured person in case of an accident.

8. That employees be trained in the proper and safe operation of all equipment and first aid procedures.

(g) Sanitary landfills shall be operated to provide for the collection, control and treatment of surface runoff from the site as necessary to meet the applicable standards of Florida Administrative Code Rules 17-3, 17-4, and 17-25;

(h) Any leachate emanating from a landfill shall be collected and treated as necessary to meet the applicable standards of Florida Administrative Code Rules 17-3, 17-4, and 17-25;

(i) Gas control systems shall be operated and maintained in accordance with the gas control system design. Operational procedures shall include measures to prevent damage to vents, and equipment repair or replacement as expeditiously as possible if damaged or destroyed;

(j) All solid waste at Class I and Class II sites shall be spread in layers of approximately two (2) feet in thickness and compacted to approximately one (1) foot in thickness or as thin a layer as practical before the next layer is applied. Solid waste at all Class III sites, except those yard trash sites which are operated as composting facilities, shall be spread in layers and compacted once every week using suitable heavy equipment. Bulky materials such as tree stumps or large pieces of concrete which are not easily compacted should be worked into other materials as much as practical.

(k) All compacted solid waste shall be formed into cells with the working face, and side grades above land surface, at a slope no greater than thirty (30) degrees. Cell depth shall be constrained by the type of operation in use (area, trench), the daily volume of waste, width of the working face, and good safety practices.

(l) The working face of a cell shall be only wide enough to efficiently accommodate vehicles discharging waste and to minimize the exposed area and the use of unnecessary cover material;

(m) Initial cover shall be applied to enclose each landfill waste disposal cell except the working face which may be left uncovered if solid waste will be placed on the working face within 18 hours. Any adverse environmental or health effects such as blowing litter, odors, flies, or rats resulting from this practice shall be cause to place initial cover on the working face. Initial cover shall be applied to landfills as follows:

1. Class I; at the end of each working day;
2. Class II; every four days;
3. Class III; once every week;

(n) An intermediate cover of one (1) foot of compacted earth in addition to the six (6) inch initial cover shall be applied within seven (7) days of cell completion at all landfills if final cover or an additional lift is not to be applied within 180 days of cell completion.

(o) Portions of landfills which have been filled with waste to the extent of designed dimensions shall be closed in accordance with the closure plan required in Florida Administrative Code Rules 17-7.050(3) and 17-7.070 through 17-7.076;

(p) Pesticides used to control rodents, flies and other insects shall be as specified by the Florida Department of Agriculture and Consumer Services.

(q) Uncontrolled and unauthorized scavenging shall not be permitted at any sanitary landfill site. Controlled salvaging may be permitted by the local authority responsible for the facility.

Specific Authority: 403.061, 403.704, F.S.

Law Implemented: 403.702, 403.704, 403.705, 403.707, 403.708, F.S.

History: Transferred from 10D-12.07, 10-1-74; Revised 5-11-75, 7-20-76; Amended 5-24-79; Previously Numbered as 17-7.05; Amended 12-10-85.

17-7.060 Special Waste Handling.

(1) Controlled burning of solid wastes shall be accomplished in an incinerator, with the exception of controlled burning of only vegetative wastes, such as yard trash, which may be done in a permitted, properly operated incinerator or trench burner. A trench burner is an installation consisting of an open pit with fixed walls and a mechanically forced draft air supply to provide excess oxygen and turbulence to accomplish smokeless combustion of clean wood wastes and vegetative matter.

(2) Abandoned vehicles brought to the site may be stored temporarily in a separate area, provided arrangements have been made for frequent removal to an automobile recycler. If such arrangement has not been made all abandoned vehicles, white good and similar materials shall be compacted to minimize voids before being placed in the fill area.

(3) In the event of a natural disaster, during which large volumes of debris are accumulated (such as trees and buildings that have been destroyed) the debris may be transported to an area remote from habitation, and burned, in accordance with Florida Administrative Code Rule 17-5.09(1).

(4) Landfilling milled solid waste without daily soil cover may be an environmentally acceptable method of final disposal. However, the same engineering principles required for a sanitary landfill site must be employed, including a properly designed and operated milling facility. The Department will grant approval for such disposal method contingent upon the following conditions:

(a) Particle size. Seventy percent (70%) of all milled refuse, dry weight, shall be capable of passing through a three (3) inch screen.

(b) Waste shall be spread to a smooth contour and compacted promptly after placement and left undisturbed to prevent odors. Wind blowing of milled

refuse and paper shall be controlled.

(c) All solid waste storage areas in the milling facility must be maintained and cleaned at the end of each day's operations, or during continuous operation, as necessary, to prevent fly, rodent or other vector problems. All milling equipment shall be designed and maintained to control spillage and to achieve the required milled product quality.

(d) An operational plan shall include provision for removal and proper disposal of wastes within 24 hours should the mill facility breakdown or operational quality be diminished. The operational plan shall include provision for a stock pile of emergency soil cover material and a plan to convert the operation to a sanitary landfill.

(e) Leachate collection and treatment as necessary to meet water quality standards of Chapters 17-3 and 17-4, F.A.C., shall be provided at all milled solid waste sites. The design of the treatment facility shall be reviewed and approved by the department as a part of the permit required for the milled solid waste site.

(f) Upon completion of the site, it shall be closed, covered with a final one (1) foot thick soil cover and shall be seeded or planted with grass or suitable cover vegetation to minimize erosion.

(5) Asbestos-containing solid waste shall be covered daily with a pro per dust suppressant or six inches of non-asbestos material, or disposed of in an area where proper warning signs and fences or barriers are present, as described in 40 CFR 61.25. This federal Environmental Protection Agency regulation (40 CFR 61.25) is hereby adopted and incorporated in this rule by reference as it is stated in the October 14, 1975, Federal Register (40 FR 199), and as amended in the April 5, 1984, Federal Register (49 FR 13658). For purposes of this rule, the term "Administrator," when used in 40 CFR 61.25, shall mean Secretary of the Department of Environmental Regulation. Additionally, any asbestos-containing solid waste disposed of at a Class I or Class II Sanitary Landfill shall be disposed of according to the requirements of Section 17-7.050, F.A.C.

Specific Authority: 403.061, 403.704, 403.705, 403.8055, F.S.

Law Implemented: 403.021, 403.061, 403.087, 403.702, 403.704, 403.705, 403.707, 403.708, F.S.

History: Transferred from 10D-12.07, 10-1-74; Amended 5-24-79, 11-25-82, 7-10-84; Previously Numbered as 17-7.06; Amended 12-10-85.

17-7.070 Closure of Landfills. This section contains the minimum permit application requirements to close a landfill and monitor and maintain the closed facility after closing so that it will pose no significant threat to human health or the environment. If an applicant cannot provide reasonable assurance that the requirements of Florida Administrative Code Rules 17-3 and 17-4 will not be violated, then the Department may impose additional closure requirements on a landfill based upon site specific conditions. In subsequent rules regarding landfill construction and operation, the Department shall assure that Florida Administrative Code Rule 17-7.070 through 17-7.076 are consistent and conforming.

(1) Effective Date and applicability. Effective July 1, 1985, Florida

Administrative Code rules 17-7.070 through 17-7.076 shall apply to all portions of landfills receiving waste, portions of landfills not having final cover, and all future landfills requiring solid waste permits, with the following exceptions:

(a) Any site at which a person disposes of solid wastes resulting from his own activities on his own property, pursuant to the exemption created in section 403.707(2), Florida Statutes.

(b) Any dredge spoil site permitted or exempt from permitting under Chapter 403 Florida Statutes.

(c) Any yard trash composting site at which only vegetative material was disposed.

(d) Any area limited solely to the disposal of construction and demolition debris.

(e) Any portion of a landfill for which a modification of an operation permit to close or a closure plan has been approved by the department as of July 1, 1985.

(2) Permit Applications. Construction permit applications for new landfills shall include general plans and schedules for closure of the facility.

Specific Authority: 403.061, 403.704, F.S.

Law Implemented: 403.021, 403.061, 403.087, 403.702, 403.704, 403.705, 403.707, 403.708, F.S.

History: New 10-1-74; Amended 5-24-79, 7-1-85; Previously Numbered as 17-7.07; Amended 12-10-85.

any site
not having
final cover

K C & D
exempt from
closure

closure plan
required for
construction
permits

17-7.071 Closure Schedule. At least one year prior to the projected date when wastes will no longer be accepted, the landfill owner or operator shall provide a written notice to the Department District Office and local pollution control agency with a schedule for cessation of waste acceptance and closure of the landfill. The closure schedule shall become an addendum to the currently valid facility permit. If unforeseen circumstances do not allow the one year notification, notice shall be provided as soon as the need to close the facility becomes apparent.

(1) Notice and advice to users. At least 120 days prior to the date when wastes will no longer be accepted at the landfill, the owner or operator shall advise users of the intent to close the facility by posting signs at the entrance of the facility giving the date of closing, the location of alternative disposal facilities and name of the person responsible for closing the landfill. These signs shall be maintained throughout the closing period. If unforeseen circumstances do not allow the 120 day notice to users, notice shall be provided as soon as the need to close the facility becomes apparent.

(2) Notice to the Public. Within 10 days prior to the date when wastes will no longer be accepted at the landfill a notice shall be published in the legal advertising section of a newspaper of general circulation in the county where the activity is proposed, and the applicant shall provide proof of publication to the Department within 7 days of publication.

Specific Authority: 403.704, F.S.

Law Implemented: 403.704, 403.707, F.S.

History: New 7-1-85.

17-7.072

DER1985

RESOURCE RECOVERY AND MANAGEMENT

17-7

Closure permit application as required by 17-7.072

17-7.072 Closure Permit Application Submittal. At least 90 days prior to the date when wastes will no longer be accepted, the landfill owner or operator who does not possess an approved closure plan shall submit a closure permit application to the Department. Landfill owners or operators that have a closure plan which was submitted and approved as part of the landfill construction permit shall resubmit that closure plan, revised to agree with the requirements of Florida Administrative Code Rule 17-7.073, to the Department no less than 90 days prior to the scheduled closing day. Upon approval by the Department the closure plan shall become an addendum to the currently valid permit.

Specific Authority: 403.704, F.S.

Law Implemented: 403.704, 403.707, F.S.

History: New 7-1-85.

17-7.073 Closure Plan Requirements. All closure plans shall address the following eight parts contained in this sub-section, and for non-applicable requirements, shall contain an explanation of why the requirement is not applicable. Valid information on record in a previously approved permit or approved groundwater permit or groundwater monitoring plan may be used to satisfy the applicable requirements of this subsection.

- (1) General landfill information report. This report shall contain:
 - (a) Identification of the landfill;
 - (b) Name, address and phone number of primary contact persons;
 - (c) Identification of persons or consultants preparing this report;
 - (d) Present property owner; landfill operator;
 - (e) Location by township, range and section, and latitude and longitude of main entrance or operators office of the landfill;
 - (f) Total acreage of waste disposal area; total acreage of landfill property;
 - (g) Legal description of property on which the landfill is located;
 - (h) History of landfill: when constructed; description of fill operations, sequence of trenching, cell construction, or sequence of areas filled;
 - (i) Identity of types of waste disposed of in the completed landfills; based on records, composition studies, operator memory, major waste depositors, or other information sources.
- (2) Area information report. An information report on the area in which the landfill is located shall be included in the closure plan. The report may use verifiable information available from published documents. The term "area" means that area which may affect or has been affected by or will be affected by, the landfill, and at a minimum includes the land within a one mile radius of the landfill. The report should be supplemented by maps and cross-section drawings. The following topics shall be addressed in the report:
 - (a) Topography;
 - (b) Hydrology, including surface water drainage patterns and hydrologic features such as surface waters, springs, drainage divides and wetlands;
 - (c) Geology, including the nature and distribution of lithology, unconsolidated deposits, major confining units and sinkholes;
 - (d) Hydrogeology, including depth to groundwater table, groundwater flow

17-7.072 -- 17-7.073(2)(d)

12-10-85

directions, recharge and discharge areas, used by public and private wells within 1 mile of the landfill;

(e) Ground and surface water quality;

(f) Land use information. The report shall include a discussion and maps indicating:

1. Identification of adjacent landowners;

2. Zoning;

3. Present land uses;

4. Roads, highways, rights-of-way, or other easement.

(3) Groundwater monitoring plan and site specific information. The closure plan shall include an approved groundwater monitoring plan containing site specific information which meets the criteria specified in Florida Administrative Code Rule 17-4.245(6)(d).

(4) Gas migration investigation. A report on methane gas where actual or potential gas migration exists i.e., in landfills that have been in operation for a year and contain organic wastes disposed of in porous soils which allows or would allow migration of gas off the landfill property. Gas migration test points shall be located along property boundaries, or alternate boundaries approved by the Department, particularly, those adjacent to off-site occupied structures within 100 feet of the property boundary or where distressed vegetation is present. Test points are required along each boundary segment spaced as needed to detect gas migration. Test points should extend 3 feet below ground surface. Where sand, gravel, or more gas permeable soil strata may interconnect the waste deposit and the property boundary, multiple depth sampling points should be used, with the uppermost one 3 feet deep and additional ones in the permeable layers. A combustible gas indicator meter is recommended to determine methane concentrations as a percent of the lower explosive limit (LEL). Lower explosive limit means the lowest percent by volume of a mixture of explosive gases which will propagate a flame in air at a temperature of 25 degrees Celsius and atmospheric pressure. Methane concentrations shall not exceed the LEL at the property boundary or 25% of the LEL within structures on the property.

(5) Assessment of effectiveness of existing landfill design and operation. Based on the area information report, the groundwater monitoring plan, and the gas migration report, a landfill assessment shall be prepared which discusses the effects of the landfill on adjacent ground and surface waters, and the landfill area. Specific concerns to be addressed are:

(a) Effectiveness and results of the groundwater investigation;

(b) Effects of surface water runoff, drainage patterns, existing storm water controls;

(c) Extent and effects of methane gas migration, LEL percentage readings in migration paths, and description of the gas venting system if one is installed;

(d) Condition of existing cover, thicknesses and types of soils or materials used for cover, and effectiveness of cover material as a leachate control mechanism;

(e) The nature and characteristics of the wastes disposed of at the landfill.

(6) Closure design plan. A closure design plan shall be prepared based on the area information report, groundwater monitoring plan, and assessment of the effectiveness of the existing landfill design and operation. The closure design plan shall consist of engineering plans and a report on closing procedures which shall apply to the closing of the landfill and the monitoring and maintenance during the long term care period. The closure design plan shall include the following information:

(a) A plan sheet showing phases of site closing;

(b) Drawings showing existing topography and proposed final grades;

(c) Final cover installation plans showing the sequence of applying final cover, including thickness and type of material that will be used. All waste filled areas shall have a final cover designed to minimize infiltration and subsequent leachate generation, based on water balance calculations and leachate controls used. Final cover may consist of synthetic membranes, soils, or chemically or physically amended soils approved by the Department, underlaying at least six inches of top soil or soils that will sustain vegetative growth, to achieve a minimum thickness of two feet of soils or one foot of soils and synthetic or soil admixtures above the waste material. The types of materials used in a final cover are dependent upon the leachate control system used. Nothing in this rule shall be construed to require final cover which is incompatible with the leachate control system, including a system which utilized permeable final cover, which has been permitted by the department and meets all other applicable department standards and criteria.

1. The final cover shall be placed over the entire surface of each completed portion of the filled areas within 180 days after the final waste deposit date. The final cover of the filled area shall be seeded or planted with vegetation to control erosion. Where the final cover is intended to be a moisture infiltration seal, vegetational species planted shall be drought resistant and such that the roots will not penetrate the seal and thus provide a channel for moisture infiltration.

2. Side slopes and all other grades shall be designed to minimize erosion of the final cover material. Such designs shall consider the erosion susceptibility of the earthen material proposed for final cover relative to historical rainfall patterns for the area, the period between application of the final cover and establishment of vegetative growth, and special maintenance procedures proposed to insure that infiltration is minimized earthen material exists after vegetative growth is established.

a. Side slopes of all above-ground disposal areas shall not exceed a 33 percent grade, 3 feet horizontal run to 1 foot vertical rise, to minimize erosion.

b. Top gradients of final cover on landfill areas should not normally exceed 4 percent grade, 100 feet horizontal run to 4 feet vertical rise, considering total fill height, and expected subsidence caused by decomposing waste, and be designed to prevent ponding or low spots and minimize erosion. Alternate gradients, justified by the landfill design, may be approved by the Department.

c. Fill areas of new landfills which are constructed above land surface shall incorporate drainage and erosion control structures in accordance with

good engineering practice.

3. The closure design plan shall describe provisions for cover material for the long term care erosion control, filling areas of subsidence or other depressions, maintaining berms, and general maintenance of the facility, and specify the anticipated source and amount of material necessary for proper closure of the landfill.

(d) Type of leachate control system proposed. The leachate control system shall be designed to prevent leachate from escaping beyond the approved zone of discharge for the landfill and to meet the requirements of Chapter 17-3 and 17-4, Florida Administrative Code;

no leachate
control system
approved zone
of discharge.

(e) Compliance with groundwater protection requirements. The closure design plan shall show how the landfill will meet the requirements of Sections 17-4.245 and 17-4.246 Florida Administrative Code. The groundwater monitoring plan and sampling schedule may be adjusted for a landfill where groundwater contamination is not evident or corrective measures have been taken to correct contamination.

(f) Type of gas or odor control which may be used. Control systems shall be installed at landfills which have a gas or odor problem as determined in the gas migration investigation report. Monitoring for methane gas at the property boundary shall be performed at regularly scheduled intervals to determine the effectiveness of the migration controls. If the investigation indicates that gas and odors will not be a problem, gas and odor control systems may, with Department approval, be omitted from the closing design plan. The plan shall include an explanation of why they were omitted. The Department shall require gas migration investigations where the potential for migration exists and require control systems to be installed any time gas or odors become evident;

(g) Proposed method of stormwater control. This shall include control of stormwater occurring on the landfill property. Stormwater from areas adjacent to the landfill property shall be prevented from coming on or into waste filled areas or cells. Other surface waters, such as streams or canals which originate off of, or other surface water bodies which adjoin the landfill property, shall be prevented from flooding waste filled areas or cells. Infiltration of stormwater into the waste shall be precluded or minimized by the leachate control system. Stormwater or other surface water which mixes with leachate shall be considered to be leachate and shall be treated to meet the water quality standards of rules 17-3 and 17-4, Florida Administrative Code at the point of discharge. The stormwater control plan shall meet the requirements of Chapter 17-25, Florida Administrative Code, and requirements of the respective water management district.

(h) Proposed method of access control. The closure design plan shall describe how access to the closed landfill shall be restricted to prevent any future waste dumping or use of the facility by unauthorized persons. Restricted access shall remain in force until the landfill is stabilized and there is no evidence that facility property is being used as an unauthorized dump site. In the event that use of the property during the long term care period is planned, access shall be restricted until landfill closing is completed and approved by the Department;

(i) Final Use. The closure design shall contain a description of any proposed final use of the landfill property.

(7) Closure Operation Plan. The closure operation plan shall;

(a) Describe the actions which will be taken to close the landfill, such as placement of cover, grading, construction of berms, ditches, roads, retention-detention ponds, installation or closure of wells and boreholes, installation of fencing or seeding of vegetation, protection of on-site utilities and easements;

(b) Provide a time schedule for completion of the closing and long term care;

(c) Contain appropriate references to the Closure Design Plan, area information report, groundwater monitoring plan, and other supporting documents;

(d) Describe the proposed method of demonstrating financial responsibility for the long term monitoring and maintenance;

(e) Indicate any additional equipment and personnel needed to complete closure of the landfill;

(f) Modification of the plan based on a showing of good cause by the permittee may be approved by the Department. The permittee shall submit to the Department a revised plan prior to implementation of any necessary deviation. In the event that a necessary deviation is the result of unforeseen circumstances and there is insufficient time to prepare and submit a revised plan, the owner or operator shall immediately contact the Department and obtain an interim authorization pending the submission and review of the revised plan. Interim authorization shall not exceed 30 days during which time the revised plan shall be prepared and submitted to the Department.

(8) Certification by registered professional engineer. Information, plans, and drawings presented in support of a closure permit for a landfill shall be prepared under the direction of, and certified by, a registered professional engineer authorized to practice in the State of Florida in accordance with the provisions of Chapter 471, Florida Statutes. A letter of appointment shall be submitted by the proper federal, state, county, municipal or agency employee, or company official, or individual, confirming that the engineer is authorized to prepare plans and specifications. The professional engineer or another qualified engineer shall be required to make periodic inspections during the closing of the facility to insure closure is being accomplished according to the closure plan.

Specific Authority: 403.704, F.S.

Law Implemented: 403.704, 403.707, F.S.

History: New 7-1-85.

17-7.074 Closure Procedures. Upon approval of the closure plan and issuance of the closure permit by the Department, the landfill owner or operator shall close the landfill in accordance with the approved plans and any special permit provisions.

(1) Closing inspections. The Department may specify in the closure permit that particular closing steps or operations must be inspected and approved by the Department before proceeding with subsequent closure actions.

(2) Survey monuments. Concrete monuments shall be installed to mark the

boundaries of the landfill property and other permanent markers installed to outline the general waste filled areas. These latter markers shall be tied to one or more of the boundary markers by a survey performed by an engineer or a registered land surveyor. The location and elevation of all markers shall be shown on a site plan filed with the "Declaration to the Public" described in subsection (4) below.

(3) Final survey and as built report. When landfill operations have been conducted which have raised the final elevations higher than 10 feet above the natural land surface, a final survey shall be performed by an engineer or a registered surveyor to verify that final contours and elevations of the facility are in accordance with the plans as approved in the permit. Aerial mapping techniques which provide equivalent survey accuracy may be substituted for the survey. The survey or aerial mapping information shall be a report which also includes information reflecting the as-built conditions of the landfill. Contours should be shown at no greater than 5 foot intervals. The landfill owner or operator shall submit this report to the Department in accordance with the closing schedule.

High water
level
(7-11-85 survey)

(4) Declaration to the public. After closing operations are inspected and approved by the Department, the landfill owner or operator shall file a declaration to the public in the deed records in the office of the county clerk of the county in which the landfill is located. The declaration shall include a legal description of the property on which the landfill is located and a site plan specifying the area actually filled with solid waste. The declaration shall also include a notice that any future owner or user of the site should consult with the Department prior to planning or initiating any activity involving the disturbance of the landfill cover, monitoring system or other control structures. A certified copy of the declaration shall be filed with the Department.

Conf. survey
signed by
J. L. L. L. L.
11-11-85

(5) Official date of closing. Upon receipt of the documents required in paragraphs (3) and (4) of this section, the Department shall, within 30 days, acknowledge by letter to the facility operator, that notice of termination of operations and closing of the facility has been received. The date of this letter shall be the official date of landfill closing for purposes of determining the long term care period.

(6) Use of closed landfill areas. Closed landfill areas, if disturbed, are a potential hazard to public health, groundwater and the environment. The Department retains regulatory control over any activities which may affect the integrity of the environmental protection measures such as the landfill cover, drainage, liners, monitoring system or leachate and stormwater controls. Consultation with the Department is required prior to conducting activities at the closed landfill.

(7) Construction on closed landfill. Pursuant to s.403.705(1), Florida Statutes, the following guidance is provided for use of a closed landfill.

(a) Enclosed ground level and underground structures should be avoided due to the potential for explosive concentrations of methane gas. Special construction and ventilation techniques must be employed if such structures are contemplated.

(b) Ponding of water, excessive irrigation, or plowing to a depth below

the topsoil should not be done unless there is assurance that percolation of moisture into the buried waste will not occur.

(c) Concentrated weight loadings should be avoided to prevent uneven settlement.

(d) The effectiveness of landfill cover and any liners or barriers must not be disturbed when structures are built, particularly when pilings are used.

(e) Underground utilities and similar installations that are placed within 200 feet of, or cross any side of any filled areas should be avoided. If they cannot, a properly located gas barrier or ventilation system should be placed at each property boundary crossed to prevent methane gas migration along the utility line to off-site structures.

Specific Authority: 403.704, F.S.

Law Implemented: 403.704, 403.707, F.S.

History: New 7-1-85.

17-7.075 Long Term Care. The following long term care provisions shall apply to landfills after closing operations have been completed.

(1) Long term care period. The owner or operator of any landfill in operation after the effective date of this rule shall be responsible for monitoring and maintenance of the facility in accordance with an approved closure plan for 20 years from the date of closing. Prior to the expiration of the post closing monitoring and maintenance period the Department may extend the time period if it finds extension is necessary if the closure design or closure operation plan is found to be ineffective.

(2) Reduced long term care period. The owner or operator of a landfill may apply to the Department for a reduced long-term care schedule if reasonable assurance is provided to the Department that there is no significant threat to human health or the environment and if the landfill:

(a) Has been constructed and operated in accordance with approved standards, has a leachate control system, has a liner or

(b) Was closed with appropriate final cover, good vegetative cover established, and a good monitoring system installed and;

(c) Has a 10 year history of no leachate detected in the monitoring system, no leachate collected after closing, no detrimental erosion of cover, and subsidence of waste has ceased.

(3) Right of access. It is the responsibility of the owner or operator to possess or acquire a sufficient interest in, or a right to use the property for which a permit is issued, including the access route onto the property to carry out the requirements of this rule. The issuance of a permit by the Department does not convey any property rights or interest in real or personal property, invasion of personal rights, or impairment of previous contract rights; nor any infringement of federal, state, or local laws or regulations outside the authority under which a permit is issued. The permittee must retain the right of entry to the landfill property for the long term care period, after termination of solid waste operations, for inspection, monitoring and maintenance of the site.

(4) Successors in interest. Any person acquiring rights or ownership,

17-7.076

possession or operation of a permitted landfill through lease or transfer of property shall be subject to all requirements of the permit for the facility and shall provide any required proof of financial responsibility to the Department in accordance with this rule. Any lease or transfer of property shall include specific conditions to delineate:

(a) The previous owner or operator is responsible for closure and shall maintain any required proof of financial responsibility until the person acquiring ownership, possession or operation of the landfill establishes the required proof of financial responsibility with the Department;

(b) Responsibility for the continuance of monitoring, maintenance, and correction of deficiencies or problems;

(c) Mineral rights attached to the property and the rights to any recoverable materials that may be buried on the property or landfill gasses that may be produced. A Department permit shall be required if any on-site operations subsequent to closing of a landfill involve disturbing the landfill.

(5) Transfer of Permit. Transfer of landfill permit shall be in accordance with the provisions of Chapter 17-4.12 Fla. Admin. Code and this rule.

(6) Replacement of monitoring devices. If a monitoring well or other device required by the monitoring plan is destroyed or fails to operate for any reason, the landfill owner or operator shall, immediately upon discovery, notify the Department in writing. All inoperative monitoring devices shall be replaced with functioning devices within 60 days of the discovery of the malfunctioning unit unless the landfill owner or operator is notified otherwise in writing by the Department.

Specific Authority: 403.704, F.S.

Law Implemented: 403.704, 403.707, F.S.

History: New 7-1-85.

exceptions all 17-7.076(1)(e)

17-7.076 Financial Responsibility.

(1) Cost estimates. - 2 major categories of long-term care costs

(a) For the purpose of determining the amount of proof of financial responsibility that is required in subsection 17-7.076(3) the owner or operator shall estimate the total cost of closure for the time period in the landfill operation when the extent and manner of its operation make closing most expensive, and shall estimate the annual cost of long-term care and submit the estimate together with all necessary justification for approval to the Department. The costs shall be based on a third party performing the work, reported on a per unit basis. The source of estimates shall be indicated;

(b) Closing costs shall be based on the nature and characteristics of the wastes disposed of at the site and shall include estimated costs of cover material, topsoil, seeding, fertilizing, mulching and labor;

(c) Long-term care costs shall include land surface care, gas monitoring, leachate pumping, transportation, monitoring and treatment; and groundwater monitoring, collection and analysis.

(2) Government owned landfills. After July 1, 1985, federal, state, county, or municipal governments or special districts which own a landfill shall provide the department with a plan or documentation of how they will

finance the closure of the facility. The plan or documentation shall be submitted with the initial construction permit application. For existing, but not closed landfills, it shall be submitted by July 1, 1986.

(3) Non-government owned landfills. After July 1, 1985, any person applying for a permit to construct a new landfill which is not owned by federal, state, county or municipal government or special districts, shall obtain and submit proof of financial responsibility 60 days prior to acceptance of solid waste as a condition of the permit. Owners or operators of existing but not closed landfills shall submit proof of financial responsibility to the Department, by July 1, 1986. Proof of financial responsibility shall be submitted on forms provided by the Department in accordance with the requirements of this Section 17-7.076, F.A.C.

(a) 40 CFR Part 264 Subpart H which contains EPA's rules on financial requirements for owners and operators of hazardous waste facilities are hereby adopted as financial requirements for purposes of this rule and incorporated by reference as those rules appear in 40 CFR 264 revised as of July 1, 1984, except:

(b) the following sections of 40 CFR Part 264 Subpart H are specifically not adopted as part of this rule:

1. 264.140; 264.141(a); 264.141(e); 264.143(f); 264.145(f); 264.147; 264.149; 264.150; and 264.151(f)(g)(h)(i) and (j).

2. All references to 40 CFR Part 265.

3. All references to sections or subparts of 40 CFR 264 not contained in Subpart H.

4. All references to EPA Regions.

5. All references to RCRA, Section 3008 of RCRA, or RCRA permits.

(c) References in 40 CFR 264 Subpart H to the United States Environmental Protection Agency or to EPA shall mean the State of Florida Department of Environmental Regulation; to Regional Administrator shall mean the Secretary of DER; to EPA identification number shall mean the DER Identification Number; to hazardous waste shall mean solid waste; and to hazardous waste treatment, storage or disposal facilities shall mean landfills.

Specific Authority: 403.704, F.S.

Law Implemented: 403.704, 403.707, F.S.

History: New 7-1-85.

17-7.077 Permit Application Requirements.

Specific Authority: 403.704, F.S.

Law Implemented: 403.704, 403.707, F.S.

History: New 7-1-85; Transferred to 17-7.030(3), 12-10-85.

17-7.078 Approval of Alternative Procedures and Requirements.

(1) The owner or operator of a landfill subject to the provisions of Sections 17-7.030 and 17-7.050 through 17-7.077 may request in writing a determination by the Secretary that a requirement shall not apply to such landfill, and shall request approval of alternate procedures or requirements.

(2) The request shall set forth at a minimum the following information:

(a) Specific landfill for which an exception is sought;

(b) The specific provisions of Sections 17-7.030 through 17-7.077 from which an exception is sought;

(c) The basis for the exception, including but not limited to the hardship which would result from compliance with the established provision;

(d) The alternate procedure or requirement for which approval is sought and a demonstration that the alternate procedure or requirement provides an equal degree of protection for the public and the environment;

(e) A demonstration of the effectiveness of the proposed alternate procedure.

(3) The Secretary shall specify by order each alternate procedure or requirement approved for an individual landfill in accordance with this section or shall issue an order denying the request for such approval. The Department's order shall be final agency action, reviewable in accordance with section 120.57, Florida Statutes.

Specific Authority: 403.704, F.S.

Law Implemented: 403.704, 403.707, F.S.

History: New 7-1-85; Amended 12-10-85.

17-7.080 Supervision and Inspection.

(1) Supervision of the operation shall be the responsibility of a qualified person experienced in the operation of a resource recovery and management facility.

(2) Routine inspections and evaluations of facility operations shall be made by the Department. A notice of deficiencies, with recommendations for their correction, shall be provided to the person responsible for the operation. *Def Inspection*

(3) Inspection of a completed sanitary landfill shall be made by the Department before the earthmoving equipment is removed from the site. Any corrective work shall be performed before the landfill project is accepted by the Department as completed. Arrangements shall be made for the repair or restoration of the final cover as required for at least two years following completion.

Specific Authority: 403.061, F.S. Law Implemented: 403.021, 403.031, 403.061, 403.087, 403.701 through 403.713, F.S., Chapter 74-342. History: Transferred from 10D-12.07, 10-1-74; Previously Numbered as 17-7.08.

17-7.090 Volume Reduction Plants.

(1) Permits shall be required for all volume reduction plants as defined in Section 17-7.020(59). *From 17-7.020*

(2) Volume reduction plants shall be designed and operated to meet all applicable rules of the Department including Chapters 17-2 and 17-3, F.A.C., and shall be reviewed for permitting based on the receipt of comprehensive data on the process and its relative potential as a pollution source.

(3) All volume reduction plants shall provide a suitable system for the collection and treatment necessary to meet water quality standards of all leachate and other liquid wastes such as wash-down water produced as a result of the operation of such a facility.

(4) Volume reduction plants shall be designed so as to divert surface

water away from all open storage areas.

(5) Alternate or sufficient overcapacity waste handling capability for proper disposal of solid waste shall be provided in the event of diminished operational quality or overloads due to breakdowns or natural disasters.

(6) Volume reduction plants shall be operated so as to handle solid wastes on a first-in, first-out basis. At no time shall any stored solid waste be allowed to remain unprocessed for more than forty-eight (48) hours unless adequate provisions are made to control flies, rodents and odors.

(7) Adequate fire control facilities shall be provided at all volume reduction plants.

(8) All solid waste storage areas in the volume reduction plant shall be maintained and cleaned at the end of each day's operations or during continuous operation, as necessary, to prevent fly, rodent and other vector problems. All milling equipment must be designed and maintained to control spillage and to achieve the required milled product quality.

(9) All solid waste, recovered materials or residues handled at a volume reduction plant, shall be stored in a manner so as not to constitute a fire or safety hazard or a sanitary nuisance, and shall comply with all applicable local and state regulations.

(10) Recovered resources resulting from such facilities and which may be offered for sale shall comply with applicable regulations of all appropriate State agencies.

(11) Experimental methods and operations will be reviewed by the Department for a permit based on purpose and design effectiveness.

Specific Authority: 403.061, 403.704, F.S.

Law Implemented: 403.021, 403.061, 403.087, 403.702, 403.704, 403.705, 403.707, 403.708, F.S.

History: New 10-1-74, Amended 5-24-79, Previously Numbered as 17-7.09.

17-7.091 Transfer Stations.

(1) Transfer stations shall not be constructed or operated without a permit.

(2) The transfer station shall be provided with operational appurtenances necessary to maintain a clean and orderly operation. These minimum features are:

(a) An effective barrier designed to prevent unauthorized entry and dumping into the transfer station.

(b) Fire protection and fire fighting equipment to insure the safety of employees, and provisions to deal with accidental burning of solid waste within the transfer station.

(c) Communication facilities for use in emergencies.

(d) The transfer station operator shall keep accurate records of materials handled at the station. Such records shall include weights or volumes of waste handled in a manner and form approved by the department. Accurate records shall be kept for operational control and resource recovery planning. The records shall be open for inspection by department representatives, health inspectors and other authorized regulatory and enforcement agencies during normal business hours.

(e) The transfer station shall be properly staffed to deal with all aspects of the station operation and to insure that health, fire or safety problems are not inflicted upon or caused by the public.

(f) Transfer stations shall be operated and maintained to comply with all applicable regulations. Proper operation shall include unloading of wastes to prevent them from becoming a hazard or nuisance; cleaning of all loose materials or litter daily or on a cleaning schedule approved by the department; removal of all solid wastes every 48 hours or in accordance with an approved schedule.

(g) Salvaging in a controlled manner is allowed provided it does not interfere with other aspects of the transfer station operation. Uncontrolled scavenging is prohibited.

(h) Equipment sufficient for operational needs.

(i) The department recommends but does not require:

1. a potable water supply
2. a suitable employee shelter
3. hand washing and toilet facilities
4. equipment washout facilities
5. electric service for operations and repairs
6. equipment shelter for maintenance and storage of parts, equipment and tools.

7. emergency first aid equipment to provide adequate treatment of an injured person in case of an accident.

8. that employees be trained in the proper and safe operation of all equipment and first aid procedures.

(3) Subsection 17-7.091(1) and (2) shall not apply to commercially available standard roll-off containers or similar wheeled containers which are provided to serve as a community or multi-residence receptacles for residential refuse, nor do they apply to storage receptacles for commercial solid wastes or containers used to store salvage materials.

Specific Authority: 403.061, 403.7044, F.S.

Law Implemented: 403.021, 403.061, 403.087, 403.702, 403.704, 403.705, 403.707, 403.708, F.S.

History: New 5-24-79.

17-7.10 Applications for Permit.

Specific Authority: 403.061, F.S.

Law Implemented: 403.061, 403.701 through 403.715, F.S.

History: New 10-1-74, Repealed 5-24-79.

17-7.11 Permit Forms.

Specific Authority: 403.061, F.S.

Law Implemented: 403.031, 403.061, 403.071 through 403.715, F.S.

History: New 10-1-74, Amended 2-18-79, Repealed 5-24-79.

17-7.120 Notification of Disposal Activity.

(1) Applicability.

This section shall apply to persons disposing of solid waste resulting

from their own activities on their own property. All such persons shall file written notification of their disposal activities to the department on forms prescribed by the department.

(2) Exemptions.

(a) The following persons shall be exempt from the notification requirements of this section:

1. Persons who dispose of only residential solid waste.
2. Persons who dispose of solid wastes resulting solely from normal farming operations.
3. Persons who dispose of solid waste limited solely to construction and demolition debris.
4. Persons whose activities are sources exempt from permit requirements pursuant to Florida Administrative Code Rule 17-4.04 and 17-4.245(4)(c).
5. Persons whose activities are exempt from the groundwater monitoring requirements of Florida Administrative Code Rule 17-4.245(6)(j).

(b) The following persons may submit a certification of their status, as prescribed in the notification form, in lieu of completion of the notification form:

1. Persons who have submitted complete groundwater monitoring plans for solid waste disposal sites prepared pursuant to Florida Administrative Code Rule 17-4.245(6)(c). Upon review of the monitoring plan, the department may require the submittal of any additional information necessary to meet the requirements of Florida Administrative Code Rule 17-7.120(4).

2. Persons whose solid waste disposal activities are currently performed subject to valid department permits or certifications.

(3) Notification Submission.

(a) Persons subject to the requirements of this section shall notify the department of their solid waste disposal activity according to the following schedule:

1. For persons located within the geographic areas of the Tampa Bay Regional Planning Council, the South Florida Regional Planning Council, the Northeast Florida Regional Planning Council and the East Central Florida Regional Planning Council and Volusia County by July 1, 1985.

2. For persons located within the geographic areas of the Treasure Coast Regional Planning Council, the Southwest Florida Regional Council, and the Central Florida Regional Planning Council by December 31, 1985.

3. For persons located within the geographic area of the Apalachee Regional Planning Council, the North Central Florida Regional Planning Council, and the Withlacoochee Regional Planning Council, and Jefferson County by December 31, 1986.

(b) Persons initiating new disposal activity shall notify the department within 10 days after beginning disposal.

(c) Any person who, subsequent to notification, modifies the type of waste disposed, the location of disposal or the management practice used to control disposal shall notify the department of the modification within 10 days after beginning the modified disposal activity.

(4) Notification Information Requirements.

Persons required to notify the department of solid waste disposal

activity shall provide the following information on forms prescribed by the department:

(a) A description of the location of the property used for solid waste disposal.

(b) A list of the types of solid waste that are being disposed of.

(c) An estimate of the annual quantity of each type of solid waste disposed of.

(d) A description of the size and location of each disposal area on the property.

(e) A description of the disposal processes and operating procedures used to manage the disposal of solid waste.

(f) A description of the status of groundwater monitoring at the site.

(5) Evaluation of Notification Information.

(a) The department will evaluate the information provided on the notification forms. The department may perform inspections at a disposal facility to determine whether the solid wastes disposed are managed consistent with the notification information provided to the department.

(b) If the department determines that the solid waste disposal activity at a disposal facility:

1. creates a public nuisance or any condition adversely affecting the environment or public health; or

2. violates other state or local laws, ordinances, rules, regulations or orders; then the department shall require the owner or operator of the disposal facility to obtain a solid waste permit or to otherwise correct these conditions or violations.

Specific Authority: 403.061, 403.704, F.S.

Law Implemented: 403.707, F.S.

History: New 6-13-84, Amended 4-25-85, Previously Numbered as 17-7.12.

17-7.130 Forms. The forms and instructions used by the Department in the Solid Waste Management Program are adopted and incorporated by reference in this section. The forms are listed by rule number, which is also the form number, and with the subject title and effective date. Copies of forms may be obtained by writing to the Director, Division of Environmental Permitting, Department of Environmental Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32301.

(1) Application for Permit to Construct/Operate a Solid Waste Resource Recovery and Management Facility, December 10, 1985.

(2) Application to Operate Only Resource Recovery and Management Facility - Certification of Construction Completion, November 30, 1982.

(3) Application for: Preliminary Examination/Final Examination and Certification of Resource Recovery Equipment, November 30, 1982.

(4) Land Application Field Package for Grade I Sludges, June 16, 1984.

(5) General Permit Application for Grade II Sludges, June 16, 1984.

(6) Solid Waste Disposal Notification Form, October 1, 1984.

(7) Application for Registration Used Oil Collection and Recycling Facilities and Transporters, February 25, 1985.

(8) Annual Report by Used Oil Facilities and Transporters, February 25, 1985.

- (9) Used Oil Recordkeeping Form, February 25, 1985.
- (10) Application for Permit to Close a Solid Waste Resource Recovery and Management Facility, July 1, 1985.
- (11) Solid Waste Facility Trust Fund Agreement to Demonstrate Closure and/or Post-Closure Financial Assurance, Solid Waste Facility Standby Trust Fund Agreement, Solid Waste Facility Irrevocable Letter of Credit, Solid Waste Facility Closure/Post-Closure Insurance Certificate, Solid Waste Facility Financial Guarantee Bond, Solid Waste Facility Performance Bond, July 1, 1985. Specific Authority: 120.53(1), 403.061, F.S.
Law Implemented: 120.53(1), 120.55, 403.0875, F.S.
History: New 11-30-82, Amended 6-16-84, 9-12-84, 2-25-85, 7-1-85, Transferred from 17-1.206 and Amended 12-10-85.

PART II

STATE RESOURCE RECOVERY AND MANAGEMENT PROGRAM

17-7.200 Declaration and Intent. The Florida Department of Environmental Regulation does hereby establish a State Resource Recovery and Management Program pursuant to the authority granted by Sections 403.705 and 706, F.S.

Counties and municipalities in areas designated in Section 17-7.240(1) of this rule shall adopt and submit for department approval by July 1, 1979, a local resource recovery and management program. This program shall include a plan and implementation schedule consistent with criteria listed in Sections 17-7.240, 17-7.250, and 17-7.260 of this rule.

Specific Authority: 403.061, 403.704(1), F.S.

Law Implemented: 403.705, 403.706, F.S.

History: New 7-20-76, Amended 5-24-79, Previously Numbered as 17-7.20.

17-7.210 Definitions. The definitions in Part I of this rule are applicable to the terms used in this part.

Specific Authority: 403.061, 403.704(1), F.S.

Law Implemented: 403.705, 403.706, F.S.

History: New 7-20-76, Amended 5-24-79, Previously Numbered as 17-7.21.

17-7.220 State Agency Responsibilities.

(1) Department of Environmental Regulation. The Department shall:

(a) implement and enforce the provisions of the Florida Resource Recovery and Management Act and the requirements of this rule.

(b) provide technical assistance to all local agencies in the development of their local programs.

(c) review and approve or disapprove local resource recovery and management programs submitted in accordance with Chapter 403.706(1) F.S., using the criteria in Sections 17-7.240, 17-7.250, and 17-7.260 of this rule.

(2) Resource Recovery Council. The Council shall:

(a) Specifically recommend to the Department those counties, municipalities, or regions which will generate sufficient solid waste to make it economically practical to plan for recycling of solid waste.

(b) provide technical assistance to those areas designated to plan for resource recovery.

(c) review local programs from the designated areas that are submitted to the Department for approval and make any recommendations and findings it deems necessary.

Specific Authority: 403.061, 403.704, 403.710, F.S.

Law Implemented: 403.704, 403.705, 403.706, 403.710, F.S.

History: New 7-20-76, Amended 5-24-79, Previously Numbered as 17-7.22.

17-7.200 -- 17-7.220(History)

12-10-85

17-7.23 Guidelines for Resource Recovery and Management Programs.

Specific Authority: 403.061, 403.704(1), F.S.

Law Implemented: 403.705, 403.706, F.S.

History: New 7-20-76, Amended and Renumbered as 17-7.251, 5-24-79.

17-7.240 Resource Recovery Area Designations.

(1) By July 1, 1979, the following designated counties shall submit to the department singularly or in coordination with other local or regional governmental entities a local resource recovery and management program as required by Section 403.706(1), F.S.:

Alachua	Hillsborough	Pinellas
Bay	Lee	Polk
Brevard	Leon	Sarasota
Broward	Manatee	Seminole
Dade	Orange	Volusia
Duval	Palm Beach	
Escambia	Pasco	

(2) Each resource recovery and management program shall include an implementation schedule which provides a timetable indicating when the total program as well as its component parts shall be carried out.

(3) None of the designated counties or municipalities therein are required to participate in the resource recovery aspect of the resource recovery and management program if the governing body of such county or municipality has determined that participation in such a program is not economically feasible for that county or municipality. Such a determination shall be made and justified in the local resource recovery and management program to be submitted by July 1, 1979.

(4) A county and its municipalities may jointly determine which local government agency shall administer the local resource recovery and management program. If, by December 1, 1978, no inter-local agreement had been effectuated, the board of county commissioners shall administer and be responsible for the disposal of all solid waste and for the local resource recovery and management program for the entire county.

Specific Authority: 403.061, 403.704(1), F.S.

Law Implemented: 403.705, 403.706, 403.710(4), F.S.

History: New 7-20-76, Amended 11-16-76, 5-24-79, Previously Numbered as 17-7.24.

17-7.250 Local Agency Responsibilities.

(1) The resource recovery and management program shall implement the provisions of the state program for designated counties by adequately providing for the receiving in bulk, storage, separation, processing, recovery, recycling, or disposal of solid waste generated or existing within boundaries of the county or incorporated limits of the municipality or in the area served thereby.

17-7.23 -- 17-7.250(1)

12-10-85

(2) The resource recovery and management program shall be submitted to the department. The Resource Recovery Council will review and the department will evaluate and approve or disapprove the local or regional resource recovery and management program based upon the information contained in each program. The resource recovery and management program shall include the following:

(a) Background data:

1. description of the scope and authority of the planning area.
2. a description of environmental conditions, geology, soils, climatology, drainage basins, and other pertinent physical features.

(b) Existing Conditions: description of specific existing conditions affecting management of solid waste.

1. storage practices, collection practices and routes.
2. quantities and types of wastes generated and collected; i.e., residential, commercial, hazardous, infectious, industrial, municipal, sludges.
3. disposal and processing facilities.
4. general management practices; i.e., manpower, waste collectors (public, private), terms of contracts, equipment utilization.
5. population served, size and density.
6. land use and zoning; i.e., residential, commercial, industrial, agricultural, extractive, recreational, solid waste facilities and other major land uses.
7. transportation routes; roads, railroads, bargeways; available for use in solid waste management.
8. expenditures for solid waste management, collection, transportation, disposal, and costs for each in labor, fuel, maintenance, overhead, capital equipment, supervision.
9. public finance practices.
10. status, source and amount of revenues to support the solid waste management system.
11. other significant conditions related to existing solid waste management practices in the jurisdiction.

(c) Future conditions, problems and requirements: Information obtained in (b) can be used to forecast future conditions, problems that may arise due to those conditions and what may be required to resolve those problems.

1. anticipated conditions:
 - a. population projections.
 - b. solid waste generation increase (decrease) by type, source and quantity.
 - c. land use changes, zoning modifications.
2. future problems defined in terms of location, extent, persistence and control difficulties:
 - a. environmental
 - b. financial
 - c. technical
 - d. institutional
 - e. legal
 - f. political

- g. other
- 3. Future requirements or objectives:
 - a. solid waste management organizational structure.
 - b. implementation of state criteria and guidelines.
 - c. disposal facilities requirements; vehicles operating equipment.
 - d. land acquisition for future installations; environmental requirements; soil surveys, hydrogeological studies, other.
 - e. intergovernmental agreements or special acts to form local agencies or regional authorities to manage solid waste functions.
 - f. how municipal plans and county plans complement each other.
 - g. public relations plan to inform citizens about the solid waste management system.
 - h. development of local ordinances or regulation to enforce the local program.
 - i. development of an area disaster plan.

(d) The solid waste management systems preferred by the local agency. Proposed systems may combine several storage, collection, transportation and disposal methods.

(e) Resource Recovery Program. All designated counties shall include an assessment of the economic feasibility of a resource recovery program to that county. Those designated counties which plan to participate in the resource recovery aspect of a resource recovery and management program shall include the following:

1. existing resource recovery and recycling activities, both public and private.
2. a brief description of resource recovery objectives.
3. an evaluation and selection of markets for the recovery of energy or material, location, type, characteristics, and estimated revenues.
4. an indication of current waste composition in the planning area.
5. an analysis of the economics of technology options.
6. an analysis of the economics of waste reduction options.
7. selection of a reliable technology compatible with local circumstances.
8. an assessment of the economic feasibility of the proposed resource recovery program.
9. an assessment of energy requirements, financing, management, operation, and environmental factors pertinent to the chosen technology.
10. provision for disposal of residuals, including site location, volume and type of residuals.

(f) Cost estimates for each element of the local resource recovery and management program shall be included in the program. Include cost estimates for:

1. background research.
2. planning efforts.
3. development of solid waste management organization.
4. land acquisition.
 - a. capital costs for vehicles, processing equipment, transfer stations.
 - b. operation and maintenance costs; manpower, utilities.

17-7.250(2)(c)2.g. -- 17-7.250(2)(f)4.b.

5. disposal.

a. landfill development.

b. landfill operation, maintenance, equipment, labor, utilities.

c. processing equipment.

(3) Programs for non-designated counties shall conform to the requirements of the Local Government Comprehensive Planning Act, Chapter 163.3161 et seq., F.S.

(4) The local resource recovery and management program may be based on an existing solid waste management study providing the study reflects the requirements of this Chapter.

Specific Authority: 403.061, 403.704(1), F.S.

Law Implemented: 403.705, 403.706, F.S.

History: New 7-20-76, Amended 5-24-79, Previously Numbered as 17-25.

17-7.251 Guidelines for a Resource Recovery and Management Program.

The following are guidelines which should be considered when developing a resource recovery and management program:

(1) Storage of solid waste prior to collection.

(a) In all cases in which garbage and other solid wastes are combined, the criteria for garbage should prevail. The property owner or occupant should store solid waste on his premises or property or should require it to be stored or handled in such a manner as to prevent the propagation, harborage, or attraction of vectors, or the creation of a nuisance.

(b) All garbage or garbage mixed with other solid waste should be deposited in containers which are either non-absorbent, watertight, vector resistant, durable, easily cleaned and designed for safe handling; or in paper or plastic bags having sufficient strength and water tightness and which are designed for the containment of refuse.

(c) Containers should be of an adequate size and in sufficient numbers to contain without overflowing all the refuse, except yard trash, that a household or other establishment generates within the designated period of time between collections. All containers should be maintained in a sound, clean condition.

(d) Containers should be free of all sharp edges and any inside structures which would prevent the free discharge of the contents.

(e) External stationary storage bins for garbage should be prohibited from being built or added on to existing or new buildings. New installations of underground receptacles should be prohibited. Existing receptacles may continue in use until they become impractical to repair.

(f) Hazardous wastes as defined in Part I of this rule should be stored in such a manner and in such a container as to preclude transmission of disease or cause injury to collection and disposal personnel and the general public.

(g) Each refrigerated room and/or refrigerator used for the storage of garbage should be thoroughly cleaned after each removal of garbage. Waste water from such cleaning should be disposed of by a sanitary method.

(h) Mechanically serviced containers (bulk containers) should be designed or equipped so as to prevent spillage or leakage during on-site storage and/or

transport. The container should be easily cleanable and located on firm, level ground or a concrete pad, and should be easily accessible by the collection vehicle.

(2) Collection and Removal of Solid Waste.

(a) Frequency of solid waste removal. The owner or tenant of any premises, business establishment or industry should be responsible for the satisfactory removal of all solid wastes accumulated by him on his property or his premises. Where a residence is located on the normal route of an organized collection service, public or private, the occupant should subscribe to the service. Excepting disruptions in normal collection schedules, garbage should be collected a minimum of two times per week or prevent propagation, harborage, or attraction of flies, rodents or other vectors, and the creation of nuisances. More frequent removal of garbage may be required by local agencies.

(b) Regulation of Collection Operators. Each person providing residential, commercial, or industrial solid waste collection service should comply with all local government licenses, permits, or written approval requirements applicable to the jurisdiction in which such services are provided. Each local agency, or regional agency, if any should maintain a complete listing of all persons holding written approvals to provide solid waste collection services within their jurisdiction. The listing should contain the name and address of each such person, its office telephone number, and the number and types of vehicles used by such person in providing solid waste collection services.

(c) Collection Operator Qualifications. Local or regional agencies which authorize or designate persons or firms to provide solid waste collection services to the general public within their jurisdiction through contract or franchise, should obtain sufficient information to show that such person or firm has adequate financial resources and experience to properly conduct the operation authorized.

(d) Equipment used in collection and transportation of solid waste should be constructed, operated and maintained in such a manner as to minimize the health and safety hazards to solid waste personnel and the public. Equipment should be maintained in good mechanical condition and kept clean to prevent propagation and attraction of vectors and the creation of nuisances. It is recommended that they meet the standards established by the American National Standards Institute (ANSI Section 245.1, Safety Standards for Refuse Collection Equipment) as of the effective date(s) established in ANSI Section 245.1.

(e) All vehicles and equipment used for collection and transportation of solid waste should be enclosed or adequate provisions should be made for suitable cover to prevent contents from escaping in accordance with Chapter 316 F.S.

(f) When the backyard, carry-out system of collection is used, the common practice of collection personnel dumping garbage at the curb in any manner other than in an acceptable container for household refuse should be prohibited.

17-7.251(1)(h) -- 17-7.251(2)(f)

12-10-85

(g) All rural collection systems should be operated in a safe, efficient manner, and should be in compliance with all applicable local and state regulations.

(3) Public Recordings of Disposal Sites.

The location of all solid waste disposal sites should be made a matter of record in the county property recording office for future reference in the event any problem arises concerning the sites.

(4) Hazardous Waste. Hazardous and Infectious waste as defined in this rule should be handled and disposed of only in accordance with Section 17-7.040(5)(6) and the following:

(a) Any solid waste facility accepting hazardous waste for treatment, storage or disposal should provide protection for the quality of air, surface and groundwater and the health and welfare of the public.

(b) The owner of hazardous waste that cannot be recycled, reprocessed, or treated to render it innocuous should provide the department with evidence that it cannot be treated and request disposal guidance.

(c) Any facility that disposes of known hazardous wastes following approval by the department should record the date, quantity, chemical and trade names, chemical properties, name and address of the source and transporter of the waste. The facility operator should have authority to reject any waste that is not properly identified.

(d) Records designating the location of buried hazardous wastes within a landfill site should be maintained during the life of the site by the agency responsible for operation of the site. These records should be reviewed by the department during facility inspection. Records should be submitted to the department and appropriate local office of legal jurisdiction upon closing of the site.

(e) At least three (3) monitoring wells should be required at each new hazardous waste disposal site. The location of the wells should be in accordance with the hydrogeology of the site and the predicted behavior of groundwater flow. At least one monitoring well should be located upgradient to the disposal site; the second well should be located in the first section to be filled in the disposal site; thus the well should be installed downgradient and close to or at the boundary of the disposal site; this well should be screened throughout the saturated thickness of the aquifer. The monitoring wells should be constructed in accordance with "Procedures Manual for Ground Water Monitoring at Solid Waste Disposal Facilities" (EPA/530/SW-611).

Sampling should be made by the hazardous waste disposal site operator, or his delegated representative at no longer than six-month intervals after the background water quality has been established and operation of the site is begun. The collection and analysis of samples should be in accordance with USEPA recommended methods as described in "Procedures Manual for Ground Water Monitoring at Solid Waste Disposal Facilities" (EPA/530/SW-611), analyses should be performed for the following parameters by a department approved laboratory:

1. conductivity or chlorides.
2. nitrates.
3. metals (cadmium, chromium, copper, and lead).

17-7.251(2)(g) -- 17-7.251(4)(e)3.

4. total organic carbon or chemical oxygen demand.
5. additional tests should be required for specific indicators depending upon the type of hazardous waste being disposed.

The hazardous waste disposal site operator should forward the sample analysis reports to the department district office within ten working days after the analysis report is received. Additional sampling and analysis may be recommended for other parameters and at more frequent intervals if indicated by trends in the foregoing contaminants.

(f) Hazardous waste shipping requirements:

1. When shipping hazardous wastes, the generator or owner of the hazardous wastes should package, identify and label such materials in accordance with the Code of Federal Regulations, Title 49, Transportation, Parts 100-199, Oct. 1, 1974.

2. The generator of hazardous wastes should provide the transporter and driver of any truck, a crew member of any train, or the captain of any vessel or aircraft carrying such hazardous waste with a list setting forth the hazardous waste carried, the amount of such waste and the general physical and chemical properties of such wastes. Such list, when appropriate, should include information on antidotes, first aid, or safety measures to be taken in case of accidental contact with the particular waste being carried. The person carrying or handling the hazardous waste should have the list in his possession while carrying or handling the hazardous waste and should release the list to a person responsible for the treatment or disposal of the hazardous waste at the time of delivery. The list should be a matter of record at the disposal facility. Such list should be shown on demand to any Department official, officer of the Florida Highway Patrol, or any local law enforcement officer.

(g) Hazardous waste storage requirements:

1. Hazardous wastes whose uncontrolled release into the environment would cause acute and/or chronic effects on air and water quality; on fish, wildlife, or other biota; and on the health and welfare of the public should be stored only in special facilities where due regard has been given to the hazardous nature of the waste, protective enclosures, and operating procedures, and where adequate measures are taken to assure personal safety, accident prevention, and detection of potential environmental damages.

2. Rules of the State Fire Marshall Chapter 4A-2, 4A-20, FAC, et al, pertaining to explosives and hazardous chemicals should be consulted where applicable.

(5) Special Wastes.

(a) Dead animals.

1. Dead animals on public property should be collected and disposed of promptly to prevent them from becoming a sanitary nuisance.

2. A service should be established to assure prompt pickup and disposal of dead animals.

3. If an animal is known or suspected to have died of a communicable disease, the handling and disposal of the carcass should be in accordance with Chapter 823.041, F.S.

17-7.251(4)(e)4. -- 17-7.251(5)(a)3.

12-10-85

(b) Abandoned Vehicles. A local agency should provide for the removal of abandoned vehicles from public and private property, title release, pickup and removal authority, the designation of a storage area and a recycle or disposal system.

(c) White goods. A local agency should provide for collection, disposal or recycling of white goods.

(d) Sludges. Sludges which may be hazardous due to their chemical composition should be disposed of in accordance with Part I, Section 17-7.040(5) of this rule. Other sludges should be disposed of in accordance with Part I, Section 17-7.060(1) of this rule.

sludge
disposal

(e) Industrial Waste.

The disposal of industrial waste should be the responsibility of the producer of such waste and should be in accordance with Chapter 17-3, FAC and any other applicable state and local regulations.

(6) Processing Recycling of Solid Waste.

(a) All residual solid wastes resulting from a recovery process should be disposed of in a sanitary landfill or by other approved methods.

(b) All processed water or wastewater should be treated as required by approved methods before discharge into receiving waters.

(c) All gaseous emissions should be in compliance with air quality standards.

(d) Recovered materials should be stored in a controlled area, designed and operated to prevent environmental contamination.

(7) Solid Wastes Quantity Guarantees to Resource Recovery Facilities.

(a) Local agencies that undertake construction and operation of a material or energy resource recovery facility should guarantee delivery of solid wastes generated within their jurisdiction to insure uninterrupted facility operation. Such assurances must be supported by adequate authority, or by contacts with local collection services, or as a condition of inter-local agreements.

Specific Authority: 403.061, 403.704(1), F.S. Law Implemented: 403.705, 403.706, F.S. History: New 5-24-79, Previously Numbered as 17-7.25.

17-7.260 Local Program Submittal.

(1) Resource Recovery and Management Programs, prepared and adopted in accordance with Section 17-7.250 and 17-7.240 shall be submitted by local agencies to the Department for approval. Prior to submittal, the programs shall be reviewed by all local and regional planning agencies involved in the programs. Prior to Department approval, the Council shall review the resource recovery and management programs and make recommendations and findings it deems necessary. Upon review by the Council and approval by the Department, the program shall be implemented by the local agency in accordance with the implementation schedule included in the program.

(2) Local agencies shall adopted and submit their respective programs to the Department for approval no later than July 1, 1979. The programs shall be submitted in accordance with the following:

(a) Provide four (4) copies on 8 1/2 by 11 inch paper. Oversize maps or drawings may be folded to this size.

(b) Comments from all appropriate planning agencies and copies of inter-local agreements from involved local agencies shall accompany the programs submitted.

Specific Authority: 403.061, 403.704(1), F.S.

Law Implemented: 403.705, 403.706, F.S.

History: New 7-20-76, Amended 5-24-79, Previously Numbered as 17-7.26.

17-7.270 Extension Procedures. The time limit stated in Section 17-7.240 and 17-7.250 of this rule for the preparation and submittal of a local resource recovery and management plan may be extended upon application to the Department by the local agency. Applications for a time extension shall not be granted unless they are supported by evidence that good faith efforts by the local agency to meet the requirements of this rule have been and are being made. Application for time extensions shall be submitted to the department in writing, shall describe what progress has been made regarding the resource recovery and management plan, and shall provide the expected date of completion of the plan.

Specific Authority: 403.061, 403.705, F.S.

Law Implemented: 403.705, 403.706, F.S.

History: New 7-20-76, Amended 5-24-79, Previously Numbered as 17-7.27.

17-7.28 Permitting.

Specific Authority: 403.704(1), F.S.

Law Implemented: 403.706(5), 403.707(1), F.S.

History: New 7-20-76, Repealed 5-24-79.

17-7.290 Amendment to an Approved Program.

(1) The procedure for amendment of a program approved by the Department shall be the same as for approval of the original program. An amendment is one that proposes to change methods of handling, practices, technologies, or financial and management arrangements contained in the program.

(2) Minor corrections, updates, or modifications of the program shall not be considered an amendment.

Specific Authority: 403.061, 403.704(1), F.S.

Law Implemented: 403.705, 403.706, F.S.

History: New 7-20-76, Amended 5-24-79, Previously Numbered as 17-7.29.

17-7.30 Approval of Local or Regional Resource Recovery and Management Programs.

Specific Authority: 403.704(1), F.S.

Law Implemented: 403.705(1), 403.706, F.S.

History: New 11-16-76, Repealed 5-24-79.

17-7.260(2)(b) -- 17-7.30(History)

12-10-85

PART III

CERTIFICATION OF RESOURCE RECOVERY EQUIPMENT

17-7.400 Declaration and Intent. The State of Florida Department of Environmental Regulation promulgates this part of this chapter to establish a system for the examination and certification of resource recovery equipment pursuant to Section 403.715, F.S., for the purpose of implementing the tax exemptions provided by Section 212.08(7)(p), F.S. This system shall also reflect the legislative mandate to encourage recycling pursuant to Section 403.702(1)(e), F.S. The system shall consist of a procedure for a preliminary examination of possible resource recovery equipment based on a review of plans, specifications, or other descriptions if the equipment is not available for inspection at the time when tax is due, and a procedure for a final examination and a certification of resource recovery equipment after the equipment is available for inspection.

Specific Authority: 403.715, F.S.

Law Implemented: 212.08(7)(p), 403.715, 403.702(1)(e), F.S.

History: New 5-24-79, Previously Numbered as 17-7.40.

17-7.410 Definitions. The following words, phrases or terms as used in this Part, unless the context indicates otherwise, shall have the following meaning:

(1) "Department" means the Florida Department of Environmental Regulation.

(2) "Resource recovery equipment" means equipment or machinery exclusively and integrally used in the actual process of recovering material or energy resources from solid waste, and which is purchased after July 1, 1978.

Specific Authority: 403.703(1), 403.703(8), F.S.

Law Implemented: 212.08(7)(p), 403.715, F.S.

History: New 5-24-79, Previously Numbered as 17-7.41.

17-7.420 Preliminary Examination of Resource Recovery Equipment. When tax may become or has become due pursuant to Chapter 212, F.S., on equipment which may be resource recovery equipment as defined in Section 403.703(8), and such equipment is not available for inspection by the Department of Environmental Regulation, the prospective purchaser or purchaser of such equipment may apply to the department for a preliminary examination report based on a review of plans, specifications, equipment lists, and other descriptions in the application. The preliminary examination report of proposed resource recovery equipment may be considered by the Department of Revenue as a prerequisite for delay of tax due on such equipment as indicated in rules promulgated by the Department of Revenue. The department shall utilize the following procedure when preliminary examining resource recovery equipment:

(1) Application for preliminary examination of resource recovery equipment shall be submitted to the department on a form prescribed by the department. The application must include the following information:

- (a) identity of the applicant.
- (b) identity of county or municipality that will eventually own or benefit from the resource recovery equipment.
- (c) a list and brief description of resource recovery equipment and the estimated cost thereof which the applicant declares is subject to this exemption.
- (d) plans or other descriptions of the resource recovery facility or project for which the resource recovery equipment is to be used. Application will not be complete until these plans or descriptions are of sufficient detail to indicate how the proposed resource recovery equipment is to be integrated into this facility or project.
- (2) The department shall issue a written report specifying which equipment on the application may be resource recovery equipment. This report shall be issued within 30 days of receipt of a properly completed application. Copies of the preliminary examination report shall be sent to the applicant and the Department of Revenue.
- (3) The results of the preliminary examination shall not preclude granting or denying certification following final examination for the same equipment pursuant to Section 17-7.430, F.A.C. A preliminary examination is not required to obtain certification.
- (4) Application for preliminary examination or final examination and certification of all equipment to be used in a resource recovery facility or project should be submitted to the department in one package whenever possible.

Specific Authority: 403.715, F.S.

Law Implemented: 212.08(7)(p), 403.715, F.S.

History: New 5-24-79, Previously Numbered as 17-7.42.

17-7.430 Final Examination and Certification of Resource Recovery Equipment. Final examination of resource recovery equipment shall be a requirement for tax exemptions as indicated in Section 212.08(7)(p), F.S. The department shall utilize the following procedure in granting or denying certification of resource recovery equipment:

(1) After equipment is installed, application for final examination and certification of resource recovery equipment shall be submitted to the department on a form prescribed by the department. The application must include the information required in Section 17-7.420(1), and the department shall request additional information if required for proper completion of the application. If the applicant has submitted a preliminary examination application form for the same equipment, submission of an updated copy of the preliminary application form shall satisfy this requirement.

(2) When the proposed resource recovery equipment is installed, a representative of the department shall inspect the equipment within thirty (30) days of receipt of a properly completed application.

(3) Within thirty (30) days of such inspection, the department shall issue a written decision granting or denying certification.

Specific Authority: 403.715, F.S.

Law Implemented: 212.08(7)(p), 403.715, F.S.

History: New 5-24-79, Previously Numbered as 17-7.43.

17-7.440 Criteria for Resource Recovery Equipment. The department shall use the following criteria when determining whether equipment shall be certified as resource recovery equipment.

(1) Resource recovery equipment includes all equipment or machinery exclusively and integrally used in the actual process of recovering material or energy resources from solid waste, and which is purchased after July 1, 1978. Resource recovery equipment does not include:

(a) An article of equipment being used for purposes other than resource recovery, even though such equipment is also used in the resource recovery process.

(b) Land or buildings. A building includes the walls, roof, ceiling, floor, and all other necessary supporting structures to enclose an area, but excludes structures used exclusively for the support of resource recovery equipment.

(c) Equipment used to transport materials or energy resources recovered from solid waste from the site where the recovery process takes place. Energy resources recovered from solid wastes may include refuse-derived fuel, gas or liquid fuel derived from solid waste, heat or steam derived from solid waste, or electricity derived from solid waste.

(2) Resource recovery equipment shall be a unit which by itself provides a significant function in the resource recovery process. Examples of such equipment include, but are not limited to, conveyors, pumps, and fans. The department shall not certify components of resource recovery equipment such as nuts, bolts, and belts.

(3) Resource recovery equipment may include fixtures exclusively and integrally used in the actual process of recovering material or energy resources from solid waste. Examples of such equipment include, but are not limited to, bridge cranes and fixed storage bins.

(4) Resource recovery equipment need not be specifically designed for the recycling process.

Specific Authority: 403.715, F.S.

Law Implemented: 212.08(7)(p), 403.715, F.S.

History: New 5-24-79, Previously Numbered as 17-7.44.

17-7.440 -- 17-7.440(History)

12-10-85

PART IV

DOMESTIC SLUDGE CLASSIFICATION, UTILIZATION,
AND DISPOSAL CRITERIA**17-7.500 Declaration and Intent.**

The Florida Department of Environmental Regulation (department) is empowered to plan for and regulate the collection, transport, storage, separation, processing, recycling, and disposal of solid wastes including sludges, and to protect the air and waters of the state from pollution. The department is also charged with the promotion of recycling, reuse, or treatment of solid wastes.

The department finds and declares that the improper management and disposal of sludges contributes to air and water pollution and presents a threat to the public health, safety and welfare. The department also finds and declares that in order to regulate the management and disposal of sludges in a manner that is effective but yet not overly burdensome, regulations specific to management and disposal of sludges must be applied.

Therefore, it is the intent of the department to regulate the management and disposal of domestic sludges generated by new and existing sources in a manner to assure protection of the environment and public health. The department also intends in this rule to encourage the proper recycling, reuse, treatment, or agricultural use of certain domestic sludges. Industrial sludges, industrial wastewater treatment sludges, air treatment sludges, and water supply treatment sludges are not regulated by this part.

The department intends to require resource recovery and management facility permits for sludge treatment, storage, and disposal facilities as directed by law. However, the department recognizes that special conditions exist for permitting sludge facilities, and by this rule intends to clarify when sludge sites qualify for exemptions from such permits as part of normal farming operations, and intends to establish a general permit rule for sludges that are not significantly contaminated.

Specific Authority: 403.061, 403.704, F.S.

Law Implemented: 403.021, 403.061, 403.087, 403.701 through 403.715, F.S.

History: New 6-16-84, Previously Numbered as 17-7.50.

17-7.510 Definitions.

The following words, phrases or terms as used in this part, unless the context indicates otherwise, shall have the following meaning:

- (1) "Aerosol" means airborne droplets or particles.
- (2) "Agricultural Lands" means all lands being used for agricultural purposes.
- (3) "Department" means the Florida Department of Environmental Regulation.

17-7.500 -- 17-7.510(3)

12-10-85

(4) "Composted Domestic Sludge" means sludge that has been composted at or above 55°C for three consecutive days in a mechanical composter or an aerated pile, or at or above 55°C for fifteen consecutive days in a windrow and at least five turnings of the windrow.

(5) "Conservation Plan" means a formal document, prepared or approved by a local Soil and Water Conservation District Board organized pursuant to Chapter 582, Florida Statutes, which outlines a system of management practices to control soil erosion, reduce sediment loss or protect the water quality on a specific parcel of property.

(6) "Dewatered" means a content of 12 percent or greater solids (by weight) in a sludge.

(7) "Disinfection" means the selective destruction of pathogens in wastewater effluent or sludge as described in Chapter 7 of EPA 625/1-79-011, "Process Design Manual for Sludge Treatment and Disposal." This manual is adopted and made a part of this rule by reference. A copy of this document may be obtained by writing the department, and may be inspected at all DER offices.

(8) "Domestic Septage" means all solid wastes containing human feces, or residuals of such, which have not been stabilized or disinfected. Not included are food service sludges and industrial sludges.

(9) "Domestic Sludge" means a solid waste resulting from sewage, septage, or food service operations, or any other such waste having similar characteristics. Domestic sludge may be liquid, semisolid, or solid but does not include the treated effluent from a domestic wastewater treatment plant.

(10) "Domestic Sludge Disposal" means the disposal of domestic sludge in accordance with disposal criteria presented in Part IV, Chapter 17-7, Florida Administrative Code.

(11) "Domestic (Sewage) Wastewater Treatment Sludge" means any sludge generated by a domestic wastewater treatment plant.

(12) "Dried Sludge" means sludge that contains more than 89 percent solids by weight.

(13) "Dry Weight" means the weight measured after oven drying at 103°-105°C to constant weight.

(14) "Food Service Sludges" means oils, greases, and grease trap pumpings generated in the food service industry.

(15) "Human Food Chain Crops" means all crops which may be harvested for human consumption; all crops which may be fed to animals which may be consumed by humans.

(16) "Incorporation into the soil" means the injection of sludge beneath the surface of the soil or the mixing of sludge with the surface soil.

(17) "Industrial Sludges" means all sludges that are primarily composed of materials generated through a manufacturing or other industrial process.

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

(19) "Licensed Septage Hauling Service" means a person or service licensed to haul septage by the Florida Department of Health and Rehabilitative Services.

(20) "Lime Stabilization" means the addition of sufficient quantities of lime to raise and maintain a sludge at a pH of 12.0 for two hours with such process being as described in Chapter 6 EPA 625/1-79-001, "Process Design Manual for Sludge Treatment and Disposal." This document is adopted and made a part of this rule by reference. A copy of this document may be obtained by writing the department, and may be inspected at all DER offices.

(21) "Liquid Sludge" means any sludge that flows freely through piping, pumps, and liquid conveyance, transport, and spreading systems.

(22) "Pathogens" means disease-producing organisms.

(23) "pH of Sludge-Soil Mixture" means the value obtained by sampling the soil to the depth of sludge placement and analyzing by the electrometric method. ("Methods of Soil Analysis, Agronomy Monograph No. 9, "C.A. Black, ed., American Society of Agronomy, Madison, Wisconsin, pp. 914-926, 1965.") This manual is adopted and made a part of this rule by reference. A copy of this document may be obtained by writing the department, and may be inspected at all DER offices.

(24) "Processed Domestic Sludge" means any domestic sludge that has been stabilized, disinfected, dried, and also pelletized or granulated, and distributed as a soil conditioner or fertilizer constituent.

(25) "Restricted Public Access" means that an area is not easily accessible to the general public.

(26) "Root Crops" means plants with edible parts which parts are grown below the surface of the soil.

(27) "Sludge" means a solid waste pollution control residual which is generated by any industrial or domestic wastewater treatment plant, water supply treatment plant, air pollution control facility, septic tank, grease trap, portable toilet or related operation, or any other such waste having similar characteristics. Sludge may be a solid, liquid, or semisolid waste but does not include the treated effluent from a wastewater treatment plant.

(28) "Sludge Disposal Facility" means all contiguous land and structures, other appurtenances, and improvements on the land, used for sludge disposal or spreading of sludge on the land.

(29) "Sludge Generator" means any facility that, as a normal function of its operation, produces a sludge. Residential septic tanks are excluded.

(30) "Sludge Land Application Area" means the area of land used for sludge application.

(31) "Sludge Land Application Area Boundary" means the outermost perimeter of the sludge land application area as it would exist at completion of the application activity.

(32) "Sludge Pasteurization" means the heating of a sludge to 70°C for at least 30 minutes, or the heating of sludge to a temperature higher or lower than 70°C for a duration that produces a similar kill of microorganisms.

(33) "Sludge Ponds and Lagoons" are containment areas containing only sludge.

(34) "Stabilization" means the use of a treatment to render sludge or septage less odorous and putrescible, and to reduce the pathogenic content as described in Chapter 6 of EPA 625/1-79-011, "Process Design Manual for Sludge Treatment and Disposal." This manual is adopted and made a part of this rule

by reference. A copy of this document may be obtained by writing the department, and may be inspected at all DER offices.

(35) "Toxic Substances" means any of the following:

(a) Hazardous wastes as defined in Chapter 17-30, Florida Administrative Code;

(b) Hazardous substances as defined in the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, Pub. L. No. 96-510, 94 Stat. 2767;

(c) A pollutant as defined in Chapter 376, Florida Statutes;

(d) A substance which is or is suspected to be carcinogenic, mutagenic, teratogenic, or toxic to human beings, or are acutely toxic as defined in the Fla. Admin. Code 17-3.021(1), or

(e) A substance which poses a serious danger to the public health, safety, or welfare.

(36) "Treatment" means the process of altering the character, or physical or chemical condition of the waste to prevent pollution of water, air or soil, to safeguard the public health or enable the waste to be recycled.

(37) "Type I Facility" means a wastewater facility having a design average daily flow of 500,000 gallons per day or greater.

(38) "Type II Facility" means a wastewater facility having a design average daily flow of 100,000 to, 499,999 gallons per day.

(39) "Type III Facility" means a wastewater facility having a design average daily flow of 2,000 to, 99,000 gallons per day.

(40) "Wastewater" means the combination of the liquid and water-carried wastes from waste generation sites, together with any entrained surface and groundwaters which may be present.

(41) "Water Saturated Soil" means soil in which the spaces between the grains are filled with water.

Specific Authority: 403.061, 403.704, F.S.

Law Implemented: 403.021, 403.031, 403.061, 403.087, 403.701 through 403.715, 403.72, F.S.

History: New 6-16-84, Previously Numbered as 17-7.51.

17-7.520 Permit Requirements.

(1) No sludge disposal or land application site shall be constructed, operated, modified, maintained, or expanded without a currently valid permit from the department unless exempted pursuant to Fla. Admin. Code Rule 17-7.030(2).

(2) Land application of any of the following sludges pursuant to the requirements of Fla. Admin. Code Rule 17-7.540(4), is considered normal farming operations and thus exempt from permitting requirements pursuant to Section 403.707(2)(a), Florida Statutes;

(a) Grade I domestic sludge as classified in Fla. Admin. Code Rule 17-7.540(4).

(b) Grade I composted sludge as classified in Fla. Admin. Code Rule 17-7.540(4).

(c) Domestic septage properly treated by lime stabilization, sludge pasteurization, or other process which produces similar kills of microorganisms.

17-7.510(34) -- 17-7.520(2)(c)

12-10-85

115

(d) Food service sludge properly treated by lime stabilization, sludge pasteurization, or other process which produces similar kills of micro-organisms.

(e) Grade I or II processed domestic sludge.

(3) Land application of Grade II domestic wastewater treatment sludge or Grade II composted domestic sludge which must be applied pursuant to the requirements of Section 17-7.540(5) is not a normal farming operation and must be performed pursuant to a general permit as provided in Fla. Admin. Code Rule 17-4.64, unless that sludge is applied to land owned by the generator. Applicable general permit requirements are stated in Florida Administrative Code Rules 17-4.54 and 17-4.64.

(4) Any sludge land application area that does not fulfill the requirements of a general permit under Fla. Admin. Code Rule 17-7.540(5) shall require a solid waste disposal site permit from the department as required in Part I of Chapter 17-7, Florida Administrative Code.

Specific Authority: 403.061, 403.704, 403.814, F.S.

Law Implemented: 403.061, 403.701 through 403.715, 403.814, F.S.

History: New 6-16-84, Previously Numbered as 17-7.52.

17-7.530 General Prohibitions for Domestic Sludges.

(1) Ocean disposal of sludges and disposal of sludges in any natural or artificial body of water including groundwater is prohibited by Fla. Admin. Code Rule 17-7.040(3)(b).

(2) Sludge ponds and sludge lagoons shall only be constructed for the temporary storage or temporary treatment of domestic sludge. Such ponds and lagoons containing domestic sludge shall be designed and utilized so that a sludge residence time of less than 12 months is assured. Ponds or lagoons in use on the effective date of this rule for the permanent storage (final disposal) of domestic sludge shall be phased out of use or converted to temporary holding areas at time of permit renewal, but in no case later than five years subsequent to the effective date of this rule. Florida Administrative Code Rule 17-4.245 shall apply to all domestic sludge ponds and lagoons containing domestic sludge.

(3) All domestic sludges other than processed domestic sludge and composted domestic sludge are prohibited from use on playgrounds, parks, golf courses, lawns, hospital grounds, or other unrestricted areas where frequent human contact with the soil is likely to occur.

(4) Sludges which are hazardous wastes, as determined pursuant to Chapter 17-30, Florida Administrative Code, shall only be managed according to the requirements of that chapter.

(5) The prohibitions of Fla. Admin. Code Rule 17-7.040 apply except those prohibitions described in Fla. Admin. Code Rule 17-7.040(3)(d), (e), (f), and (g) or any prohibition in conflict with the rules established in this part.

(6) No sludge may be disposed into a collection/transmission system without prior consent of the owner of that system.

(7) No domestic sludge shall be disposed of or applied to the land except in accordance with the provisions of this rule. A permit pursuant to this chapter is required unless such sludge is used in normal farming operations or

is disposed of on the generator's own property and is treated and handled in compliance with all applicable department rules.

(8) Pursuant to Fla. Admin. Code Rule 17-2.620(2), no person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor.

(9) The spraying of liquid sludge shall be conducted so that the formation of aerosols is minimized by utilization of best management practices.

Specific Authority: 403.061, 403.704, F.S.

Law Implemented: 403.021, 403.061, 403.087, 403.702, 403.704, 403.705, 403.707, 403.708, F.S.

History: New 6-16-84, Previously Numbered as 17-7.53.

17-7.540 Criteria for Land Application or Disposal of Domestic Wastewater Treatment Sludge.

(1) All domestic wastewater treatment sludge shall be disposed of pursuant to the requirements of Fla. Admin. Code Rule 17-7.540(6). However, such sludges that have been analyzed pursuant to Fla. Admin. Code Rule 17-7.540(2) and have been determined to be a Grade I or Grade II sludge pursuant to criteria specified in Fla. Admin. Code Rule 17-7.540(3) may be applied to the land without a permit or under a general permit according to the criteria provided in Fla. Admin. Code Rule 17-7.540(4) and (5).

(2) Sludge meeting the following criteria shall be classified as Grade I or II.

(a) The interval between reported sludge analyses used for sludge classification shall be no greater than three months for a Type I domestic wastewater treatment facility, six months for a Type II domestic wastewater treatment facility, and 12 months for a Type III domestic wastewater treatment facility.

(b) Parameters to be analyzed:

Total Nitrogen	- % dry weight	
Total Phosphorus	- % dry weight	
Total Potassium	- % dry weight	
Cadmium	- mg/kg dry weight	10 ppm by weight
Copper	- mg/kg dry weight	
Lead	- mg/kg dry weight	
Nickel	- mg/kg dry weight	
Zinc	- mg/kg dry weight	
pH	- standard units	
Total Solids	- %	12.5% by weight or less

(c) Analysis of additional parameters may be required by the department based on changes in the quality of the wastewater or sludge as a result of: new discharges to the treatment plant, changes in wastewater treatment processes or process efficiency, changes in the utilization and/or disposal of the sludge, the potential presence of toxic substances in the sludge, or other considerations. The department may determine that certain listed parameters no longer require analysis or may be tested for less frequently than prescribed above where monitoring data show insignificant changes in sludge quality.

17-7.530(7) -- 17-7.540(2)(c)

12-10-85

(d) Sampling points, minimum sludge sample numbers, and sampling intervals shall be specified in the wastewater facility operation permit. All samples for sludge classification shall be representative and taken after final sludge treatment but prior to utilization disposal.

(e) Samples for sludge analysis shall be collected as follows: One "grab" sample shall be taken in a clean glass container on two separate days each week for two consecutive weeks. These samples (approximately one quart each) shall be split, composited, and preserved as taken, in three one-gallon glass containers fitted with Teflon-lined caps or stoppers and refrigerated at 4°C. One of the gallon containers shall be maintained at a pH of less than 2 with sulfuric acid, and one shall be maintained at a pH of less than 2 with nitric acid. The third one-gallon container shall not contain a preservative. Directly after the second week sampling period, the three composite samples shall be thoroughly agitated and a quart subsample removed from each for analysis and placed in a glass container with a Teflon-lined cap or stopper. The quart samples shall be clearly labeled, including the date of collection, and shall be packed with ice in a well-insulated shipping container and forwarded to an analytical laboratory so as to insure receipt within 30 hours of packing. However, if no organic analysis is being required by the department, the glass containers fitted with Teflon-lined caps or stoppers may be replaced by polyethylene containers.

(f) Samples shall be analyzed in accordance with methods described in Section XXV Miscellaneous Analysis for Soils, Sediments and Sludges, Part B, Domestic Sludge Analysis Methodology of the department's "Standard Operating Procedures Manual". Part B, of Section XXV of this manual is adopted and made a part of this rule by reference. A copy of this document may be obtained by writing the Department, and may be inspected at all DER offices. Sampling and testing methods shall be done in accordance with the requirements of Fla. Admin. Code Rule 17-4.246.

(3) After completion of required analyses pursuant to Fla. Admin. Code Rule 17-7.540(2), domestic wastewater treatment sludge shall be classified as Grade I, II or III. A sludge is classified as a Grade I sludge if concentrations of all of the parameters listed below are less than the limiting criteria for Grade I sludges and the sludge is stabilized, and in the case of composted domestic sludge, the sludge is disinfected. A sludge is classified as a Grade II sludge if concentrations of any of the parameters listed below fall within the criteria for Grade II sludges but no parameters have concentrations above Grade II criteria and the sludge is stabilized and in the case of composted domestic sludge the sludge is disinfected. A Grade I sludge will be reclassified as a Grade II sludge if the one-year moving average of analysis results exceeds the maximum levels for Grade I sludge or the results for any one analysis exceed the maximum Grade I levels by 15 percent. A sludge is classified as a Grade III sludge if concentrations of any of the parameters listed below are greater than any of the criteria established for Grade III sludges and the sludge is not a hazardous waste as defined by Chapter 17-30, Florida Administrative Code.

17-7.540(2)(d) -- 17-7.540(3)

12-10-85

Chemical Criteria in mg/kg dry weight

Parameter	Grade		
	I	II	III
Cadmium	<30	30- 100	>100
Copper	<900	900- 3000	>3000
Lead	<1000	1000- 1500	>1500
Nickel	<100	100- 500	>500
Zinc	<1800	1800-10,000	>10,000

GRADE I
 (4) Criteria for Land Application of Grade I Domestic Wastewater Treatment Sludge.

Domestic wastewater treatment sludge analyzed pursuant to Fla. Admin. Code Rule 17-7.540(2) which meets the criteria specified in Fla. Admin. Code Rule 17-7.540(3) for a Grade I sludge, which has not been found to contain significant concentration of toxic substances, may be applied to the land if the following conditions are met.

(a) Application is limited to sod farms, pasturelands, forests, highway shoulders and medians, plant nursery use, land reclamation projects and soil used for growing human food chain crops (excluding rootcrops, leafy vegetables, tobacco, and vegetables to be eaten raw).

(b) Use on playgrounds, parks, golf courses, lawns, hospital grounds, or other unrestricted public access areas where frequent human contact is likely to occur is restricted to processed domestic sludge and composted domestic sludge.

(c) Grade I - Application Rates. Application rates (gallons or pounds per acre per year) of Grade I domestic wastewater treatment sludge are limited by the nitrogen content of the sludge. The maximum annual application rate of total nitrogen is 500 pounds per acre during any 12-month period. In no case shall more than six dry tons of sludge be applied per acre per year.

(d) Grade I - Site Requirements

1. Buffer Zone Requirements - The sludge land application area shall be located no closer than 3,000 feet from any Class I water body or 200 feet from any other natural or artificial body of water, except canals used for irrigation purposes or bodies of water completely within and not discharging from the site. The sludge land application area shall be located no closer than 300 feet from shallow private water supply wells as defined in Fla. Admin. Code Rule 17-7.020(46) and occupied buildings (residences, offices, manufacturing facilities, etc.). The sludge land application area shall be located no closer than 500 feet from shallow public water supply wells as defined in Fla. Admin. Code Rule 17-7.020(46). Processed domestic sludge and composted domestic sludge are exempted from the above specified buffer zone requirements.

2. Soil Requirements - The pH of the sludge-soil mixture shall be 6.5 or greater at the time of sludge application. When growing human food chain crops, testing of the pH parameter shall be done on a semi-annual basis, otherwise testing shall be done annually.

3. Water Table Requirements - A minimum unsaturated depth of two feet is required above water table level at the time of sludge application to the soil. Water table level shall be determined by observing the standing water level in a three foot depth hole dug within the preceding 24 hours on the area to be used, or by measuring the water level in a monitoring well evacuated

within 24 hours prior to measurement. No sludge land application may be conducted during rain storms or during periods in which surface soils of the sludge land application area are water saturated.

4. Special Requirements

a. Sludge land application area topographical grades must be eight percent or less. *local 1985*

b. The sludge land application area and an area 200 feet wide adjacent to and exterior of the sludge land application area boundary shall contain no subsurface fractures, solution cavities, or sink holes.

c. Restriction of public access - The general public shall be restricted from the sludge land application area for a period of 12 months after each application. Processed domestic sludge and composted domestic sludge land application areas are exempted.

d. Florida water quality criteria and standards as provided in Chapters 17-3 and 17-4, Florida Administrative Code, shall not be violated as a result of land application of sludge. Water quality testing of Grade I sludge application areas may be required if the department determines that sludge application not conforming to this section is evident. If water quality violations are indicated, the site owner shall cease any further sludge land application and have water quality tests performed as the department requires.

e. When applied to unvegetated soils, stabilized domestic sludge other than processed domestic sludge and composted domestic sludge shall be incorporated into the soil within 48 hours of application.

f. Depth of Permeable Soil - A layer of permeable soil of more than 2.0 feet thickness shall cover the surface of the land application area.

g. Pasture vegetation on which sludge has been spread shall not be fed to livestock for a period of 30 days from the last application of sludge.

h. Sludge land application areas shall not be used for domestic animal grazing for a period of 30 days following the last application of sludge.

i. No human food chain crops except hay, silage, or orchard crops shall be harvested from a sludge land application area for a period of 60 days following the last application of sludge.

j. No sludge shall be applied directly onto those portions of human food chain crops which are to be harvested and removed from the sludge land application area except hay on properly cropped and raked pastureland.

k. Domestic sludges may not be used for the cultivation of root crops, leafy vegetables, tobacco, or vegetables to be eaten raw.

l. Permanent records of actual application areas and application rates must be kept. These records must be maintained by the site owner and the sludge land applicator for a period of five years, and must be available for inspection upon request by the department, The Department of Health and Rehabilitative Services, or Local Environmental Program. *Sludge Records Report*

Sludge Records shall include:

- (i) Date of sludge shipment or application.
- (ii) Weather conditions when delivered.
- (iii) Location of sludge destination.
- (iv) Amount of sludge applied or delivered.

17-7.540(4)(d)3. -- 17-7.540(4)(d)4.1.(iv)

- (v) Grade of sludge.
- (vi) Sludge use agreements.
- (vii) Area of land where sludge is going to be applied, location and designated future use of the land.
- (viii) pH.
- (ix) Water table.
- (x) Topographic grades.
- (xi) Vegetational status of sludge land application area.
- (xii) Incorporation of sludge.
- (xiii) Depth of permeable soil.

(e) Persons who haul or use less than three cubic yards of Grade I Sludge per month are exempt from the requirements of 17-7.540(4).

(5) Criteria for Land Application of Grade II Domestic Wastewater Treatment Sludge.

Domestic wastewater treatment sludge analyzed pursuant to Fla. Admin. Code Rule 17-7.540(2) which meets the criteria for a Grade II sludge specified in Fla. Admin. Code Rule 17-7.540(3), and which has not been found to contain significant concentration of toxic substances, may be applied to the land if the following conditions are met:

(a) Application is limited to sod farms, pasturelands, forests, highway shoulders and medians, plant nursery use, land reclamation projects, and to soil used for growing human food chain crops (excluding rootcrops, leafy vegetables, vegetables to be eaten raw, and tobacco).

(b) Use on playgrounds, parks, golf courses, lawns, hospital grounds, or other unrestricted public access areas where frequent human contact is likely to occur is restricted to processed domestic sludge and composted domestic sludge.

(c) Total application amounts of Grade II domestic wastewater treatment sludge shall be restricted by limits set on heavy metal applications to agricultural lands. Maximum total heavy metal applications are (in pounds per acre):

Maximum
 Cadmium - 4.45 lb/acre
 Nickel - 111. lb/acre
 Copper - 111. lb/acre
 Zinc - 222. lb/acre
 Lead - 445. lb/acre

(d) Grade II - Application Rates. No more than 10% of the total allowable amount of any criteria parameter shall be applied during any 12 month period. In no case shall more than 500 pounds of total nitrogen or more than six dry tons of sludge solids per acre per year be applied to lands used for growing human food chain crops.

(e) Grade II - Site Requirements

1. Buffer Zone Requirements - The sludge land application area shall be located no closer than 3,000 feet from any Class I water body or 200 feet from any other natural or artificial body of water, except canals used for irrigation purposes or bodies of water completely within the site which do not discharge from the site. The sludge land application area shall be located no closer than 300 feet from shallow private water supply wells, and occupied

buildings (residences, offices, manufacturing facilities, etc.). The sludge land application area shall be located no closer than 500 feet from public water supply wells. Processed domestic sludge and composted domestic sludge are exempted from buffer zone requirements.

2. Soil Requirements - When application is to land used for production of human food-chain crops, the pH of the sludge-soil mixture shall be 6.5 or greater at the time of sludge application. When growing human food chain crops, testing of the pH parameter shall be done on a semi-annual basis, otherwise testing shall be done annually. Each site shall have a Conservation Plan which indicates that suitable soil infiltration rates and stormwater run-off control measures exist at the site.

Conservation
Plan
slope and the
Grades =

3. Water Table Requirements - A minimum unsaturated depth of two feet is required above high water table level at the time of sludge application to the soil. Water table level shall be determined by observing the standing water level in a three-foot depth hole dug within the preceding 24 hours on the area to be used, or by measuring the water level in a monitoring well evacuated within 24 hours prior to measurement. No sludge land application may be conducted during periods in which surface soils of the sludge land application area are water saturated.

4. Special Requirements

a. Sludge land application area topographical grades must be eight percent or less.

Grade 8%

b. The sludge land application area and an area 200 feet wide adjacent to and exterior of the sludge land application area boundary shall contain no subsurface fractures, solution cavities, or sink holes.

c. The general public shall be restricted from the sludge land application area for a period of 12 months after each application. Processed domestic sludge and composted domestic sludge land application areas are exempted.

d. Florida water quality criteria and standards as provided in Chapters 17-3 and 17-4, Florida Administrative Code, shall not be violated. Water quality testing of Grade II sludge application areas may be required if the department determines that sludge application not conforming to this section is evident. If water quality violations are indicated, the site owner shall cease any further sludge land application and have water quality tests performed as the department requires.

e. When applied to unvegetated soils, stabilized domestic sludge, other than processed domestic sludge or composted domestic sludge, shall be incorporated into the soil within 48 hours.

f. Depth of Permeable Soil - A layer of permeable soil of more than 2.0 feet thickness shall cover the surface of the land application area.

g. Pasture vegetation on which sludge has been spread shall not be cut or fed to livestock for a period of 30 days from the last application of sludge.

h. Sludge land application areas shall not be used for domestic animal grazing for a period of 30 days following the last application of sludge.

i. No human food chain crops except hay, silage or orchard crops shall be harvested from a sludge land application area for a period of 60 days following the last application of sludge.

17-7.540(5)(e)1. -- 17-7.540(5)(e)4.i.

12-10-85

j. No sludge shall be applied directly onto those portions of human food chain crops that are to be harvested and removed from the sludge land application area except hay on properly cropped and raked pastureland.

k. Domestic sludges shall not be used for the cultivation of root crops, leafy vegetables, tobacco, or vegetables to be eaten raw.

l. Stormwater runoff generated by storms up to a 10-year 1-hour event shall be prevented from entering or leaving the sludge land application area. Berms shall be placed for this purpose, if necessary.

m. Permanent records of actual application areas and application rates must be kept. These records must be maintained by both the site owner and the sludge land applicator for a period of five years, and must be available for inspection upon request by the FDER, Department of Health and Rehabilitative Services, or Local Environmental Program.

Sludge Records shall include:

- (i) Date of sludge shipment or application.
- (ii) Weather conditions when delivered.
- (iii) Location of sludge destination.
- (iv) Amount of sludge applied or delivered.
- (v) Analysis of sludge pursuant to generator's permit.
- (vi) Quality of sludge.
- (vii) Sludge use agreements.
- (viii) Area of land where sludge is going to be applied, location and designated future use of the land.
- (ix) pH.
- (x) Water table.
- (xi) Topographic grades.
- (xii) Vegetational status of sludge land application area.
- (xiii) Incorporation of sludge.
- (xiv) Depth of permeable soil.

(6) Disposal Criteria for Grade III Domestic Wastewater Treatment Sludge.

All Grade III sludges and all Grade I and II sludges not to be applied to the land pursuant to Fla. Admin. Code Rule 17-7.540(4) or (5), and domestic wastewater treatment sludges not analyzed pursuant to Fla. Admin. Code Rule 17-7.540(2) shall be disposed of as follows:

(a) Sludge disposal shall be carried out at permitted or exempted solid waste disposal sites pursuant to Fla. Admin. Code Rule 17-7.030(2).

(b) Disposal of sludge shall be in compliance with Class I landfill criteria pursuant to Fla. Admin. Code Rule 17-7.050, except the covering requirements in Fla. Admin. Code Rule 17-7.050(1)(a).

(c) Sludge to be disposed of in conjunction with municipal solid waste (codisposal) shall be dewatered.

(d) Plans for sludge drying beds, sealed lagoons or other treatment facilities to be located at permitted solid waste disposal sites shall be submitted to the department as part of the permit application. Such drying beds shall not be located within 100 feet of municipal solid waste cells.

(e) Burning of sludge in volume reduction plants shall be pursuant to Fla. Admin. Code Rule 17-7.090.

12-10-85

17-7.540(5)(e)4.j. -- 17-7.540(6)(e)

12% for codisposal

123

(7) Land Reclamation - Grade I and Grade II.

All Grade I and grade II domestic sludges may be used in land reclamation projects if the following conditions are met.

(a) Land Reclamation Application Quantity - Total application amounts are restricted by limits set on heavy metal applications to agricultural lands. Application of heavy metals may not exceed those figures listed in Fla. Admin. Code Rule 17-7.540(5)(c).

(b) Maximum total allowable application quantity shall be 30 dry tons/acre with such application to be accomplished within a one-year period on any given acre of sludge land reclamation area. The maximum allowable quantity shall not be altered by a change in the ownership of the land.

(c) The applied material shall be incorporated into the soil within 48 hours following application.

(d) Seed of a turf-forming grass shall be planted as soon as practicable, but in no case later than three months following cessation of sludge application.

(e) There shall be no occupied building (office, residence, etc.) or shallow drinking water supply well as defined in Fla. Admin. Code Rule 17-7.020(46) within 500 feet of the sludge land application area.

(f) There shall be no production of human food chain crops on the sludge land application area for a period of two years following cessation of sludge application.

(g) There shall be no surface water bodies within 500 feet of the sludge land application area.

(h) Public access shall be restricted for one year after sludge application.

(i) Topographical grades must be six percent or less before and after sludge application.

(j) Topographical grading shall be completed before sludge application begins.

(k) Stormwater runoff generated by storms up to a 10-year 1-hour event shall be prevented from entering or leaving the sludge land application area. Berms shall be placed for this purpose, if necessary.

(l) Florida water quality standards as established in Chapter 17-3 and required by permit in Chapter 17-4, Florida Administrative Code, shall not be violated. Water quality testing of Grade I sludge application areas may be required if the department determines that sludge application not conforming to this section is evident. If water quality violations are indicated, the site owner shall suspend any further sludge application and have water quality tests run as the department requires.

(m) Water Table Requirements - A minimum unsaturated depth of two feet is required above water table level at the time of sludge application to the soil. Water table level shall be determined by observing the standing water level in a three-foot depth hole dug within the preceding 24 hours on the area to be used, or by measuring the water level in a monitoring well evacuated within 24 hours prior to measurement. No sludge land application may be conducted during rain storms or during periods in which surface soils of the sludge land application area are water saturated.

(n) In addition to the above requirements, land reclamation projects at mining reclamation sites shall be in compliance with any applicable DER and Florida Department of Natural Resources rules concerning mining reclamation.

Specific Authority: 403.061, 403.704, F.S.

Law Implemented: 403.702, 403.704, 403.705, 403.707, 403.708, F.S.

History: New 6-16-84, Previously Numbered as 17-7.54.

17-7.550 Criteria for Land Application or Disposal of Domestic Septage.

(1) Discharge of domestic septage into permitted domestic wastewater treatment facilities shall be pursuant to the requirements of Chapter 17-6, Florida Administrative Code.

(2) Application of domestic septage to the land, other than in sanitary landfills as specified in Fla. Admin. Code Rule 17-7.540(6), shall be pursuant to Grade I requirements as described in Fla. Admin. Code Rule 17-7.540(4), if such sludge has been properly treated by lime stabilization, sludge pasteurization, or other process which produces similar kills of microorganisms.

(3) Untreated domestic septage may not be applied to the land.

(4) The disposal of domestic septage in sanitary landfills shall be pursuant to disposal requirements for Grade III sludges as specified in Fla. Admin. Code Rule 17-7.540(6).

Specific Authority: 403.061, 403.704, F.S.

Law Implemented: 403.021, 403.061, 403.087, 403.702, 403.704, 403.705, 403.707, 403.708, F.S.

History: New 6-16-84, Previously Numbered as 17-7.55.

17-7.560 Criteria for Land Application or Disposal of Food Service Sludges.

(1) Food service sludges may be discharged into permitted domestic wastewater treatment facilities pursuant to the requirements of Chapter 17-6, Florida Administrative Code.

(2) Food service sludges may be applied to the land pursuant to Grade I requirements as described in Fla. Admin. Code Rule 17-7.540(4) if such sludge has been properly treated by lime stabilization, sludge pasteurization, or other process which produces similar kills of microorganisms.

(3) Untreated food service sludge may not be applied to the land.

(4) The disposal of food service sludge shall be pursuant to the disposal requirements for Grade III sludges as specified in Fla. Admin. Code Rule 17-7.540(b)(6). (6)(b)

Specific Authority: 403.061, 403.704, F.S.

Law Implemented: 403.021, 403.061, 403.087, 403.702, 403.704, 403.705, 403.707, 403.708, F.S.

History: New 6-16-84, Previously Numbered as 17-7.56.

17-7.570 Criteria for Land Application or Disposal of Processed Domestic Sludges.

(1) Grade I and Grade II sludges which qualify as processed domestic sludges shall be land applied pursuant to the criteria of Fla. Admin. Code

17-7.540(7)(n) -- 17-7.570(1)

12-10-85

Rule 17-7.540(4), except that the records required by section 17-7.540(4)(d)4.l. can, as an alternative, be kept by generators instead of site owners or sludge land applicators and shall include only monthly summaries of (a) the amount of sludge delivered, (b) the amount of sludge applied, (c) the grade of sludge, and (d) a general description of the land where applied.

(2) Generators of processed domestic sludge who produce such sludge in Florida or who deliver such sludge to Florida for use or final disposal in Florida, shall file a quarterly sludge analysis report and a quarterly sludge shipping and sales report with the Office of Solid Waste of the department.

(3) Parameters to be tested for as part of the sludge analysis report are:

Total Nitrogen - % dry weight
 Total Phosphorus - % dry weight
 Total Potassium - % dry weight
 Cadmium - mg/kg dry weight
 Copper - mg/kg dry weight
 Lead - mg/kg dry weight
 Nickel - mg/kg dry weight
 Zinc - mg/kg dry weight
 Total Solids - %

(4) Individual application rates shall be computed as follows:

Allowable lbs/acre/yr Cd $\div$ ppm Cd in sludge =
 lbs sludge/acre/year

In the case of a 100 ppm Cd sludge and in a 20 year time span, this would be:

$0.225 \div 0.000100 = 2,250$ lbs/acre/year of dry sludge.

A mixed commercial fertilizer using 10% by weight of this sludge would have a maximum allowable application rate of 22,500 lbs per acre per year. Maximum application rates must be made available to sludge users by the manufacturer.

(5) The agricultural use of processed sludge in accordance with this section is considered a normal farming operation and thus exempt from permitting requirements.

Specific Authority: 403.061, 403.704, F.S. Law Implemented: 403.021, 403.061, 403.087, 403.702, 403.704, 403.705, 403.707, 403.708, F.S. History: New 6-16-84, Previously Numbered as 17-7.57.

17-7.580 Criteria for Land Application or Disposal of Composted Domestic Sludges.

(1) Composted domestic sludge shall be disposed of pursuant to the requirements of Fla. Admin. Code Rule 17-7.540(6). However, such sludge which has been analyzed pursuant to Fla. Admin. Code Rule 17-7.540(2) and has been determined to be a Grade I or Grade II sludge pursuant to criteria specified in Fla. Admin. Code Rule 17-7.540(3) may be utilized according to the criteria provided in Fla. Admin. Code Rule 17-7.540(4) and (5), respectively.

(2) Technical criteria for composting as described in Chapter 12 of EPA 625/1-79-011, "Process Design Manual for Sludge Treatment and Disposal." This manual is adopted and made a part of this rule by reference. A copy of this

document may be obtained by writing the department, and may be inspected at all DER offices.

Specific Authority: 403.061, 403.704, F.S.

Law Implemented: 403.021, 403.061, 403.087, 403.702, 403.704, 403.705, 403.707, 403.708, F.S.

History: New 6-16-84, Previously Numbered as 17-7.58.

17-7.590 Effective Date.

This rule shall be effective 180 days after being filed with the Department of State.

Specific Authority: 120.54(12)(9), 403.061(7), F.S.

Law Implemented: 120.54(12)(9), 403.021, 403.061, 403.087, 403.702, 403.704, 403.705, 403.707, 403.708, F.S.

History: New 6-16-84, Previously Numbered as 17-7.59.