

APPENDIX II
FINAL UIC PERMITS



**FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION**

SOUTHEAST DISTRICT OFFICE
400 NORTH CONGRESS AVENUE, 3RD FLOOR
WEST PALM BEACH, FL 33401
561-681-6600

RICK SCOTT
GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

July 29, 2013

NOTICE OF PERMIT

Mr. Randall LaBauve
Vice President
Florida Power & Light Company
700 Universe Blvd.
Juno Beach, FL 33408

Miami-Dade County
Permit Number 293962-002-UC
UIC – FPL Turkey Point
Class I Injection Well

Enclosed is Permit Number 293962-002-UC to convert the Class V exploratory well constructed under permit 293962-001-UC to a Class I injection well and begin operational testing under this permit.

This permit serves to convert this Class V exploratory well, EW-1, to a Class I injection well, identified as DIW-1, and to operationally test the system. Exploratory well EW-1 and the associated dual zone monitoring well were constructed under the previous permit (see above). The injection well has a telescopic design with a nominal 18-inch outside diameter (O.D.) tubing extending to a depth of 2975 feet below pad level (bpl) and a final casing landed at 2985 feet bpl. The tubing is fiberglass reinforced pipe (FRP) with a fluid filled annulus. The well's open hole interval is from 2985 to 3230 feet bpl. The dual zone monitoring well, DMZW-1, has an upper monitoring interval of 1450–1490 feet bpl and a lower monitoring interval of 1860–1905 feet bpl. The base of the Underground Source of Drinking Water (USDW) was determined to be at or near 1450 feet bpl.

Although the ultimate purpose of the well is primarily the intended disposal of cooling tower blowdown produced by the proposed nuclear powered Unit 6 and Unit 7, as part of an overall injection well system envisioned in the future, the operational testing which may be authorized under this permit will be undertaken only with various dewatering, well development water and industrial wastewaters associated with the construction of FPL's Turkey Point Units 6 & 7. These units, Units 6 & 7, are not anticipated to become operational for several years. The operational testing period of DIW-1 will not exceed two years and, in order to continue injecting, an operation permit will be required once operational testing has been completed.

Operational testing wastewaters are expected to consist of the following sources at the indicated maximum rates:

- Dewatering water produced from the site preparation for Unit 6 and Unit 7 — 5000 gallons per minute (gpm)
- Hydrostatic tank testing waters — 5000 gpm
- Radial collector well development water — 5000 gpm
- Concrete Batch Plant wash down waters, miscellaneous equipment facilities wash down, and miscellaneous non-hazardous industrial wastewaters — 550 gpm

Any party to this 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, 3900 Commonwealth Boulevard, Mail Station 35, 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.

Executed in West Palm Beach, Florida.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION



07-29-13

Jill S. Creech, P.E.
Southeast District Director

Date

JSC/LAB/jmm

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on July 29, 2013, to the listed persons.

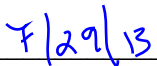
Clerk Stamp

FILING AND ACKNOWLEDGMENT

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



Clerk



Date

Copies Furnished To:

Copies furnished to:

Brad Akers, FDEP/WPB
Cathy McCarty, FDEP/TLH
Lee Hefty, PERA/DERM
Bill Maher, FPL
David McNabb, MHC

Joe Haberfeld, FDEP/TLH
Nancy Marsh, USEPA/ATL
Emily Richardson, SFWMD
Marister Ruiz, FPL
David Holtz, HCE



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RICK SCOTT
GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

**Underground Injection Control
Class I Injection Well System
Construction and Testing Permit**

Permittee:

Mr. Randall LaBauve
Vice President
Florida Power & Light Company
700 Universe Blvd.
Juno Beach, FL 33408

Permit/Certification

Permit Number: 293962-002-UC
Facility ID Number: 293962
WACS ID: 56427
Date of Issuance: July 29, 2013
Date of Expiration: July 28, 2018
Permit Processor: Joseph May

Facility

FPL Turkey Point Power Plant
9760 SW 344th Street
Florida City, FL 33035

Location

County: Miami-Dade
Latitude: 25° 25' 03" N
Longitude: 80° 20' 20" W

Project: Class I Injection Well System: Injection Well IW-1 and monitoring well DZMW-1

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code (F.A.C.), Chapters 62-4, 62-520, 62-528, 62-550, 62-610 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.

The permittee is reminded of the necessity to comply with the pertinent regulations of any other regulatory agency, as well as any county, municipal, and federal regulations applicable to the project. These regulations may include, but are not limited to, those of the Federal Emergency Management Agency in implementing flood control measures. This permit should not be construed to imply compliance with the rules and regulations of other regulatory agencies.

TO CONSTRUCT AND OPERATIONALLY TEST: This permit serves to convert the Class V exploratory well, EW-1, to a Class I injection well, identified as DIW-1, and to operationally test the system. Exploratory well EW-1 and the associated dual zone monitoring well were constructed under the previous permit (293962-001-UC). The well has a telescopic design with a nominal 18-inch outside diameter (O.D.) tubing extending to a depth of 2975 feet below pad level (bpl) and a final casing landed at 2985 feet bpl. The tubing is fiberglass reinforced pipe (FRP) with a fluid filled annulus. The well's open hole interval is from 2985 to 3230 feet bpl. The dual zone monitoring well, DMZW-1, has an upper monitoring interval of 1450–1490 feet bpl and a lower monitoring interval of 1860–1905 feet bpl. The base of the Underground Source of Drinking Water (USDW) was determined to be at or near 1450 feet bpl.

Although the ultimate purpose of the well is primarily the intended disposal of cooling tower blowdown produced by the proposed nuclear powered Unit 6 and Unit 7, as part of an overall injection well system envisioned in the future, the operational testing which may be authorized under this permit will be undertaken only with various dewatering, well development water and industrial wastewaters associated with the construction of FPL's Turkey Point Units 6 & 7. These units, Units 6 & 7, are not anticipated to become operational for several years. Operational testing shall not include wastewaters produced from the operation of Units 6 & 7. The operational testing period of DIW-1 will not exceed two years and, in order to continue injecting, an operation permit will be required once operational testing has been completed.

IN ACCORDANCE WITH: The Application to Construct DEP Form No. 62-528.900(1) received on 28 January 2013 and technical specifications, drawings, plan of study and addenda submitted to this agency.

LOCATION: Within the FPL Turkey Point Power Plant property and south of the intended plant island for the proposed Units 6 & 7

The injection and monitoring wells at this facility are constructed as follows:

Injection Well:

<i>Well Name</i>	<i>WACS Effluent Testsite ID</i>	<i>Total Well Depth</i>	<i>Outside Diameter (inches)</i>	<i>Interval Type</i>	<i>Interval (feet bpl)</i>
DIW-1		3230 feet bpl	64	Pit Casing	0–33
			54	Surface Casing	0–255
			44	Intermediate	0–1090
			34	USDW Casing	0–1535
			24	Final Casing	0–2985
			18.11	FRP tubing	0–2975

Monitoring Well

<i>Well Name</i>	<i>WACS Monitoring Well Testsite ID</i>	<i>Outside Diameter (inches)</i>	<i>Interval Type</i>	<i>Depth Cased (ft bpl)/Total (ft bp)</i>
DZMW-1		16	Upper	1450–1490
DZMW-1		5.97	Lower	1860–1905

SUBJECT TO: Specific Conditions I–IX and General Conditions 1–24

Specific Conditions

I. GENERAL REQUIREMENTS

1. This permit is the authorization to convert Class V Exploratory Well EW-1 authorized by permit number 293962-001-UC to the Class I injection well identified as DIW-1 as well as to commence operational testing. This permit does not authorize the construction or operational testing of any other well or wells. [62-528.440(2)(a)]
2. No underground injection is allowed that causes or allows movement of fluid into a USDW if such fluid movement may cause a violation of any Primary Drinking Water Standard or may otherwise affect the health of persons. [62-528.440(2)(c)]
3. In the event a well must be plugged or abandoned, the permittee shall obtain a permit from the Department as required by Chapter 62-528, Florida Administrative Code. When no longer used for their intended purpose, these wells shall be properly plugged and abandoned. Within 180 days of well abandonment, the permittee shall submit to the Department the proposed plugging method, pursuant to Rule 62-528.460, F.A.C. [62-528.460(1) and 62-528.435(6)]

4. If injection is intended to continue beyond the expiration date of this permit the permittee shall apply for, and obtain an operation permit. If necessary to complete the two-year operational testing period, the permittee shall apply for renewal of the construction permit at least 60 days prior to the expiration date of this permit. [62-528.307(2)(a)]

II. SITE REQUIREMENTS

This section has been simplified. Usually the permit conditions in this section pertain to well construction activities, however, the well proposed for Class I injection and the well proposed for the monitoring well have been constructed.

1. Hurricane Preparedness – Upon the issuance of a “Hurricane Watch” by the National Weather Service, the preparations to be made include but are not necessarily limited to the following:
 - a. Secure all on-site salt and stockpiled additive materials to prevent surface and/or groundwater contamination.

III. CONSTRUCTION AND TESTING REQUIREMENTS

This section has been reduced since the permit conditions in this section pertain to well construction and associated testing, however, the well proposed for Class I injection and the well proposed for the monitoring well have been constructed.

A. Mechanical Integrity

1. Mechanical Integrity.
 - a. Injection is prohibited until the permittee affirmatively demonstrates that the well has mechanical integrity. A pressure test was previously and successfully demonstrated on June 21, 2012, therefore only a radioactive tracer survey (RTS) shall be required to complete this mechanical integrity test (MIT). Prior to operational testing the permittee shall establish, and thereafter maintain the mechanical integrity of the well at all times.
 - b. If the Department determines that the injection well lacks mechanical integrity, written notice shall be given to the permittee. The pressure test was performed and passed on 21 June 2012.
 - c. 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 subparagraph d below.
 - d. The Department shall allow the permittee to continue operation of a well that lacks mechanical integrity if the permittee has made a satisfactory demonstration that fluid movement into or between underground sources of drinking water is not occurring.
[62-528.307(2)(f)]
2. Mechanical integrity of each injection well shall be determined pursuant to Rule 62-528.300(6)(b) and (c), F.A.C. For wells with a fluid-filled casing/tubing annulus, this includes both annular monitoring and a pressure test of the casing/tubing annulus initially and every 5 years thereafter.

3. Verification of pressure gauge calibration must be provided to the Department representative at the time of the test and in the certified test report. [62-528.300(6)(f)]
4. The Department must be notified seventy-two (72) hours prior to all testing for mechanical integrity on the injection wells. The testing procedure must be approved by the Department before testing begins. All testing must be initiated during daylight hours, Monday through Friday. An evaluation of all test results must be submitted with all test data. [62-528.300(6)(f)]

B. Surface Equipment

1. The integrity of the monitoring zone sampling systems shall be maintained at all times. Sampling lines for each monitoring zone shall be clearly and unambiguously identified 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 with no interconnections with any other lines. [62-528.307(1)(f) and 62-528.307(3)(b)]
2. Prior to beginning operational testing the surface equipment for the injection well 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. A record shall be maintained at the facility that documents the exercising of the valves. [62-528.307(1)(f) and 62-528.307(3)(b)]
3. The surface equipment and piping for the injection and monitoring wells shall be kept free of corrosion at all times. [62-528.307(1)(f) and 62-528.307(3)(b)]
4. Spillage onto the injection well pad(s) during construction activities, and any waters spilled during mechanical integrity testing, other maintenance, testing or repairs to the system(s) shall be contained on the pad(s) 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(s). [62-528.307(1)(f) and 62-528.307(3)(b)]
5. The injection well pad shall be maintained and retained in service for the life of the injection well. The injection and monitoring well pads are not, unless specific approval is obtained from the Department, to be used for storage of any material or equipment at any time. [62-528.307(1)(f) and 62-528.307(3)(b)]

IV. QUALITY ASSURANCE/QUALITY CONTROL

1. The permittee shall ensure that the construction and operational testing of this injection well system shall be as described in the application and supporting documents. Any proposed modifications to the permit shall be submitted in writing to the Underground Injection Control Program for review and clearance prior to implementation. Changes constituting a minor modification, or less, under Chapter 62-528.355(5), F.A.C. will be reviewed by the Department, approved when appropriate and incorporated into this permit. Changes or modifications other than those described above will require submission of a completed application and appropriate processing fee as per Rule 62-4.050, F.A.C. [62-528.100, 62-4.050]
2. Proper operation and maintenance include effective performance and appropriate quality assurance procedures; adequate operator staffing and training; and adequate laboratory and process controls. [62-528.307(2)(b)]
3. All water quality samples required by this permit shall be collected in accordance with the appropriate Department Standard Operation Procedures (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 of the 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/water/sas/sop/sops.htm>. [62-4.246, 62-160]
4. All indicating, recording, SCADA and totalizing devices associated with the injection well system shall be maintained in good operating condition and calibrated annually at a minimum. Laboratory Agency (USEPA) guidelines as expressed in Standard Methods for the Examination of Water and Wastewater shall be used. The pressure gauges, flow meter, and chart records shall be calibrated using standard engineering methods. [62-528.307(2)(b)]
5. All reports submitted to satisfy the requirements of this permit shall be signed by a person authorized under Rule 62-528.340(1), F.A.C., or a duly authorized representative of that person under Rule 62-528.340(2), F.A.C. All reports required by this permit which are submitted to the Department shall contain the following certification as required by Rule 62-528.340(4), F.A.C.:

“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.”

[62-528.340(1), (2), and (4)]
6. Analyses shall be conducted on unfiltered samples, unless filtered samples have been approved by the UIC Compliance Assurance (CA) section of the Southeast District office of the Department as being more representative of ground water conditions. [62-520.310(5)]

7. Continuous on-site supervision by qualified personnel (engineer and/or geologist, as applicable) is required during all testing and geophysical logging operations. [62-528.440(5)(b)]

V. REPORTING REQUIREMENTS

1. The permittee shall provide copies of all correspondence relative to this permit to the Department's Tallahassee and Southeast District offices. Such correspondence includes but is not limited to reports, schedules, analyses and geophysical logs required by the Department under the terms of this permit. In addition, a copy of the cover letters for final engineering/construction reports and mechanical integrity reports shall be sent to the U. S. Environmental Protection Agency, Region 4, UIC program, 61 Forsyth St. SW, Atlanta, GA 30303-8909. [62-528.430]
2. The permittee shall conduct operational testing of the injection well system to demonstrate that the well can absorb the design and peak daily flows that are expected, prior to granting approval for operational testing. [62-528.450(3)(a)]
3. The short-term injection test request shall contain the following justifications:
 - a. Cement bond logs and interpretation
 - b. Final downhole television survey with interpretation
 - c. Radioactive tracer test results
 - d. Demonstration of mechanical integrity, which shall include Items **1)** through **3)** above, and the pressure testing and temperature logging results (if the test is to be run using non-potable water)
 - e. Reasonable assurance that adequate confinement exists

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- f. Proposed source water to be used. Per Rule 62-528.405(3)(b), F.A.C., if an adequate water supply for the injection test does not exist, and the data collected during drilling provide assurance of the presence of confining bed(s), the applicant shall, after demonstrating mechanical integrity pursuant to Rules 62-528.300(6)(b)2. and (c), F.A.C., be allowed to use an alternate source for testing only with specific prior written authorization from the Department as described in Rule 62-528.100(2), F.A.C. An analysis of the alternate water source according to the table below is required prior to Department approval:

Water Source	Required Analyses
Potable Water	No analysis needed
Domestic Wastewater	A copy of the latest comprehensive analysis submitted to the Department's domestic wastewater program
Desalination Concentrate or Other Industrial Wastewater	A copy of the latest comprehensive analysis submitted to the Department's industrial wastewater program. If more than one year old, sample the water for the parameters required for monthly monitoring of the wastewater in Specific Condition VII.
Ground Water	Sample the water for: • total dissolved solids (mg/L) • chloride (mg/L) • specific conductance (temperature compensated, $\mu\text{mho/cm}$ or $\mu\text{S/cm}$) • total suspended solids (TSS) (mg/L) • nitrogen, ammonia, total as N (mg/L) • nitrogen, total Kjeldahl as N (TKN, mg/L) • nitrogen, nitrate, total as N (mg/L) • sodium (mg/L) • potassium (mg/L) • calcium (mg/L) • magnesium (mg/L) • total iron (mg/L) • bicarbonate (mg/L) • phosphorous, total as P (mg/L) • pH (standard units, s.u.) • sulfate, total as SO_4 (mg/L) • field temperature ($^{\circ}\text{C}$) • gross alpha ($\rho\text{Ci/L}$) • combined radium-226 and radium-228 ($\rho\text{Ci/L}$)
Surface Water	The water as above for ground water, with the additional constituents: • total and fecal coliform (cts/100ml), • <i>E. coli</i> (cts/100ml), <i>Enterococci spp.</i> (cts/100ml), and • Turbidity (NTU).

- g. Planned injection testing procedures.
 [62-528.405(3)(b)]

VI OPERATIONAL TESTING AND MONITORING REQUIREMENTS

A. Operational Testing

1. Prior to operational testing, the permittee shall comply with the requirements of rule 62-528.450(3)(a),(b), and (c), F.A.C. [62-528.307(2)(e)]
2. The operational testing of the Class I injection well system under this permit shall not commence without written authorization from the Department. [62-528.450(3)(b)]
3. Prior to operational testing approval, the following items must be submitted (with the request for operational testing approval) for Department review and approval:
 - a. Lithologic and geophysical logs with interpretations.
 - b. A copy of the borehole television survey(s) or borehole televiewer log(s) of the injection well with interpretation.
 - c. Certification of mechanical integrity and interpreted test data.
 - d. Results of the short-term injection test with interpretation of the data.
 - e. A description of the actual injection procedure including the anticipated maximum pressure and flow rate at which the well will be operated under normal and emergency conditions.
 - f. Information concerning the compatibility of the injected wastewater with fluids in the injection zone and formation in both the injection zone and the confining zone.
 - g. Certification of completion of well construction from water well contractor and certification by the Engineer of Record that permit conditions are met.
 - h. Surface equipment (including piping, pressure gauges and flow meters, and all appurtenances) installation certified by the Engineer of Record.
 - i. A survey indicating the exact location in metes and bounds of all wells authorized by this permit shall be provided prior to issuance of an operating permit. Draft operation and maintenance manual, including a description of surge and water hammer control and emergency discharge management plan procedures. The emergency discharge system must be fully constructed and operational (ready to operate) prior to approval of operational testing.
 - j. Calibration certificates for pressure gauges and flow meters.
 - k. Signed and sealed record "as-built" engineering drawings of the injection well system including all well construction, subsurface and surface piping and equipment, and appurtenances.
 - l. Demonstration of confinement and definition of the injection and confining sequences shall utilize data collected during the drilling, logging and testing of the injection and monitoring wells. This submittal shall be prepared, signed, and sealed by a Florida Registered Professional Geologist or appropriately qualified Professional Engineer.
 - m. Background water quality data from the monitoring and injection zones, analyzed for primary and secondary drinking water standards (62-550, F.A.C.) and minimum criteria parameters (62-520, F.A.C.) as attached. (The results submitted as part of the Facility's request for Department authorization to conduct injection testing may be referenced.)

- n. Other data obtained during well construction needed by the Department to evaluate whether the well will operate in compliance with Department Rules. [62-528.450 (3)(a)3.i. and 62-528.455(1)(c)6]
- 4. Prior to operational testing, the permittee shall comply with the requirements of Rule 62-528.450(3)(a),(b), and (c), F.A.C.
- 5. Pressure gauges and flow meters shall be installed on the injection well prior to initiating injection activities at the site. [62-528.450(3)(a)]
- 6. Prior to the authorization of operational testing by the Department, the permittee shall contact the UIC CA Section of the Department, Southeast District, to arrange a site inspection. The inspection will determine if the conditions of the permit have been met and to verify that the injection well system is operational. During the inspection, emergency procedures and reporting requirements shall be reviewed. [62-528.450(3)(c)]
- 7. The Engineer of Record or designated qualified representative must be present for the start-up operations and the Department must be notified in writing of the date operational testing commenced for the subject well. [62-528.440(5)(b)]

B. Monitoring

- 1. To assist the permittee in the submission of monitoring data required by this permit, a standardized data form has been developed and is attached to this permit. Use of these forms is encouraged.
 - a. If the permittee chooses to use the standardized forms provided, the monthly submittal will include the standardized reporting forms, laboratory pages and any supporting documents. The report may be sent via electronic mail as an Adobe™ PDF to the following UIC Program e-mail addresses:
 - i. District e-mail
 - ii. Tallahassee e-mail
 - b. If the permittee prefers to use a data reporting format other than the attached forms, the following identifying information must be included on each data sheet:
 - i. Facility Name
 - ii. Well Name
 - iii. UIC Permit Number
 - iv. WACS Facility ID
 - v. WACS Testsite ID
 - vi. WACS Testsite Name

The monthly submittal shall include the permittee's reporting forms, signatory pages, laboratory pages and supporting documents. A paper copy of the monthly submittal should be sent to Department staff at the following addresses:

UIC CA
Southeast District Office FDEP
400 N. Congress Ave – 3rd Floor
West Palm Beach FL 33401
33401-2912

FDEP
MS 3530
UIC Program
2600 Blainstone Rd
Tallahassee FL 32399-2400

[62-528.307(3)(d)]

- c. Submission of the monthly operating report (MOR) submittal shall begin with the commencement of operational testing.

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M - Monthly; Q- Quarterly; W - Weekly

^a - Operational data reporting for flows, pressures and water levels: daily max, min and average from continuous reporting; monthly max, min and average (calculated from daily averages).

^b - Field samples

Weekly monitoring well parameters may be requested to be reduced to monthly after a 6-month testing period and written Department approval.

^c - Prior to the injection of any wastewater stream the permittee shall provide anticipated water quality data for that wastewater stream for the Department to review and approve. Upon review of this data the Department may amend the monitoring program requirements.

3. A record shall be included in each MOR that documents the monthly exercising of valves. For each valve, this record shall include the valve identification number (tag), type of valve, date and time when exercised, and the initials of operator(s) performing the work. The record shall be maintained at the facility and shall be available for review by FDEP personnel at all times.
[62-528.430(2)(b)2.b.]
4. The well shall be shut-in for a period of time necessary to conduct a valid observation of pressure fall-off on an annual basis. [62-528.430(2) (b) and (d); 62-528.450(3)(b)6.]
5. Pertaining to the evacuation (purging) of the monitoring well(s), which is required prior to the collection of samples for the Monthly Operating Reports (MORs), the facility may elect to follow either one of the following two purging protocols:
 - a. The protocol stated below:
A minimum of three well volumes of fluid shall be evacuated from the monitoring systems prior to sampling for the chemical parameters listed above. Sufficient purging shall have occurred when either of the following has occurred:
 - 1) pH, specific conductance 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.

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b. The following protocol taken from DEP-SOP-001/01(Field Procedures):

- 1) Purge until the water level has stabilized (well recovery rate equals the purge rate), then purge a minimum of one well volume, and then collect the first set of stabilization parameters, namely pH, specific conductance and temperature;
- 2) Thereafter, collect stabilization parameters $\geq$ every $\frac{1}{4}$ well volume;
- 3) Purging shall be complete when either of the following have occurred:
 - a) 3 consecutive readings of the parameters listed below are within the following ranges^[1]:
 - pH $\pm$ 0.2 Standard Units
 - Specific Conductance $\pm$ 5.0% of reading
 - Temperature $\pm$ 0.2°C
 - b) Upon purging the fifth well volume.

[62-160.210(1) and 62-528.430(2)]

6. The flow from the monitoring zones during well evacuation and sampling shall not be discharged to aquifers containing an Underground Sour
7. ce of Drinking Water (USDW). Disposal authorization requests shall be submitted for review and approval prior to, or with, the operational testing request . Operational testing wastewaters are expected to consist of the following sources at the indicated maximum rates:

- Dewatering water produced from the site preparation for Unit 6 and Unit 7 — 5000 gallons per minute (gpm)
- Hydrostatic tank testing waters — 5000 gpm
- Radial collector well development water — 5000 gpm
- Concrete Batch Plant wash down, miscellaneous equipment facilities wash down, and miscellaneous non-hazardous industrial wastewaters — 550 gpm

[62-4.030, 62-620.320]

8. The permittee shall submit monthly to the Department the results of all injection well and monitoring well data required by this permit 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, [Name] District Office, [Address]. 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, Florida 32399-2400. [62-528.307(2)(d)]

^[1] Provided dissolved oxygen in the groundwater of the zone being monitored is $\leq$ 20% of saturation for the measured temperature and turbidity is $\leq$ 20 NTUs. This assumption holds true for groundwater in most zones of the Floridan aquifer.

VII. 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 or destruction by hazard of fire, wind, or by other cause, the permittee's representative of the facility shall notify the Department. [62-528.415(4)(a)]
 - a. Notification shall be made in person, by telephone, or by electronic mail (e-mail) within 24 hours of breakdown or malfunction to the UIC Compliance Assurance (CA) section of the Southeast District office of the Department. [62-528.307(1)(x)]
 - b. A written report of any noncompliance referenced in Specific Condition (1) above shall be submitted to the UIC CA section of the Southeast District office of the Department and the Tallahassee office 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. [62-528.415(4)(b)]
2. The Department shall be notified immediately of any problems that may seriously hinder compliance with this permit, construction progress or good construction practice. The Department may require a detailed written report describing the problem, remedial measures taken to assure compliance and measures taken to prevent recurrence of the problem. [62-528.415(4)(b)]

VIII. EMERGENCY DISPOSAL

1. All applicable federal, state and local permits must be in place to allow for any alternate discharges due to emergency or planned outage conditions. [62-528.415(4)(c)1]
2. Any proposed changes in emergency disposal methods shall be submitted for Departmental review for approval prior to implementation. [62-528.415(4)(c)]
3. The emergency disposal method must be fully operational in the event of planned or emergency outages of the injection well system prior to the initiation of operational testing. [62-528.415(4)(c)2]

IX. FINANCIAL RESPONSIBILITY

1. The permittee shall maintain at all times the financial resources necessary to close, plug, and abandon the injection and associated monitoring wells. [62-528.435(9)]
2. The permittee shall update the costs for plugging and abandonment every 2½ years. Upon the occurrence of the annual plugging and abandonment cost estimate exceeding, by 10 percent or more, the cost estimate upon which the current financial responsibility is based; the permittee shall submit to the Department certified financial documentation necessary to amend, renew, or otherwise replace the existing financial responsibility pursuant to Rule 62-528.435(9)(b), F.A.C. and the conditions of this permit. [62-528.435(9)(b)]
3. In the event that the mechanism used to demonstrate financial responsibility should become insufficient or invalid for any reason, the permittee shall notify the Department of Environmental Protection in writing within 14 days of such insufficiency or invalidation. The permittee shall within 90 days of said notification submit to the Department for approval new financial documentation certifying either the remedy of current financial insufficiency or resolution of the financial instrument invalidation in order to comply with Rule 62-528.435(9)(b), F.A.C, and the conditions of this permit. [62-528.435(9)(b)]

General Conditions

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. [62-528.307(1)(a)]
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. [62-528.307(1)(b)]
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. [62-528.307(1)(c)]
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. [62-528.307(1)(d)]

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 there from; 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. [62-528.307(1)(e)]
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. [62-528.307(1)(f)]
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.
 - d. Reasonable time will depend on the nature of the concern being investigated.[62-528.307(1)(g)]
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.[62-528.307(1)(h)]
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. [62-528.307(1)(i)]

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. [62-528.307(1)(j)]
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. [62-528.307(1)(k)]
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
[62-528.307(1)(l)]
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:
 - i. the date, exact place, and time of sampling or measurements;
 - ii. the person responsible for performing the sampling or measurements;
 - iii. the dates analyses were performed;
 - iv. the person responsible for performing the analyses;
 - v. the analytical techniques or methods used;
 - vi. 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.[62-528.307(1)(m)]
14. All applications, reports, or information required by the Department shall be certified as being true, accurate, and complete. [62-528.307(1)(n)]
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. [62-528.307(1)(o)]
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. [62-528.307(1)(p)]

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. [62-528.307(1)(q)]
18. The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit. [62-528.307(1)(r)]
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. [62-528.307(1)(s)]
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. [62-528.307(1)(t)]
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. [62-528.307(1)(u)]
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). [62-528.307(1)(v)]
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. [62-528.307(1)(w)]

[intentionally blank]

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.
 - c. Any information shall be provided verbally or by electronic mail within 24 hours, including weekends, from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 calendar 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.
[62-528.307(1)(x)]

Issued this 29th day of July, 2013

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION



J. S. Creech, P.E.
Southeast District Director



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Jonathan P. Steverson
Secretary

May 25, 2016

Responsible Official:

Matthew Raffenberg, Env. Services Director
700 Universe Boulevard
Juno Beach, Florida 33408
Matthew.Raffenberg@FPL.com

Permittee:

Florida Power & Light Company (FPL)

Permit/Certification

Miami-Dade County UIC
Permit ID Number: [0293962-003-UC/MM](#)
WACS ID Number: [101172](#)

Facility:

FPL – Turkey Point Power Plant
9760 Southwest 344th Street
Florida City, Florida

Class I Injection Well System
Minor Modification

RE: Minor Modification to FDEP Permit 0293962-002-UC to allow the inclusion of Biscayne aquifer groundwater disposal directed to the injection well.

Dear Mr. Raffenberg:

The Florida Department of Environmental Protection (Department or FDEP) acknowledges the receipt of your request on April 25, 2015, for modification to FDEP permit number 0293962-002-UC. The request is for the inclusion of hypersaline groundwater from proposed groundwater extraction wells to the permitted injection wastestream components.

Based on the information provided to the Department, the Department hereby approves the above minor modification to FDEP Permit Number 0293962-002-UC under FDEP Permit Modification Number 0293962-003-UC/MM. Permit conditions are added as follows:

1. This modification authorizes the injection of non-hazardous groundwater from extraction wells completed in the Biscayne aquifer at the FPL Turkey Point Facility.
2. This modification authorizes a short-term injection test of up to 24 hours at a rate of approximately 15 million gallons per day using Biscayne aquifer groundwater, as detailed in the May 20, 2016 response to the Department's request for information.
3. A report on the short-term test results with interpretation of the data shall be submitted to the Department within 90 days after completion. Operational testing with Biscayne aquifer groundwater shall not begin until Department authorization has been issued.
4. Prior to operational testing, the permittee shall submit background water quality data from the Biscayne aquifer extraction well to be used for operational testing, analyzed for primary

PERMITTEE: Mr. Matthew Raffenberg, Env. Services Director
Florida Power & Light – Turkey Point Power Plant
Class I Injection Well System

Facility ID No.: 101172
Permit ID No.: 0293962-003-UC/MM
Date: May 25, 2016

and secondary drinking water standards (62-550, F.A.C.) excluding asbestos, dioxin, butachlor, acrylamide, and epichlorohydrin.

5. Department authorization to begin operational testing with Biscayne aquifer groundwater will include a revision of the operational testing monitoring schedule of specific condition VI.B.2. of the construction permit no. 293962-002-UC, and will include a revised maximum flow rate and maximum daily volume based on the short-term injection test results.

This minor modification becomes a part of and must be attached to Permit 0293962-002-UC. All other permit conditions and specifications remain in effect

NOTICE OF RIGHTS

This action is final and effective on the date filed with the Clerk of the Department unless a petition for an administrative hearing is timely filed under sections 120.569 and 120.57, Florida Statutes, before the deadline for filing a petition. On the filing of a timely and sufficient petition, this action will not be final and effective until further order of the Department. Because the administrative hearing process is designed to formulate final agency action, the hearing process may result in a modification of the agency action or even denial of the application.

Petition for Administrative Hearing

A person whose substantial interests are affected by the Department's action may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57, Florida Statutes. Pursuant to rule 28-106.201, Florida Administrative Code, a petition for an administrative hearing must contain the following information:

- a) The name and address of each agency affected and each agency's file or identification number, if known;
- b) The name, address, and telephone number of the petitioner; the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests are or will be affected by the agency determination;
- c) A statement of when and how the petitioner received notice of the agency decision;
- d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
- e) A concise statement of the ultimate facts alleged, including the specific facts that the petitioner contends warrant reversal or modification of the agency's proposed action;
- f) A statement of the specific rules or statutes that the petitioner contends require reversal or modification of the agency's proposed action, including an explanation of how the alleged facts relate to the specific rules or statutes; and
- g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wishes the agency to take with respect to the agency's proposed action.

PERMITTEE: Mr. Matthew Raffenberg, Env. Services Director
Florida Power & Light – Turkey Point Power Plant
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The petition must be filed **(received by the Clerk)** in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000. Also, a copy of the petition shall be mailed to the applicant at the address indicated above at the time of filing.

Time Period for Filing a Petition

In accordance with rule 62-110.106(3), Florida Administrative Code, petitions for an administrative hearing by the applicant must be filed within 21 days of receipt of this written notice. Petitions filed by any persons other than the applicant, and other than those entitled to written notice under section 120.60(3), Florida Statutes, must be filed within 21 days of publication of the notice or within 21 days of receipt of the written notice, whichever occurs first. Under section 120.60(3), Florida Statutes, however, any person who has asked the Department for notice of agency action may file a petition within 21 days of receipt of such notice, regardless of the date of publication. The failure to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57, Florida Statutes, or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the discretion of the presiding officer upon the filing of a motion in compliance with rule 28-106.205, Florida Administrative Code.

Extension of Time

Under rule 62-110.106(4), Florida Administrative Code, a person whose substantial interests are affected by the Department's action may also request an extension of time to file a petition for an administrative hearing. The Department may, for good cause shown, grant the request for an extension of time. Requests for extension of time must be filed with the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, before the applicable deadline for filing a petition for an administrative hearing. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

Mediation

Mediation is not available in this proceeding.

Judicial Review

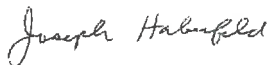
Once this decision becomes final, any party to this action has the right to seek judicial review pursuant to section 120.68, Florida Statutes, by filing a Notice of Appeal pursuant to rules 9.110 and 9.190, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, M.S. 35, 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 action is filed with the Clerk of the Department.

PERMITTEE: Mr. Matthew Raffenberg, Env. Services Director
Florida Power & Light – Turkey Point Power Plant
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Date: May 25, 2016

Should you have any questions, please contact the undersigned or [Neil I. Campbell](#) of this office at 850.245.8612. When referring to this authorization, please reference the above date and file number.

Sincerely,



Joseph Haberfeld, P.G.
Aquifer Protection Environmental Administrator
Tallahassee
JH/NIC

PERMITTEE: Mr. Matthew Raffenberg, Env. Services Director
Florida Power & Light – Turkey Point Power Plant
Class I Injection Well System

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CERTIFICATE OF SERVICE

The undersigned designated clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on Wednesday, May 25, 2016, to the listed persons.

FILING AND ACKNOWLEDGMENT

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



Clerk

May 25, 2016

Date

Copies Furnished To:

Joseph Haberfeld, FDEP/TLH

Neil Campbell, FDEP/TLH

George Heuler, FDEP/TLH

Len Fishkin, FDEP/SED

Pat Brunette, ES/EC

David McNabb, P.G./ MHC, Inc.

Richard Cowles, ES/EC

Hope Cates, FDEP/TLH

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