



Department of Environmental Protection

Southeast District
400 North Congress Avenue, Suite 200
West Palm Beach, Florida 33401

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

Herschel T. Vinyard Jr.
Secretary

ELECTRONIC CORRESPONDENCE

March 1, 2011

NOTICE OF PERMIT

Ms. J. Carine Bullock, Plant Manager
FPL WCEC
20505 State Road 80
Loxahatchee FL 33470

PALM BEACH COUNTY
UIC – FPL West County Energy Center
FILE: 247895-010-UO
Class I Injection Well System IW-1, IW-2 & DZMW-1

Enclosed is Permit Number 247895-010-UO, to operate the FPL West County Energy Center (WCEC). Class I Injection Well System. The system consists of two Class I fluid annulus injection wells completed into the "Boulder Zone" in the lower Oldsmar Formation and an associated dual zone monitoring well. Injection Well IW-1 and injection well IW-2 possess 16-inch FRP liners within a 20-inch final casing separated by fluid filled annuli. IW-1 has the final casing landed at 2778 feet below pad level (bpl) with a total depth of 3411 feet bpl. IW-2 has a final casing landed at 2720 feet bpl with a total depth of 3250 feet bpl. The dual zone monitoring well DZMW-1 has an upper monitoring zone interval of 1890–1911 feet bpl and a lower zone monitoring interval of 2132–2166 feet bpl. The maximum flow rate of each injection well shall not exceed a velocity of ten feet per second, with the rating test indicating approximately 7.29 million gallons per day (MGD) of disposal capacity per well. The two wells are redundant with regard to the needs of the facility with one well being the primary well and the other well being held in reserve at a given time. The purpose of the injection well system is to dispose of cooling tower blowdown as well as the sources of the cooling water: an upper Floridan aquifer well field array, reclaimed water from the East Central Regional Wastewater Plant, surface water from the L-10/L-12 canal, Palm Beach Aggregate Cell 9 and Cell 10, as well as the L-8 reservoir. There is no provision for the injection of hazardous wastes, specifically, injection of hazardous wastes or hazardous wastewater is banned under this permit authorization. The system is located at 20505 State Road 80 in Loxahatchee, Palm Beach County.

[space intentionally blank]

Any party to this Order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, Mail Stop 35, 3900 Commonwealth Blvd., Tallahassee, Florida 32399-3000; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this Notice is filed with the Clerk of the Department.

Should you have any questions, please contact Joseph R. May, P.G., of this office at (561) 681-6691.

Executed in the City of West Palm Beach, Florida.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION



Kevin Claridge
Assistant District Director
Southeast District

03/01/11

Date

KC/LAB/jm

cc: UIC Permitting File, SED
Steve Anderson, SFWMD
David McNabb, McNabb Hydrologic Con.
Diane Hughes, SED

Cathy McCarty, FDEP/TLH
Rachel Godino, FPL-Juno Beach

Mike Halpin, SCO
John Gnecco, FPL-Juno Beach

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on 3/01/11 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to the §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.



Clerk

3/01/11

Date



Department of Environmental Protection

Southeast District
400 North Congress Avenue, Suite 200
West Palm Beach, Florida 33401

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

Herschel T. Vinyard Jr.
Secretary

PERMITTEE:

Ms. J. Carine Bullock, Plant Manager
FPL WCEC
20505 State Road 80
Loxahatchee FL 33470

PERMIT/CERTIFICATION NO: 247895-010-UO

DATE OF ISSUE: March 1, 2011

EXPIRATION DATE: February 29, 2016

COUNTY: Palm Beach

PROJECT: FPL West County Energy Center.
IW-1, IW-2 and DZMW-1

This permit is issued under the provisions of Chapter 403.087, Florida Statutes, and Florida Administrative Code (F.A.C.) Rules 62-4, 62-520, 62-522, 62-528, 62-550 and 62-660. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

TO OPERATE: The system consists of two Class I fluid annulus injection wells completed into the "Boulder Zone" in the lower Oldsmar Formation and an associated dual zone monitoring well. Injection Well IW-1 and injection well IW-2 possess 16-inch FRP liners within a 20-inch final casing separated by fluid filled annuli. IW-1 has the final casing landed at 2778 feet below pad level (bpl) with a total depth of 3411 feet bpl. IW-2 has a final casing landed at 2720 feet bpl with a total depth of 3250 feet bpl. The dual zone monitoring well DZMW-1 has an upper monitoring zone interval of 1890–1911 feet bpl and a lower zone monitoring interval of 2132–2166 feet bpl. The maximum flow rate of each injection well shall not exceed a velocity of ten feet per second, with the rating test indicating approximately 7.29 million gallons per day (MGD) of disposal capacity per well. The two wells are redundant with regard to the needs of the facility with one well being the primary well and the other well being held in reserve at a given time. The purpose of the injection well system is to dispose of cooling tower blowdown as well as the sources of the cooling water, the: an upper Floridan well field array, reclaimed water from the East Central Regional Wastewater Plant, surface water from the L-10/L-12 canal, Palm Beach Aggregate Cell 9 and Cell 10, as well as the L-8 reservoir. There is no provision for the injection of hazardous wastes, specifically, injection of hazardous wastes or hazardous wastewater is banned under this permit authorization. The system is located at 20505 State Road 80 in Loxahatchee, Palm Beach County.

IN ACCORDANCE WITH: Application to Operate a Class I Injection Well System received 7 January 2010; Request for Information (RFI) issued on 9 August 2010; response to RFI received on 10 August 2010; Publication of the Notice of Draft Permit in the Palm Beach Post newspaper on 12 October 2010; in consideration of receipt of public comment received as a result of a public meeting held on 12 November 2010; and publication of the Notice of Intent to Issue Permit in the in the Palm Beach Post newspaper 22 December 2010.

LOCATED AT: 20505 State Road 80 in Loxahatchee, Palm Beach County

TO SERVE: Florida Power Grid

SUBJECT TO: General Conditions 1-24 and Specific Conditions 1-7.

GENERAL CONDITIONS

The following **General Conditions** are referenced in Florida Administrative Code Rule 62-528.307.

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit are "permit conditions" and are binding and enforceable pursuant to Section 403.141, F.S.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action.
3. As provided in Subsection 403.087(7), F.S., the issuance of this permit does not convey any vested rights or exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.
4. This permit conveys no title to land, water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefrom; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, or are required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:
 - a. Have access to and copy any records that must be kept under conditions of this permit;
 - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
 - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.Reasonable time will depend on the nature of the concern being investigated.
8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- a. A description of and cause of noncompliance; and
 - b. The period of noncompliance, including dates and times; or, if not corrected the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent the recurrence of the noncompliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.
9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
11. This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-528.350, F.A.C. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. The permittee shall comply with the following:
 - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records shall be extended automatically unless the Department determines that the records are no longer required.
 - b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - c. Records of monitoring information shall include:
 - 1) the date, exact place, and time of sampling or measurements;
 - 2) the person responsible for performing the sampling or measurements;
 - 3) the dates analyses were performed;
 - 4) the person responsible for performing the analyses;
 - 5) the analytical techniques or methods used
 - 6) the results of such analyses
 - d. The permittee shall furnish to the Department, within the time requested in writing, any information which the Department requests to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit.
 - e. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.
14. All applications, reports, or information required by the Department shall be certified as being true, accurate, and complete.

15. Reports of compliance or noncompliance with, or any progress reports on, requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each scheduled date.
16. Any permit noncompliance constitutes a violation of the Safe Drinking Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.
17. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
18. The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit.
19. This permit may be modified, revoked and reissued, or terminated for cause, as provided in 40 C.F.R. Sections 144.39(a), 144.40(a), and 144.41 (1998). The filing of a request by the permittee for a permit modification, revocation or reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
20. The permittee shall retain all records of all monitoring information concerning the nature and composition of injected fluid until five years after completion of any plugging and abandonment procedures specified under Rule 62-528.435, F.A.C. The permittee shall deliver the records to the Department office that issued the permit at the conclusion of the retention period unless the permittee elects to continue retention of the records.
21. All reports and other submittals required to comply with this permit shall be signed by a person authorized under Rules 62-528.340(1) or (2), F.A.C. All reports shall contain the certification required in Rule 62-528.340(4), F.A.C.
22. The permittee shall notify the Department as soon as possible of any planned physical alterations or additions to the permitted facility. In addition, prior approval is required for activities described in Rule 62-528.410(1)(h).
23. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or injection activity which may result in noncompliance with permit requirements.
24. The permittee shall report any noncompliance which may endanger health or the environment including:
 - a. Any monitoring or other information which indicates that any contaminant may cause an endangerment to an underground source of drinking water; or
 - b. Any noncompliance with a permit condition or malfunction of the injection system which may cause fluid migration into or between underground sources of drinking water.

All information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause, the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

SPECIFIC CONDITIONS

1. General Requirements

- a. In accordance with Rules 62-4.090(1) and 62-528.455(3)(a), F.A.C., the permittee shall submit an application for permit renewal at least sixty days prior to expiration of this permit.
- b. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures.
- c. The permittee shall notify the Department and obtain approval prior to any physical alterations or additions to the injection or monitoring well, including removal of the well head.

2. Operating Requirements

- a. The pressure at the wellhead shall be monitored and controlled at all times to ensure the maximum pressure does not exceed 101 pounds per square inch (psi), i.e., 66 percent of the mechanical integrity test pressure of 153 psi for IW-1. The pressure at the wellhead shall be monitored and controlled at all times to ensure the maximum pressure does not exceed 104 pounds per square inch (psi), i.e., 66 percent of the mechanical integrity test pressure of 158 psi for IW-2.
- b. The flow to each injection well at the wellhead shall be monitored and controlled at all times to ensure the maximum fluid velocity down the well does not exceed the permitted peak hourly flow rate of 7.29 million gallons per day (MGD) during normal operation for the injection well. In no instance shall the maximum velocity exceed 10 feet per second.
- c. Pursuant to Rule 62-528.425(1)(b), F.A.C., the injection well system shall be monitored by continuous indicating, recording and totalizing devices to monitor effluent flow rate and volume, and continuous indicating and recording devices to monitor injection pressure, monitoring zone pressure (or water level, as appropriate; all zones), and annular pressure. All indicating, recording and totalizing devices associated with the injection well system shall be maintained in good operating condition and calibrated annually at a minimum. All water quality samples required by this permit shall be collected in accordance with the appropriate SOP, pursuant to Chapter 62-160, Quality Assurance, Part II, Field Procedures, F.A.C. A certified laboratory shall conduct the analytical work, as provided by Chapter 62-160, Quality Assurance, Part III, Laboratory Certification and Procedures, F.A.C. Department approved test methods shall be utilized, unless otherwise stated in this permit. All calibration procedures for field testing and laboratory equipment shall follow manufacturer's instrumentation manuals and satisfy the requirements Department SOPs. A listing of the SOPs pertaining to field and laboratory activities is available at the FDEP website at: <http://www.dep.state.fl.us/labs/qa/sops.htm>
- d. The flow from the monitoring zones during well evacuation and sampling shall not be discharged to surface waters or aquifers containing an Underground Source of Drinking Water (USDW).
- e. No underground injection is allowed that causes or allows movement of fluid into a USDW.
- f. Only non-hazardous injectate as described in this permit and purge water from the on-site monitoring wells (associated with the injection well system) may be discharged into this well.
- g. The wastewater stream shall be non-hazardous in nature at all times, as defined in 40-CFR, Part 261 and as adopted in Chapter 62-730, F.A.C.

3. Testing and Reporting Requirements

- a. Any failure of the Class I injection well monitoring and recording equipment for a period of more than 48 hours shall be reported to the Department within 24 hours. A written report describing the incident shall also be submitted to the Department within five days of the start of the event. The written report shall contain a complete description of the occurrence, a discussion of its cause(s), and the steps being taken to reduce, eliminate, and prevent recurrence of the event, and all other information deemed necessary by the Department.
- b. The permittee shall report any noncompliance which may endanger health or the environment, including:
 - 1) Any monitoring or other information which indicates that any contaminant may cause an endangerment to a USDW; or
 - 2) Any noncompliance with a permit condition or malfunction of the injection system which may cause fluid migration into or between USDWs.

All information shall be provided orally within 24 hours from the time that the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time that the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause, the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

- c. The injection system shall be monitored in accordance with Rules 62-528.425(1)(g) and 62-528.430(2), F.A.C. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The following injection well performance and monitoring zone data shall be collected and reported to the Department in Monthly Operating Reports (MORs) as indicated below.
 - 1) Injection well performance:
 - a) Physical characteristics of the injection well:

Flow rate parameters:

 - average daily flow rate to injection well (MGD)
 - daily maximum sustained (15 minutes minimum) flow rate to injection well (MGD)
 - daily minimum sustained (15 minutes minimum) flow rate to injection well (MGD)
 - monthly average of the daily flow rates to injection well (MGD)
 - monthly maximum (peak hour) flow rate to injection well (MGD)
 - monthly minimum flow rate to injection well (MGD)

Volumetric parameters:

 - total daily flow volume to injection well (MG)
 - total monthly flow volume to the injection well (MG)
 - monthly average of the daily flow volumes to injection well (MG)
 - monthly maximum of the daily flow volumes to injection well (MG)
 - monthly minimum of the daily flow volumes to injection well (MG)

Wellhead pressure parameters:

- daily average injection pressure at injection well (psig)
- daily maximum sustained (15 minutes minimum) injection pressure at well (psig)
- daily minimum sustained (15 minutes minimum) injection pressure at well (psig)
- monthly average injection pressure at injection well (psig)
- monthly maximum sustained injection pressure at injection well (psig)
- monthly minimum sustained injection pressure at injection well (psig)
- monthly wellhead pressure with no flow (shut-in pressure, psig)

Annulus pressure parameters:

- daily average annular pressure at injection well (psig)
- daily maximum annular pressure at injection well (psig)
- daily minimum annular pressure at injection well (psig)
- monthly average annular pressure at injection well (psig)
- monthly maximum annular pressure at injection well (psig)
- monthly minimum annular pressure at injection well (psig)
- daily volume of fluid or pressure added to or removed from the annulus

b) Chemical characteristics of the wastewater stream sampled monthly:

- chloride (mg/L)
- nitrogen, ammonia, total as N (ammonia) (mg/L)
- nitrogen, total Kjeldahl as N (TKN) (mg/L)
- nitrogen, nitrate, total as N (nitrate) (mg/L)
- nitrogen, nitrite, total as N (nitrate) (mg/L)
- pH (standard units)
- phosphorous, total as P (mg/L)
- residue, total filterable (total dissolved solids, TDS) (mg/L)
- sodium (mg/L)
- specific conductance (temperature compensated, $\mu\text{mho/cm}$ or $\mu\text{S/cm}$)
- sulfate, total as SO_4 (mg/L)

2) Monitoring well performance:

- a) Physical characteristics - upper and lower monitoring zones potentiometric surface or water table height relative to the National American Vertical Datum (NAVD) of 1988 (feet of head) or pressure (psig) referenced to NAVD 1988:
 - daily maximum pressure or water level (as appropriate)
 - daily minimum pressure or water level (as appropriate)
 - daily average pressure or water level (as appropriate)
 - monthly maximum pressure or water level (as appropriate)
 - monthly minimum pressure or water level (as appropriate)
 - monthly average pressure or water level (as appropriate)
- b) Chemical characteristics of the upper and lower monitoring zones sampled monthly:
 - chloride (mg/L)
 - calcium (mg/L)
 - carbonate
 - bicarbonate
 - fecal coliform (# of colonies/100ml)
 - iron (mg/L)
 - magnesium (mg/L)
 - nitrogen, ammonia, total as N (ammonia) (mg/L)
 - nitrogen, total Kjeldahl as N (TKN) (mg/L)
 - nitrogen, nitrate, total as N (nitrate) (mg/L)
 - nitrogen, nitrite, total as N (nitrate) (mg/L)
 - pH (standard units)
 - phosphorous, total as P (mg/L)
 - potassium (mg/L)
 - residue, total filterable (total dissolved solids, TDS) (mg/L)
 - sodium (mg/L)
 - specific conductance (temperature compensated, $\mu\text{mho}/\text{cm}$ or $\mu\text{S}/\text{cm}$)
 - sulfate, total as SO_4 (mg/L)
 - temperature ($^{\circ}\text{C}$)
- d. A minimum of three well volumes of fluid shall be evacuated from the monitoring systems prior to sampling for the chemical parameters listed above. A State-certified laboratory shall analyze all samples. Sufficient purging shall have occurred when either of the following have occurred:
 - 1) pH, specific conductivity and temperature when sampled, upon purging the third or subsequent well volume, each vary less than 5% from that sampled upon purging the previous well volume; or
 - 2) upon purging the fifth well volume
- e. All samples must be collected and analyzed in accordance with the quality assurance/quality control (QA/QC) requirements of Rule 62-160, F.A.C.
- f. A controlled annual injectivity test (rate/pressure) shall be conducted, for IW-1 and IW-2, in accordance with Rule 62-528.430(2)(d), F.A.C. Each test shall be conducted at a rate that approaches the maximum design flow, but which can be repeated on an annual basis. The injectivity test results shall be reported to the Department in the MORs. The following data shall be recorded and reported:

Parameters pertinent to flow rate:

- injection flow rate as measured from flowmeter (MGD)
- initial totalizer reading (gallons)
- final totalizer reading (gallons)
- time (minutes) from initial to final totalizer readings

Pressure parameters:

- static injection pressure fall-off
- wellhead injection pressure fall-off, (psig) every 30 seconds until again static (psig)
- final pressure upon test cessation, approximately 10 to 15 minutes (psig)
- wellhead pressure with no flow (shut-in pressure in psig)
- monitoring zone pressures (psig)
- pressure fall-off (psig)

Specific injectivity shall be reported in gpm/change in psig

All readings shall be taken after a minimum five minute period of stabilized flow.

Pursuant to Rule 62-528.430(2)(d), F.A.C., as part of the specific injectivity test, the well shall be shut-in for a period of time necessary to conduct a valid observation of pressure fall-off.

- g. All injection well data submissions, including MORs, shall be clearly identified on each page with: facility name, I.D. Number, permit number, operator's name, license number, daytime phone number, date of sampling/recording and type of data. Monitoring zones shall be identified by well number and depth interval. The lead plant operator or higher official shall sign and date each submittal.
- h. The permittee shall submit monthly to the Department the results of all injection well and monitoring well data required by this permit (MORs) no later than the last day of the month immediately following the month of record. The results shall be sent to the Department of Environmental Protection's Southeast District Office (FDEP, UIC Section, 400 N. Congress Ave., Suite 200, West Palm Beach, FL 33401). A copy of this report shall also be sent to the Department of Environmental Protection, Underground Injection Control Program, MS 3530, 2600 Blair Stone Road, Tallahassee, FL 32399-2400.
- i. Pursuant to Rules 62-528.425(1)(a) and 62-528.450(2)(f)3., F.A.C., a wastewater stream analysis (24-hour composite sample) for primary and secondary drinking water standards (Chapter 62-550, F.A.C.), see attached list, shall be submitted annually (sampled in February and submitted on or before April 30). VOC parameters and biological parameters shall be sampled either in-situ or grab.

- j. The permittee shall demonstrate mechanical integrity pursuant to Rules 62-528.300(6)(b)2., 62-528.300(6)(c), and 62-528.425(1)(d), F.A.C. at least once every five years during the life of the injection well. In the event operational or other data indicate a possible loss of integrity in the injection well, the mechanical integrity and other testing may be required at less than a five year interval. The mechanical integrity testing program shall include: TV survey, pressure test, temperature log, and radioactive tracer survey (RTS). All mechanical integrity testing shall be completed prior to **June 25, 2013 for IW-1 and December 8, 2013 for IW-2**. A plan describing the mechanical integrity testing procedures shall be submitted to the Department's Southeast District and Tallahassee offices for approval at least 180 days prior to the pressure test date noted above. Pursuant to Rule 62-528.430(2)(b)2.a., F.A.C., the final report for the demonstration of mechanical integrity for the injection well shall be submitted within three months of the completion date for mechanical integrity testing. The final report shall address all tests noted above (and include procedures followed, interpretations and results), and shall include a tabular presentation/graphical evaluation of monitoring well data over the previous five year period.
- k. The Department shall be notified at least 72 hours prior to all testing for mechanical integrity on the injection well.
- l. All testing for mechanical integrity on the injection wells shall be initiated during normal business hours, Monday through Friday, except legal holidays.
- m. Mechanical Integrity
 - 1) The permittee shall maintain the mechanical integrity of the wells at all times.
 - 2) If the Department determines that the injection wells lack mechanical integrity, written notice shall be given to the permittee.
 - 3) Unless the Department requires immediate cessation of injection, within 48 hours of receiving written notice that the well lacks mechanical integrity, the permittee shall cease injection into the well unless the Department allows continued injection pursuant to (4) below.
 - 4) The Department may allow the permittee to continue operation of a well that lacks mechanical integrity if the permittee demonstrates that fluid movement into or between USDWs is not occurring.

4. Surface Equipment

- a. The integrity of the monitoring zone sampling systems shall be maintained at all times. Sampling lines shall be clearly and unambiguously identified by monitoring zone at the point at which samples are drawn. All reasonable and prudent precautions shall be taken to ensure that samples are properly identified by monitoring zone and that samples obtained are representative of those zones. Sampling lines and equipment shall be kept free of contamination with independent discharges and no interconnections with any other lines.
- b. The surface equipment for the injection well system shall maintain compliance with Chapter 62-528.450(2)(j), F.A.C. for water hammer control, screening, access for logging and testing, and reliability and flexibility in the event of damage to the well and effluent piping. A regular program of exercising the valves integral to the well head shall be instituted. At a minimum, all valves integral to the well head shall be exercised during the regularly scheduled injectivity testing.
- c. The injection well and monitoring well surface equipment and piping shall be kept free of corrosion at all times.

- d. Spillage onto the injection well pad during construction activities, and any waters spilled during mechanical integrity testing, other maintenance, testing or repairs to the system shall be contained on the pad and directed to a sump which in turn discharges to the pumping station wet well or via other approved means to the injection well system.
- e. The injection well construction shall be maintained and retained in service for the life of the injection well. The injection and monitoring well pad(s) are not, unless specific approval is obtained from the Department, to be used for storage of any material or equipment at any time. Modification of the pad is subject to approval by the Department.

5. Financial Responsibility

- a. The permittee shall maintain the resources necessary to close, plug and abandon the injection and associated monitoring wells, at all times [Rule 62-528.435(9), F.A.C.].
- b. The permittee shall review annually the plugging and abandonment cost estimates. An increase of ten percent or more over the cost estimate upon which financial responsibility is based shall require the permittee to submit documentation to obtain an updated Certificate of Demonstration of Financial Responsibility.
- c. In the event the mechanism used to demonstrate financial responsibility should become invalid for any reason, the permittee shall notify the Department of Environmental Protection in writing within fourteen days of such invalidation. The permittee shall then within 30 days of said notification submit to the Department for approval new financial documentation in order to comply with Rule 62-528.435(9), F.A.C., and the conditions of this permit.

6. Signatories and Certification Requirements

- a. All reports and other submittals required to comply with this permit shall be signed by a person authorized under Rules 62-528.340(1) or (2), F.A.C.
- b. In accordance with Rule 62-528.340(4), F.A.C., all reports shall contain the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

7. Emergency Disposal

- a. All applicable federal, state, and local permits shall be in place to allow for any alternate discharges due to emergency or planned outage conditions.
- b. The emergency disposal method is the inherent redundancy of the two injection wells with respect to each other. Each well alternates as the primary injection well in accordance with a schedule of rotation established by the permittee. In the event of planned or emergency outages of the injection well the wastewater stream is diverted to the reserve injection well.
- c. Any proposed changes in emergency disposal methods shall be submitted for Departmental and USEPA review for approval prior to implementation.
- d. Abnormal Events
 - 1) In the event the permittee is temporarily unable to comply with any of the conditions of a permit due to breakdown of equipment, power outages, destruction by hazard of fire, wind, or by other cause, the permittee of the facility shall notify the Department. Notification shall be made in person, by telephone, or by email, within 24 hours of breakdown or malfunction to the Department.
 - 2) A written report of any noncompliance referenced above shall be submitted to the Department within five days after its occurrence. The report shall describe the nature and cause of the breakdown or malfunction, the steps being taken or planned to be taken to correct the problem and prevent its reoccurrence, emergency procedures in use pending correction of the problem, and the time when the facility will again be operating in accordance with permit conditions.

Issued this 1st day of March, 2011

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION



Kevin Claridge
Assistant District Director
Southeast District

Date

KC/LAB/jrn

PRIMARY & SECONDARY DRINKING WATER STANDARDS & MINIMUM CRITERIA

Updated May 6, 2002

PRIMARY DRINKING WATER STANDARDS

PARAMETER

Alachlor (Polychlorinated Biphenyl or PCB)
Aldicarb
Aldicarb sulfoxide
Aldicarb sulfone
Aroclors (Polychlorinated Biphenyls or PCBs)
Alpha, Gross
Antimony
Arsenic
Atrazine
Barium
Benzene
Benzo(a)pyrene
Beryllium
Bis(2-ethylhexyl) adipate (Di(2-ethylhexyl) adipate)
Bis(2-ethylhexyl) phthalate (Di(2-ethylhexyl) phthalate)
Cadmium
Carbofuran
Carbon Tetrachloride (Tetrachloromethane)
Chlordane
Chlorobenzene (Monochlorobenzene)
Chloroethylene (Vinyl Chloride)
Chromium
Coliforms, Total
Cyanide
2,4-D (2,4-Dichlorophenoxyacetic acid)
Dalapon (2,2-Dichloropropionic acid)
Dibromochloropropane (DBCP)
1,2-Dibromoethane (EDB, Ethylene Dibromide)
1,2-Dichlorobenzene (o-Dichlorobenzene)
1,4-Dichlorobenzene (p-Dichlorobenzene or Para Dichlorobenzene)
1,2-Dichloroethane (Ethylene dichloride)
1,1-Dichloroethylene (Vinylidene chloride)
1,2-Dichloroethylene (cis-1,2-Dichloroethylene or trans-1,2-Dichloroethylene)
cis-1,2-Dichloroethylene (1,2-Dichloroethylene)
trans-1,2-Dichloroethylene (1,2-Dichloroethylene)
Dichloromethane (Methylene chloride)
1,2-Dichloropropane
Di(2-ethylhexyl) adipate (Bis(2-ethylhexyl) adipate)
Di(2-ethylhexyl) phthalate (Bis(2-ethylhexyl) phthalate)
Dinoseb
Diquat
EDB (Ethylene dibromide, 1,2-Dibromoethane)
Endothall
Endrin
Ethylbenzene
Ethylene dichloride (1,2-Dichloroethane)
Fluoride
Glyphosate (Roundup)
Gross Alpha
Heptachlor
Heptachlor Epoxide
Hexachlorobenzene (HCB)
gamma-Hexachlorocyclohexane (Lindane)
Hexachlorocyclopentadiene
Lead

PRIMARY & SECONDARY DRINKING WATER STANDARDS & MINIMUM CRITERIA

Updated May 6, 2002

PRIMARY DRINKING WATER STANDARDS, CONT'D

PARAMETER

Lindane (gamma-Hexachlorocyclohexane)
Mercury
Methoxychlor
Methylene chloride (Dichloromethane)
Monochlorobenzene (Chlorobenzene)
Nickel
Nitrate (as N)
Nitrite (as N)
Total Nitrate + Nitrite (as N)
Oxamyl
p-Dichlorobenzene or Para Dichlorobenzene (1,4-Dichlorobenzene)
Pentachlorophenol
Perchloroethylene (Tetrachloroethylene)
Picloram
Polychlorinated biphenyl (PCB or Aroclors)
Radium
Roundup (Glyphosate)
Selenium
Silver
Silvex (2,4,5-TP)
Simazine
Sodium
Styrene (Vinyl benzene)
Tetrachloroethylene (Perchloroethylene)
Tetrachloromethane (Carbon Tetrachloride)
Thallium
Toluene
Toxaphene
2,4,5-TP (Silvex)
1,2,4-Trichlorobenzene
1,1,1-Trichloroethane
1,1,2-Trichloroethane
Trichloroethylene (Trichloroethene, TCE)
Trihalomethanes, Total
Vinyl Chloride (Chloroethylene)
Xylenes (total)

SECONDARY DRINKING WATER STANDARDS

PARAMETER

Aluminum
Chloride
Color
Copper
Ethylbenzene
Fluoride
Foaming Agents (MBAS)
Iron
Manganese
Odor
pH
Silver
Sulfate
Toluene
Total Dissolved Solids (TDS)
Xylenes
Zinc