Agenda Item #3K-6

PALM BEACH COUNTY
BOARD OF COUNTY COMMISSIONERS

AGENDA ITEM SUMMARY

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Meeting Date: February 6, 2007 **[X] Consent** **[ ] Regular**
[ ] Public Hearing

Submitted By: **Water Utilities Department**
Submitted For: **Water Utilities Department**

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I. EXECUTIVE BRIEF

Motion and Title: Staff recommends motion to approve: a Settlement Agreement with the Florida Department of Environmental Protection ("FDEP") and the United States Environmental Protection Agency ("EPA") settling the County's challenge to the new EPA Underground Injection Control ("UIC") regulations.

Summary: Palm Beach County Water Utilities Department (WUD) uses underground injection via Class I municipal disposal wells to dispose of a portion of its treated wastewater. In December 2005, the EPA promulgated a new UIC regulation, which will be administered by FDEP. The rule is intended to provide increased surety that potential upward migration of contaminants from treated wastewater will not adversely impact public health. While the County supports the regulatory concept contained in the rule, certain requirements are highly impractical and would interfere with the development of alternative water technology as required by our South Florida Water Management District permits. In January 2006, Palm Beach County, along with a number of other utilities in South Florida, filed a legal challenge to the rule. Following months of discussion, the proposed settlement between EPA/FDEP and the County has been arrived at which effectively balances the implementability of the rule with the protection of public health.

Countywide (MJ)

Background and Justification: Municipal disposal wells are an environmentally advantageous method of disposing of various by-products of the water and wastewater treatment process, and are a vital component of the daily operations of the Palm Beach County Water Utilities Department. WUD supports the continued regulation of the municipal disposal wells within the County and neighboring areas as an effective means of protecting current and future potable water supplies from contamination.

Current Federal UIC regulations prohibit the operation of Class I municipal disposal wells which cause the movement of fluids into an Underground Source of Drinking Water ("USDW"). The EPA proposed rule would allow the owners and operators of Class I municipal disposal wells disposing of domestic wastewater to continue operating these facilities even if they cause or may cause movement of fluids into a USDW, provided that they meet certain stringent treatment and disposal requirements. While the County supported the regulatory alternative concept embodied in the proposed Rule, the County required clarification of certain elements and opposed certain elements which were added nearly two-and-one half years after the close of public comment on the Rule. **(Continued on Page 3)**

Attachments:

1. Four (4) Original Settlement Agreements

Recommended By: _____ 1/19/07
Department Director **Date**

Approved By: _____ 1/22/07
Assistant County Administrator **Date**

II. FISCAL IMPACT ANALYSIS

A. Five Year Summary of Fiscal Impact:

Fiscal Years	**2007**	**2008**	**2009**	**2010**	**2011**
Capital Expenditures	0	0	0	0	0
External Revenues	0	0	0	0	0
Program Income (County)	0	0	0	0	0
In-Kind Match County	0	0	0	0	0
NET FISCAL IMPACT	0	0	0	0	0
# ADDITIONAL FTE POSITIONS (Cumulative)	0	0	0	0	0

Budget Account No.: **Fund** **Agency** **Org.** **Object**

Is Item Included in Current Budget? Yes___ No___

Reporting Category **N/A**

B. Recommended Sources of Funds/Summary of Fiscal Impact:

C. Department Fiscal Review: Debra M West

III. REVIEW COMMENTS

A. OFMB Fiscal and/or Contract Development and Control Comments:

The fiscal impact of this item is undetermined at this time.

1-17-07
OFMB

1/18/07
Contract Development and Control

1/18/07 The Settlement Agreement was in a "draft" form at the time of our review.

B. Legal Sufficiency:

1/16/07 1-12-07

1/22/07
Assistant County Attorney

C. Other Department Review:

Department Director

This summary is not to be used as a basis for payment.

(Continued from Page 1)

Background and Justification: First, the proposed Rule fails to define the term "Class I municipal disposal well", and may therefore be interpreted to require the new treatment and disposal standards for all disposal wells operated by the County. This is problematic to the County, as the County plans to develop the brackish portion of the Floridan aquifer as a future source of potable water supply, and the proposed Rule, without clarification of the term "Class I municipal disposal well", would unnecessarily require stringent treatment of the highly brackish reject concentrate created by treatment of water from the brackish portion of the Floridan aquifer. Applying the stringent treatment process to reject concentrate would be technically infeasible and cost-prohibitive, and could have a catastrophic impact on future potable water supplies. Second, the County sought clarification as to the method of determining the concentration of total suspended solids ("TSS") within the injectate to be disposed of through the disposal wells, and also sought clarification as to the methods of high-level disinfection chlorination required under the Florida UIC Rule. Without such clarification, it is possible that these methods could unnecessarily cost the County tens of millions of dollars for construction of new storage facilities.

Under the settlement, which is joined by another Petitioner, City of Fort Lauderdale, FDEP/EPA staff agrees to initiate an amendment to the Rule which would satisfy the County's concerns with the definition of "Class I municipal disposal well", as well as issue two guidance documents related to the method of determining the TSS concentration within the injectate to be disposed of through the disposal wells, and the methods of high-level disinfection chlorination required under the Florida UIC Rule. Under the terms of the settlement, the County and the City of Fort Lauderdale agree to have their challenges held in abeyance ("stayed") pending the implementation of the settlement terms by FDEP/EPA. The respective FDEP/EPA staffs do not have the final authority to amend the Rule, but instead the changes must be approved under the appropriate administrative proceeding applicable to each, and are subject to the appeal provisions applicable to Florida and Federal rulemaking. The proposed Rule amendment clarifies that municipal disposal wells are those wells that receive only wastewater that has passed through the head works of a permitted domestic wastewater treatment facility, thereby satisfying the County's concerns as to disposal of reject concentrate. The proposed guidance documents will clarify various issues related to the methods of sampling in accordance with the Florida UIC Rule, as well as issues related to the high-level disinfection chlorination requirement. The County may move to have the stay lifted should any of the following occur: FDEP fails to promulgate the proposed Rule revisions; FDEP fails to submit the proposed revisions to EPA for approval within a reasonable time frame after revision; EPA fails to approve of the Rule revisions; or FDEP fails to issue the guidance memoranda in a timely manner.

The proposed amendment to the Florida UIC Rule set forth in the settlement agreement effectively balances the County's need to continue to utilize municipal disposal wells, while protecting underground sources of potable water.

DRAFT

Summary of Tentative Settlement of the Florida UIC Rule Challenge

In January 2006 Palm Beach County and other utilities in South Florida brought a legal challenge of new U.S. Environmental Protection Agency ("EPA") Underground Injection Control ("UIC") regulations entitled "Underground Injection Control Program--Revision to the Federal Underground Injection Control Requirements for Class I Municipal Disposal Wells in Florida" and published at 70 Fed. Reg. 70,513, et seq. (November 22, 2005) ("Florida UIC Rule"). The Florida UIC Rule was promulgated by the EPA, but will be administered by the Florida Department of Environmental Protection ("FDEP").

Current federal UIC regulations prohibit the operation of Class I municipal disposal wells which cause the movement of fluids into an underground source of drinking water ("USDW"). The Florida UIC Rule would allow the owners and operators of Class I municipal disposal wells disposing of domestic wastewater to continue operating these facilities even if they cause or may cause movement of fluids into a USDW, provided that they meet certain stringent treatment requirements.

The County and the City of Ft. Lauderdale entered into settlement negotiations with EPA and FDEP, and counsel for the respective parties recently developed a settlement agreement we can recommend for the County's approval. There are three elements of the tentative agreement:

1. FDEP will amend its rule adopting by reference the Florida UIC Rule. FDEP will amend Rule 62-528.200(45), F.A.C. to clarify that the "municipal disposal wells" regulated by the Florida UIC Rule are those wells that receive "only" wastewater that has passed through the head works of a permitted domestic waste water treatment facility.

2. FDEP will issue guidance to clarify that for the high-level disinfection requirement under the Florida UIC Rule, compliance with the total suspended solid standard of 5.0 milligrams per liter will be based on a composite sample collected over a 24-hour period. The compliance monitoring methods for public access reuse will not be changed.

3. FDEP will issue guidance regarding the high-level disinfection chlorination requirement allowing: (a) chlorine contact time to include the in-pipe time from initial chlorination to the end of the injection well, and (b) use of the same chlorination system for UIC disposal and public access reuse water.

Under the settlement the City of Ft. Lauderdale and the County would request the Court hold their petitions in abeyance until FDEP completes the rulemaking and issues the guidance described above, and until EPA approves FDEP's rule changes. Once these actions occur, the County and the City of Ft. Lauderdale will dismiss their petitions with prejudice. If FDEP or EPA fail to comply with the settlement agreement the County can, as its sole remedy, reactivate its petition and proceed with the rule challenge.

SETTLEMENT AGREEMENT

WHEREAS, Petitioners Miami-Dade County, Palm Beach County, City of Miramar, City of Fort Lauderdale, City of Margate, City of Cooper City, City of Sunrise, East Central Regional Wastewater Treatment Facilities Operation Board (collectively "Municipal Petitioners") and Sierra Club filed eight separate petitions of review pursuant to section 1448 of the Safe Water Drinking Act, 42 U.S.C. § 300j-7(a)(2) in the U.S. Court of Appeals for the Eleventh Circuit (Case Nos. 06-10551-A, 06-10562-A, 06-10574-A, 06-10575-A, 06-10576-A; 06-10579-A, 06-10581-A, 06-10583-A), challenging the U.S. Environmental Protection Agency's ("EPA") promulgation of a final rule amending the current Federal Underground Injection Control (UIC) requirements for Class I Municipal Disposal Wells in Florida. *See* 70 Fed. Reg. 70513 (Nov. 22, 2005);

WHEREAS, On February 17, 2006, the Court consolidated the Municipal Petitioners' cases and on March 16, 2006, the Court consolidated the Municipal Petitioners' cases with the Sierra Club case;

WHEREAS, following negotiations between Palm Beach County and the City of Fort Lauderdale (collectively "Settling Petitioners"), EPA, and the Florida Department of Environmental Protection ("DEP"), Florida DEP has agreed to the

following actions:

A. To propose to amend section 62-528.200(45) of the Florida Administrative Code as set forth in Exhibit A to this Settlement Agreement in a timely manner using all reasonable efforts;

B. To issue the guidance ~~document~~memoranda attached as ~~Exhibit~~Exhibits B and C to this Settlement Agreement as final agency guidance documents in a timely manner using all reasonable efforts;

WHEREAS, the proposed amendment to section 62-528.200(45) set forth in Exhibit A makes explicit Florida DEP's longstanding interpretation of that section of its UIC regulations as follows:

A. If a utility commingles fluids that have passed through the head of a permitted domestic wastewater treatment works with any other fluids (of whatever volume or type) prior to injection, such commingled fluids may not be injected into a Class I "municipal disposal well," unless approved by Florida DEP;

B. Injection of such fluids into a non-municipal well does not qualify that well for the "alternative authorization" provided for in section 146.15 of EPA's UIC regulations or trigger the "new well" requirements of section 146.16 for that non-municipal well;

C. Such commingled fluids may only be injected into a permitted non-municipal Class I well, and ~~that~~ such well would be subject to all of Florida DEP's non-municipal Class I construction and operating requirements, including the prohibition against fluid movement into an underground source of drinking water;

WHEREAS, having now considered the actions to be taken by Florida DEP described above, Settling Petitioners and EPA (collectively the "Parties") agree that the proposed revisions to the regulations set forth in Exhibit A, if ultimately promulgated by Florida DEP and approved by EPA~~,~~ in a timely manner, and the issuance of the guidance memoranda set forth in Exhibits B and C by the Florida DEP in a timely manner would resolve the Settling Petitioners' challenges now before the Court;

WHEREAS, the Parties wish to implement this Settlement Agreement ("Agreement") to avoid protracted and costly litigation and to preserve judicial resources;

WHEREAS, this Court has set ~~November 7, 2006~~February 15, 2007 as the deadline for filing Petitioners' opening briefs;

NOW, THEREFORE, the Parties, intending to be bound by this Agreement, hereby stipulate and agree as follows:

1. Within 10 days after the effective date of this Agreement, the Parties shall file a joint motion with the Court that notifies the Court that the Parties have reached this Agreement; that in light of this Agreement, the Parties mutually request that the petitions for review filed by Palm Beach County and the City of Fort Lauderdale, Case Nos. 06-10562-A and 06-10581-A, be severed from the consolidated cases and the severed cases be held in abeyance pending implementation of, and subject to, the terms of this Settlement Agreement.

2. The Settling Petitioners shall have the right to request that the Court lift the stay of proceedings referred to in paragraph 1 above, and EPA shall not oppose such a request to lift the stay, if ~~and only if~~ any of the following events occur:

A. Florida DEP does not promulgate the proposed revisions to Florida Administrative Code Section 62-528.200(45) set forth in Exhibit A;

B. Florida DEP promulgates the proposed revisions set forth in Exhibit A, but does not submit these revisions to EPA for approval within a reasonable time after the revision's effective date; ~~or~~

C. EPA does not approve the proposed revisions to Florida Administrative Code Section 62-528.200(45) set forth in Exhibit A, ~~if~~when submitted to EPA by Florida DEP; or

D. Florida DEP does not issue the guidance memoranda set forth in Exhibits B and C as final agency guidance documents in a timely manner.

Before the Settling Petitioners may move to lift the stay of this case pursuant to subparagraphs A, B, C, or ~~C~~,D above, the Settling Petitioners shall provide EPA with 20 business days advance written notice. Upon EPA's receipt of such notice, and prior to the expiration of 20 days, the Parties shall jointly notify the Kinnard Mediation Center, U.S. Court of Appeals for the Eleventh Circuit, and undertake all reasonable efforts to resolve their dispute through mediation. ~~The right to reactivate their petitions for review under the conditions described in this paragraph constitute the Settling Petitioners' sole remedy under this Agreement.~~

3. The Parties in their joint motion referred to in paragraph 1 shall request that EPA provide the Court with status reports at ~~45~~90-day intervals to inform the Court, where appropriate, of the status of any actions taken by Florida DEP or the Parties in accordance with this Agreement.

4. If EPA approves the proposed revisions to Florida Administrative Code Section 62-528.200(45) set forth in Exhibit A and Florida DEP issues the guidance documents set forth in Exhibits B and C as final agency guidance documents, the Settling Petitioners shall file a motion to dismiss their petitions

with prejudice within 30 days after EPA's approval of Exhibit A.

5. Nothing in this Agreement shall be construed to limit or modify the discretion accorded EPA by the Safe Water Drinking Act or by general principles of administrative law. In addition, nothing in this Agreement shall be construed to limit or modify EPA's discretion to alter, amend, or revise any regulations, guidance, or interpretations EPA may issue in accordance with this Agreement from time to time or to promulgate or issue superseding regulations, guidance, or interpretations; provided, however, that nothing in this Agreement shall limit the Settling Parties right to challenge any subsequent EPA or Florida DEP final agency action related to this subject matter.

6. The obligations imposed on EPA under this Agreement can only be undertaken using appropriated funds. No provision of this Agreement shall be interpreted as or constitute a commitment or requirement that EPA obligate funds in contravention of the Anti-Deficiency Act, 31 U.S.C. § 1341, or any other applicable federal statute.

7. The Parties agree to pay their own fees and costs associated with these petitions.

8. Except as set out in this Agreement, the Parties retain all rights they may otherwise have.

9. The undersigned representatives of each party certify that they are fully authorized by the party that they represent to bind that respective party to the terms of this Agreement.

10. The effective date of this Settlement Agreement is the date accompanying the last signature.

FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY AND STEPHEN L. JOHNSON:

SUE ELLEN WOOLDRIDGE
Assistant Attorney General
Environment & Natural Resources Division

_____

LILY N. CHINN
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Dated: _____

FOR FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION:

_____

MICHAEL W. SOLE
Secretary of Regulatory Programs
Florida Department of Environmental Protection

Dated: _____

FOR PALM BEACH COUNTY:

_____

CHARLES R. FLETCHER
EDWARD P. DE LA PARTE, JR.
De La Parte & Gilbert, P.A.
101 E. Kennedy Blvd., Suite 3400
Tampa, FL 33601

Dated: _____

FOR CITY OF FORT LAUDERDALE:

~~GARY R. SHEEHAN, JR.~~
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~~600 Peachtree St. NE Ste 5200~~
~~Atlanta, GA 30308-2231~~
HARRY A. STEWART
City Attorney, City of Fort Lauderdale
100 N. Andrews Ave.
Fort Lauderdale, FL 33301

Dated: _____

EXHIBIT A

Proposed Revision to Florida Administrative Code Section 62-528.200(45):

> "Municipal injection well" or "municipal disposal well" means an injection well, publicly or privately owned, which is used only to inject fluids that have passed through the head of a permitted domestic wastewater treatment facility and received at least secondary treatment pursuant to Rule 62-600.420, F.A.C.

EXHIBIT B

PROGRAM GUIDANCE MEMO

OWM-06-XX

TO: Water Facilities Administrators

FROM: Mimi Drew, Director
Division of Water Resource Management

DATE: ~~October 29, 2006~~

SUBJECT: High-Level Disinfection for Class I Injection Wells Subject to 40 CFR 146.15 and 146.16

THE ISSUE

This program guidance memo discusses requirements for high-level disinfection for treated domestic wastewater effluent injected into Class I injection wells in Florida that are subject to the high-level disinfection requirement contained in federal rules 40 CFR 146.15 and 146.16. Of particular interest are requirements for monitoring total suspended solids (TSS – grab versus composite samples) related to the 5.0-mg/L TSS permit limit and requirements related to chlorine contact times.

BACKGROUND

2005 Federal Rules for Class I Injection Wells

Federal rules promulgated in 2005 provide a regulatory alternative to the "no fluid movement" standard for treated domestic wastewater injected into some Class I injection wells in 24 counties in Florida that receive secondary treatment, filtration, and high-level disinfection. In addition, the qualifying treatment facilities must implement an approved pretreatment program. The federal rules contained in 40 CFR 146.15 and 146.16 are described in greater detail in the attached DEP Fact Sheet dated May 15, 2006.

High-Level Disinfection Requirements

High-level disinfection is defined in Rule 62-600.440(5), F.A.C. This rule establishes limits and

requirements on disinfectant residuals, disinfection contact times, fecal coliforms, and TSS. For TSS, Rule 62-600.440(5)(e), F.A.C., states that facilities shall be designed to reduce TSS to 5.0 mg/L or less before the application of the disinfectant. In addition, Rule 62-600.440(5)(f)3, F.A.C., requires that no sample shall not exceed 5.0 mg/L of TSS at a point before application of the disinfectant. At least 75 percent of all observations of fecal coliforms made during a month must be less than detection and no single sample may exceed 25 per 100 mL. Where chlorine is used for disinfection, the contact time shall be no less than15 minutes at peak hourly flow and total chorine residual shall be 1.0 mg/L or larger.

Water Reuse Requirements

The main focus of the high-level disinfection criteria described above (as contained in Rule 62-600.440(5), F.A.C.) is protection of public health in water reuse systems permitted under Part III of Chapter 62-610, F.A.C. In these reuse systems, reclaimed water may be used to irrigate residential properties, public access areas (golf courses, parks, schools, others), and edible crops. Given the degree of potential human contact/exposure to reclaimed water for these uses, the stringent high-level disinfection criteria are justified and essential. Water reclamation facilities associated with these Part III reuse systems must monitor their reclaimed water continuously for turbidity and disinfectant residual. Rule 62-610.320(6)(g), F.A.C., enables monitoring of parameters other than turbidity to be used (including the so-called "TSS meters"). Turbidity (or other parameter) is monitored continuously after the filter and before the application of the disinfectant. Where chlorine is used for disinfection, chlorine residual is measured at the end of the chlorine contact chamber. Treatment facilities must be operated in accordance with an approved operating protocol to ensure that only acceptable quality reclaimed water is released to the reuse system or to a system storage facility. Substandard water (water that fails to meet the criteria established in the approved operating protocol) must be diverted to a reject storage system or other acceptable reuse or disposal system. The point of diversion is not specified in DEP rules. If substandard water is diverted as a result of low disinfectant residual, it typically is diverted at a point following the chlorine contact chamber. If substandard water is diverted as a result of high turbidity, it usually is diverted either at a point following the filter or at a point following the chlorine contact chamber.

This program guidance memo does not in any way modify or relax the treatment, high-level disinfection, monitoring, or other requirements applicable to reuse systems permitted under Part III of Chapter 62-610, F.A.C.

TSS Monitoring Requirements

Rule 62-601.500(1), F.A.C., notes that sampling schedules and parameters are to be included within the facility's permit.

Figure 2 in Chapter 62-601, F.A.C., establishes the sampling frequency for TSS. As noted in Rule 62-601.500(3)(b), F.A.C., in most circumstances, composite samples are used for

monitoring at domestic wastewater treatment facilities. This rule does stipulate that grab samples are to be used for high-level disinfection facilities. However, the primary motivator for this requirement was for public access reuse systems permitted under Part III of Chapter 62-610, F.A.C. At the time this rule was written, the alternative authorization including a requirement for high-level disinfection for some Class I injection wells had not been contemplated Rule 62-601.500(4)(c), F.A.C., requires TSS sampling at a point that is both after the filter and before application of the disinfectant, for facilities involving high-level disinfection.

Monitoring Flexibility

Rule 62-601.300(6), F.A.C., notes that the DEP may modify sampling requirements (locations, sample types, frequencies, parameters, etc.) based upon site-specific requirements, ground water quality, hydrogeology, levels of treatment, facility reliability, and levels of disinfection provided).

HIGH-LEVEL DISINFECTION FOR CLASS I INJECTION WELLS SUBJECT TO 40 CFR 146.15 AND 146.16

Monitoring for TSS

For Class I wells that are required to meet high-level disinfection, the following shall apply to the monitoring for TSS:

1. At the permittee's request, either grab samples or 24-hour composite samples may be used to sample for TSS. The request shall be made at the time of permit application and the sampling method selected shall be noted in the permit.

2. TSS sampling shall be conducted at a point that is both after the filter and before application of the disinfectant.

3. Figure 2 in Chapter 62-601, F.A.C., shall be used to determine the sampling schedule for TSS.

ChlorinationRequirements [sorry did not mean to delete the word, so I added it back]

For Class I wells that are required to meet high-level disinfection, flow time in the pipe leading to the Class I injection well along with the time of travel down the well may be used in determining compliance with the 15-minute contact time requirement at peak hourly flow. Normally, total chlorine residual is monitored immediately following the chlorine contact chamber. If time of travel is used to provide all or part of the required 15 minutes contact time (at peak hourly flow), the permittee shall establish an alternative monitoring location that provides reasonable assurances that the total chlorine residual at the point representing the end of the required contact time will be 1.0 mg/L or larger. The alternative monitoring location and methodology shall be subject to DEP review and approval.

Travel times in the subsurface geological formations (after exit from the injection well) shall not be included in the required chlorine contact time.

The chlorine CT requirements contained in Rule 62-600.440(5), F.A.C., do not apply to these Class I injection wells. For the Class I injection wells, the contact time shall be at least 15 minutes at peak hourly flow and the minimum total chlorine residual shall be 1.0 mg/L.

Dechlorination is not required.

Alternative Disinfectants

If an alternative to chlorine is used for disinfection under Rule 62-600.440(2), F.A.C., the performance criteria for fecal coliform and TSS would apply, however the requirements specific to chlorination would not apply.

Operating Protocols and Reject Storage

As established in the attached Fact Sheet, operating protocols, continuous monitoring for turbidity, reject storage facilities, and alternative discharges (items routinely associated with reuse projects permitted under Part III of Chapter 62-610, F.A.C.) are not needed for high-level disinfection associated with Class I injection wells.

MD/wrm/bwfr

Attachment: DEP Fact Sheet

cc: Directors of District Management
DEP Branch Office Managers
DEP Domestic Wastewater Supervisors
Cynthia Christen – DEP/OGC
Justin Wolfe – DEP/OGC
Donnie McClaugherty – DEP/Ground Water Program
Rich Deuerling – DEP/UIC Program

PREVIOUS GUIDANCE MEMOS:

None

DOMESTIC WASTEWATER PROGRAM MANUAL KEYWORDS:

Chlorination
Disinfection
Injection Wells
Monitoring
TSS
UIC

EXHIBIT C

Implementation of the New Federal Regulations for Class I Injection Wells in Florida

On November 22, 2005, the EPA published new regulations governing Class I municipal disposal wells in Florida (***Federal Register***, Vol. 70, No. 224, pp. 70513-70532). These federal regulations became effective December 22, 2005. This document provides information on the new federal regulations and how the DEP plans to implement these regulations in domestic wastewater and UIC permits.

New Federal Rules (40 CFR 146.15 and 146.16)

Applicability – These regulations apply only to Class I municipal disposal wells [injecting treated domestic wastewater effluent into ground water located below an underground source of drinking water (USDW)] that are located in the following 24 counties:

Brevard	Hendry	Martin	Palm Beach
Broward	Highlands	Miami-Dade	Pinellas
Charlotte	Hillsborough	Monroe	St. Johns
Collier	Indian River	Okeechobee	St. Lucie
Flagler	Lee	Orange	Sarasota
Glades	Manatee	Osceola	Volusia

The map on page 5 shows the 24 counties.

Definition of "Existing Class I Municipal Disposal Well" – A well injecting treated domestic wastewater for which a complete UIC construction permit application was received on or before December 22, 2005.

Requirements for Existing Class I Wells with Fluid Migration Problems – Current federal UIC regulations prohibit fluid migration from the injection zone (non-USDW) to USDWs. Within these 24 counties, existing Class I municipal disposal wells determined to have caused and existing Class I wells that may cause movement of injected fluids into a USDW may qualify for an alternative to the "no fluid movement" standard if they:

1. Develop an approved pretreatment program that meets the requirements of Chapter 62-625, F.A.C., unless either (1) the wastewater treatment facility is already covered by an approved pretreatment program, or (2) there are no significant industrial users tributary to the collection system. (Please work with the Pretreatment Section in Tallahassee if you have any questions on this topic.)

2. Provide secondary treatment in accordance with Rule 62-600.420(1)(d), F.A.C.

3. Provide high-level disinfection as prescribed in Rules 62-600.440(5)(a) through (f), F.A.C. Within the November 22 ***Federal Register*** notice, the EPA clearly states that filtration is considered to be an important part of high-level disinfection for control of pathogens (the focus of EPA's rulemaking to address Class I wells facing fluid migration issues). To qualify for the alternative injection authorization, existing facilities are allowed five years to comply with these treatment requirements after written notification by the Department that the well has caused or may cause fluid movement into a USDW. Systems that were notified before December 22, 2005, have five years after that date to comply (i.e., they must comply by December 22, 2010).

Requirements for New Class I Wells – All new Class I municipal disposal wells (including new wells at facilities with existing wells) within these 24 counties shall immediately comply with the above requirements. A "new" well is a well for which the UIC construction permit application was deemed complete after December 22, 2005.

DEP Rulemaking

The DEP adopted the federal requirements by reference on December 27, 2005.

DEP Domestic Wastewater and UIC Permitting

Geographic Coverage – This rule applies only to Class I municipal disposal wells located in the 24 counties listed on page 1 and shown on page 5. The new rules do not apply to any well located outside of these 24 counties.

"Existing" versus "New" Wells – As defined in the federal rules, an "existing well" is defined as a well for which a complete UIC construction permit application was received on or before December 22, 2005. Therefore, a "new well" is a well for which a complete UIC construction permit application was received after December 22, 2005.

Existing Class I Wells Having Fluid Migration Problems – The existing Class I wells at the following eight facilities have been determined to have fluid migration problems into a USDW:

McKay Creek (plugged)	St. Petersburg – Albert Whitted	St. Petersburg - Southwest
Miami-Dade South	St. Petersburg - Northeast	South Cross Bayou (not operating)
Seacoast Utilities	St. Petersburg - Northwest	

With the exception of the McKay Creek and South Cross Bayou facilities, which have either been plugged or are no longer operating, all domestic wastewater and UIC permits issued after December 22, 2005 for these facilities shall require the following if owners/operators intend to inject under the alternative injection authorization provided by the December 2005 EPA rule:

1. If an approved pretreatment program is not already in place or if a demonstration that there are no significant industrial users of the system has not been submitted, development and implementation of a pretreatment program meeting the requirements of Chapter 62-625, F.A.C., shall be required. DEP's standard permit conditions for development and implementation of pretreatment programs (including implementation schedule) shall be used.

2. Requirements (including an implementation schedule) for provision of high-level disinfection (including filtration) for effluent injected into the wells. The permit must include the appropriate standard permit conditions for high-level disinfection for effluent injected into the wells having fluid migration problems.

To qualify for the alternative injection authorization, effluent injected to the wells having fluid migration problems must comply with the high-level disinfection (including filtration) requirements by December 22, 2010. Prior to December 22, 2010, disinfection may be required for effluent injected into these Class I wells, if either (1) it is deemed necessary by DEP for protection of the USDW, or (2) an existing permit or other Department order specifically requires some level of disinfection before injection. Case (1) involving protection of the USDW is to be applied judiciously and with concurrence of DEP's Bureau of Water Facilities Regulation.

All of these facilities should already be providing full secondary treatment (annual average $CBOD_5$ and TSS limits of 20 mg/L). While these facilities should have been designed to achieve 90% removal of $CBOD_5$ and TSS, the permit will not include conditions or limits requiring 90% removal.

Existing Class I Wells without Fluid Migration Problems – At the time of permit renewal for either the domestic wastewater facilities or the UIC wells, facilities within these 24 counties having existing Class I disposal wells should be reviewed to determine if the DEP has reasonable assurance that injection has not and will not cause fluid migration into a USDW.

If the permittee is able to provide reasonable assurance that fluid migration into USDWs is not occurring and will not occur, the permit requirements will remain as they have in the past. These facilities will be required to provide only secondary treatment. Disinfection will not be required – other than as needed for whatever alternate discharge mechanism that is in-place.

If the permittee is unable to provide reasonable assurance, the DEP shall provide written notification to the permittee that his/her well(s) has caused or may cause fluid movement into a USDW. In order to inject under the alternative injection authorization provided by the December 2005 EPA rule, the domestic wastewater and UIC permits for these facilities shall require the following:

1. If an approved pretreatment program is not already in place or if a demonstration that there are no significant industrial users of the system has not been submitted, development and implementation of a pretreatment program meeting the requirements of Chapter 62-625, F.A.C., shall be required. DEP's standard permit conditions for development and implementation of pretreatment programs (including implementation schedule) shall be used.

2. Requirements (including an implementation schedule) for provision of high-level disinfection (including filtration) for effluent injected into the wells. The permit must include the appropriate standard permit conditions for high-level disinfection.

In order to inject under the alternative injection authorization provided by the December 2005 EPA rule, five years from the date they are notified by the DEP that the well has caused or may cause fluid movement into a USDW injected, the facility's effluent shall comply with the high-level disinfection (including filtration) requirements. Within this five-year period, disinfection may be required for effluent injected into these Class I wells, if either (1) it is deemed necessary by DEP for protection of the USDW,

or (2) an existing permit or other Department order specifically requires some level of disinfection before injection. Case (1) involving protection of the USDW is to be applied judiciously and with concurrence of DEP's Bureau of Water Facilities Regulation.

New Class I Wells – New Class I municipal disposal wells located within these 24 counties must comply with the requirements listed above (pretreatment program, secondary treatment, filtration, high-level disinfection) at the time the Class I well is placed into operation. In the case where new Class I wells are proposed at a facility having existing Class I wells with no evidence of fluid migration into a USDW, the high-level disinfection requirement applies only to effluent being injected into the new Class I wells.

Water Reuse is Encouraged – Nearly all of the area within the 24 counties affected by this new federal rule has been designated as a Water Resource Caution Area. As a result, the requirements for reuse feasibility studies in Section 403.064, F.S., will apply. Related limitations on Class I municipal disposal wells in Section 403.064, F.S., also apply, which should significantly curtail development of new Class I municipal disposal wells within these 24 counties, with the exception of wells that serve as backups to reuse systems.

Monitoring – Monitoring frequencies for high-level disinfection are presented in Figure 2 in Chapter 62-601, F.A.C. Figure 2 addresses monitoring frequencies for fecal coliforms, TSS, and chlorine residual. Per Figure 2, continuous monitoring for chlorine residual is only required for facilities having permitted capacities greater than or equal to 1.0 MGD. For effluent injected into Class I wells that is required to meet high-level disinfection, sample types will be as specified in Chapter 62-601, F.A.C., except for TSS where either a grab or 24-hour composite may be used to meet the 5.0-mg/L single sample limit.

Chlorination and Dechlorination – Facilities using chlorine to achieve high-level disinfection must comply with the minimum 1.0-mg/L total chlorine residual criteria at the end of the chlorine contact chamber [see Rule 62-600.440(5)(b), F.A.C.]. Alternatively, a facility may elect to use the piping from the point of initial chlorination to the screen interval or open hole in the injection well to meet all or part of the contact time requirement in Rule 62-600.440(5)(b), F.A.C., provided the minimum 1.0-mg/L total chlorine residual criteria is met at the screen interval or open hole of the disposal well. A facility may use the same chlorine contact chamber(s) for both public access reuse and for well disposal without draining or cleaning the chlorine contact chamber(s) when switching between well disposal and public access reuse water, provided that at no time water entering the chlorine contact chamber(s) exceeds the 5.0-mg/L TSS limit using a 24-hour composite sample. Dechlorination is not required. There is no requirement for maintenance of any chlorine residual at the point of injection.

Operating Protocols & Reject Storage – Operating protocols, continuous monitoring for turbidity, reject storage facilities, and alternative discharges (items routinely associated with reuse projects permitted under Part III of Chapter 62-610, F.A.C.) are not needed for high-level disinfection associated with Class I municipal disposal wells.

Part III Reuse Systems – Reuse Systems permitted under Part III of Chapter 62-610, F.A.C., must comply with all requirements contained in Part III. This includes the system storage and reject storage requirements contained in Rule 62-610.464, F.A.C. As noted in Rule 62-610.464, F.A.C., storage requirements for the reuse system may be reduced or eliminated, if the permittee has a permitted alternative discharge system available. Of course, a Class I well could serve as an alternative discharge system. However, if the Class I well is located within the 24 counties identified in the new federal UIC

rules, discharge to the Class I well must meet the requirements contained in the new federal rules and this implementation guidance in order to be covered by the alternative injection authorization provided by the December 2005 EPA rule.

Coordination – Given the fact that two DEP program areas are involved in the permitting of domestic wastewater facilities having municipal wastewater disposal wells, coordination between DEP's Domestic Wastewater and UIC Program staffs is imperative as we deal with these injection facilities in these 24 counties.

Drinking Water and Ground Water Standards – Effluent being injected into a Class I well is not required to meet primary or secondary drinking water standards either at the end of the wastewater treatment facility or at the point of injection. Rule 62-520.440, F.A.C., notes that ground water standards will be established on a case-by-case basis for discharges to Class G-IV ground waters. The minimum criteria in Rule 62-520.400, F.A.C., do not apply to G-IV ground water unless the Department determines that there is a danger to the environment, public health, safety, or welfare. For underground injection, the standard is that these contaminants do not cause endangerment. The drinking water standards apply within the overlying USDW. To make this demonstration, ground water monitoring of an interval beneath the base of the USDW is required within 150 feet of each injection well.

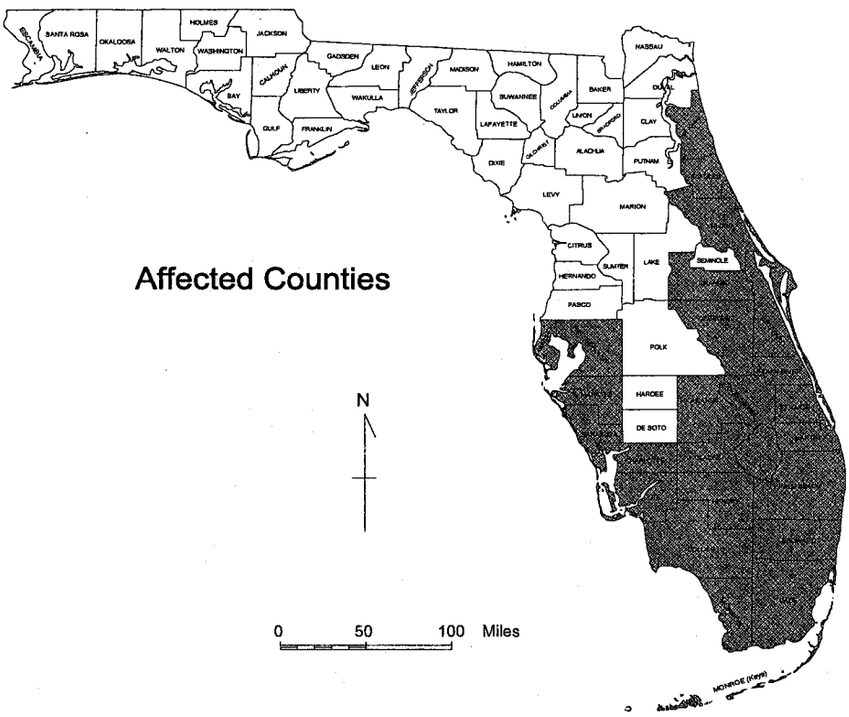
Disinfection Byproducts – The primary drinking water standards include limits on disinfection byproducts [see Table 3 in Chapter 62-550, F.A.C.]. These include limits on total trihalomethanes (TTHM), haloacetic acids (HAA5), bromate, and chlorite. As noted in the previous paragraph, these limits do not have to be met at the end of the wastewater treatment facility or at the point of injection, if an adequate monitoring system, as discussed above, is in place. These parameters are regulated as drinking water standards and will apply in the overlying USDW.

Disposal of Demineralization Concentrate Using Class I Wells – Three cases are of interest:

Case 1: If the disposal well receives only demineralization concentrate with no domestic wastewater contribution, the new federal rules do not apply. If a demineralization concentrate disposal well were to experience fluid migration problems, the remedies in the new federal rules will not be available.

Case 2: If demineralization concentrate is discharged into the collection system or is introduced at the headworks of the domestic wastewater treatment plant, it becomes part of the domestic wastewater flow, would receive the same level of treatment, and the combined flow will be subject to the new federal rule.

Case 3: If demineralization concentrate is blended with domestic wastewater effluent at the end of the domestic wastewater treatment plant (i.e., the concentrate is not treated by the domestic wastewater treatment plant) before the commingled flows are injected into a Class I disposal well, the well is not classified as a municipal disposal well. As a result, the new federal rules do not apply to this case. If such a non-municipal disposal well were to experience fluid migration problems, the remedies in the new federal rules will not be available.


Affected Counties
N
0
50
100 Miles
ESCAMBIA
SANTA ROSA
OKALOOSA
WALTON
HOLMES
WASHINGTON
JACKSON
CALHOUN
BAY
GULF
LIBERTY
FRANKLIN
GADSDEN
WAKULLA
LEON
JEFFERSON
TAYLOR
MADISON
LAFAYETTE
HAMILTON
SUWANNEE
COLUMBIA
DIXIE
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UNION
BRADFORD
ALACHUA
NASSAU
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PUTNAM
LEVY
MARION
CITRUS
HERNANDO
SUMTER
LAKE
SEMINOLE
PASCO
POLK
HARDEE
DE SOTO
MONROE (Keys)