

CHAPTER 62-640 DOMESTIC WASTEWATER RESIDUALS

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62-640.100 Scope, Intent, Purpose, and Applicability.

(1) All domestic wastewater treatment facilities which use biological treatment processes generate domestic wastewater residuals as a by-product of the treatment process. The Department finds that unregulated use, disposal, or land application of these residuals poses a threat to the environment and public health. It is the intent of the Department in this chapter to regulate the management, use, and land application of residuals so as to ensure protection of the environment and public health.

(2) The Department also intends in this chapter to encourage the beneficial use of residuals.

(3) This chapter establishes minimum requirements for residuals which are to be applied to land for agricultural purposes, distributed and marketed, or used for land reclamation. Included are residuals which are composted with yard trash, wood chips, or similar bulking agents and ultimately applied to land or distributed and marketed.

(4) This chapter also establishes minimum requirements for septage which will be treated at facilities permitted by the Department and will be applied to land for agricultural purposes or land reclamation.

(5) The purpose of Chapter 62-640, F.A.C., is to provide minimum standards for the treatment of residuals and septage to be applied to land or distributed and marketed, establish land application criteria, and define requirements for agricultural operations which have received or will receive residuals or septage.

(6) Applicability.

(a) Requirements in this chapter shall apply to domestic wastewater treatment facilities, residuals management facilities, and septage management facilities that generate residuals or septage which are to be applied to agricultural sites or reclamation sites, or which are distributed and marketed.

(b) The requirements in this chapter shall also apply to applicators or distributors of residuals or residuals products, and to owners or operators of agricultural sites or reclamation sites which receive residuals.

(c) Unless specifically provided otherwise in this chapter, requirements in this chapter shall apply to all facilities which generate residuals or apply residuals to agricultural sites or reclamation sites, or which distribute and market residuals or operate an agricultural site or reclamation site, for which complete permit applications were received after December 1, 1997.

(d) Unless specifically provided otherwise in this chapter, requirements in this chapter shall apply to all septage management facilities that treat more than 10,000 gallons per day monthly average daily flow or more than 20,000 gallons in a single day, and that apply septage to agricultural sites or reclamation sites. The requirements of this chapter shall also apply to applicators of septage, and to operators or owners of an agricultural site or reclamation site which has had septage from facilities permitted under this chapter applied to the land after December 1, 1997.

(e) Unless specifically provided otherwise in this chapter, requirements in this chapter that apply to residuals shall also apply to septage from facilities regulated by the Department, and to products derived from such septage, or residuals, or combinations thereof.

(f) Unless specifically provided otherwise in this chapter, requirements in this chapter shall apply to composting facilities, as defined by this chapter, which use yard trash, wood chips, or similar bulking agents, and apply the resulting compost to land or distribute and market the resulting compost after December 1, 1997.

(g) Facilities which have submitted a complete wastewater permit application or which have received an initial permit before December 1, 1997, are considered to be existing facilities and shall meet the requirements of this chapter in accordance with subsection (h) below.

(h) Existing facilities in Florida shall comply with these requirements at the time of renewal or substantial revision of the wastewater permit, whichever occurs first. Existing facilities may choose to comply with the requirements of this chapter prior to the time specified in this rule by obtaining a permit revision under Chapter 62-620, F.A.C.

(i) Until such time as the wastewater permit is renewed or a new permit is issued for expansion or substantial modification of the facility, the facility shall comply with the requirements for land application of residuals or septage in the existing permit.

(j) Residuals or residuals products which are generated outside of Florida but imported to Florida are subject to the provisions of this chapter beginning December 1, 1997.

(k) The following activities are excluded from the requirements of this chapter:

1. Regulation of septage management facilities that treat 10,000 gallons per day or less on a monthly average daily flow basis and no more than 20,000 gallons in a single day. These facilities are regulated by the Department of Health in accordance with Chapter 64E-6, F.A.C.

2. Land application of septage treated by facilities which are regulated by the Department of Health in accordance with Chapter 64E-6, F.A.C.

3. Disposal of residuals, septage, and other solids in a solid waste landfill. Disposal of these materials shall be in accordance with Chapter 62-701, F.A.C.

4. Disposal of residuals by placement on land for purposes other than soil conditioning or fertilization, such as at a monofill, surface impoundment, waste pile, or dedicated site. Disposal in such cases shall be in accordance with Chapter 62-701, F.A.C.

5. Incineration of residuals. Incineration of residuals shall meet the requirements of Chapters 62-210, 62-212, 62-213, 62-272, 62-273, 62-275, 62-296, and 62-297, F.A.C., and the Resource Conservation and Recovery Act.

6. Co-composting of residuals with solid waste other than yard trash, wood chips or similar bulking agents. Co-composting of residuals with other solid waste materials shall be in accordance with Chapter 62-709, F.A.C.

7. Treatment, management, or disposal of industrial sludges or septage, air treatment sludges, and water supply treatment sludges.

8. Disposal of screenings and grit from the preliminary treatment components of wastewater treatment facilities, solids from sewer line cleaning operations, and solids from lift stations and pump stations. Disposal of these materials shall be in accordance with Chapter 62-701, F.A.C.

Specific Authority 403.051, 403.061, 403.062, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 403.021, 403.051, 403.061, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History—New 8-12-90, Formerly 17-640.100, Amended 3-30-98.

62-640.200 Definitions.

Terms used in this chapter shall have the meaning specified below. The meaning of any term not defined below may be taken from definitions in other rules of the Department.

(1) "Aerosol" means suspension of ultramicroscopic solid or liquid particles in air.

(2) "Agricultural Use Plan" means a formal document submitted to the Department which describes the controlled use of residuals as part of a planned agricultural operation.

(3) "Agricultural site" means a residuals application site consisting of land on which a food crop, a feed crop, or a fiber crop is grown, forest land, or land on which turf or ornamental plants are grown. This includes range land and land used as pasture.

(4) "Agronomic rate" means the whole residuals application rate (dry weight basis) designed:

(a) to provide the amount of nitrogen needed by the food crop, feed crop, fiber crop, cover crop, or vegetation grown on the land; and

(b) to minimize the amount of nitrogen in the residuals that passes below the root zone of the crop or vegetation grown on the land to the ground water.

(5) "Application site" means a property (such as a farm, a ranch or a mining property) where residuals are applied to land. Application sites are identified as either agricultural sites or reclamation sites.

(6) "Application zone" means a parcel of land (e.g., a field) to which residuals are applied at an application site.

(7) "Average daily flow (ADF)" means the total volume of wastewater flowing into a wastewater facility during some defined period of time, divided by the number of days in that period of time, expressed in units of mgd.

(8) "Class A residuals" means residuals that meet the Class A pathogen reduction requirements of Rule 62-640.600(1)(a), F.A.C.

(9) "Class AA residuals" means Class A residuals that meet all the requirements of Rule 62-640.850, F.A.C.

(10) "Class B residuals" means residuals that meet the Class B pathogen reduction requirements of Rule 62-640.600(1)(b), F.A.C.

(11) "Composting facility" means a facility, as defined in Rule 62-640.200(17), F.A.C., that uses composting technology for treatment of residuals. Processing may include physical turning, windrowing, aeration, or other mechanical handling of residuals.

(12) "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 for a specific parcel of property to control soil erosion, reduce sediment loss, protect the water quality and manage nutrient use.

(13) "Department" means the Florida Department of Environmental Protection.

(14) "Design capacity" shall be as defined in Chapter 62-600, F.A.C. The design capacity for residuals management facilities shall be expressed in units of dry tons per day.

(15) "Distribution and Marketing" is the giveaway or sale of residuals meeting the criteria of Rule 62-640.850, F.A.C., or a product derived from such residuals, either packaged or in bulk form, by owners or operators of treatment works or by a person who receives residuals or residual products from treatment works.

(16) "Dry weight basis" means calculated on the basis of having been dried at 105 degrees Celsius until reaching a constant mass (i.e., essentially 100 percent solids content).

(17) "Facility" means a domestic wastewater treatment facility, a residuals management facility, or a septage management facility.

(18) "Feed crops" means crops produced primarily for consumption by animals.

(19) "Fiber crops" mean crops such as flax and cotton which are produced primarily for the manufacture of products and are not consumed by humans or animals.

(20) "Food crops" means crops consumed by humans.

(21) "Food establishment sludge" means oils, fats, greases, food scraps, and other grease interceptor contents generated by a food operation or institutional food preparation facility.

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

(23) "Liquid residuals" means any residuals that are less than 12% solids by weight, or that are determined to contain free liquids as defined by Method 9095 (Paint Filter Liquids Test), as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Pub. No. SW-846), which is incorporated here by reference.

(24) "Other solids" means material, primarily sand and inorganic matter, removed from domestic wastewater treatment processes during primary and secondary treatment. Not included are solids removed from pump stations and lift stations, solids from sewer line cleaning operations, and screenings and grit removed from the preliminary treatment components of domestic wastewater treatment facilities.

(25) "Pathogens" or "pathogenic organisms" means disease-causing organisms. These include certain bacteria, protozoa, viruses, and viable helminth ova and any other organisms that cause disease.

(26) "Permitted capacity" shall be as defined in Chapter 62-600, F.A.C. The permitted capacity for residuals management facilities shall be expressed in units of dry tons per day.

(27) "pH of residuals – soil mixture" means the pH value obtained by sampling the soil to the depth of residuals placement. If residuals are surface applied, a core sample shall be collected through the surface to a depth of six inches.

(28) "Potable water supply well" means a well used as a source of water for drinking, culinary, or domestic purposes.

(29) "Reclaimed water" shall be as defined in Chapter 62-610, F.A.C.

(30) "Reclamation site" means a residuals application site consisting of drastically disturbed land that is reclaimed using residuals, such as strip mines and construction sites.

(31) "Residuals" or "domestic wastewater residuals" means the solid, semisolid, or liquid residue generated during the treatment of domestic wastewater in a domestic wastewater treatment facility. Not included is the treated effluent or reclaimed water from a domestic wastewater treatment plant. Also not included are solids removed from pump stations and lift stations, screenings and grit removed from the preliminary treatment components of domestic wastewater treatment facilities, other solids as defined in Rule 62-640.200(24), F.A.C., and ash generated during the incineration of residuals.

(32) "Residuals management facility" means a facility, such as a composting or blending facility, that treats residuals from other facilities for the purpose of meeting the requirements of this chapter, before use or land application. Residuals management facilities may also treat domestic septage and combinations of residuals, domestic septage, food establishment sludges, wastes removed from portable toilets, and wastes removed from holding tanks associated with boats, marinas, and onsite sewage treatment and disposal systems, before use or land application.

(33) "Restricted public access" means that access to a land application site by the general public is both controlled and infrequent. Such sites will be accessible to persons authorized by the site owner or facility permittee, such as farm personnel, wastewater facility operators, and residuals or septage haulers.

(34) "Septage" means a mixture of sludge, fatty materials, human feces, and wastewater removed during pumping of an onsite sewage treatment and disposal system. Excluded from this definition are the contents of portable toilets, holding tanks, and grease interceptors.

(35) "Septage management facility" means a stationary facility that treats only domestic septage or combinations of domestic septage, food establishment sludges, wastes removed from portable toilets, and wastes removed from holding tanks associated with boats, marinas, and onsite sewage treatment and disposal systems, before use or land application.

(36) "Source facility" means a facility that sends residuals to a residuals management facility for treatment before use or land application.

(37) "Ton" means a short ton (2,000 pounds or 0.90718 metric ton).

(38) "Toxic substances" means either of the following:

(a) Hazardous wastes as defined in Chapter 62-730, F.A.C.

(b) A substance which is present in sufficient concentration to pose a serious danger to the public health, safety, or welfare.

(39) "Treatment" means the process of altering the character or physical or chemical condition of waste to prevent pollution of water, air, or soil, to safeguard the public health, or enable the waste to be beneficially used. Treatment includes blending, dewatering, and any process that alters the quality or quantity of the material for the purpose of meeting the requirements of this chapter. Treatment does not include storage of residuals.

(40) "Vector attraction" means the characteristic of residuals that attracts rodents, flies, mosquitoes, or other organisms capable of transporting infectious agents.

(41) "Water table" means the upper surface of the zone of saturation where groundwater pressures are equal to atmospheric pressure, except where that surface is formed by an impermeable stratum.

(42) "Waters" means those waters defined in Section 403.031, F.S.

(43) "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.

Specific Authority 403.051, 403.061, 403.062, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 403.021, 403.051, 403.061, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History—New 8-12-90, Formerly 17-640.200, Amended 3-30-98.

62-640.210 General Technical Guidance and Forms.

(1) The following publications are listed as technical guidance to assist facilities, applicators, site managers, and site owners in meeting the requirements of this chapter. Publications or portions of publications containing enforceable criteria are specifically referenced elsewhere in this chapter. Information in the publications listed below does not supersede the specific requirements of this chapter. Members of the public may request and obtain copies of the publications listed below by contacting the appropriate publisher at the address indicated. Copies of the publications are on file with the Florida Secretary of State and the Joint Administrative Procedures Committee of the Florida Legislature. Copies are also on file and available for review during normal business hours in the Department's Tallahassee offices and in the Department's district and branch offices.

(a) U.S. Environmental Protection Agency, 1995, *Process Design Manual for Land Application of Sewage Sludge and Domestic Septage*, EPA Center for Environmental Research Information, 26 West Martin Luther King Drive, Cincinnati, Ohio 45268.

(b) Title 40, Code of Federal Regulations, Protection of Environment, 1993, Part 503, "Standards for the Use and Disposal of Sewage Sludge," revised as of October 25, 1995.

(c) U.S. Environmental Protection Agency, 1989, POTW Sludge Sampling and Analysis Guidance Document, EPA Center for Environmental Research Information, 26 West Martin Luther King Drive, Cincinnati, Ohio 45268.

(d) U.S. Environmental Protection Agency, *Process Design Manual For Sludge Treatment And Disposal*, 1979, Center for Environmental Research Information, 26 West Martin Luther King Drive, Cincinnati, Ohio 45268.

(e) Recommended Standards for Sewage Works, 1990, Great Lakes-Upper Mississippi River Board of State Sanitary Engineers (Ten State Standards).

(f) U.S. Environmental Protection Agency, *Handbook, Septage Treatment and Disposal*, 1984, Center for Environmental Research Information, 26 West Martin Luther King Drive, Cincinnati, Ohio 45268.

(g) U.S. Environmental Protection Agency, *Control of Pathogens and Vector Attraction in Sewage Sludge*, 1992, Center for Environmental Research Information, Cincinnati, Ohio 45268.

(h) U.S. Environmental Protection Agency, 1974. *Design Criteria for Mechanical, Electric, and Fluid System and Component Reliability – MCD-05*. Environmental Quality Instructional Resources Center, The Ohio State University, 1200 Chambers Road, Room 310, Columbus, Ohio 43212.

(2) Forms. The forms and instructions used by the Department are listed in this rule. The rule numbers are the same as the form numbers. The forms are incorporated by reference in this rule. Copies of these forms and instructions may be obtained by writing to the Bureau of Wastewater Facilities, Mail Station 3535, Department of Environmental Protection, Twin Towers Office Building, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. In addition, these forms are available at the Department's District Offices as described in Chapter 62-101, F.A.C. The monitoring information reported on the forms listed below in paragraphs (b), (c) and (d) may be submitted in another format if requested by the permittee and if approved by the Department as being compatible with data entry into the Department's computer system.

(a) Agricultural Use Plan, Form 62-640.210(2)(a), effective December 1, 1997.

(b) Residuals Annual Summary, Form 62-640.210(2)(b), effective December 1, 1997.

(c) Monthly Residuals Distribution and Marketing Report, Form 62-640.210(2)(c), effective December 1, 1997.

(d) Residuals Monitoring Report, Form 62-640.210(2)(d), effective December 1, 1997.

Specific Authority 403.051, 403.061, 403.062, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 403.021, 403.051, 403.061, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History—New 8-12-90, Formerly 17-640.210, Amended 3-30-98.

62-640.300 Permit Requirements.

(1) Residuals shall be applied to an application site only if the facility generating or treating the residuals has a valid Department permit that includes an approved Agricultural Use Plan for the site.

(2) New, Expanded or Modified Application Sites – Permit Revisions. Except as allowed in Rule 62-640.300(3), F.A.C., the facility's permit shall be revised under Chapter 62-620, F.A.C., to include a new or revised Agricultural Use Plan prior to application of residuals to new application sites or existing approved sites that are expanded or modified. Approval of new, expanded or modified application sites constitutes a minor permit revision. A facility may submit more than one Agricultural Use Plan with each application for a minor permit revision.

(3) New, Expanded or Modified Application Sites – Unusual Circumstances. A permittee who is authorized to land apply residuals may use a new, expanded or modified application site before permit revision if all of the following conditions are met:

(a) The permittee notifies the Department within 24 hours that the site is being used;

(b) The site meets the site use restrictions of Rule 62-640.600(3), F.A.C., and the criteria for land application of residuals in Rule 62-640.700, F.A.C.;

(c) The permittee submits a new or revised Agricultural Use Plan for the site with a permit application in accordance with Rule 62-640.300(2), F.A.C., within 30 days of beginning use of the site;

(d) The permittee does not have another approved land application site, another approved disposal method (e.g., landfilling or incineration), or approved storage facilities available for use; and

(e) The permittee demonstrates during permit application that application of additional residuals to an existing approved application site would have resulted in violation of Department rules, or was not possible due to circumstances beyond the permittee's control.

(4) Residuals Storage at a Treatment Facility. The preliminary design report for a new facility or expansion of an existing facility shall include provisions for storage of treated or untreated residuals or other solids at the facility. Storage of residuals or other solids at an existing facility shall require prior written notification to the Department if the storage lasts longer than 30 days, or if the storage provisions were not addressed in the facility's preliminary design report.

(5) Responsibility for Treatment and Proper Use.

(a) The wastewater treatment facility permittee or residuals management facility permittee shall be responsible for proper treatment, management, use, and land application of its residuals. The facility permittee will not be held responsible for violations resulting from land application of residuals if the permittee can demonstrate that it has delivered residuals that meet the parameter concentrations and appropriate treatment requirements of this rule and the applier (e.g., hauler, contractor, site manager, or site owner) has legally agreed in writing to accept responsibility for proper land application of the residuals. Such an agreement shall state that the applier agrees, upon delivery of residuals that have been treated as required by Chapter 62-640, F.A.C., that he will accept responsibility for proper land application of the residuals as required by Chapter 62-640, F.A.C., and that the applier agrees that he is aware of and will comply with requirements for proper land application as described in the facility's permit.

(b) A source facility permittee shall not be held responsible for treatment, management, use, or land application violations that occur after its residuals have been accepted by a permitted residuals management facility with which the source facility permittee has an agreement in accordance with Rule 62-640.880(1)(c), F.A.C., for further treatment, management, use or land application.

Specific Authority 403.051, 403.061, 403.062, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 403.021, 403.051, 403.061, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History—New 8-12-90, Formerly 17-640.300, Amended 3-30-98.

62-640.400 Prohibitions.

(1) Ocean disposal of residuals, or disposal of residuals in any water, including direct discharge to ground water, is prohibited.

(2) Residuals which do not meet Class A pathogen reduction requirements set forth in Rule 62-640.600(1)(a), F.A.C., shall not be used on playgrounds, parks, golf courses, lawns, hospital grounds, or other unrestricted public access areas where frequent human contact with the soil is likely to occur and shall not be sold or given away in a distribution and marketing program.

(3) Residuals which are hazardous waste under Chapter 62-730, F.A.C., shall not be applied to land.

(4) Residuals shall not be discharged into a collection or transmission system without prior consent of the owner of that system.

(5) Residuals shall not be disposed of or applied to land except in accordance with the provisions of this chapter.

(6) The treatment, management, use or land application of residuals shall not cause a violation of the odor prohibition in Rule 62-296.320(2), F.A.C.

(7) Residuals that do not meet the requirements of this chapter for Class AA designation shall not be used for the cultivation of tobacco or leafy vegetables.

(8) Treatment of liquid residuals or septage for the purpose of meeting the pathogen reduction or vector attraction reduction requirements set forth in Rule 62-640.600, F.A.C., shall not be conducted in the tank of a hauling vehicle. Treatment of residuals or septage for the purpose of meeting pathogen reduction or vector attraction reduction requirements shall take place at the permitted facility.

(9) Residuals that do not meet the requirements of this chapter for Class AA designation shall not be shipped into Florida unless shipped to a Department permitted facility that has legally agreed in writing to accept responsibility for proper treatment, management, use and land application of the residuals.

Specific Authority 403.051, 403.061, 403.062, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 403.021, 403.051, 403.061, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History—New 8-12-90, Formerly 17-640.400, Amended 3-30-98.

62-640.500 Agricultural Use Plan.

(1) An Agricultural Use Plan, submitted on Department Form 62-640.210(2)(a), shall be included in all applications for wastewater permits for all facilities, including residuals management facilities and septage management facilities, which use one or more residuals application sites, except as provided in Rule 62-640.500(7), F.A.C., or Rule 62-640.880(3)(b), F.A.C.

(2) The Agricultural Use Plan shall describe how the use of residuals meets the general site requirements of Rule 62-640.700(2), F.A.C.

(3) The plan shall establish the location of each application zone at the site. Application zones will be sized to facilitate accurate accounting of nutrient and pollutant loading.

(4) The plan shall consider the nutrient content of all residuals, reclaimed water, and all other sources of nitrogen such as commercial fertilizers applied to the site, and the agricultural needs of crops grown on the site. For application sites located in geographic areas that have been identified by statute or rule of the Department as being subject to restrictions on phosphorus loadings (such as the Everglades Protection Area as set forth in Section 373.4592, F.S., Lake Okeechobee as set forth in Section 373.4595, F.S., and the Green Swamp Area as set forth in Section 380.0551, F.S.), the plan shall also address the potential for phosphorus movement from the site by considering:

(a) the characterization of soil phosphorus as determined by site-specific soil testing. Soil testing shall be performed on samples that are representative of the area(s) to which residuals are to be land applied. The plan shall include results of initial soil testing performed before the first application of residuals to a land application site. The plan shall also describe how soil testing will be accomplished after the completion of each crop cycle or growing season but before residuals are applied for the next crop cycle or growing season;

(b) how the phosphorus content of all sources of phosphorus applied to the site will be accounted for in establishing residuals application rates at the site;

(c) the agricultural phosphorus needs of crops grown at the site;

(d) the measures that will be used to minimize or prevent water quality impacts that could result from sediment transport from residuals application areas to surface waters. Such measures may include controlled application rates, berms, terraces, vegetated buffers, retention ponds, application methods, or water quality monitoring; and

(e) the capacity of the soil to hold phosphorus.

(5) Documentation of the slope determination procedure used for the site, under Rule 62-640.700(7)(b), F.A.C., shall be attached to the plan.

(6) The Agricultural Use Plan shall be submitted on Department Form 62-640.210(2)(a), as a part of the application for a wastewater permit for the facility generating the residuals, except as provided in Rule 62-640.880(3), F.A.C.

(7) Residuals which qualify as Class AA quality in accordance with Rule 62-640.850, F.A.C., are exempt from the requirements of this section and may be used under the provisions of Rule 62-640.850, F.A.C.

Specific Authority 403.051, 403.061, 403.062, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 403.021, 403.051, 403.061, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History—New 8-12-90, Formerly 17-640.500, Amended 3-30-98.

62-640.600 Pathogen Reduction, Vector Attraction Reduction, and Site Use Restrictions.

All residuals applied to the land shall be treated to reduce pathogens and achieve vector attraction reduction in accordance with the requirements of this section. All land application sites shall conform to the site use restrictions of this section. The Department incorporates by reference the pathogen and vector attraction reduction requirements of Title 40 Code of Federal Regulations (CFR) Part 503, Subpart D, Sections 503.32 and 503.33, revised as of October 25, 1995, except for the site restrictions in Section 503.32(b)(5), the septage requirements in section 503.32(c), and the vector attraction reduction requirements in Section 503.33(b)(11) and Section 503.33(b)(12).

(1) Pathogen Reduction Requirements. All residuals applied to the land shall be classified as either Class A or Class B with respect to pathogens.

(a) Class A Residuals. Residuals will be classified as Class A if one of the pathogen reduction requirements described in section 503.32(a), is met.

(b) Class B Residuals. Residuals will be classified as Class B if one of the pathogen reduction requirements described in section 503.32(b), is met.

(c) Lime Addition to Septage. Septage management facilities that are regulated by the Department, and that do not treat any amount of residuals, shall satisfy Class B pathogen reduction requirements if sufficient lime is added to produce a pH of 12 for a minimum of 2 hours, or a pH of 12.5 for a minimum of 30 minutes. Processes and design shall be in accordance with the guidance for lime stabilization of septage in Chapter 6, Process Design Manual for Sludge Treatment and Disposal, which the Department adopts and incorporates by reference. The pH shall be maintained at or above 11 until the septage is land applied, but shall be less than 12.5 at the time of land application.

(2) Vector Attraction Reduction Requirements.

(a) All residuals applied to land shall meet one of the vector attraction reduction requirements in Section 503.33(b), except Section 503.33(b)(11) and Section 503.33(b)(12).

(b) Lime Addition to Septage. Septage management facilities that are regulated by the Department, and that do not treat any amount of residuals, shall satisfy vector attraction reduction requirements if the Class B pathogen reduction requirements of Rule 62-640.600(1)(c), F.A.C., are met.

(3) Site Use Restrictions.

(a) Use of Class A residuals is allowed on unrestricted public access areas such as playgrounds, parks, golf courses, lawns, and hospital grounds.

(b) Class B residuals shall not be used on unrestricted public access areas such as playgrounds, parks, golf courses, lawns, and hospital grounds. Use of Class B residuals is limited to restricted public access areas such as agricultural sites, forests, and roadway shoulders and medians. The public shall be restricted from the application zone for 12 months after the last application of residuals. The following restrictions also apply to the use of Class B residuals:

1. Plant nursery use of Class B residuals is limited to plants which will not be sold to the public for 12 months after the last application of residuals.

2. Use of Class B residuals on roadway shoulders and medians is limited to restricted public access roads.

3. Food crops with harvested parts that touch the residuals/soil mixture and are totally above the land surface shall not be harvested for 14 months after the last application of Class B residuals.

4. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application of Class B residuals when the residuals remain on the land surface for four months or longer before incorporation into the soil.

5. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of Class B residuals when the residuals remain on the land surface for less than four months before incorporation into the soil.

6. Food crops, feed crops, and fiber crops shall not be harvested for 30 days following the last application of Class B residuals.

7. Animals shall not be grazed on the land for 30 days after application of Class B residuals.

8. Sod which will be distributed or sold to the public or used on unrestricted public access areas shall not be harvested for 12 months after the last application of Class B residuals.

9. The minimum setback distance specified in Rule 62-640.700(4)(d), F.A.C., shall be provided between a land application area where Class B residuals are applied, and a building occupied by the general public.

Specific Authority 403.051, 403.061, 403.062, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 403.021, 403.051, 403.061, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History—New 8-12-90, Formerly 17-640.600, Amended 3-30-98.

62-640.650 Monitoring, Record Keeping, Reporting, and Notification.

The minimum requirements in this chapter for monitoring or reporting by a facility may be increased or reduced by the Secretary or the Secretary's designee depending upon site-specific requirements, including the quantity of residuals treated, historical variations in residuals characteristics, the types of crops grown on the application site, industrial contributions to the facility, the level of treatment of residuals, and the compliance history of the facility. An increase or reduction in a facility's monitoring or reporting requirements will require a minor permit revision under Rule 62-620.325, F.A.C. Revisions to increase or reduce permit requirements for monitoring or reporting shall be subject to the public notice requirements of Rule 62-620.325(2), F.A.C.

(1) Monitoring Requirements.

(a) Residuals sampling and analysis to monitor for the pathogen and vector attraction reduction requirements of Rule 62-640.600, F.A.C., and the parameters in Rule 62-640.650(1)(b), F.A.C., shall be conducted by the facility in accordance with Title 40 Code of Federal Regulations (CFR) Part 503, section 503.8, and the *POTW Sludge Sampling and Analysis Guidance Document*, which the Department adopts and incorporates by reference. In cases where disagreements exist between Title 40 CFR Part 503, section 503.8 and the *POTW Sludge Sampling and Analysis Guidance Document*, the requirements in Title 40 CFR Part 503, section 503.8 will apply.

(b) All facilities shall analyze residuals for the following parameters, except as provided in Rule 62-640.880(5)(a), F.A.C.:

Total Nitrogen	% dry weight basis
Total Phosphorus	% dry weight basis
Total Potassium	% dry weight basis
Arsenic	mg/kg dry weight basis
Cadmium	mg/kg dry weight basis
Copper	mg/kg dry weight basis
Lead	mg/kg dry weight basis
Mercury	mg/kg dry weight basis
Molybdenum	mg/kg dry weight basis
Nickel	mg/kg dry weight basis
Selenium	mg/kg dry weight basis
Zinc	mg/kg dry weight basis
pH	standard units
Total Solids	%

Analysis of additional parameters may be required by the Department, based on changes in the quality of the wastewater or residuals as a result of new discharges to the treatment plant, changes in wastewater treatment processes or process efficiency, changes in the treatment, use, land application, or disposal of the residuals, the presence of toxic substances in the residuals, the water quality of surface and ground waters, and hydrogeology of the area. Analysis of additional parameters will require a minor permit revision under Rule 62-620.325, F.A.C.

(c) The required frequency of monitoring for the pathogen and vector attraction reduction requirements of Rule 62-640.600, F.A.C., and the parameters in Rule 62-640.650(1)(b), F.A.C., shall be specified in each facility's permit. For residuals that are distributed and marketed under the provisions of Rule 62-640.850, F.A.C., the frequency of monitoring shall be once per month. For all other residuals, the minimum frequency of monitoring shall be in accordance with the following table:

<u>Residuals Generated*</u> <u>(dry tons per year)</u>	<u>Monitoring Frequency</u>
Greater than zero but less than 320.	Once per year.
Equal to or greater than 320 but less than 1,653.	Once per quarter.
Equal to or greater than 1,653 but less than 16,535.	Once per 60 days.
Equal to or greater than 16,535.	Once per month.

*The amount of residuals generated shall be based on the permitted capacity of the facility.

(d) Sampling locations, number of samples, and monitoring parameters shall be specified in the facility's permit. All residuals samples shall be representative of the residuals used, land applied, or distributed and marketed, and shall be taken after final treatment of the residuals but before use, land application, or distribution and marketing.

(e) Grab samples shall be used for pathogens and determinations of percent volatile solids. Composite samples shall be used for metals.

(f) Residuals shall not be land applied if a single sample result for any parameter exceeds the ceiling concentrations specified in Rule 62-640.700(1), F.A.C. Residuals shall not be distributed and marketed under the provisions of Rule 62-640.850, F.A.C., if the monthly average of sample results for any parameter exceeds one or more of the parameter concentrations in Rule 62-640.850(3)(a), F.A.C. Monthly averages of parameter concentrations shall be determined by taking the arithmetic mean of all sample results for the month.

(g) If soil testing is performed at a residuals land application site under Rule 62-640.500(4)(a), F.A.C., such testing will be performed as specified in the approved Agricultural Use Plan for the site.

(h) Any laboratory tests required by this chapter shall be performed by a laboratory certified by the Department of Health under Chapter 64E-1, F.A.C., to perform the test.

(2) Record Keeping Requirements.

(a) Records of application zones and application rates must be maintained by the permittee and must be available for inspection within seven days of request by the Department, or the delegated Local Program, except as provided in Rule 62-640.650(2)(b), F.A.C. Information reported in the Annual Summary shall reflect the application zones identified in the approved Agricultural Use Plan. The permittee must maintain the records in Rule 62-640.650(2)(a)1. through 5., F.A.C., in perpetuity, and maintain the records in Rule 62-640.650(2)(a)6. through 11., F.A.C., for five years:

1. Date of application of the residuals;
2. Location of the application site as specified on Form 62-640.210(2)(a);
3. Identification of each application zone used by the permittee at the application site and the acreage of each zone;
4. Amount of residuals applied or delivered to each application zone;
5. Cumulative loading for each application zone, in accordance with Rule 62-640.700(3), F.A.C.;
6. The names of all other wastewater facilities using each of the application zones identified in Rule 62-640.650(2)(a)3., F.A.C.;
7. Method of incorporation of residuals (if any);
8. Measured pH of the residuals soil mixture at the time the residuals are applied, tested at least annually as required by Rule 62-640.700(5), F.A.C.;
9. Unsaturated depth of soil above the water table level at the time of application, as determined in accordance with Rule 62-640.700(6)(a), F.A.C.;
10. Concentration of parameters in the residuals as required by Rule 62-640.650(1)(b), F.A.C., and date of last analysis; and
11. The results of any soil testing that is done under Rule 62-640.500(4)(a), F.A.C.

(b) Distribution and marketing of Class AA residuals is exempt from the record keeping requirements of this subsection.

(3) Reporting Requirements.

(a) The results of all monitoring conducted by permitted facilities under Rule 62-640.650(1), F.A.C., shall be submitted to the Department with the facility's Discharge Monitoring Report under Chapter 62-601, F.A.C., or Residuals Monitoring Report under Rule 62-640.650(3)(d), F.A.C., as applicable. The analytical results from each sampling event shall be submitted with the report for the month in which the sampling event occurs.

(b) Annual Summary. The permittee using an application site (or sites) shall submit a summary of residuals application activity at the sites to the appropriate District Office of the Department, or to the delegated Local Program, on an annual basis. The summary must be submitted on Department Form 62-640.210(2)(b). If more than one facility applies residuals to the same application zones, the summary must include a subtotal of each facility's contribution of residuals to the application zones. The summary shall include all residuals applied during the period January 1 through December 31. The summary for each year shall be submitted to the Department by February 19 of the following year. The summary must include all of the following:

1. The total amounts of residuals, nitrogen, phosphorus, potassium and heavy metals applied to each application zone.
2. The total quantity of other solids, if any, applied to each application zone under the provisions of Rule 62-640.860, F.A.C.
3. The total cumulative loading for the parameters specified in Rule 62-640.700(3)(b), F.A.C., applied to each application zone. Cumulative loading shall be determined as described in Rule 62-640.700(3), F.A.C., and shall be calculated for all residuals applications at a site beginning with the earlier of:
 - a. the date of the first application of residuals at the site subject to regulation by Chapter 62-640, F.A.C., or;
 - b. the date of the first application of residuals at the site subject to regulation by Title 40 Code of Federal Regulations Part 503.
4. A summary of hauling records information for residuals management facilities, as described in Rule 62-640.880, F.A.C.

(c) Distribution and Marketing Reports. Any facility which produces Class AA residuals in Florida and any person who delivers Class AA residuals to Florida must submit a Monthly Residuals Distribution and Marketing Report to the Department in accordance with Rule 62-640.850(4), F.A.C.

(d) Residuals Monitoring Reports. Residuals management facility and septage management facility permittees who are not required to submit a Discharge Monitoring Report shall report the results of monitoring performed under Rule 62-640.650(1), F.A.C., to the Department in a Residuals Monitoring Report on Department Form 62-640.210(2)(d). For residuals management facilities, the report shall include a summary of all hauling records information that is maintained under Rule 62-640.880(4), F.A.C., for the period of report. The report shall be due on the 28th day of the month that follows the month in which the monitoring was performed.

(e) Copies of analytical laboratory reports must be submitted with all monitoring results that are reported to the Department.

(4) Notification Requirements. Notifications required by Rules 62-640.650(4)(a), (b) and (c), F.A.C., shall be provided orally to the appropriate District Office of the Department. A written submittal shall also be provided to the District Office within seven calendar days of the time when the permittee becomes aware of the circumstances. The written submittal must include the time and date of the oral notification, and the name of the person to whom the oral notification was made.

(a) If an alternate application site is used under the provisions of Rule 62-640.300(3), F.A.C., the permittee using the alternate site must notify the Department within 24 hours of beginning residuals application at the alternate site.

(b) Surface or ground water quality violations that are discovered as a result of testing as described in Rule 62-640.700(2)(b), F.A.C., shall be reported to the Department within 24 hours of discovery.

(c) Any discrepancy that occurs in the inventory of residuals leaving a wastewater treatment facility and arriving at a residuals management facility must be reported to the Department and to the source facility by the residuals management facility permittee within 24 hours of discovery under Rule 62-640.880(4)(c), F.A.C.

(d) Any person intending to import Class AA residuals from outside the state for distribution and marketing or land application must notify the Department's Domestic Wastewater Section in Tallahassee, in writing, at least 30 days before beginning importation, in accordance with Rule 62-640.850(6), F.A.C.

(e) Residuals management facility permittees must notify the Department and all affected parties in writing at least 60 days before ceasing operation, in accordance with Rule 62-640.880(2)(j), F.A.C.

Specific Authority 403.051, 403.061, 403.062, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 403.021, 403.051, 403.061, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History—New 3-30-98.

62-640.700 Criteria for Land Application of Residuals.

(1) General Criteria. Residuals may be applied to land only if concentrations of all the parameters listed in Rule 62-640.650(1)(b), F.A.C., do not exceed the following ceiling concentrations in any sample, and the residuals meet the pathogen and vector attraction reduction requirements set forth in Rule 62-640.600, F.A.C., for the intended site use.

CEILING CONCENTRATIONS

(mg/kg dry weight basis)

<u>Parameter</u>	<u>Concentration</u>
Arsenic	75
Cadmium	85
Copper	4300
Lead	840

Mercury	57
Molybdenum	75
Nickel	420
Selenium	100
Zinc	7500

(2) General Site Requirements.

(a) Site use restrictions including setback distances, crop harvesting, grazing, and public access shall conform to the requirements of Rule 62-640.600, F.A.C., for the class of pathogen reduction provided.

(b) Florida water quality standards shall not be violated in waters as a result of land application of residuals. Monitoring of surface and ground waters shall be required if the Department determines that, because of the physical and hydrogeological characteristics of the site, monitoring is necessary to protect the designated uses of water bodies. If violations occur, land application of residuals shall be suspended immediately, and the violations shall be reported to the Department within twenty-four hours of discovery.

(c) Residuals shall be applied with appropriate techniques and equipment to assure uniform application over the application zone.

(d) The spraying of liquid domestic wastewater residuals shall be conducted so that the formation of aerosols is minimized.

(e) Residuals storage facilities at land application sites shall be subject to applicable setback requirements for residuals application sites in this section. Residuals shall be stored in a manner that will not cause runoff or seepage from stored residuals, objectionable odors, or vector attraction. Storage areas must be fenced or otherwise provided with appropriate features to discourage the entry of animals and unauthorized persons. At the time of land application, the stored residuals must meet the general criteria of Rule 62-640.700(1), F.A.C., for parameter concentrations, pathogen and vector attraction reduction, and the cumulative application limits of Rule 62-640.700(3), F.A.C. Residuals storage facilities at land application sites may be used only for temporary storage of stabilized residuals for no more than 30 days during periods of inclement weather or to accommodate agricultural operations, unless a longer storage period is specified in the approved agricultural use plan for the site. The Department shall approve a longer storage period, not to exceed two years, if the agricultural use plan demonstrates that:

1. the storage facilities at the site are adequate for the rates of residuals generation by permitted wastewater facilities sending residuals to the site;

2. all of the residuals stored at the site, up to the capacity of the on-site storage facilities, can be land applied without resulting in an exceedence of cumulative loading limits or agronomic rates; and

3. a longer storage period is needed because of agricultural operations or climatic factors at the site.

(f) Residuals application sites shall be posted with appropriate advisory signs identifying the nature of the project area.

(3) Cumulative Application Limits.

(a) The total cumulative loading of each parameter identified in Rule 62-640.700(3)(b), F.A.C., which is applied to each application zone on an application site shall be determined and provided to the Department in the annual summary submitted on Department Form 62-640.210(2)(b). The beginning date for cumulative loading determination shall be as described in Rule 62-640.650(3)(b)3., F.A.C. The total cumulative loading shall be reported in pounds per acre (1 acre = 0.4047 hectare).

(b) The application of residuals to application zones which accept residuals that meet the ceiling concentration limits in Rule 62-640.700(1), F.A.C., but do not meet the requirements of Rule 62-640.850(3)(a), F.A.C., shall be restricted by the following cumulative application limits:

CUMULATIVE APPLICATION LIMITS
(pounds per acre)

Arsenic	36.6
Cadmium	34.8
Copper	1340
Lead	268
Mercury	15.2
Nickel	375
Selenium	89.3
Zinc	2500

(c) Except as provided in Rule 62-640.700(3)(d), F.A.C., application zones which only receive residuals that meet the parameter concentration limits in Rule 62-640.850(3)(a), F.A.C., are not subject to the cumulative application limits in Rule 62-640.700(3)(b), F.A.C.

(d) Beginning with the first application of residuals that do not meet the parameter concentration limits in Rule 62-640.850(3), F.A.C., to an application zone, the zone shall be subject to the cumulative application limits in Rule 62-640.700(3)(b), F.A.C., and all applications of residuals, except Class AA, shall be used to determine the cumulative loading of parameters applied to the zone.

(e) If one or more zone(s) at an application site changes ownership or becomes part of a different application site, the cumulative loading determination for the affected zone(s) shall account for the prior applications of residuals.

(f) If residuals that are subject to the cumulative loading limitations of Rule 62-640.700(3), F.A.C., have been applied to an application zone, and the cumulative loading amount of one or more pollutants is not known, no further applications of residuals may be made to that application zone.

(4) Setback Distances. The setback distances in this section shall apply to all new or expanded land application sites used by facilities for which the Department received complete wastewater permit applications after December 1, 1997, but the setback distances shall only apply to the new or expanded portion(s) of the land application sites. The permittee of a facility using an existing land application site may request, during permit renewal, that the setback distance requirements in this rule be applied to the existing site or portion of the site. The Department shall grant such requests provided no violations of water quality standards have occurred as a result of residuals application to the site. The setback distances specified in Rule 62-640.700(4)(a) through (c), F.A.C., shall apply to land application sites that accept either Class A or Class B residuals. The setback distances specified in Rule 62-640.700(4)(d), F.A.C., shall only apply to land application sites that accept Class B residuals.

(a) The residuals land application zone shall not be located closer than 1000 feet to any Class I water body, Outstanding Florida Water or Outstanding National Resource Water, or 200 feet from any other surface water of the state as defined in s. 403.031, F.S. This setback does not apply to waters owned entirely by one person other than the state, nor to canals or bodies of water used for irrigation or drainage, which are located completely within the site and will not discharge from the site. The setback area shall be vegetated. The 200 foot setback distance from surface waters may be reduced to 100 feet if one of the following conditions is met:

1. The residuals are injected into the soil; or

2. A conservation plan is provided with the Agricultural Use Plan which demonstrates that stormwater runoff generated by the 10-year recurrence interval, 1-hour duration storm event will be prevented from entering or leaving the land application zone. Berms shall be placed around the site for the purpose of preventing stormwater runoff if necessary. Recovery time of the system should be specified in the conservation plan with a maximum stormwater retention time of 72 hours as required by Rule 62-25.025(4), F.A.C. Back slope protection as well as other safety features shall be included.

(b) The residuals land application zone shall not be located closer than 300 feet from any private potable water supply well or 500 feet from any public potable water supply well.

(c) The land application zone and an area 200 feet wide adjacent to the application zone shall contain no visible evidence of subsurface fractures, solution cavities, sink holes, excavation core holes, abandoned wells or any other natural or man-made conduits that could allow direct contamination of ground water.

(d) Class B residuals shall not be applied within 300 feet of a building occupied by the general public. This distance may be reduced to 100 feet if residuals are injected into the soil.

(5) Soil Requirements. The pH of the residuals soil mixture shall be 5.0 or greater at the time residuals are applied. At a minimum, soil pH testing shall be done annually.

(6) Ground Water Requirements.

(a) A minimum unsaturated soil depth of two feet above the water table level is required at the time the residuals are applied to the soil. The seasonal high ground water level for the site may be indicated in the Agricultural Use Plan by use of soil survey maps. If the seasonal high ground water level is within two feet of the surface or can not be determined using soil survey maps, the water table level shall be determined in one or more representative location(s) in the application zone before each application of residuals, by observing the standing water level in a three-foot-deep hole dug at least one hour before application, or by other means, e.g., measuring the water level in a monitoring well or a piezometer.

(b) The minimum setback requirement of Rule 62-640.700(4)(c), F.A.C., shall be provided between land application areas and any visible evidence of natural or man-made conduits that could allow direct contamination of ground water.

(7) Runoff Prevention Requirements.

(a) Residuals shall not be applied during rains that cause runoff from the site or when surface soils are saturated.

(b) Topographic grades of the land application zone must be eight percent or less. If site slopes exceed two percent in one or more application zones, a conservation plan must be provided with the Agricultural Use Plan which demonstrates that suitable soil infiltration rates and stormwater control measures exist at the site to retain runoff generated by a 10-year recurrence interval 1-hour duration storm event. Berms shall be placed for this purpose if necessary.

Specific Authority 403.051, 403.061, 403.062, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 403.021, 403.051, 403.061, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History—New 8-12-90, Formerly 17-640.700, Amended 3-30-98.

62-640.750 Agricultural Sites.

(1) Residuals which meet the pathogen and vector attraction reduction requirements set forth in Rules 62-640.600(1) and (2), F.A.C., may be applied to agricultural sites in accordance with the site use restrictions of Rule 62-640.600(3), F.A.C., the criteria for land application of Rule 62-640.700, F.A.C., and the requirements of this section.

(2) Residuals application rates are limited to agronomic rates based on the site vegetation as identified in the Agricultural Use Plan. The application rates for residuals shall be determined using the following steps:

(a) The total amount of nitrogen required by the crop(s) being grown shall be estimated using the values for nitrogen demand listed in the table below. Alternative values for nitrogen demand of these crops or for crops not listed shall be allowed based on site specific agricultural information or if recommended by the Natural Resources Conservation Service or the University of Florida Institute of Food and Agricultural Sciences (IFAS). The basis for the alternative values shall be included with the Agricultural Use Plan. If more than one crop is grown at the same time on an application zone, the weighted average of the nitrogen demands shall be used to estimate the total amount of nitrogen required.

Total Estimated Crop Nitrogen Demand in Pounds Per Acre
Per Crop or Per Active Growing Season

Crop	Nitrogen
<u>Forage Crops (per active growing season)</u>	
Improved perennial grasses grazed	200
hay or silage (assuming 4 harvests)	400
Cool season annual grasses (e.g., grazed small grains, ryegrass, fescue)	200
Warm season annual grasses (e.g., sorghum-sudan hybrid or pearl millet)	
grazed	200
hay or silage (4 harvests)	400
Forage legumes (clovers and alfalfa) (per year maximum)	100
<u>Field Crops (per crop)</u>	
Corn (irrigated, for grain or silage)	250
Small grains for grain or silage	120
Grain or forage sorghum	150
Cotton	120
Peanuts	100
Soybeans	100
Sugarcane	200
<u>Vegetable Crops (per crop)</u>	
Sweet corn	120
<u>Tree Crops</u>	
Citrus *	
Pine (annual applications)	75
(single application per 15 to 25 year rotation)	300

*For citrus, the nitrogen demand will be as established by the Department of Agriculture and Consumer Services in Chapter 5E-1, F.A.C.

(b) Using the nitrogen demand value estimated pursuant to paragraph (a) above, the maximum residuals nitrogen application rate shall be determined using the calculation method in Chapter 7, U.S. Environmental Protection Agency, *Process Design Manual for Land Application of Sewage Sludge and Domestic Septage*, which the Department incorporates herein by reference, or other methods which shall be documented in the Agricultural Use Plan. The calculation shall account for the availability of nitrogen in the residuals and other applied sources.

Specific Authority 403.051, 403.061, 403.062, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 403.021, 403.051, 403.061, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History—New 3-30-98.

62-640.800 Reclamation Sites.

(1) Residuals which meet the pathogen and vector attraction reduction requirements of Rule 62-640.600(1) and (2), F.A.C., may be applied to land reclamation sites if the site use restrictions of Rule 62-640.600(3), F.A.C., the criteria for land application of residuals of Rule 62-640.700, F.A.C., and the requirements of this section are met.

(2) Maximum total allowable application quantity shall be 50 dry tons/acre with such one-time reclamation project to be accomplished within a one-year period on any acre of a land reclamation site. When composted residuals or residuals blended with other soil amendment materials are used, only the residuals portion of the blended product shall count toward the 50 dry tons/acre limitation.

(3) Except for Class A residuals the applied material shall be incorporated into the soil within the same day as application.

(4) Seed or turf-forming grass shall be planted as soon as possible but in no case later than three months after the application of residuals.

(5) Florida water quality standards shall not be violated as a result of land application of residuals, under Rule 62-640.700(2)(b), F.A.C.

(6) Slopes must be eight percent or less before and after application.

(7) Topographical grading shall be completed before application begins.

(8) In addition to the above requirements, land reclamation projects at mining reclamation sites shall be in compliance with any other applicable Department rules concerning mining reclamation.

Specific Authority 403.051, 403.061, 403.062, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 403.021, 403.051, 403.061, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History—New 8-12-90, Formerly 17-640.800, Amended 3-30-98.

62-640.850 Distribution and Marketing - Class AA Residuals.

Residuals or residuals products shall be designated as Class AA if the requirements of this section are met, and the residuals are distributed and marketed.

(1) Residuals or residuals products shall meet the Class A pathogen reduction standards of Rule 62-640.600(1), F.A.C.

(2) Residuals or residuals products shall meet one of the vector attraction reduction requirements in Title 40 Code of Federal Regulations Part 503, Section 503.33(b)(1) through (b)(8).

(3) Residuals or residuals products shall be analyzed in accordance with Rule 62-640.650(1), F.A.C., on a monthly basis, and the results shall be submitted to the Department in accordance with Rule 62-640.850(4), F.A.C.

(a) The residuals or final residuals products shall have monthly average parameter concentrations not exceeding the following criteria:

CLASS AA PARAMETER CONCENTRATIONS*
(mg/kg dry weight basis)

<u>Parameter</u>	<u>Monthly Average</u>
Arsenic	41
Cadmium	39
Copper	1500
Lead	300
Mercury	17
Nickel	420
Selenium	100
Zinc	2800

*The ceiling concentrations in Rule 62-640.700(1), F.A.C., also apply.

(b) If the residuals must be blended with other materials to meet the criteria of Rule 62-640.850(3)(a), F.A.C., the blending shall be conducted by a Department permitted domestic wastewater treatment facility or residuals management facility before the residuals are distributed or marketed. The blending methodology shall be specified in the facility's permit.

(4) Any facility which produces Class AA residuals in Florida and any person who delivers Class AA residuals to Florida shall submit a Monthly Residuals Distribution and Marketing Report to the Domestic Wastewater Section of the Department, Twin Towers Office Building, 2600 Blair Stone Road, Mail Station 3540, Tallahassee, Florida 32399-2400. The report shall be submitted on Form 62-640.210(2)(c), by the 28th day of the month following the reporting month, and shall include the following:

(a) the total quantity of residuals (dry tons) delivered to or applied in each county;

(b) the name and address of the facility or person that produced the Class AA residuals;

(c) the brand name, if any, and the product type of the residuals or residuals product;

(d) the Department of Agriculture and Consumer Services (DACS) fertilizer licensee number, if applicable. For information about fertilizer registration, contact the Bureau of Compliance Monitoring, DACS, Tallahassee, Florida 32399-1650; and

(e) for facilities located outside the state of Florida, a residuals analysis report from a laboratory certified by the Department of Health under Chapter 64E-1, F.A.C., to perform the analyses being reported, for each month the residuals were distributed and marketed in Florida. The report shall include the results of monitoring performed in accordance with Rule 62-640.650(1), F.A.C.

(5) The following information must be made available to the users by the manufacturer by product labels or other means:

(a) The name and address of the facility or person that produced the Class AA residuals;

(b) A statement that the residuals or residuals product meets the criteria of Rule 62-640.850(3), F.A.C.;

(c) A recommendation that residuals be applied at a rate that does not exceed the agronomic rate; and

(d) The following residuals analysis information (dry weight basis):

Total Nitrogen (%)

Total Phosphorous (%)

Total Potassium (%)

(6) Any person who intends to begin shipping Class AA residuals into the state for distribution and marketing shall notify the Domestic Wastewater Section of the Department's Tallahassee office in writing of their intent to distribute and market the residuals in the state. The notice shall be sent to the Domestic Wastewater Section, Mail Station 3540, Twin Towers Office Building, 2600 Blair Stone Road, Tallahassee, FL 32399-2400. The notice shall be submitted at least 30 days prior to initiating shipment of the

residuals into the state. The notice shall include the name of the facility producing the Class AA residuals, a description of how the Class AA residuals meet the requirements of Rule 62-640.850, F.A.C., a copy of the latest analysis report from a laboratory certified by the state of Florida, the approximate date of the first shipment into the state, the counties to which the residuals will be shipped, the brand name and product type of the residuals, and the DACS fertilizer licensee number, if applicable.

Specific Authority 403.051, 403.061, 403.062, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 403.021, 403.051, 403.061, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History—New 8-12-90, Formerly 17-640.850, Amended 3-30-98.

62-640.860 Other Solids.

(1) General Criteria. The disposal or use of other solids as defined in Rule 62-640.200(24), F.A.C., shall be authorized in a Department permit and addressed in the Agricultural Use Plan for the application site.

(a) The beneficial use of other solids which meets the criteria of Rule 62-640.860(2), F.A.C., shall be authorized in a wastewater permit.

(b) The disposal of other solids which does not meet the criteria of Rule 62-640.860(2), F.A.C., shall be in accordance with the design and operational criteria of Chapter 62-701, F.A.C.

(2) Beneficial Use of Other Solids. Other solids may be used in a way which is beneficial to the land if all of the following conditions are met.

(a) The permittee shall demonstrate how use of the other solids will be beneficial to the land, such as use as a soil amendment.

(b) The other solids shall be monitored and analyzed in accordance with Rule 62-640.650, F.A.C.

(c) The other solids shall meet the pathogen and vector attraction reduction requirements, and the site use restrictions of Rule 62-640.600, F.A.C. The Department shall review and approve the design and operational parameters of the treatment method used to reduce pathogens and vector attraction during application for a wastewater permit.

(d) The land application of other solids shall meet all of the criteria provided in Rule 62-640.700, F.A.C., for land application of residuals.

(e) The application rate of other solids to land shall be justified by the permittee in the permit application. The permittee shall demonstrate that the application rate is beneficial to the land. The application rate shall not be determined exclusively by the nitrogen content of the other solids, except that the application rate shall not exceed the agronomic needs of the site vegetation.

(3) Other solids which are combined with residuals prior to final treatment of the residuals are subject to all of the requirements of this chapter that apply to residuals.

Specific Authority 403.051, 403.061, 403.062, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 403.021, 403.051, 403.061, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History—New 3-30-98.

62-640.880 Residuals Management Facilities.

The requirements of this section shall apply to any facility that treats residuals from other facilities prior to use or land application. These requirements also apply to septage management facilities that treat domestic septage and combinations of food establishment sludges, wastes removed from portable toilets, and wastes removed from holding tanks associated with boats, marina pumpout, or other onsite systems prior to use or land application.

(1) General Criteria.

(a) The residuals management facility permittee shall be responsible for proper treatment, management, use, and land application of the residuals it accepts from a source facility, according to the requirements of this chapter.

1. The residuals shall meet the pathogen reduction, vector attraction reduction, and site use requirements of Rule 62-640.600, F.A.C.

2. The residuals management facility shall meet the monitoring, record keeping, reporting and notification requirements of Rule 62-640.650, F.A.C., and the additional requirements of this section.

3. The residuals shall be applied to land or distributed and marketed in accordance with the applicable requirements of Rules 62-640.700, 62-640.750, 62-640.800, 62-640.850, F.A.C., and the additional requirements of this section.

(b) The source facility permittee shall not be held responsible for treatment, management, use, or land application violations that occur after its residuals have been accepted by a permitted residuals management facility with which the source facility permittee has an agreement in accordance with Rule 62-640.880(1)(c), F.A.C., for further treatment, management, use or land application.

(c) The source facility and the residuals management facility shall enter into a written agreement addressing the quality and quantity of the residuals accepted by the residuals management facility. The agreement shall include a statement, signed by the residuals management facility permittee, as to the availability of sufficient permitted capacity to receive the residuals from the source facility, and indicating that the residuals management facility will continue to operate in compliance with the requirements of its permit. The agreement shall also address responsibility during transport of residuals between the facilities. The residuals management facility permittee shall submit a copy of this agreement to the appropriate District Office of the Department, or to the delegated Local Program, at least 30 days before transporting residuals from the source facility to the residuals management facility.

(2) Permitting.

(a) Fees. For the purpose of determining applicable permit fees, the residuals management facility shall be classified as Type I, II, or III based on the design capacity established by the permittee as follows:

<u>Type</u>	<u>Design Capacity (dry tons per year)</u>	<u>Design Capacity (dry tons per day)</u>
I	>1653	>4.5
II	320-1653	0.88-4.5
III	<320	<0.88

(b) All applications for residuals management facility permits shall be submitted on Department Form 62-620.910(2), Application Form 2A, Permit for Domestic Wastewater Treatment and Reuse or Disposal Facility.

(c) Under the requirements of this chapter and the applicable requirements of Chapter 62-600, F.A.C., and Chapter 62-620, F.A.C., the residuals management facility shall be permitted to treat either residuals or combinations of residuals, domestic septage, food establishment sludges, wastes removed from portable toilets, and wastes removed from holding tanks associated with boats, marina pumpout, and other onsite systems.

(d) A domestic wastewater treatment facility that intends to accept residuals from other facilities and that already holds a valid wastewater permit shall not be required to obtain a separate permit as a residuals management facility, but shall obtain a permit revision based on the requirements of this section.

(e) An applicant for a wastewater permit for a new residuals management facility or substantial modifications to an existing facility shall submit a preliminary design report or other information as specified for domestic wastewater facilities in Rule 62-620.412, F.A.C., for review by the Department as part of the application for permit. As appropriate, the preliminary design report shall include the following:

1. Types, quantities and characteristics of all materials to be treated at the facility. If the facility will treat wastes removed from portable toilets, or wastes removed from holding tanks associated with boats, marina pumpout, and other onsite systems, the preliminary design report shall also address the organic loading from those wastes, and chemical additives that may be present in such wastes;

2. The design capacity, which shall address the contribution of all materials that will be treated at the facility (i.e., residuals, domestic septage, food establishment sludge, wastes removed from portable toilets, and wastes removed from holding tanks associated with boats, marina pumpout, and other onsite systems);

3. The design ratios of domestic septage, food establishment sludges, and wastes removed from portable toilets, or wastes removed from holding tanks associated with boats, marina pumpout, and other onsite systems;

4. A site plan showing operations and unit processes; 100-year and 25-year flood elevations; approximate finish elevations for all major treatment units, mixing tanks; storage tanks; and equipment;

5. An assessment of environmental effects of the project, including odor, dust and noise control, public accessibility, proximity to existing and proposed residential areas, flood protection, and lighting;

6. Class of pathogen reduction and vector attraction reduction that will be achieved in accordance with Rules 62-640.600(1) and (2), F.A.C., and a description of treatment processes and equipment that will be used;

7. Technical information and design criteria for treatment facilities, including:

a. Hydraulic and organic loading rates – minimum, average, and maximum quantities for the treatment processes,

b. Metering and sampling provision,

c. Solids retention time,

d. Chemical addition facilities, if applicable,

e. Removals or concentrations with separate tabulation for each unit handling solid fractions with supporting data including design calculations,

f. Mode of operation (batch or continuous),

g. Corrosion control measures, and

h. Onsite storage of treated and untreated residuals, storage of chemicals, and alternate disposal methods;

8. Process diagrams, including:

a. Expected dimensions of unit operations and processes, capacities and volumes,

b. Process configuration,

c. Hydraulic profile,

d. Organic loading profile,

e. Solids profile,

f. Solids control system, and

g. Flow diagram with capacities;

9. Operation and control strategies included for prevention of upsets, spill prevention and control, leachate collection if applicable, alternate disposal methods, and reliability classification and features; and

10. Composting facilities shall identify the bulking agent, recommended mixing ratios and moisture content, aeration methods, retention times for curing and drying, precipitation and runoff control measures, and provisions to reduce particle size of larger yard trash items such as limbs, trees and tree stumps to promote composting.

(f) Operation and maintenance performance reports shall be required of all permittees in accordance with Rule 62-600.735(1), F.A.C., and shall address all process components, such as digesters, holding tanks, pumps, mixers, chemical feed equipment, and safety requirements.

(g) Capacity analysis reports shall be submitted by the permittee in accordance with Rule 62-600.405, F.A.C., when the three-month average daily loading exceeds 50 percent of the permitted capacity. If the report documents that the capacity of the facility will not be equaled or exceeded for the next ten years, an updated report shall be due only every five years.

(h) An operation and maintenance manual shall be prepared for all residuals management facilities, in accordance with Rule 62-600.720, F.A.C., and Chapter 62-620, F.A.C. In addition to the requirements specified in Chapters 62-620 and 62-600, F.A.C., the operation and maintenance manual shall provide the operator with procedures for:

1. Controlling and verifying the type of waste received at the facility;
2. Vehicle traffic control and unloading;
3. Measures to avoid mixing incoming untreated residuals with treated residuals;
4. Maintaining hauling records in accordance with Rule 62-640.880(4), F.A.C.; and
5. Storage of residuals and other materials at the site.

(i) Staffing. The level of operator staffing at a residuals management facility shall be as follows:

	<u>Type I*</u>	<u>Type II*</u>	<u>Type III*</u>
A/AA**	Class A Operator 8 hours/day 5 days/week	Class B Operator 4 hours/day 5 days/week	Class B Operator 2 hours/day 5 days/week
B**	Class A Operator 2 hours/day 5 days/week	Class B Operator 1 hour/day 5 days/week	Class C Operator 1 hour/day 3 days/week
B***	Class A Operator 1 hour/day 5 days/week	Class B Operator 1 hour/day 3 days/week	Class C Operator 1 hour/week

*Classification of Type of facility as determined by Rule 62-640.880(2)(a), F.A.C.

**These letters correspond to the Class of pathogen reduction that is achieved by the residuals management facility in accordance with Rule 62-640.600(1), F.A.C.

***This category is for Class B liquid alkaline stabilization only.

1. The operator classification requirements shall be in accordance with Chapter 62-699, F.A.C.

2. Operator staffing requirements for facilities addressed in Rule 62-640.880(2)(d), F.A.C., shall be established as the more stringent of either the requirements in Chapter 62-699, F.A.C., or the requirements in Rule 62-640.880(2)(i), F.A.C.

3. In addition to the above staffing requirements, other personnel that are trained in the treatment process and equipment being used, working under the direction of a certified operator, shall be present at the residuals management facility during loading and unloading operations and during other operating hours as recommended in the preliminary design report.

4. If justified by the complexity of the treatment process, the Department shall require a higher classification, more frequent visits, or more hours per day. Upon written approval from the Department, however, a facility, through a minor permit revision under Rule 62-620.325, F.A.C., may decrease its staffing requirement based upon site-specific requirements, facility operation, risk to public health and the environment, and the presence of other trained personnel.

(j) The residuals management facility permittee shall be responsible for making the facilities safe in terms of public health and safety at all times, and shall notify the Department and all affected parties, in writing, at least 60 days before ceasing operation in accordance with Rule 62-620.610(15), F.A.C.

(3) Agricultural Use Plans.

(a) The residuals management facility shall submit an Agricultural Use Plan(s) with its wastewater permit application under Rule 62-640.500, F.A.C.

(b) A source facility shall not be required to submit an Agricultural Use Plan for the land application of residuals that are transported to a residuals management facility which is permitted under this chapter.

(4) Hauling Records.

(a) The residuals management facility and the source facility transporting the residuals shall maintain hauling records to track the transport of residuals between facilities. The hauling records shall contain the following information:

<u>Source Facility</u>	<u>Residuals Management Facility</u>
1. Date and Time Shipped	1. Date and Time Received
2. Amount of Residuals Shipped	2. Amount of Residuals Received
3. Degree of Treatment (if applicable)	3. Name and ID Number of Source Facility
4. Name and ID Number of Residuals Management	4. Signature of Hauler
	5. Signature of Responsible Party at Residuals

Facility
5. Signature of
Responsible Party at
Source Facility

Management
Facility

6. Signature of Hauler and Name of
Hauling Firm

(b) The hauling records shall be kept by both facility permittees for five years and shall be made available for inspection upon request by the Department. A copy of the hauling records information maintained by the source facility shall be provided upon delivery of the residuals to the residuals management facility.

(c) The residuals management facility permittee shall report to the Department within 24 hours of discovery any discrepancy in the quantity of residuals leaving the source facility and arriving at the residuals management facility.

(5) Monitoring.

(a) The Department shall not require the source facility to sample and analyze the residuals in accordance with Rule 62-640.650(1), F.A.C., unless:

1. final treatment is performed by the source facility before transport to the residuals management facility; and
2. the quality of the residuals is not changed at the residuals management facility.

This provision shall not prevent the source facility from performing sampling and analysis separate from the source facility's Department permit if such sampling and analysis is mutually agreed to by the source facility and the residuals management facility.

(b) Sampling and analysis shall be conducted by the residuals management facility in accordance with Rule 62-640.650(1), F.A.C., and shall be performed after final treatment, but before use or land application. The minimum monitoring frequency shall be determined under Rule 62-640.650(1)(c), F.A.C. The Department may increase the monitoring frequency based on industrial wastewater contribution to a source facility, or the operating and compliance history of the residuals management facility or the source facility, or to establish a history of residuals quality. An increase in monitoring requirements will require a minor permit revision under Rule 62-620.325, F.A.C.

(6) Septage Management Facilities.

(a) Septage management facilities that treat more than 10,000 gallons per day monthly average daily flow or equivalent, or more than 20,000 gallons or equivalent on any one day, shall meet all the requirements of Rule 62-640.880, F.A.C., except that septage management facilities are exempt from the inter-facility agreement requirements of Rule 62-640.880(1)(c) and the hauling records requirements of Rule 62-640.880(4), F.A.C.

(b) If a permittee intends to use a septage management facility to treat residuals, the facility must be permitted as a residuals management facility in accordance with the requirements of this section.

Specific Authority 403.051, 403.061, 403.062, 403.087, 403.088, 403.704, 403.707 FS. Law Implemented 403.021, 403.051, 403.061, 403.087, 403.088, 403.0881, 403.702, 403.704, 403.707, 403.708 FS. History—New 3-30-98.