

Public Workshop

Chapter 62-640, F.A.C.

Biosolids/Residuals Rulemaking
Florida Department of Environmental Protection
March 5, 2008
Brooksville, Florida

Contact Information

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Florida Residuals Regulations

- Chapter 17-7, F.A.C.
 - » Effective 1984
- Chapter 62-640, F.A.C.
 - » Originally Ch. 17-640, F.A.C., effective 1991
 - » Revised 1998, currently under revision
 - » Based on Title 40 CFR Part 503, has some additional/different requirements (not delegated Part 503)

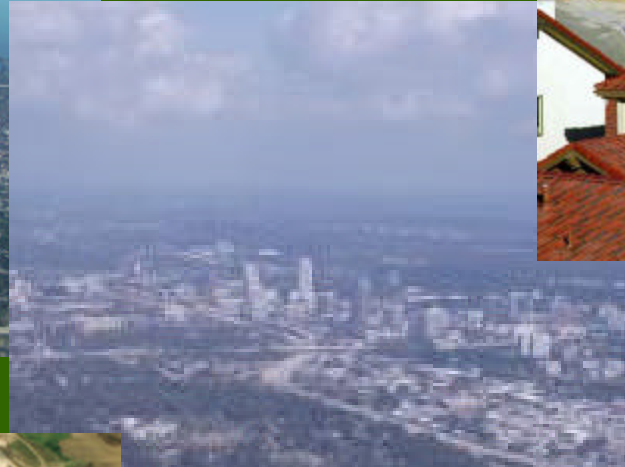
Florida's Future

- Florida's population is growing and rural counties are becoming more populated
- Continuing nutrient concerns, development of TMDLs, impacts of other environmental activities
- Future of Florida agricultural industries

Changing Landscape



Where Florida Biosolids Come From....



Where Florida Biosolids Primarily Go.....



How Biosolids Get to an Agricultural Site



Biosolids Treatment



Florida Classes of Biosolids

- About 24-26 facilities producing Class AA
 - » Larger facilities, various processes, bulk to farmers or fertilizer blenders, increasing
- Very little Class A (metals usually low)
- Primarily Class B
 - » predominant treatment options include lime stabilization, aerobic digestion
 - » commonly surface applied year-round to hay crops or pastures (cake or liquid)
 - » Contract haulers/appliers and multi-user sites are common

Why Rulemaking?

- Continuing and heightened public interest
- Continuing and heightened county interest
- Public confidence in beneficial use
- **Nutrient concerns**
- Clarification of current rules

Rule Workshops

- Three initial workshops held on Chapter 62-640, F.A.C., in 2002/2003
- Attended by:
 - » Utility representatives/biosolids companies
 - » Citizens and County representatives from areas with land application

Residuals TAC/Update

- Consisted of 13 members
 - » Citizen, DEP District Offices, Florida Natural Resources Conservation Service (NRCS), Univ. of Florida Institute of Food and Agricultural Sciences (IFAS), Florida Water Environment Association (FWEA), Florida Engineering Society (FES), Dept. of Health (DOH), Dept of Agriculture and Consumer Services (DACCS), Florida Recycle Today, FL Assoc. of Counties, FL League of Cities, Florida Water and Pollution Control Operators Association (FWPCOA), FL Cattlemen's Assoc.
- Five TAC meetings were held

Draft Revisions

Chapter 62-640, F.A.C.

March 2008

Title

- Replaced “domestic wastewater residuals” with the term “biosolids”

Rule 62-640.100, F.A.C.

Scope, Intent, Purpose, and Applicability

- Added statements encouraging high standards of treatment and beneficial use
- Applicability - revisions
 - » Clarified that requirements apply to treated material from a biosolids treatment facility/septage management facility
 - » Facilities are subject to revisions upon permit renewal
 - » One-year grace period from use of permitted sites for initial facilities affected by rule
 - » Site permit supercedes facility permit (i.e. if a site becomes permitted, all biosolids applied at site are subject to the site permit)
 - » Added a reference to state and federal transportation regulations
 - » Added a single provision that exempts distributed and marketed biosolids from various, specific rule sections unless the Department determines they are necessary to protect public health or environment.

Rule 62-640.200, F.A.C. Definitions

- Deleted “agricultural use plan” (AUP)
- Added “nutrient management plan” (NMP)
- Deleted “agronomic rate” – NMP will identify the rate
- Revised “biosolids management facility”
- Added “biosolids treatment facility”
- Clarified the definitions of Class AA, A, and B biosolids
- Other additions - “delegated local program”, “existing application site”, “fertilizer”, “incorporation”, “injection”, “person”, “pH”, “site manager”
- Other revisions - “biosolids”, “pH of biosolids soil mixture”, “water well” definitions, “restricted public access”

Rule 62-640.210, F.A.C.

General Technical Guidance and Forms

- Updated
 - Title 40 Code of Federal Regulations Part 503
 - Recommended Standards for Wastewater Facilities
 - Control of Pathogens and Vector Attraction in Sewage Sludge
- Added
 - A Plain English Guide to the Part 503 Biosolids Regulations – EPA
 - Guidance for Controlling Potential Risks to Workers Exposed to Class B Biosolids – NIOSH
 - Guide to Field Storage of Biosolids – EPA
 - General Manual Title 190, Part 402 – Nutrient Management – USDA/NRCS
 - Nutrient Management, Code 590 – USDA/NRCS-FL
 - Waste Utilization, Code 633 – USDA/NRCS-FL
 - Soil Testing – UF/IFAS
 - Extension Soil Testing Laboratory Analytical Procedure and Training Manual –UF/IFAS

Rule 62-640.210, F.A.C.

General Technical Guidance and Forms

- Forms

- » Old

- Agricultural Use Plan
- Residuals Annual Summary
- Monthly Distribution and Marketing Report
- Residuals Monitoring Report

- » New

- Treatment Facility Biosolids Plan
- Treatment Facility Annual Summary
- Biosolids Application Site Annual Summary
- Biosolids Application Site Permit Form
- Biosolids Application Site Log

Rule 62-640.300, F.A.C. General Requirements

- Added the requirement for a biosolids site permit
 - » Application sites must be permitted
 - Individual “biosolids management facility” permit, or
 - Sites may be in facility permit if exclusive site, no additional fee
 - » Application fee - Type III biosolids management facility
 - » Changes to the site’s physical boundaries will require a minor permit revision
 - » New application sites shall be permitted prior to use
 - » Existing application sites shall be permitted prior to receiving biosolids from a facility required to use a permitted application site

Rule 62-640.300, F.A.C. General Requirements

- Revised facility permit requirements
 - » The treatment facility permit will include the identified permitted sites where the facility's biosolids will be applied
 - » A Treatment Facility Biosolids Plan that identifies the permitted sites will be submitted with permit application
 - » The treatment facility permittee shall notify DEP prior to using an alternate permitted site and submit a revised Treatment Facility Biosolids Plan to DEP

Rule 62-640.300, F.A.C. General Requirements

- Revised the biosolids storage provision
 - » Treatment facility permittee shall submit a biosolids storage plan with the facility permit application
 - » The permittee shall ensure storage capacity is available when use or disposal is precluded; minimum 14 day storage capacity
 - » Added storage design references
 - » Added reference to Rule 62-640.700(6)(d), F.A.C., for site storage
- Removed - partial transfer of responsibility when there is a written agreement between the facility and applier
- Added - site permittee shall share responsibility with facility permittee
- Added - treatment facility permittee shall submit a “Spill Response Plan” with the facility permit application
- Added - treatment facility permittee shall submit TCLP analysis results with permit renewal applications

Rule 62-640.400, F.A.C. Prohibitions

- Moved the prohibition on violating of Florida water quality standards from Rule 62-640.700
- Added a prohibition to clarify that biosolids shall not be spilled or tracked off land application sites
- Added a prohibition on land application of Class A and Class B biosolids within the primary and secondary zones of the Wekiva Study Area in accordance with Rule 62-600.550, F.A.C.
- Removed unnecessary prohibitions

Rule 62-640.500, F.A.C. Nutrient Management Plan (NMP)

- Replaced the old Agricultural Use Plan with the Nutrient Management Plan (submitted with site permit application)
- Added the requirement for the NMP to be developed in accordance with Florida NRCS standards
- Application rates shall be established in accordance with NRCS standards, or other methods such as soil phosphorous levels or the University of Florida's Institute of Food and Agricultural Sciences recommendations, to appropriately balance the nutrient needs of crops and potential adverse water quality effects
- Added the requirement that the NMP be prepared by a person certified by the NRCS for nutrient management planning or by a P.E. licensed in Florida with expertise in nutrient management planning

Rule 62-640.500, F.A.C.

Nutrient Management Plan (NMP)

- NMP provisions
 - » Identifies all application zones, sized to facilitate accounting of loadings to the site
 - » Includes rates of application of all sources of nutrients, availability of nutrients, soil types, soil test results, lime application rates, crop yields, etc.
 - » Addresses site BMPs, handling and storage provisions, record keeping, personnel/site manager who will implement the NMP
- Allows a permittee to follow the EPA calculation method to determine nitrogen availability (plant available nitrogen), or instead, the permittee may use a conservative factor of 1.5 to convert plant available nitrogen to total nitrogen
- Retained the requirement that application rates in phosphorus restricted areas be based on phosphorus

Rule 62-640.500, F.A.C. Nutrient Management Plan (NMP)

- Incorporated the new biosolids provisions from Section 373.4595, F.S., Northern Everglades and Estuary Protection Program, passed by the Legislature in 2007
- Section 373.4595, F.S., applies the Lake Okeechobee watershed (includes the Kissimmee River watershed), St. Lucie River watershed, and Caloosahatchee River watershed

Rule 62-640.600, F.A.C.

Pathogen Reduction and Vector Attraction Reduction

- Eliminated Part 503 Class A Alternative 4 (monitoring only/unknown process) from eligible Class A treatment options
- Added a modification to Part 503 Class A Alternative 3 to clarify that the permittee shall demonstrate the pathogen reduction and obtain a permit revision before shifting to only process monitoring
- Added a requirement for Class A processes equivalent to pasteurization with quicklime to follow EPA guidance (time/temp, pasteurization)

Rule 62-640.600, F.A.C.

Pathogen Reduction and Vector Attraction Reduction

- Added a provision modifying Class B Alternative 1 (Fecal Monitoring) to require a permittee to demonstrate a 2 log reduction between incoming solids and the final, treated biosolids, in addition to meeting the 2 million MPN limit
- Clarified that the material treated by a septage management facility shall be managed as Class B biosolids
- Relocated the restriction limiting Class AA biosolids (and distributed and marketed biosolids) to VAR options 1 through 8 from Section .850

Rule 62-640.650, F.A.C. Monitoring, Record Keeping, and Reporting

Monitoring

- Moved the general language allowing surface water and ground water monitoring from Rule 62-640.700
- Added a requirement for the permittee to identify all monitoring parameters in permit application
- Added a requirement to clarify that permittees shall monitor process parameters
- Added the monitoring provisions related to the new 2 log reduction demonstration for Class B Alternative 1

Rule 62-640.650, F.A.C. Monitoring, Record Keeping, and Reporting

Monitoring (continued)

- Added a Calcium Carbonate Equivalent parameter to be analyzed for alkaline-treated biosolids
- Increased monitoring frequencies
- Added monthly monitoring for biosolids treatment facilities
- Added a provision that requires re-sampling of fecal coliform or salmonella sp. for Class AA biosolids not distributed and marketed within 45 days

Rule 62-640.650, F.A.C. Monitoring, Record Keeping, and Reporting

Monitoring (continued)

- Added - Soil monitoring
 - » Annual soil fertility monitoring
 - » Initial soil background monitoring for regulated metals
- Added - provisions for ground water monitoring
 - » Monitoring if applying over 400 lbs per acre of nitrogen
 - » Monitoring if site is out-of-compliance
 - » Ground water monitoring plan
 - » Representative wells, quarterly monitoring
- Added - surface water monitoring
 - » if application is within 1000 ft of waterbody
 - » 500 feet upstream, 500 feet downstream; quarterly

Rule 62-640.650, F.A.C. Monitoring, Record Keeping, and Reporting

Record Keeping

- Added clarification to track biosolids quantities
- Added a requirement for facilities to keep copies of Biosolids Application Site Annual Summaries sent to them by the site permittee
- Added a requirement for hauling records to be kept between treatment facility and application site
- Added a requirement for the site permittee to send a receipt back to facility for loads received within 7 calendar days

Rule 62-640.650, F.A.C. Monitoring, Record Keeping, and Reporting

Record Keeping (continued)

- Added a requirement for logs and records for land application to be maintained at the land application site
 - » Copy of NMP
 - » Cumulative loading for each zone
 - » Biosolids site log form for each zone
 - » Results of all soil, ground water, and surface water monitoring

Rule 62-640.650, F.A.C. Monitoring, Record Keeping, and Reporting

Reporting

- Added a requirement for a facility to report biosolids quantities on the monthly facility DMR
- Added a requirement for Class AA quantities to be reported on monthly facility DMR (deleted the Monthly Residuals Distribution and Marketing Report)
- Revised - Treatment Facility Annual Summary
 - » Summary of biosolids shipments to sites
 - » Site loadings to be reported by site permittee

Rule 62-640.650, F.A.C. Monitoring, Record Keeping, and Reporting

Reporting (continued)

- Added a requirement for a Biosolids Application Site Annual Summary
 - » Reports the total quantities of biosolids, nutrients, metals, etc., applied to each application zone
 - » Reports the cumulative loadings of regulated metals to each application zones
 - » Reports the results of any required ground water, surface water, and soil monitoring results
 - » Includes revisions to NMP
 - » The site permittee shall send a copy to each facility that sent biosolids to the site

Rule 62-640.650, F.A.C. Monitoring, Record Keeping, and Reporting

Reporting (continued)

- Notifications

- » Added a requirement for source facilities to include a copy of their agreement with the biosolids treatment facility when submitting their permit application
- » Added a requirement for site permittees to notify DEP and all affected parties in writing 60 days before ceasing operations at a site
- » Added a requirement for facilities to notify DEP and affected parties if they shipped out biosolids not meeting rule requirements
- » Added a requirement for site permittees to notify land owners or owners of animals that graze on a site if the cumulative molybdenum level exceeds 35.7 lbs per acre (molybdenosis risk)

Rule 62-640.700, F.A.C.
Criteria for Land Application of Class AA, A, and B
Biosolids

- Revised - biosolids shall only be applied to permitted land application sites
- Clarified that any applied biosolids shall be either Class AA, Class A, or Class B biosolids
- Clarified that biosolids shall be applied at rates established in the NMP and added that annual application shall not exceed 6 dry tons per acre
- Clarified that biosolids applied at land reclamation sites shall also follow Rule 62-640.800 and the facility permit application
- Moved the Class AA parameter concentrations from Rule 62-640.850

Rule 62-640.700, F.A.C.
Criteria for Land Application of Class AA, A, and B
Biosolids

- Added a requirement to inject or incorporate alkaline-treated biosolids if applied within one-quarter mile of property line
- Added a requirement to land apply alkaline-treated biosolids within 24 hours after leaving the treatment facility
- Revised time limit for field storage to seven days (storing, stockpiling, staging) unless stored in a constructed storage facility – incorporated EPA Guide to Field Storage

Rule 62-640.700, F.A.C.

Criteria for Land Application of Class AA, A, and B Biosolids

- Signage
 - » Require signs to be bilingual, contain contact information, and be posted at all entrances
 - » Require additional posting of “Public Access Prohibited” every 500 ft for unfenced sites
 - » Require letters to be not less than two inches, signs must be maintained and legible
- Cumulative Application Limits
 - » Added a tracking requirement for Molybdenum
 - » Clarified that soil testing may be used to re-establish cumulative loading limits

Rule 62-640.700, F.A.C.

Criteria for Land Application of Class AA, A, and B Biosolids

- Setback distances
 - » Established a setback of 1320 feet for biosolids storage, stockpiling, or staging from a building occupied by the general public
 - » Increased the setback for application from a building occupied by the general public from 300 feet to 500 feet
 - » Established a setback of 75 feet from property lines for biosolids application
- Revised the 2 foot depth of unsaturated soil at time of application to apply from the depth of biosolids placement
- Removed the option to dig a three foot hole to check ground water level, (require piezometer/well)
- Changed the slope before requiring a conservation plan or incorporation/injection to three percent from two percent

Rule 62-640.700, F.A.C. Criteria for Land Application of Class AA, A, and B Biosolids

- Revised - shall not apply when raining or when ponding exists
- Added a restriction against applying on frequently flooded sites (NRCS standards, soil surveys)
- Added the Class B restrictions from the old Section .600
- Revised - now prohibit plant nursery use of Class B
- Added a requirement for site permittees to report animals involved in grazing violations to DACS within two weeks or prior to sale of animal/product from animal
- Added the requirement for an existing land owner to disclose any restrictions applicable to the site to the new owner If ownership of site changes,

Rule 62-640.800, F.A.C. Additional Requirements for Reclamation Sites

- Removed redundant requirements to meet pathogen reduction/vector attraction reduction
- Revised incorporation requirement to 24 hours instead of “same day”
- Added consideration for “other vegetative cover” in addition to seed or turf-forming grass
- Removed redundant Florida water quality violations statement
- Removed redundant slope requirement (slope requirements in Rule 62-640.700 apply)

Rule 62-640.850, F.A.C.
Distribution and Marketing of Class AA Biosolids

- Revised the basic requirements to distribute and market biosolids
 - » Must be Class AA biosolids
 - » Must be distributed and marketed as a fertilizer in accordance with Chapter 576, F.S., and Chapter 5E-1, F.A.C., or distributed and marketed to a person or entity who will sell or give-away the biosolids as a fertilizer or component of a fertilizer (i.e. fertilizer license or registration)

Rule 62-640.850, F.A.C.

Distribution and Marketing of Class AA Biosolids

- (Continued) Revised basic requirements for distribution and marketing
 - » Must submit a Biosolids Distribution and Marketing Plan with permit application, including:
 - Fertilizer license number/registration number
 - Quantity and characteristics of the biosolids to be distributed and marketed
 - Intended market audience and intended uses of the biosolids
 - Transportation, storage, and application procedures
 - Label or information sheet to be supplied to the end user
 - Criteria for ensuring Class AA requirements are met and for notifying affect parties if not met
 - Emergency plans if cannot distribute and market as planned
 - Policies for addressing misuse or complaints associated with the biosolids

Rule 62-640.850, F.A.C. Distribution and Marketing of Class AA Biosolids

- Revised the monthly reporting requirement to require the submittal of quantity and monitoring information on a DMR
- Revised the out-of-state notification requirements
 - » Name of facility, copy of permit, copy of EPA annual report, biosolids distribution and marketing plan, etc.,
- Added a requirement for out-of-state distribution and marketing to annually submit a copy of EPA annual report(s) for the treatment facility
- Moved the Class AA pollutant parameter criteria to Rule 62-640.700

Rule 62-640.860, F.A.C. Other Solids

- Revised to require the application rate to be consistent with the NMP

Rule 62-640.880, F.A.C. Additional Requirements Related to Biosolids Treatment Facilities

- Replaced the term “residuals management facility” with “biosolids treatment facility”
- Added clarification on allowing a biosolids treatment facility to accept industrial sludges
 - » Individual specific approval required
 - » Permit revision required
 - » A review of characteristics to evaluate if there could be potential adverse impacts to public health or environment is required

Rule 62-640.880, F.A.C.
Additional Requirements Related to Biosolids
Treatment Facilities

- Added a requirement for the preliminary design report for a biosolids treatment facility to include all treatment process parameters to be monitored by the facility
- Removed the requirement for biosolids treatment facilities to submit capacity analysis reports (exempted)
- Added a requirement for source facilities to perform a biosolids analysis at each permit renewal

Questions

