

FACT SHEET

Hialeah Reverse Osmosis Water Treatment Plant

Permit ID Number: 0289249-002, 003-UC

WACS ID Number: 97674

July 14, 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

Amando Vidal, PE, Director
City of Hialeah Department Public Works
501 Palm Avenue
Hialeah, Florida, 33010

C. Facility Location

City of Hialeah Reverse Osmosis Water Treatment Plant
16500 Northwest 97th Avenue
Hialeah, Florida, 33018

D. Description of Applicant's Operation

The Hialeah Reverse Osmosis (RO) Water Treatment Plant (WTP) is a UIC Class I injection well facility with two deep injection wells (IW-1 & IW-2) constructed with 24-inch steel casing to a depth of 2976 feet below land surface (bls), and 16-inch fiberglass (FRP) tubing to a depth of 2,935 feet bls with a fluid-filled annulus. Operational testing of the two injection wells began under construction permit 0289249-001-UC, issued July 22, 2009. This construction permit renewal is needed to continue operational testing while the City prepares to submit an operation permit application. The project is located at the Hialeah WTP, 16500 NW 97th Ave., Hialeah, in Miami-Dade County. The deep injection wells are to be used for the disposal of RO desalination concentrate, at a maximum design rate of 2.5 million gallons per day (mgd) or 1739 gallons per minute.

E. Permitting History of this Facility

1. UIC Permit #0289249-001-UC, July 22, 2009 to July 21, 2012.
2. UIC Permit Extension #0289249-001-UC, July 21, 2012 to July 21, 2014.

F. Documents Used in Permitting Decision

1. Application for Class I Injection Well Construction Permit, AECOM, May 2014.
2. Financial Responsibility demonstration completed June 9, 2014.
3. Response to FDEP Request for further Information by AECOM, June 17, 2014.
4. Injection Well Completion Report, Schlumberger Water Services, November 12, 2010.
5. Operation and Maintenance Manual, Schlumberger Water Services, January 2013.

2. Reasons Permit was Issued

A. Area of Review (Rule 62-528, 440(6), F.A.C.)

The Area of Review of this project is 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.)

1. Internal mechanical integrity was demonstrated for IW-1 on March 17, 2010 by a one hour pressure test on the cemented 24-inch casing at 153 psi and on May 13, 2010 by a one hour pressure test on the casing/ tubing annulus at 160 psi. Internal mechanical integrity was demonstrated for IW-2 on April 5, 2010 by a one hour pressure test on the cemented 24-inch casing at 155 psi and on May 5, 2010 by a one hour pressure test on the casing/ tubing annulus at 159 psi. The pressure change was within the 5 percent allowed by the Department, indicating there is no leak in the injection tubing, casing, or packer.
2. A temperature log and radioactive tracer survey were run on May 18, 2010 on IW-1 and on May 13, 2010 on IW-2. The logs indicate no fluid movement into an underground source of drinking water (USDW) through channels adjacent to the well bore.

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

The base of the lowermost Underground Source of Drinking Water (USDW) occurs in the Avon Park Formation at 1,875 feet bls at this location. The depth of the 10,000 mg/L total dissolved solids (TDS) interface and the background water quality of the monitoring zones was determined by geophysical logging, water samples taken during drilling, and packer tests.

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

Confinement between the base of the Underground Source of Drinking Water (USDW) at 1,875 feet below land surface (bls) and the top of the injection interval at 2,975 feet bls was demonstrated during well construction, comprising portions of the Oldsmar and Avon Park limestone formations.

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

Injection zone testing at IW-1 & -2 was performed at the rate of 2.5 MGD, and consisted of a 24-hour background phase, 12-hour injection phase, and a 24-hour recovery phase.

Construction information on water quality and lithology was used to determine suitability for injection. The injection zone is in dolomite and limestone of the Oldsmar Formation between 2,975 and 3,505 feet bls.

F. Well Construction

IW-1 and IW-2:

52" outer diameter (OD) (0.375" thick) steel conductor casing set to 155 feet bls

42" OD (0.375" thick) steel surface casing set to 1075 feet bls

34" OD (0.375" thick) steel casing set to 1,900 feet bls

24" OD (0.50" thick) seamless pipe set to 2,974 feet bls

16"OD FRP injection tubing set to 2,935 feet bls; annulus is fluid-filled

Total well depth is 3505 feet bls

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

The dual zone monitor well (DZMW-1 is located midway between IW-1 and -2, separated from each by approximately 150 feet. The monitor intervals are located below the base of the USDW, at 1,900-1,950 feet and 2,190-2,260 feet bls. Required parameters to be monitored during the operational testing phase of the permit include daily injection volume, continuous flow rate, injection and annular pressure; monitoring of the injectate for chemical parameters; pressure falloff testing; continuous monitor well pressure; and sampling of the monitor wells for chemical parameters.

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

Financial responsibility demonstration by local government guarantee was approved June 20, 2014.

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

Each injection well may serve as a backup to the other in the event of an emergency.

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 in (city) , Florida on date at time , 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, [Southeast District Office](#), 400 North Congress Avenue, West Palm Beach, Florida 33416-5425 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
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Tallahassee, Florida 32399-2400
Phone: 850.245.8612