

Overview of DEP's New Biosolids Rule

*Chapter 62-640, Florida Administrative
Code (F.A.C.)*

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Outline

- **Rulemaking Background and Adoption**
- **Rule Revisions - Highlights**
- **Facilities and the New Rule**
- **Sites and the New Rule**



Chapter 62-640, F.A.C.

- 1984 - Biosolids regulations originally adopted under solid waste regulations
- Chapter 62-640, F.A.C., adopted under water regulations to regulate biosolids - effective in 1991, revised in 1998
- Latest rulemaking on revisions to Chapter 62-640, F.A.C. started in 2002 with the following goals:
 - Improve land application site management and accountability
 - Address critical nutrient issues in Florida
 - Address continuing and heightened public concerns and county interest
 - Support public confidence in the beneficial use of biosolids



Rulemaking History

- Three scoping workshops were held during 2002/2003
- Five Technical Advisory Committee meetings were held during the rulemaking
- Two public workshops on draft rule were held during 2008
- Adoption hearings:
 - Initial ERC adoption hearing was held on December 1, 2009 but was continued to:
 - Receive Joint Administrative Procedures Committee comments
 - Respond to a submitted lower cost regulatory alternative
 - Continue to work on outstanding issues with several entities
 - ERC adopted the final, revised rule on May 20, 2010
 - Following two Notice of Change publications, the revisions became effective on August 29, 2010



Significant Rule Revisions
to
Chapter 62-640, F.A.C.



Rule 62-640.100, F.A.C.

Scope, Intent, Purpose and Applicability

- **“Biosolids” replaces the term “domestic wastewater residuals”**
- **Applicability of the revised regulations**
 - Existing facilities - subject to the revised rule at permit renewal, however, compliance schedules will accompany facility permits to transition to site permitting (permitted sites to be used by January 1, 2013)
 - New facilities will be subject to revised regulations
 - All existing sites are to be permitted by January 1, 2013
 - New sites must be permitted
 - The site permit governs the site and will supersede any treatment facility permits related to the site



Rules 62-640.200 and 210, F.A.C.

Definitions and General Technical Guidance and Forms

- Definitions – minor revisions, additions, and deletions were made primarily to compliment other rule changes (i.e. “fertilizer,” “restricted public access,” “incorporation,” etc.)
- “Biosolids treatment facility” replaces “residuals management facility”
- Updated existing technical guidance documents and added several additional ones (incl. agriculture/nutrient guidance)
- New forms –primarily revised to accommodate site permitting
 - Treatment Facility Biosolids Plan
 - Treatment Facility Biosolids Annual Summary
 - Biosolids Application Site Annual Summary
 - Biosolids Site Permit Application
 - Biosolids Application Site Log



Rule 62-640.300, F.A.C.

General Requirements

- Site permits required for each land application site
 - A site will be permitted as a biosolids management facility
 - Permit fee – Type III biosolids management facility (\$1000)
 - Exclusive sites can be included in treatment facility permit
 - Existing sites to be permitted no later than January 1, 2013
- Treatment facilities will identify sites to be used on the Treatment Facility Biosolids Plan form (facility shall notify DEP when changing or adding sites)
- A treatment facility storage plan is required to be submitted with the treatment facility permit application



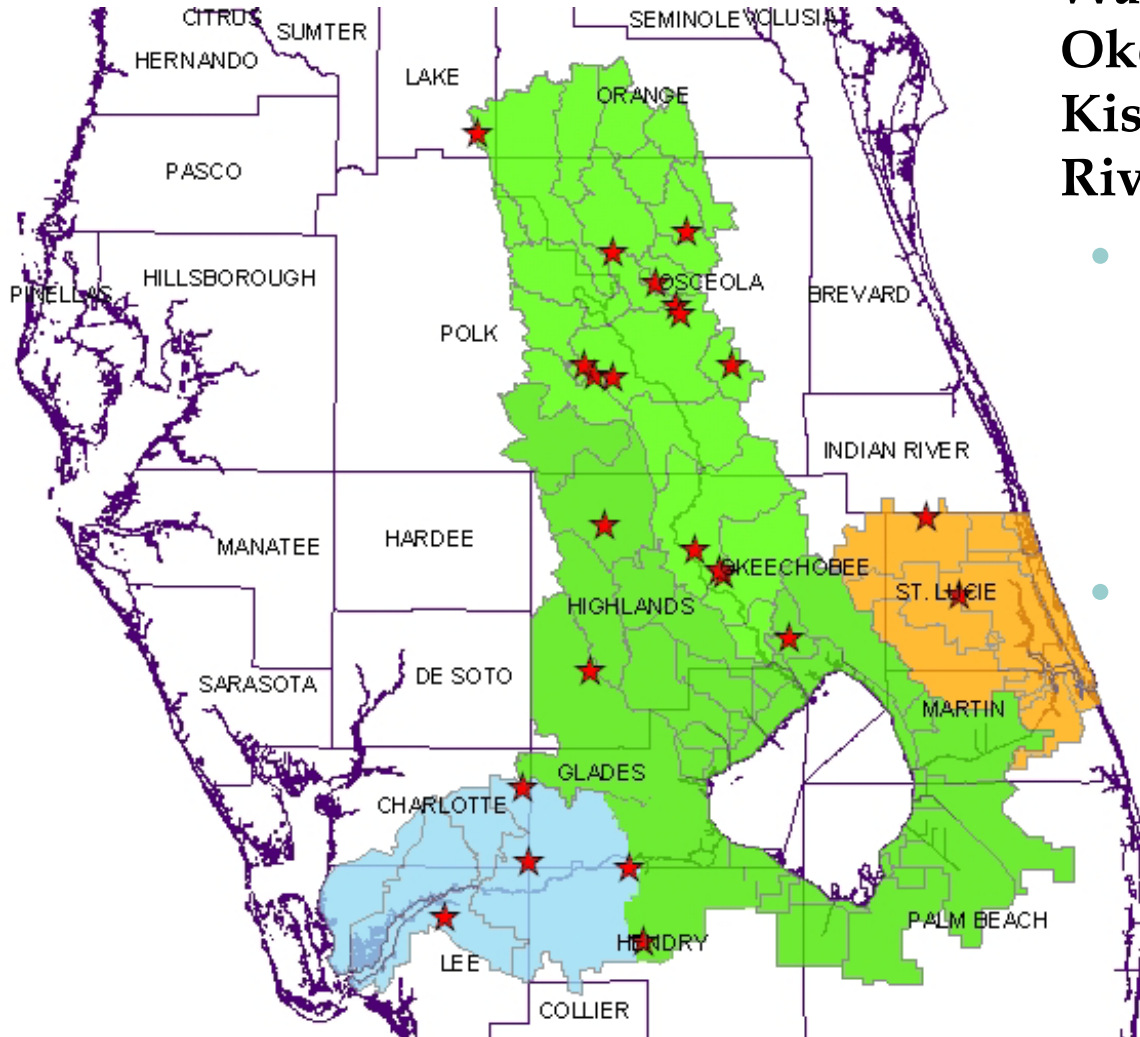
Rule 62-640.400, F.A.C.

Prohibitions

- New provision clarifies that spilling or tracking biosolids off-site (facility or site) is prohibited
- New provision prohibits land application of biosolids within the primary and secondary protection zones identified in the Wekiva Study Area (Rule 62-600.500, F.A.C., Section 369.318, F.S.)
- Two new prohibitions highlight statutory restrictions in the Lake Okeechobee, St. Lucie River, and Caloosahatchee River watersheds (Section 373.4595, F.S.)
- New prohibition – cannot have more than one dry ton of unapplied, distributed and marketed Class AA biosolids (fertilizer) on property for more than seven days unless stored to prevent runoff, odor, and vector attraction



Northern Everglades and Estuaries Protection Program, 373.4595, F.S.



- Watersheds - Lake Okeechobee (including Kissimmee River), St. Lucie River, Caloosahatchee River
 - After December 31, 2007, site applicants must submit a demonstration of no-net loading for phosphorus/nutrients
 - Most sites, if not all sites, are expected to end land application by 2013
 - About half of the original sites are now inactive
 - Decreasing volume

Rule 62-640.500, F.A.C.

Nutrient Management Plan (NMP)

- NMPs replace Agricultural Use Plans (AUPs)
 - More comprehensive than AUPs; consider phosphorus, crop yields
 - USDA/NRCS Code 590 provided as guidance
 - Submitted with the site permit application; a conservation plan or NMP prepared for a FDACS BMP may be submitted if it complies with rule requirements
 - Prepared by certified nutrient management planner (TSP) or P.E.
 - Rule specifies minimum items to be addressed in NMP
 - Addresses biosolids unique considerations, five year plan
- Demonstration required by Section 373.4595, F.S., for sites in the Lake Okeechobee, St. Lucie River, and Caloosahatchee River watersheds shall be submitted with the NMP (record keeping required)



Rule 62-640.600, F.A.C.

Pathogen Reduction and Vector

Attraction Reduction

- **Pathogen requirements for Class AA and Class A biosolids**
 - **Removed the option to use 40 CFR Part 503.32(a)(6), also known as “Alternative 4: Sewage Sludge Treated in Unknown Processes”**
 - **Clarified the implementation of treatment option 40 CFR 503.32(a)(5), also known as “Alternative 3: Sewage Sludge Treated in Other Processes”**



Rule 62-640.650, F.A.C.

Monitoring, Record Keeping, Reporting and Notification

- **Monitoring**
 - **Process monitoring** – Permit application shall identify all process monitoring for the biosolids treatment conducted
 - **Biosolids monitoring**
 - New requirement for the analysis of the calcium carbonate equivalent for alkaline-treated biosolids
 - A minimum of quarterly monitoring for biosolids treatment facilities is required
 - The quantity ranges used for biosolids monitoring frequencies have been adjusted
 - New requirement for considering re-sampling of stored Class AA biosolids
 - **New site soil testing requirements (fertility test and background metals)**
 - **Ground water monitoring will be required in certain situations**



Rule 62-640.650, F.A.C.

Monitoring, Record Keeping, Reporting and Notification (continued)

- **Record Keeping**
 - Hauling records required between facilities and sites
 - Land application records required to be kept by the site
 - Onsite logs and records required at each site
- **Reporting**
 - New site annual summary – submitted by site to DEP; reports site loading; copies to be sent to facilities
 - Facility annual summary – revised to report amounts sent to sites
- **Notifications**
 - 60 day notification to DEP and affected parties before site stops receiving biosolids
 - Notification to owners of grazing animals when the cumulative loading of molybdenum reaches 35.7 lbs/acre



Rule 62-640.700, F.A.C.

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

Revisions for site management

- **New requirements for alkaline-treated biosolids**
 - Injection/incorporation or setback for surface application
 - Application within 24 hours of delivery to site
- **Storage requirement revisions**
 - Temporary storage, stockpiling, or staging limited to 7 days
 - Longer storage requires storage area meeting $\frac{1}{4}$ mile setback
- **Signage revisions for Class B biosolids sites**
- **Cumulative loading revisions; molybdenum tracking**
- **New setbacks for long-term storage, property lines**
- **Ground water table revisions, site slope revisions, and new frequently flooded area requirements**
- **Revised/new Class B site requirements**



Rule 62-640.800, F.A.C.

Additional Requirements for Land Application at Reclamation Sites

- **Non-substantive revisions**



Rule 62-640.850, F.A.C.

Distribution and Marketing of Class AA Biosolids

- Identifies the rule exemptions for distributed and marketed biosolids
- Requires distributed and marketed biosolids to be “fertilizers” (or alternatively, enrolled compost in USCC STA program if outside of the Lake Okeechobee, St. Lucie River or Caloosahatchee River watersheds)
- Requires new, additional information to be submitted with the facility permit application such as contingency plans if the biosolids are not distributed and marketed as planned
- Adds additional requirements for out-of-state facilities
- Revises reporting requirements



Rule 62-640.860, F.A.C.

Other Solids

- **Non-substantive revisions**



Rule 62-640.880, F.A.C.

Additional Requirements Related to Biosolids Treatment Facilities

- Residuals management facilities (RMFs) are now referred to as “biosolids treatment facilities” or “BTFs”
- Establishes provisions for BTFs to request to accept an industrial sludge for treatment
- Requires reliability features for larger biosolids treatment facilities (Type I and II BMFs)
- Eliminates the requirement for a BTF to submit Capacity Analysis Reports (CARs)



Facilities and the New Biosolids Rule



When is a facility affected by the new rule?

- **A facility becomes subject to the new rule when the facility permit is renewed or a new facility permit is issued**
 - **Was the permit application complete before the effective date of the rule?**
 - **Yes – permitted under prior rule (however, it may be in a facility’s interest to request to be subject to the new rule since all land application sites must be permitted by January 1, 2013)**
 - **No – permitted under new rule**



When else is a facility affected by the new rule?

- **A facility not yet subject to the new rule will likely be indirectly affected by the new rule if it uses a “permitted” site**
 - **The site permit governs the use of biosolids at the site**
 - **If a site used by the facility becomes permitted, the facility can continue activities as before except the land application conditions in the facility permit related to the site will no longer apply since they are superseded by the site permit conditions**
 - **A facility subject to the new rule will have conditions covering the transition to permitted sites in the facility permit**
 - **All sites must be permitted by January 1, 2013 (facilities that land apply biosolids will be affected by this requirement)**



Facilities - Existing and New Sites

- **“Existing site”** – a site approved in a wastewater facility permit active on August 29, 2010 or included in a complete permit application before August 29, 2010
- **“New site”** – a site that does not qualify as an existing site (i.e. a site used 15 years ago but was not in any active facility permits on August 29, 2010 would be a new site)
- **If an existing facility wants to use a “new” site, the new rule requires all new sites to be permitted**



New permit application requirements for all facilities subject to the new rule

- **A facility biosolids storage plan must be submitted with the facility permit application**
 - **This may need to include an evaluation of the possible need to re-sample any Class AA biosolids produced by the facility if the biosolids stored for more than 45 days**



New permit application requirements for facilities subject to the new rule that treat biosolids and “beneficially use” the biosolids

- Submit all process parameters to be monitored
- Submit a Treatment Facility Biosolids Plan if land applying
 - Becomes part of the permit
 - When using an alternate site not on the Facility Biosolids Plan, the facility must notify the Department before applying biosolids and submit a revised plan within 30 days
- Submit a site permit application(s) for an exclusively used site(s), if desired
- Submit additional information if distributing and marketing
 - Storage, transportation, management, etc.
 - Contingency plans
 - Fertilizer license, etc.



New record keeping and reporting requirements for facilities subject to the new rule

- **Keep records of biosolids quantities**
 - Quantities generated, received, treated
 - Quantities used and disposed (i.e. landfilled, land applied, transferred, distributed and marketed, used for bioenergy, etc.)
- **Report quantities listed above on DMR**
- **Annual summaries for land application**
 - Submit [Treatment Facility Biosolids Annual Summary](#)
 - Keep a copy of the [Biosolids Application Site Annual Summary](#) from each site
- **Keep hauling records with permitted sites**



New monitoring and notification requirements for facilities subject to the new rule

- **Monitoring**
 - Quantity ranges for frequencies were adjusted that may require a facility to monitor more frequently
 - Biosolids treatment facilities must monitor at least quarterly
 - Alkaline-treated biosolids – the facility must monitor for the calcium carbonate equivalency of the biosolids
- **Notifications required:**
 - If facility sent biosolids for land application that did not meet regulations
 - If facility distributed and marketed biosolids that did not meet regulations
 - If facility is going to use an alternate site not listed on the previously submitted Facility Biosolids Plan



Other requirements for a facility subject to the new rule when distributing and marketing

- **Fertilizer license (or enrolled compost in the USCC STA program) required:**
 - If facility sells to end user
 - Not if facility sells to fertilizer blender or broker – instead, facility provides DEP the fertilizer license number of blender or broker
- **Labeling requirements – fertilizer/compost label plus additional information including prohibition language**
- **Out-of-state entities**
 - 5 year notifications with additional information
 - Copy of annual EPA report



Other facility-related items under the new rule

- **Treatment – Class A Alternative 4 (unknown processes) removed from rule**
- **Treatment – Class A Alternative 3**
 - **Additional provisions added regarding implementation of Alternative 3**
- **Prohibitions**
 - **Prohibitions for Wekiva area & Northern Everglades and Estuary Protection Program areas**
 - **Prohibited from spilling or tracking biosolids off the facility site (and biosolids application site)**



Other new provisions related to Biosolids Treatment Facilities

- **A provision was added that outlines the option to request to accept a specific source of industrial sludge**
- **Reliability features required for Type I and II BTFs**
- **No longer required to submit Capacity Analysis Reports**
- **May request to “alter” staffing requirements**
- **Biosolids monitoring frequency will be at least quarterly for BTFs**



*Biosolids Application Sites
and the
New Biosolids Rule*



In general, how will a site be affected by the new rule?

- **Sites are now required to obtain a site permit**
 - Existing sites – a permit will be required no later than January 1, 2013
 - New sites – a permit will be required before accepting biosolids
- **Key new rule provisions affecting sites**
 - Site permit application and NMP requirements
 - Background metals sampling
 - Phosphorus assessment
 - Crop yields
 - Storage time and areas
 - New restrictions
 - Record keeping and reporting



When is a site affected?

- **Requirements apply when the site becomes permitted**
 - **No later than January 1, 2013, for existing sites**
 - **New sites – must be permitted before applying biosolids**
- **The site permit governs the use of biosolids at the site**
 - **Any land application provisions in the wastewater facility permit or AUP, such as application rates, are no longer valid for a permitted site**



New permit requirements for sites

- Until permitted, an existing site will follow the previous version of the rule, facility permit(s), and AUP applicable to the site
- Sites shall be permitted prior to January 1, 2013
 - Submit Biosolids Site Permit Application and DEP Form 62-620.910(1) Wastewater Facility or Activity Permit Application – General Information – Form 1
 - \$1000 fee (Type III biosolids management facility)
 - Include NMP with the site permit application
 - Signed by certified nutrient management planner (TSP) or P.E.
 - Guidance - NRCS Code 590



Biosolids Site Permit Application

- Includes basic information and checklists for requirements
 - Site name, permittee name, land owner, etc.
 - Setbacks, etc., similar to old AUP form
 - Background metals analysis, soil fertility testing
 - Ground water monitoring, if applicable
 - Storage requirements, signage, etc.
- Includes several summary tables
 - Summary of Application Zones
 - Background soil testing for Application Zones
 - Cumulative loadings for Application Zones
 - Summary of NMP for Application Zones
- Includes an NMP Checklist
- Signatures for site permittee and land owner (consent)



Site NMP requirements

- NMP must be site specific - submitted with site permit application
 - Signed by certified nutrient management planner (TSP) or P.E.
 - Developed in accordance with nutrient management standards - FL NRCS Code 590 offered as guidance
 - Identifies application zones, NMP implementation, site operation and maintenance, and record keeping (for NMP), maps, soil survey, soil fertility testing frequency
 - Includes any soil, water, plant tissue and biosolids analyses, as applicable
- Application rates
 - Considerations include phosphorus assessment, all nutrient sources, nitrogen mineralization, realistic annual yield goals, biosolids calcium carbonate equivalency*, method of land application, calculations
 - Chapter 7 EPA Process Design Manual for nitrogen availability or 1.5 factor

Additional requirements apply in Northern Everglades and Estuary Protection Program areas (s. 373.4595, F.S.)



New site monitoring requirements

- **Soil monitoring**
 - Background metals sampling and analysis is required with the initial permit application
 - Soil fertility monitoring is required at a frequency specified in the NMP (at least every five years)
- **Ground water monitoring**
 - Required when the NMP allows over 400 lbs per acre of available N
 - Required when determined to be needed by the Department based on ground water quality and hydrogeology of the area
 - If required, permittee shall establish ground water monitoring program in accordance with DEP ground water rules ([Rule 62-520.600, F.A.C.](#))



New site record keeping

- Site hauling records required (shipments from facilities)
- Site logs and records required including:
 - NMP
 - Cumulative loadings
 - DEP Biosolids Application Site Log
 - Copies of records for previous 6 months to be kept on-site
- Records required for documenting NMP compliance
- Records required for demonstrating compliance with the demonstration of nutrient balance submitted for sites in Lake Okeechobee, St. Lucie River, and Caloosahatchee River watersheds (Northern Everglades and Estuary Protection Program Areas)



New site reporting requirements

- **Biosolids Application Site Annual Summary**
 - Submit to appropriate DEP district office by February 19th each year
 - Sites must send copies to the facilities that sent biosolids to the site for land application
- Notification required to DEP and affected parties 60 days before ceasing site operations
- Notification required to owners of grazing animals if cumulative molybdenum loading exceeds 35.7 lbs per acre
- Notification required to new site owners of any site restrictions that are still in effect
- Report to **Florida Dept. of Agriculture and Consumer Services** any cattle grazed in violation of 30 day grazing restriction



New site requirements

- **Note that all three classes of biosolids, including Class AA, may be land applied**
 - Some site restrictions don't apply to Class AA
 - A site permittee may potentially request to only apply Class AA
- **Alkaline-treated biosolids**
 - Injection/incorporation required - unless permittee meets a 1/4 mile setback to property lines for surface application (or setback is waived by neighboring property owner)
 - Application within 24 hours of delivery to the site
- **Permission for spray guns - must be addressed in site permit**
- **Storage**
 - Temporary storage, stockpiling, or staging is limited to seven days
 - Storage over seven days needs to be requested (permit application) and the storage area needs to meet a 1/4 mile setback to neighboring residences (unless waived by neighbor)



More new site requirements

- **Signage**
 - More information is required on signs
 - Must be in English and Spanish
 - Must be posted at entrances with additional signs for unfenced sites to be posted at corners and 500 ft intervals
- **Cumulative loading of molybdenum shall be tracked**
- **New 75 ft setback to property lines must be met**
- **If monitoring ground water level is required**
 - 2 ft depth to ground water table is from the depth of biosolids placement
 - Piezometers/monitoring wells are required
- **Also, biosolids shall not be spilled or tracked off the application site (and facility site)**



For Additional Information

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DEP's Biosolids Webpage:

<http://www.dep.state.fl.us/water/wastewater/dom/reshome.htm>

DEP's Biosolids Rulemaking Updates

<http://www.dep.state.fl.us/water/wastewater/dom/resmake.htm>

