

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

**LEE COUNTY SOLID WASTE ENERGY RECOVERY FACILITY
UNIT 3
SUPPLEMENTAL SITE CERTIFICATION APPLICATION
PA 90-30SA1**

**STAFF ANALYSIS REPORT
[REVISED]**

July 11, 2003

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O.E.P. - South District

E.D. Water Discharges

1. Surface Water

Any discharges from the site stormwater system via the emergency overflow structure which results from an event LESS than a ten-year, 24-hour storm (as defined by the U.S. Weather Bureau Technical Paper No. 40, or the DOT drainage manual, or similar documents) shall meet applicable State Water Quality Standards, Chapter 62-302, F.A.C., and Chapter 40-E, F.A.C.

2. Groundwaters

All discharges to groundwaters shall be collected and treated as necessary, or otherwise be of high enough quality, to be able to meet the applicable Water Quality Standards of Sections 62-520.400 and 62-520.420, F.A.C., at the boundary of a zone of discharge approved for each potential pollution source. If monitoring should indicate a violation of the standards, the Licensee shall immediately notify the South District office and SFWMD and institute remedial action.

3. Groundwater Monitoring Program

a. Sampling of the shallow aquifer groundwater quality shall be conducted in at least six well clusters in the site vicinity. At least one of these wells shall be up the hydrologic slope from the facility landfill area to provide current background data. Other wells shall be located down the hydrologic slope from the ground water discharge areas. Specific location of any new wells or modifications to the monitoring program may be proposed by the ~~Licensee~~, but shall be approved by the South District Office prior to the construction of the new monitoring wells.

b. The groundwater monitoring plan submitted August 1992, as modified by April 3, 1996, amendment shall be implemented.

c. Upon completion of construction of the groundwater monitoring system, the following information shall be submitted to the South District Office for all ground water monitoring wells and any new well(s) constructed:

Well identification	Driller's log
Latitude/Longitude	Total depth of well
Aquifer monitored	Casing diameter
Screen type & slot size	Casing type and length
Screen length	SFWMD well construction permit numbers
Elevation at top of pipe	Elevation at land surface

d. Upon completion of construction of the groundwater monitoring

system, but no less than 12 months before the commencement of operation the Licensee shall sample all ground water monitoring wells for the Primary and Secondary Drinking Water parameters included in Chapter 62-550, F.A.C. The specific parameters to be sampled are listed in Sections 62-550.310, 62-550.320 and 62-550, Part V, F.A.C.

e. The field testing, sample collection and preservation and laboratory testing, including quality control procedures, shall be in accordance with Chapter 62-550, Part V, F.A.C. Approved methods as published by the Department or as published in Standard Methods, A.S.T.M. or EPA methods shall be used. Approved methods for chemical analyses are summarized in the Federal Register, December 1, 1976 (41FR52780) except that turbidity shall be measured by the Nephelometric Method.

f. All required submittals shall be sent to the South District Office within 60 days of installation of the ground water monitoring system. Upon receipt and review of the required data, quarterly sampling reports shall be submitted to the South District Office commencing 12 months prior to the operation of the SWERF. Any required modifications of the groundwater monitoring system or program shall be modified in accordance with the provisions of Condition XIII ~~XII~~. The groundwater monitoring program may be reviewed annually.

F E. Solid/Hazardous Waste

1. Incinerator ash, fly ash, spent acid control medias and other forms of solid waste shall be disposed of in a licensed off-site landfill in accordance with all applicable portions of Chapters 62-701 and 62-702, F.A.C., including prohibitions, procedures for closing of the landfill, and final cover requirements, or, as provided in this condition (XV.F. ~~XIV-B.~~) in its entirety. The plans of the final landfill design shall be provided to the South District Office and the Division of Waste Management for review and approval at least 90 days prior to start of operation of the SWERF ~~Unit~~. Review shall be performed in accordance with Condition XIV ~~XIII~~. The final plans for this SWERF shall include provisions for the isolated temporary handling of suspected hazardous, toxic or infectious wastes. The SWERF shall not be operated until a landfill capable of disposing of plant wastes is licensed to operate.

2. No suspected or known hazardous, toxic, or infectious wastes as defined by Federal, State or local statutes, rules, regulations or ordinances shall be burned or landfilled at the site.

3. Rodent and insect control shall be provided as necessary to protect the health and safety of site employees and the public. Pesticides used to control rodents, flies, and other vectors shall be as specified by the Florida Department of Agriculture and Consumer Services.

4. Storage of putrescible waste for processing shall not exceed storage capacity of the refuse bunker or tipping floor as designed on the approved plan.

5. Ash prior to transport to the landfill shall be stored in an enclosed building on an impervious surface. Final disposal of the ash shall be into the lined landfill or other method

- proposed dewatering area(s);
- (1) A detailed site plan which shows the location(s) for the proposed dewatering area(s);
 - (2) The method(s) of dewatering operations;
 - (3) The maximum depth for each dewatering operation;
 - (4) The location and specifications for all proposed wells and/or pumps associated with each dewatering operation;
 - (5) The discharge method, route, and location of receiving waters generated by each dewatering operation, including the measures (Best Management Practices) to be taken to prevent water quality problems in the receiving waters;
 - (6) The duration of each dewatering operation;
 - (7) An analysis of the impacts of the proposed dewatering operations which indicates that no significant impacts will occur to any existing on-site and/or off-site legal users, wetlands, or any existing plume of groundwater contamination;
 - (8) The location of any infiltration trench(es); and
 - (9) All plans must be signed and sealed by a State of Florida registered Professional Engineer and a State of Florida registered Professional Geologist.

Reference: Sections 373.229, 373.308, and 373.413, F.S., Rules 40E-2.091(1), 40E-2.301, 40E-3.500-531, and 40E-4.381(2)(1), F.A.C.

b. Monthly Reporting Requirements

Groundwater withdrawal quantities shall be submitted to the SFWMD on a monthly basis beginning with the month following construction and operation of the proposed wells. Reference: Section 373.223, F.S.; Rules 40E-2.091(1), 40E-2.301, and 40E-2.381, F.A.C.

c. Groundwater Monitoring Program

Within six months of issuance of this Certification, the Licensee shall develop and implement a groundwater monitoring program. Within three months of issuance of this Certification, a preliminary proposal shall be submitted to the SFWMD for review for compliance with the non-procedural requirements specified in Chapter 40E-2, F.A.C. In developing the groundwater monitoring program, the Licensee shall consider well locations, depth and method of well construction, types of well screens, and frequency of data collection. Reference: Section 373.223, F.S.; Rules 40E-2.091(1), 40E-2.301, and 40E-2.381, F.A.C.

d. New Well Construction

Prior to the construction of the proposed on-site wells, the Licensee shall submit the drilling plans and other pertinent information required by Rule 40E-3, F.A.C. to the SFWMD for review and approval. If the final well locations are different from those originally proposed in the Certification application, the Licensee shall also submit to the SFWMD for review and approval an evaluation of the impacts of the proposed pumpage from the proposed well location(s) on adjacent existing legal users, pollution sources, environmental features, the saline water interface, and water bodies. Reference: Section 373.223, F.S.; Rules 40E-2.091(1)(a), 40E-2.301, and 40E-2.381, F.A.C.

e. Water Conservation Plan

Within two (2) years of issuance of the modified Certification Order, the Licensee shall submit a Water Conservation Plan required by Chapter 40E-2, F.A.C., in effect at that time, for review and approval by SFWMD staff. The plan shall, at a minimum, incorporate the following components:

(1) An audit of the amount of water needed in the Licensee's operational process. The following measures shall be implemented within one year of audit completion if found to be cost effective in the audit:

(a) Implementation of a leak detection and repair program;

(b) Implementation of a recovery/recycling or other program providing for technological, procedural or programmatic improvements to the Licensee's facilities; and

(c) Use of processes to decrease water consumption.

(2) Development and implementation of an employee awareness program concerning water conservation.

Reference: Sections 373.223, F.S.; Rules 40E-2.091(1), 40E-2.301, and 40E-2.381, F.A.C.

C. Surface Water Management Conditions

1. General

a. Professional Engineer Certificate

The operation of the surface water management system authorized

Lee County WTE – Ground Water Monitoring Program Fort Myers, FL

Parameter List (per Table 4-1 of Appendix 7.7-Ground Water and Surface Water Monitoring Plan submitted within the Supplemental Application for Power Plant Site Certification, November 7, 2002)

Note: The April 1996 Ground water monitoring plan modification referred to Volatile and Semi-Volatile Organic Compounds but did not specify the EPA Methods required.

Primary Drinking Water Parameters (PDWP)

Chromium

Lead

Sodium

Volatile Organics (VO) and Semi-Volatile Organics (SVO) (need to verify EPA Methods)

Currently EPA Methods 504, 524, and 625 are being conducted during the annual event

Secondary Drinking Water Parameters (SDWP)

Chloride

Iron

PH

Zinc

Manganese

Sulfate

TDS

General Indicators (GI)

TOC

Ammonia (as N)

Specific Conductance

TKN

Arsenic

Selenium

Mercury

Annual Program- Alternate wells each year; Do PDWP, SDWP, and GI on both deep and shallow wells. Do VO and SVO on shallow wells only.

Group 1. WTE-1S, -1D, -2S, -2D, -4S, -4D

Group 2. WTE-1S, -1D, -3S, -3D, -5S, -5D, -6S, -6D

Annual Schedule:

First Quarter 2004- Wells 1, 2, 4

First Quarter 2005- Wells 1,3,5 and 6

Etc.

Quarterly Program-Alternate wells each quarter (same group of wells as in annual). Do SDWP and GI on both deep and shallow wells.

Quarterly Schedule:

Third Qtr 2004: Wells 1,2, and 4

Fourth Qtr 2004: Wells 1,3 5, 6

First Qtr 2005: Wells 1,2 4

Second Qtr 2005: Wells 1,3,5,6

Third Qtr 2005: Wells 1,2 4

Etc.