

FACT SHEET

Rockledge Wastewater Treatment Facility
Permit ID Number: 0195980-004-UO/1M
WACS ID Number: 16611
July 16, 2014

1. General Information

A. Statutory Basis For Requiring/Issuing Permit

The Department has permitting jurisdiction under Chapter 403, Florida Statutes (F.S.), and the rules adopted thereunder. The project is not exempt from permitting procedures. The Department has determined that an operation permit is required for the project.

B. Name and Address of Applicant

James P. McKnight, City Manager
City of Rockledge
1600 Huntington Lane
Rockledge, Florida 32955-2660

C. Facility Location

Rockledge Wastewater Treatment Facility
1700 South Jack Oates Boulevard
Rockledge, Florida 32955

D. Description of Applicant's Operation

The Rockledge Wastewater Treatment Facility (WTF), located at 1700 Jack Oates Boulevard, Rockledge, in Brevard County, Florida, operates a Class I injection well and two monitoring wells. The injection well system consists of one 20-inch diameter injection well (IW-1) with a total maximum daily average allowable injection rate of 6.4 million gallons per day. The ground water monitoring system consists of two on-site monitor wells (deep and shallow), which ensure that injected effluent from the WRF is not migrating upward out of the injection zone, and possibly endangering the overlying aquifers. The facility is located at 27°19'44" North, 80°43'28" West.

E. Permitting History of this Facility

1. October 4, 1989 - Construction permit UC05-161506 issued by FDER to construct and test one Class I injection well and two monitor wells.
2. February 5, 1992 - extension of Construction permit UC05-161506 to March 31, 1993.
3. January 19, 1993 - extension of Construction permit UO05-161506 from March 31, 1993 to September 31, 1993.
4. August 11, 1993 - Construction permit UC05-161506 extended to December 31, 1993.
5. November 5, 1993 - Construction permit UC05-161506 extended to February 5, 1994.

6. May 7, 1997 – Operation Permit UO05-241529 issued.
7. December 11, 2003 – Operating Permit 05-0195980-001.
8. December 12, 2009 – Operating Permit 05-0195980-003.

F. Documents Used in Permitting Decision

1. "Construction and Testing of a Test/Injection Well at the Rockledge Wastewater Treatment Plant, City of Rockledge, Florida" *Hydro-Designs, Inc.*, August 1991.
2. "Operation and Maintenance Manual for the City of Rockledge Wastewater Treatment Plant" – January 1996.
3. City of Rockledge Injection Well, "Mechanical Integrity Test" Report by *Jones Edmunds & Associates, Inc.*, September 21, 2010.
4. "City of Rockledge, Underground Injection Control, Class I Deep Injection Well, Operation Repermitting Application", by *Jones Edmunds & Associates, Inc.*, June 2014.
5. Financial Responsibility Documentation dated October 20, 2008.

2. Reasons Permit was Issued

A. Area of Review (Rule 62-528.440(6), F.A.C.)

The Area of review for this project is one (1) mile. A search of public records indicates no wells needing corrective action and no adverse impact upon water resources.

B. Mechanical Integrity Demonstration (Rule 62-528.300.(6), F.A.C.)

Mechanical Integrity testing (MIT) was conducted in August and September 2010, by Jones Edmunds & Associates, Inc. The injection well tests included:

- downhole video survey – August 30, 2010 operated through the entire final casing at 1955 feet below pad level (bpl) and open hole portion of the well to a depth of 2,670 feet (bpl); log was not run to total depth due to loss of visibility below 2,670 feet; no defects were revealed in the final casing, but some organic scaling was noted on the casing.
- Casing pressure test was completed on September 21, 2010 to test internally for leaks in the final casing; test began with a packer set to 102.5 psi, and completed at 99.0 psi; the decrease was approximately 3.5 percent during the 65 minute test period marks a successful completion.
- Radioactive tracer test – September 2, 2010 iodine tracer was injected into the bottom of the casing for two dynamic test runs; results demonstrate that the injection well has mechanical integrity.

FDEP personnel witnessed all MIT demonstrations. See document 3 for details.

C. Underground Source of Drinking Water (Rule 62-528.405(1)(a), F.A.C.)

The Underground Source of Drinking Water (USDW), is measured by water quality that consists of total dissolved solids (TDS) concentration of less than 10,000 milligrams per liter (mg/L). Below the USDW, the TDS is greater than 10,000 mg/L. The USDW in the Rockledge vicinity is found at approximately 1,200 feet bls. Long-term operation and monitoring at the Rockledge WTP indicate that water injected into the injection zone is fully contained below the USDW. See Documents 1 & 4 for more details.

D. Confinement (Rule 62-528.405(2), F.A.C.)

The Avon Park Formation underlies the facility and provides a confining sequence with the upper portion of the Oldsmar Limestone from a depth of 1,550 to 1,980 feet bls. The Oldsmar Limestone extends to the base of the open hole portion of the well, at a depth of 2,720 feet bpl. The lower portion of the well is a dolomitic unit of the Oldsmar that contains the Boulder Zone, a very porous dolomite that receives the injectate from the well.

E. Injection Zone Testing (Rule 62-528.405(2), F.A.C.)

The injection zone extends from 1955 feet to 2720 feet bls. The injection interval is composed of the Eocene age Oldsmar Limestone that includes the Boulder Zone. The lithology that composes the Oldsmar is predominantly dolomite. Injection zone testing consisted of injection tests, geophysical logging, packer testing, and water quality sampling. These indicate the injection zone is sufficiently permeable and saline for injection. See document 1 for details.

F. Well Construction

IW-1:

- 48" steel casing set to 159 feet, thickness is 0.375 inches
- 38" steel casing set to 460 feet, thickness is 0.375 inches
- 30" steel casing set to 1653 feet, thickness is 0.375 inches
- 20" steel casing set to 1955 feet, thickness is 0.50 inches

Total Well Depth 2,720 feet; (see documents 1 & 4 for figure, details)

G. Monitor Plan (Rule 62-528.425(1), F.A.C.)

Two monitor wells (deep and shallow, with monitor zones from 900 to 950 feet, and 1,338 to 1,388 feet, respectively) make up the monitoring system at the facility. The monitor wells are both located on the concrete pad with the injection well, at a distance of 51 feet northeast and 133 feet east northeast of the injection well, respectively. The shallow monitor well monitors approximately 200 feet bpl above the USDW base. The deep injection well monitors a zone approximately 200 feet below the USDW base.

Required injection well monitoring parameters include daily injection volume, flow rate and pressure, and monthly monitoring of the effluent stream for the parameters listed in the specific conditions of the operation permit. Monthly monitor well sampling includes water

levels/pressures and samples for the parameters listed in the specific conditions of the operation permit.

H. Financial Responsibility (Rule 62-528.435(9) and 62-528.455(3)(b)8. and (c)3., F.A.C.)

Financial Responsibility was approved October 20, 2008, as demonstrated by Local Government Guarantee. The City updated its cost estimate in 2014 and discovered that the amount was actually less than the previous estimate, and therefore the City is not required to provide an updated Financial Assurance demonstration.

I. Emergency Discharge (Rule 62-528.450(2)(k), F.A.C.)

Emergency Disposal would be directed into the Indian River. This permit does not contain authorization for surface water discharge.

3. Agency Action

A draft permit will be issued as per Rule 62-528.325, F.A.C.

4. Public Rights (Rules 62-528.310, 62-528.315, 62-528.325, F.A.C.)

The Department will accept written comments on the draft permit and /or a request for a public meeting within 30 days following publication of the Notice of Draft Permit. [Public notice is pursuant to section 403.815, F.S., and Rule 62-110.106(12), F.A.C.] A public meeting will be held in the area of the injection project no less than 30 days after publication of this Notice for the purpose of receiving verbal and written comment concerning this project. The public meeting will be held at _____, Florida on _____ at _____, for the purpose of receiving verbal and written comment concerning this project. Comments received within the 30 day period and during the public meeting will be considered by the Department in formulating a final decision concerning this project. Please contact Neil I. Campbell at 850.245.8612 for additional information concerning this project. Comments can be mailed to the Department of Environmental Protection, Mr. Neil Campbell, MS 3530 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

After the conclusion of the public comment period and public meeting described above, the Department may revise the conditions of the permit based on such public comment. Then the applicant will publish Notice of the Proposed Agency Action. A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing). Accordingly, the Department's final action may be different from the position taken by it in the Notice of Proposed Agency Action. The petition must conform to the requirements specified in the Notice and be filed (received) within 14 days of publication of the Notice in the Department's Office of General Counsel, MS 35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000. The failure of any person 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 of the 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 only be at the discretion of the presiding officer upon the filing of a motion in compliance with rule 28-106.205 of the Florida Administrative Code.

The application and draft permit are available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at the Department of Environmental Protection, [Central District Office](#), 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767 or at the Department of Environmental Protection, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Please contact Mr. Neil Campbell at 850.245.8612 for additional information concerning this project.

5. Agency Contact

[Neil I. Campbell](#), Engineering. Specialist, Aquifer Protection Program
Florida Department of Environmental Protection
2600 Blair Stone Road, MS 3530
Tallahassee, Florida 32399-2400
Phone: 850.245.8612