CHAPTER 17-7

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PART I
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17-7.01 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.

17-7.02 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) "Aquifer" means a zone below the surface of the earth capable of producing usable quantities of water through wells or springs.

(3) "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.

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

(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) "Composting" means a controlled process of degrading organic matter by micro-organisms which

results in a humus material.

(9) "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.

(10) "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. 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.

(11) "Council" means the Florida Resource Recovery Council.

(12) "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	Pinellas
Bay	Lee	Polk
Brevard	Leon	Sarasota
Broward	Manatee	Seminole
Dade	Orange	Volusia
Duval	Palm Beach	
Escambia	Pasco	

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

(14) "Final Cover" means a layer of compacted earth two (2) feet in depth applied to a completed landfill. It may consist of initial cover (6 inches) and intermediate cover (12 inches), with the remaining top six inches being loosely compacted to promote plant growth.

(15) "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.

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

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

(18) "Hazardous Wastes" means materials or combinations of materials which require special management techniques because of their acute or chronic effects on air and water quality, on fish, wildlife, or other biota, and on the health and welfare of the public. These materials may include, but are not limited to, volatile, chemical, biological, explosive, flammable, radioactive and toxic materials.

(19) "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.

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

(21) "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.

(22) "Initial Cover" means a six (6) inch layer of compacted earth used to enclose a cell prior to intermediate or final cover.

(23) "Intermediate Cover" means a layer of compacted earth one (1) foot in depth applied to either a partially completed landfill where final cover is not to be applied within one year of cell completion or to multiple lifts if an additional lift on the cell is not used within one year.

(24) "Leachate" means a liquid which has emerged from solid waste and contains dissolved or suspended materials.

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

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

(27) "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.

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

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

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

(31) "Non-Designated Areas" means those areas which are not recommended by the Resource Recovery Council to plan for a resource recovery and management program.

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

(33) "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.

(34) "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.

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

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

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

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

(39) "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.

(40) "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.

(41) "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.

(42) "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.

(43) "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.

(44) "Sanitary Landfill" means a facility, excluding those exempted under Subsection 17-7.03(2)(a)1. of this rule, for the disposal of solid waste on land which meets the criteria of Chapter 17-7, F.A.C.

(45) "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.

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

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

(48) "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.

(49) "Solid Waste" means garbage, rubbish, refuse, or other discharged solid or semi-solid materials resulting from domestic, commercial, industrial, agricultural, and governmental operations, but does not include solids or dissolved material in domestic sewage effluent or other significant pollutants in water resources such as silt, dissolved or suspended solids in industrial waste water effluents, dissolved materials in irrigation return flows or other common water pollutants.

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

(51) "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.

(52) "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.

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

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

(55) "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.

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

(57) "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.

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

(59) "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.

(60) "Waste Oil" means all types of waste oils, including waste automotive lubricants, industrial waste oils, and petroleum compounds.

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

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

(63) "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.

17-7.03 Solid Waste Resource Recovery and Management Bond and Permit Requirements.

(1) Bonds:

All persons engaged in the operation of sanitary landfills other than counties, municipalities or other governmental agencies and persons operating local agency-owned facilities under contract, shall post a performance bond or other approved security with the local agency within whose jurisdiction the site is located in the amount determined by the local agency to be consistent with the estimated cost of properly closing the site in accordance with Chapter 17-7.07, F.A.C. The requirements of this provision may be waived in writing by the local agency within whose jurisdiction

the site is located. A copy of such performance bond or other security or the written waiver of same shall be provided to the department as a party of the permit application.

(2) Permit Requirements.

(a) No resource recovery and management facility or site shall be operated, maintained, constructed, expanded, or modified without an appropriate and currently valid permit issued by the Department as defined in Chapter 17-4, F.A.C.

1. 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.

a. Disposal by persons of solid waste resulting from their own activities on their own property. This exemption shall not apply when solid wastes generated on more than one property are collected and disposed of at one disposal site.

b. Normal farming operations.

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

2. 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 17-7.04 of this rule.

(b) The person making application for a resource recovery and management facility permit shall submit to the Department four copies of an engineering plan for the proposed construction and operation 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 shall be required to make periodic inspections during construction of the facility to insure 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 471.05(4), F.S. Any law to the contrary notwithstanding, 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.

(c) The department, following a review of the resource recovery and management facility application and plan, shall:

1. Issue a construction or operation permit if the plan provides reasonable assurances that the requirements and standards of Chapter 17-7, FAC and Chapter 403, F.S. will be met.

2. Issue a construction or operation permit which includes conditions and provisions to ensure compliance with Chapter 17-7, F.A.C., and Chapter 403, F.S.

3. Deny the issuance of a construction or operation permit if the plan does not provide reasonable assurances that the requirements of Chapter 17-7, F.A.C. and Chapter 403, F.S. will be met.

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: Tranferred from 10D-12.03, 10D-12.04, 10D-12.07, 10-1-74, Amended 5-24-79.

17-7.04 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) Unless permanent leachate control methods are installed, no solid waste shall be disposed of by being placed:

(a) in an open sink hole or the immediate area thereof.

(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.

(3) No solid waste shall be disposed of:

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

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

(c) 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.

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

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

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

(g) 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.

(4) no open burning of solid waste shall be permitted at any land disposal site except in accordance with the provisions of Chapter 17-5, F.A.C. No burning of solid waste shall be allowed for the purpose of the instruction and training of organized fire fighters or industrial employees.

(5) 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.

(6) 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.

(7) 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.

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.

17-7.05 Sanitary Landfill Criteria.

(1) Classification of Sanitary Landfills. Sanitary landfills are classified into three (3) different classes based upon 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 solid waste, and which receive a monthly 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. If such a site is limited to the receipt of only trash or yard trash it shall be classified as a Class III landfill.

(b) Class II landfills are those which receive solid waste, and which receive a monthly average of 20 tons or less 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. If such a site

is limited to the receipt of only trash or yard trash types of solid waste, it shall be classified as a Class III landfill.

(c) Class III landfills are those which receive only trash or yard trash. Such sites are required to apply initial cover once every week. However, Class III sites which are operated as composting facilities are not required to apply initial cover. If trash or yard trash is mixed with other types of solid waste, the disposal site shall be classified as Class I or II landfills, depending upon the amount of wastes received at each site.

(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) Soil Survey.

Solid waste shall be disposed of only in areas where a soil survey has been made using the U.S.D.A. Soil Conservation Service taxonomy. The degree of limitation of the soil found shall be rated in accordance with the U.S.D.S. Soil Conservation Service Guide for Interpreting Engineering Uses of Soils. Such requirement may be waived by the Department only after being advised in writing by the Soil Scientist that the soils are such that a determination of soil series is not possible. This information can be included in the hydrogeological survey. The Soil Survey is not required for Class III sites and for sites where this information is included in the hydrogeological survey.

(b) Hydrogeological Survey

Solid waste shall be disposed of only in areas where a hydrogeological survey has been made. For Class I sites the hydrogeological survey shall include but not be limited to the determination of the depth of the water table, direction of groundwater flow and soil characteristics. For all other sites the best available information from Water Management Ditricts, U.S. Geological Survey, Florida Bureau of Geology or other acceptable sources shall be required.

(c) Site Requirements.

The land disposal site location shall:

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

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) Operational Plans-The proposed operational plans shall include:

(a) Map or aerial photograph of the area showing land use and zoning within 1/4 mile of the solid waste disposal site using the Florida Land Use Cover and Forms Classification System, (available from the Department). This map or photograph which shall be taken within one year of permit application, shall be of sufficient scale to show all homes, industrial buildings, wells,

watercourses, dry runs, rock outcroppings, roads and other significant details.

(b) Plot plan of the site showing dimensions, location of soil borings, proposed trenching plan and original elevation, cover stock piles, 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. The plot plan is not required for Class III sites.

(c) The design of the sanitary landfill shall include one or more 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 of each lift and typical cross section of a lift; special drainage devices if necessary; fencing; equipment facilities; and all other pertinent information.

(d) A report shall accompany the plans indicating:

1. 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. geological formations and groundwater elevations to a depth of at least 10 feet below proposed excavations and lowest elevation of the site. Such data shall be obtained by soil borings or other appropriate means. This information is not required for Class III sites.

5. soil map, interpretive guide sheets, and a report giving the suitability of the site for such an operation.

6. source and characteristics of cover material.

7. contingency plan, including alternate waste handling and disposal methods, in case of an emergency such as equipment failure or natural disaster.

8. persons responsible for actual operation and maintenance of the site and intended operating procedures.

9. A plan for gas control if gas generation from the site is expected.

10. operational plans to direct and control the use of the site.

11. plan for controlling the type of waste received at the site; plans shall specify inspection procedures, number and location of spotters and procedures to be followed if prohibited types of waste are discovered.

(e) All sites shall be designed to meet the water quality standards of Chapter 17-3 and 17-4, F.A.C., at the site's boundary. These design features may incorporate natural hydrogeological conditions, which include biological, chemical and physical systems and dilution factors.

(4) Operations.

(a) Monitoring Wells.

1. Within nine (9) months after the effective date of this rule.

a. Class I sanitary landfill sites shall provide a minimum of three (3) monitoring wells. At a new site these wells shall be installed before disposal of solid waste takes place. The location of these wells shall be in accordance with the hydrogeology of the site and the predicted behavior of groundwater flow. At least one monitoring well shall be located upgradient to the

landfill site, a second well shall be located at the downstream boundary of the first section filled or to be filled in the landfill site, and a third well shall be installed at the downgradient boundary of the landfill site. These wells shall be screened throughout the saturated trapped thickness of the aquifer. If the hydrogeologic characteristics of the site indicate that more than one downstream well is required to detect leachate generation and movement, the department may require additional downstream monitoring wells.

b. Class II landfill sites shall have at least one (1) monitoring well, which shall be placed at or close to the downstream boundary of the landfill site in the direction of groundwater flow. The Department may require additional monitoring wells at Class II sites no farther than one (1) mile from the site if a significant change in the initial quality of the water has occurred in the downstream monitoring well which may adversely affect the beneficial uses of the water. These additional wells may be public or private water supply wells if they are suitable for use in determining water quality.

2. Construction of monitoring wells and the collection of samples shall be in accordance with EPA recommended methods as contained in "Procedures Manual for Ground Water Monitoring at Solid Waste Disposal Facilities" (EPA/530/SW-611) (available from the Department), which is hereby incorporated by reference into these regulations. The wells shall be deep enough to insure that groundwater samples can be obtained with the groundwater table elevation at its estimated lowest point and shall be protected from damage or destruction. Samples shall be analyzed in accordance with the methods described in Chapter 17-4, F.A.C. which are hereby incorporated by reference into these regulations. Analyses shall be performed by laboratories which are approved by the Department of Health and Rehabilitative Services to conduct analyses pursuant to Section 403.863, F.S., the State Public Water Supply Laboratory Certification Program.

3. At the time of original permit application or at the time of renewal of the permit, after the effective date of this rule, all sanitary landfill sites are required to establish the background water quality by testing for the following parameters:

a. conductivity
b. nitrates
c. iron
d. chemical oxygen demand
e. other parameters if determined necessary by the department depending upon the nature of the waste received or the hydrogeological characteristics of the area or site.

4. Sampling shall be made by the sanitary landfill site operator or his delegated representative at no longer than six (6) month intervals after the background water quality has been established and operation of the site is begun. The samples shall be analyzed for the following key parameters:

a. conductivity
b. nitrates
c. chemical oxygen demand
d. other parameters, appropriate to a particular area or site, may be used in lieu of the foregoing provided the applicant demonstrates to the department that the

substitutions are adequate indicators of leachate.

5. The disposal facility operator shall be responsible for forwarding the sample analyses reports to the district office within ten (10) working days after the analyses report is received.

6. Additional sampling at more frequent intervals and analyses for extended parameters other than key parameters may be required by the department if a change, other than the normal seasonal changes, is detected in the value of the key parameters when compared with background values. Extended parameters may include any of those leachate indicators which are listed in the EPA publication "Procedures Manual for Ground Water Monitoring at Solid Waste Disposal Facilities" (EPA/530/SW-611) (available from the Department).

7. At least one week before sampling for extended parameters the facility operator or his representative shall inform the department so that a representative of the department may be present to collect a split sample.

(b) 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 accidential burning of solid waste within the sanitary landfill.

c. 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.

(d) 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.

(e) 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.

(f) Sanitary landfills shall provide for the collection, control and treatment of surface runoff from the site as necessary to meet the water quality standards of Chapters 17-3 and 17-4, F.A.C., for the receiving waters at the boundary of the site. The design of such treatment facility shall be reviewed and approved by the Department as a part of the permit required for the sanitary landfill.

(g) Any leachate emanating from a landfill shall be collected and treated as necessary to meet the water quality standards of Chapters 17-3 and 17-4, F.A.C., for receiving waters at the boundary of the site. The design of the treatment facility shall be reviewed and approved by the Department as a part of the permit required for the sanitary landfill.

(h) The grade of the completed refuse cells and lifts in addition to the final cover shall drain the surface runoff water to prevent uncontrolled ponding.

(i) All completed portions of sanitary landfills which have received final cover and at which no future vehicular traffic is anticipated shall be planted with grass or acceptable cover vegetation to minimize infiltration, erosion and dust.

(j) All sanitary landfills where gas generated by decomposition of wastes is not readily dispersed into the atmosphere shall be provided with a gas control system. In no case shall emissions from such gas control systems be allowed to result in violation of air quality standards pursuant to Chapter 403, F.S.

(k) 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 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. Following such compaction the solid waste at all sites, except Class III sites which are operated as composting facilities shall be covered with initial cover.

(l) All compacted solid waste shall be formed into cells with working face and side grades at a slope of approximately 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.

(m) The working face of a cell shall be kept as narrow as is consistent with the proper operation of trucks and equipment to minimize exposed areas.

(n) An intermediate cover of one (1) foot of compacted earth in addition to six (6) inch initial cover shall be applied within seven (7) days of cell completion if final cover is not to be applied within one (1) year of cell completion.

(o) Pesticides used to control rodents, flies and other insects shall be as specified by the Florida Department of Agriculture and Consumer Services. (Chapter 5E-2, F.A.C.).

(p) 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.

(q) Alternate procedures not included in this section shall be considered in a variance application submitted pursuant to Section 403.201, F.S., and Chapter 17-1, F.A.C.

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.

17-7.06 Special Waste Handling.

(1) Disposal of waste sludges, including septic tank contents referred to in Chapter 10D-6, F.A.C., shall be consistent with special consideration of potential air and water pollution and the increased threat to the health and safety of landfill employees. Waste sludges shall be disposed of in a sanitary landfill accepting municipal solid waste only where alternate disposal methods are not available and when such disposal does not violate laws and regulations.

(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 Section 17-5.08(1), F.A.C.

(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 proper 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). 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 17-7.05, 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.

17-7.07 Closing Procedure for All Land Disposal Sites.

All land disposal sites (sanitary landfills and open dumps) shall be closed in accordance with the following criteria:

(1) Access to the site shall be restricted by an effective barrier designed to prevent unauthorized entry into the landfill site.

(2) Information signs shall be placed at the entrance to the site and on roads leading to the site stating that it is closed, the penalty for dumping at the site, the location and hours of operation of the alternate approved site and the name of the operating agency.

(3) A responsible person shall be assigned to supervise the closing procedures on a full time basis during the closing operations.

(4) Two (2) feet of final cover material is required before final closing of the site. The cover material shall be compacted in six (6) inch layers with the final six (6) inches loosely compacted to promote plant growth. The sides of all completed landfills shall have a slope not steeper than one (1) foot vertical to three (3) feet horizontal to minimize erosion.

(5) Upon completion, the closed site shall be seeded or planted with

grass or suitable cover vegetation.

(6) Upon completion, the closed site shall be properly maintained. This includes erosion control, maintenance of grass cover, prevention of ponding and prevention of deposited waste from becoming a hazard or nuisance until the site is stabilized.

(7) Continued monitoring of the potential polluting sites is required. This will include collection and treatment of leachates until the site is stabilized.

(8) Upon completion, the closed site must be publicly recorded in the county property recording office.

(9) The requirements in Section 17-7.07(1), (2), (3), (4), (5), and (8) shall be completed within one year of the closing of the site to incoming waste.

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.

17-7.08 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.

(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.

17-7.09 Volume Reduction Plants.

(1) Permits shall be required for all volume reduction plants as defined in Section 17-7.02(59).

(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.

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 receptables 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.

PART II
STATE RESOURCE AND MANAGEMENT PROGRAM

17-7.20 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 17-7.24 (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 17-7.24, 17-7.25, and 17-7.26 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.

17-7.21 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.

17-7.22 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 17-7.24, 17-7.25, and 17-7.26 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.

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.

17-7.24 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.

17-7.25 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.

(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 managment 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.

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.

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, carryout 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.

(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 17-7.04(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).
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.

(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 17-7.04(5) of this rule. Other sludges should be disposed of in accordance with Part I, Section 17-7.06(1) of this rule.

(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.

17-7.26 Local Program Submittal.

(1) Resource Recovery and Management Programs, prepared and adopted in accordance with Section 17-7.25 and 17-7.24 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.

17-7.27 Extension Procedures.

The time limit stated in Section 17-7.24 and 17-7.25 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.

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.

17-7.29 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.

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.

PART III
CERTIFICATION OF RESOURCE RECOVERY EQUIPMENT

17-7.40 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.

17-7.41 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.

17-7.42 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 prelimnary 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 17-7.43, 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.

17-7.43 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 17-7.42(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.

17-7.44 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.

PART IV: DOMESTIC SLUDGE CLASSIFICATION, UTILIZATION, AND DISPOSAL CRITERIA

17-7.50 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.

17-7.51 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.

(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) "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 products; and in the production and harvesting of agricultural commodities which include agronomic, horticultural, silvicultural and agricultural crops. Included is the management, collection, storage, composting, transportation and utilization of organic agricultural waste, manure, and wastes solely derived from processed agricultural crops, and 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.

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

(24) "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.

(25) "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.

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

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

(28) "Site" means the area within the property boundary of a sludge disposal facility where there exists one or more sludge land application areas.

(29) "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.

(30) "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.

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

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

(33) "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.

(34) "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.

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

(36) "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.

(37) "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.

(38) "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.

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

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

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

(41) "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.

(42) "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.

17-7.52 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 17-7.03(2).

(2) Land application of any of the following sludges pursuant to the requirements of Fla. Admin. Code Rule 17-7.54(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 17-7.54(4).

(b) Grade I composted sludge as

classified in Fla. Admin. Code Rule 17-7.54(4).

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

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

(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 17-7.54(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 17-7.54(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.

17-7.53 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 17-7.04(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 17-7.04 apply except those prohibitions described in Fla. Admin. Code Rule 17-7.04(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.

17-7.54 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 17-7.54(6). However, such sludges that have been analyzed pursuant to Fla. Admin. Code Rule 17-7.54(2) and have been determined to be a Grade I or Grade II sludge pursuant to criteria specified in Fla. Admin. Code Rule 17-7.54(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 17-7.54(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
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	- %

(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.

(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 17-7.54(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.

Chemical Criteria in mg/kg dry weight

Parameter	Grade I	Grade II	Grade 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

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

Domestic wastewater treatment sludge analyzed pursuant to Fla. Admin. Code Rule 17-7.54(2) which meets the criteria specified in Fla. Admin. Code Rule 17-7.54(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 root-crops, 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 artifical 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 17-7.02(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 17-7.02(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.

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 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) 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 17-7.54(4).

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

Domestic wastewater treatment sludge analyzed pursuant to Fla. Admin. Code Rule 17-7.54(2) which meets the criteria for a Grade II sludge specified in Fla. Admin. Code Rule 17-7.54(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):

Cadmium - 4.45
Nickel - 111.
Copper - 111.
Zinc - 222.
Lead - 445.

(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 artifical 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 runoff control measures exist at the site.

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.

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.

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 17-7.54(4) or (5), and domestic wastewater treatment sludges not analyzed pursuant to Fla. Admin. Code Rule 17-7.54(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 17-7.03(2).

(b) Disposal of sludge shall be in compliance with Class I landfill criteria pursuant to Fla. Admin. Code Rule 17-7.05, except the covering requirements in Fla. Admin. Code Rule 17-7.05(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 17-7.09.

(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 17-7.54(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 17-7.02(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.

17-7.55 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 17-7.54(6), shall be pursuant to Grade I requirements as described in Fla. Admin. Code Rule 17-7.54(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 17-7.54(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.

17-7.56 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 17-7.54(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 17-7.54(b)(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.

17-7.57 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 Rule 17-7.54(4).

(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 ÷ 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 ÷ 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.

17-7.58 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 17-7.54(6). However, such sludge which has been analyzed pursuant to Fla. Admin. Code Rule 17-7.54(2) and has been determined to be a Grade I or Grade II sludge pursuant to criteria specified in Fla. Admin. Code Rule 17-7.54(3) may be utilized according to the criteria provided in Fla. Admin. Code Rule 17-7.54(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.

17-7.59 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.

Section 17-1.206 is amended to read:

17-1.206 Solid Waste.

(1) - (3) No Change.

(4) Land Application Field Package for Grade I Sludges.

(5) General Permit Application for Grade II Sludges.

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_____.

Section 17-4.53 is amended to read:

17-4.53 Procedures.

(1) - (5)(d) No Change.

(6) Unless otherwise required below as part of a specific category of general permit, persons ~~Persons~~ qualifying for the use of a general permit are not required to but may publish in a newspaper of general circulation in the area affected by the proposed project a notice of intent to use a general permit. The notice, if published, shall follow substantially the format in Fla. Admin. Code Rule 17-1.62 and shall be published within 14 days of the date when the department receives notification pursuant to Rule 17-4.53(1). No person who has published notice shall begin work until after the 21 days for requesting a hearing has passed or a hearing is held and a decision is rendered.

Specific Authority: 403.814(1),F.S.

Law Implemented: 253.123, 253.124, 258.165, 403.061, 403.087, 403.088, 403.702-403.73, 403.814, 403.851-403.864, F.S.

History: New 7-8-82~~.~~, Amended.

17-4.64 is created to read:

17-4.64 General Permit for Land Application of Grade II Domestic Wastewater Treatment Sludge.

(1) As a result of the potential harm to human health or the environment resulting from sludge disposal activities, it is important that public notice be given before a general permit for such activities is utilized. Therefore, a general permit is hereby granted to any person for land application of Grade II domestic wastewater treatment sludge; provided:

(a) The person intending to apply the sludge to the land submits a completed General Permit Application for Grade II Sludges, as specified in Fla. Admin. Code Rule 17-7.60.

(b) The permit applicant, within 14 days of notice to the department, has published in a newspaper of general circulation in the area affected, a notice of the intended land application of Grade II sludge. The notice shall include the name of the applicant and a brief description of the proposed activity and location.

(c) The sludge is land applied pursuant to the requirements of Fla. Admin. Code Rule 17-7.54(5).

(2) The general permit shall be subject to the general conditions of Fla. Admin. Code Rule 17-4.54.

Specific Authority: 403.814, F.S.

Law Implemented: 403.061, 403.087, 403.702, through 403.715, 403.814, F.S.

History: New.

NAME OF PERSON ORIGINATING PROPOSED RULE: Gregory L. Parker

NAME OF SUPERVISOR OR PERSON(S) WHO APPROVED THE PROPOSED RULE: Victoria J. Tschinkel

DATE PROPOSED RULE APPROVED: September 13, 1983

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

Land Application Field Package for Grade I Sludges

This form is for utilization of Grade I sludge in normal farming operations pursuant to Chapter 17-7, Part IV, FAC. A completed form shall be submitted to the sludge generator by the sludge land applicator. A separate form must be completed for each sludge land application area.

No Grade I sludge land application project shall be initated until the sludge generator has received a complete Land Application Field Package. Sludge land applicators and sludge generators shall maintain a permanent file of forms on sites actually used for sludge application. Such files must be made available for inspection upon request by the FDER or Local Environmental Program. Sludge land application areas must be made available for inspection by FDER, DHRS, or Local Environmental Program personnel upon request.

Use of Grade I sludge as specified in this form is exempt from solid waste permitting requirements provided in Chapter 17-7, FAC. Those persons who haul or use less than three cubic yards of Grade I sludge per month shall not be required to complete and submit the Land Application Field Package.

Section 1. Sludge Analysis, Approved Use, Application Rate

This section shall be completed by any sludge generator who wishes to utilize his residual products for land application.

Grade _____
Max gals/ac/yr _____
Max dry lb/ac/yr _____

1. Name and address of residual generation site: _____

_____

_____

County _____ Contact Telephone No. _____

2. Type of residual generated:

(a) _____Domestic Wastewater Treatment Sludge

(b) _____Domestic Septage

(c) _____Food Service Sludge

(d) _____Other:(Please Describe)_____

3. Treatment of residual before distribution for land application. (Check all applicable treatments and fill in all applicable blanks.)

(a) _____Chemical stabilization: Chemical _____pH _____for _____hrs.

(b) _____Mechanical dewatering to _____% solids

(c) _____Heat treatment of _____°C for _____minutes

(d) _____Chemical treatment: _____

(e) _____Biological digestion: Type _____ Days _____

(f) _____Drying to _____% solids

(g) _____Composting: Type _____, Temp. _____°C for

_____days

(h) _____Lime stabilization: pH _____ for _____hours

(i) _____Other: (Please Explain)

_____

_____

4. Sludge Analysis (as required by Chapter 17-7, Part IV, FAC).

Analysis performed by: _____ Date _____
Address of laboratory: _____
_____

Test parameters for domestic sludge (weight figures in milligrams per kilogram dry weight).

(a) total nitrogen	_____%	(i) pH	_____
(b) total phosphorus	_____%	(j) solids	_____%
(c) total potassium	_____%	(k)	_____
(d) cadmium	_____	(l)	_____
(e) copper	_____	(m)	_____
(f) lead	_____	(n)	_____
(g) nickel	_____	(o)	_____
(h) zinc	_____	(p)	_____
		(q)	_____

5. Residual Grade as per Chapter 17-7, Part IV: Grade _____

6. Grade I application rate: _____ gal/acre/year
_____ dry lbs/acre/year

Calculation of maximum application rate:

8.34 (pounds per gallon) x (percent solids) x (percent nitrogen; dry weight) = pounds N per gallon

500 (maximum nitrogen loading; pounds) ÷ pounds N per gallon

Sample calculation of maximum application rate (not to be used unless analysis indicates an identical situation)

8.34 x 0.02 x 0.045 = 0.0075
500 ÷ 0.0075 = 66,666 gallons/acre/year
8.34 x 0.02 x 66,666 = 11,119 pounds (dry)/acre/year

No more than 500 pounds of total nitrogen shall be applied to one acre during any 12-month period. No sludges shall be applied to water saturated lands.

Section 2. Basic Site Data: This section shall be completed by the application site owner or the sludge land applicator.

1. Name and current address of site owner: _____

_____

_____

County _____ Telephone No. _____

2. Land use of site: (check applicable uses)

(a) _____Pastureland (grazing only, no harvest)

(b) _____Grain Crops

(c) _____Silage, Hay

(d) _____Orchard, Type _____

(e) _____Tree Farming

(f) _____Vegetables, Type _____

(g) _____Sod

(h) _____Land not being used for agricultural purposes.

Other use: Specifics _____

_____

3. Number of sludge land application areas on site: _____.

4. Designation of present sludge land application area: A, B, C

5. Attach legal description of the site.

6. Attach a large-scale (small area) map of the site indicating location of all sludge land application areas and nearby adjacent wells.

7. Expected volume of sludge application: _____gallons per working day.

8. Size of sludge land application area: _____acres.

9. Average grade of land to be used _____%.

10. Soil pH before application _____.

11. Name and address of licensed persons (if any) associated with the application project: _____

_____

_____

All submitted data is accurate and complete. All required application site management practices will be implemented.

Application Site Owner or Authorized Agent — Date

Sludge Land Applicator — Date

Land Application of Grade II Sludge Permitted:

Florida Department of Environmental Regulation — Date

Section 3. Basic Site Data (Land Reclamation)

1. Name and current legal address of site owner or authorized agent:

   _____

   _____

   County _____ Contact Telephone No. _____

2. Land application area: _____acres.

3. Sludge to be applied per acre: _____tons (dry)

4. Productive capacity of land destroyed by _____

   _____

5. Name and address of County Health Unit licensed individuals or firms (if any) associated with the application project: _____

   _____

   _____ Telephone No._____

6. Attach legal description of the site.

7. Attach letter of authorization for any authorized agent.

8. Attach a topographic map of the sludge land application area showing planned finished contours and any stormwater control facilities.

9. Attach a large-scale (small area) map of the site area. Indicate the following:

   A. Sludge land application area

   B. Nearest occupied building (office, residence, etc.)

   C. Nearest drinking water supply well

   D. Nearest state, federal, or county maintained road or highway.

Section 2. Basic Site Data (Agricultural Lands) - This section is to be completed by the application site owner or the sludge land applicator.

1. Name and current address of site owner: _____

_____

_____

County _____ Telephone No. _____

2. Land use of site: (check applicable uses)

(a) _____Pastureland (grazing only, no harvest)

(b) _____Grain Crops

(c) _____Silage, Hay

(d) _____Orchard, Type _____

(e) _____Tree Farming

(f) _____Vegetables, Type _____

(g) _____Sod

(h) _____Land not being used for agricultural purposes.

Other use: Specifics _____

_____

3. Number of sludge land application areas on site: _____.

4. Designation of present sludge land application area: A, B, C

5. Attach legal description of the site.

6. Attach a large-scale (small area) map of the site indicating location of all sludge land application areas and nearby adjacent wells.

7. Attach copy of approved Conservation Plan.

8. Expected volume of sludge application: _____gallons per working day.

9. Size of sludge land application area: _____acres.

10. Average grade of land to be used _____%.

11. Soil pH before application _____.

12. Name and address of licensed individuals or firms (if any) associated with the application project: _____

_____

_____

4. Sludge Analysis (as required by Chapter 17-7, Part IV, FAC).

Analysis performed by: _____ Date _____

Address of laboratory: _____

_____

Test parameters for domestic wastewater treatment sludge (weight figures in milligrams per kilogram dry weight).

(a) total nitrogen	_____%	(i) pH	_____
(b) total phosphorus	_____%	(j) solids	_____%
(c) total potassium	_____%	(k)	_____
(d) cadmium	_____	(l)	_____
(e) copper	_____	(m)	_____
(f) lead	_____	(n)	_____
(g) nickel	_____	(o)	_____
(h) zinc	_____	(p)	_____
		(q)	_____

5. Sludge Grade as per Chapter 17-7, Part IV Grade _____

Section 1. Sludge Analysis,
Approved Use, Application Rate

This section shall be completed by any sludge generator who wishes to utilize his residual products for land application.

Grade _____
Max gals/ac _____
Max dry lb/ac _____

1. Name and address of sludge generation site: _____

_____

_____

County _____ Contact Telephone No. _____

2. Type of residual generated:

(a) _____Domestic Wastewater Treatment Sludge

(b) _____Domestic Septage

(c) _____Food Service Sludge

(d) _____Other:(Please Describe)_____

3. Treatment of residual before distribution for land application. (Check all applicable treatments and fill in all applicable blanks.)

(a) _____Chemical stabilization: Chemical _____pH _____for _____hrs.

(b) _____Mechanical dewatering to _____% solids

(c) _____Heat treatment of _____°C for _____minutes

(d) _____Chemical treatment: (type) _____

(e) _____Biological digestion: Type _____ Days _____

(f) _____Drying to _____% solids

(g) _____Composting: Type _____, Temp. _____°C for

_____days

(h) _____Lime stabilization: pH _____ for _____hours

(i) _____Other: (Please Explain)

_____

_____

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

General Permit for Grade II Sludges

This form is for utilization of Grade II sludge on agricultural lands and in land reclamation projects pursuant to Chapter 17-7, Part IV, FAC. Section 1 of this form must be completed by the sludge generator and the entire form must be provided to all sludge haulers, sludge land applicators, and site owners who use the generator's sludge.

The sludge land applicator of a Grade II sludge must complete Section 2 of this form and send a completed copy to the appropriate DER district office or approved Local Program. Land application of Grade II sludges shall not be initiated until notice has been given to the department at least 30 days before initiation of sludge disposal.

Any proposed sludge land application area which does not meet the requirements for a general permit specified in FACR 17-7.54(5) shall require a standard solid waste disposal site permit from the department.

Landowners are responsible for water pollution or health hazards resulting from the application of sludge on their land.

Landowners must exercise sufficient control over the operation to insure that runoff, nuisance, or health problems do not occur.

All submitted data is accurate and complete. All required application site management practices shall be implemented.

_____

Application Site Owner or Authorized Agent — Date

_____

Sludge Land Applicator — Date

Complete Land Application Field Package Received:

_____

Sludge Generator — Date

PART IV: DOMESTIC SLUDGE CLASSIFICATION, UTILIZATION, AND DISPOSAL CRITERIA

17-7.50 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.

17-7.51 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.

(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) "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 products; and in the production and harvesting of agricultural commodities which include agronomic, horticultural, silvicultural and agricultural crops. Included is the management, collection, storage, composting, transportation and utilization of organic agricultural waste, manure, and wastes solely derived from processed agricultural crops, and 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.

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

(24) "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.

(25) "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.

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

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

(28) "Site" means the area within the property boundary of a sludge disposal facility where there exists one or more sludge land application areas.

(29) "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.

(30) "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.

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

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

(33) "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.

(34) "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.

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

(36) "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.

(37) "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.

(38) "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.

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

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

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

(41) "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.

(42) "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.

17-7.52 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 17-7.03(2).

(2) Land application of any of the following sludges pursuant to the requirements of Fla. Admin. Code Rule 17-7.54(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 17-7.54(4).

(b) Grade I composted sludge as

classified in Fla. Admin. Code Rule 17-7.54(4).

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

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

(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 17-7.54(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 17-7.54(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.

17-7.53 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 17-7.04(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 17-7.04 apply except those prohibitions described in Fla. Admin. Code Rule 17-7.04(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.

17-7.54 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 17-7.54(6). However, such sludges that have been analyzed pursuant to Fla. Admin. Code Rule 17-7.54(2) and have been determined to be a Grade I or Grade II sludge pursuant to criteria specified in Fla. Admin. Code Rule 17-7.54(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 17-7.54(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
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	- %

(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.

(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 17-7.54(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.

Chemical Criteria in mg/kg dry weight

Parameter	Grade I	Grade II	Grade 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

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

Domestic wastewater treatment sludge analyzed pursuant to Fla. Admin. Code Rule 17-7.54(2) which meets the criteria specified in Fla. Admin. Code Rule 17-7.54(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 artifical 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 17-7.02(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 17-7.02(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.

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 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) 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 17-7.54(4).

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

Domestic wastewater treatment sludge analyzed pursuant to Fla. Admin. Code Rule 17-7.54(2) which meets the criteria for a Grade II sludge specified in Fla. Admin. Code Rule 17-7.54(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):

Cadmium - 4.45
Nickel - 111.
Copper - 111.
Zinc - 222.
Lead - 445.

(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 artifical 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 runoff control measures exist at the site.

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.

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.

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 17-7.54(4) or (5), and domestic wastewater treatment sludges not analyzed pursuant to Fla. Admin. Code Rule 17-7.54(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 17-7.03(2).

(b) Disposal of sludge shall be in compliance with Class I landfill criteria pursuant to Fla. Admin. Code Rule 17-7.05, except the covering requirements in Fla. Admin. Code Rule 17-7.05(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 17-7.09.

(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 17-7.54(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 17-7.02(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.

17-7.55 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 17-7.54(6), shall be pursuant to Grade I requirements as described in Fla. Admin. Code Rule 17-7.54(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 17-7.54(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.

17-7.56 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 17-7.54(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 17-7.54(b)(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.

17-7.57 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 Rule 17-7.54(4).

(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 ÷ 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 ÷ 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.

17-7.58 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 17-7.54(6). However, such sludge which has been analyzed pursuant to Fla. Admin. Code Rule 17-7.54(2) and has been determined to be a Grade I or Grade II sludge pursuant to criteria specified in Fla. Admin. Code Rule 17-7.54(3) may be utilized according to the criteria provided in Fla. Admin. Code Rule 17-7.54(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.

17-7.59 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.