



Florida Department of Transportation

JEB BUSH
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DENVER J. STUTLER, JR.
SECRETARY

~JUL 19 2006

SITING COORDINATION

July 17, 2006

Mr. Hamilton S. Oven, P.E., Administrator
Siting Coordination Office
Division of Air Resources Management
Department of Environmental Protection
2600 Blair Stone Road, MS 48
Tallahassee, Florida 32399-2400

Re: Seminole Electric Cooperative Inc., Seminole Generating Station Unit 3 Power Plant
Siting Application
No. PA 78-10A2
DOAH Case No. 06-0929EPP

Dear Mr. Oven:

Based on the applicant's sufficiency response of June 22, 2006 that the additional information requested by the Department will be provided post-certification, the Department has no further comments regarding sufficiency.

If you have any questions, please call me at 414-5387 or Sandra Whitmire, Siting Coordinator, at 414-4812. Thank you.

Sincerely,

C

Sheauching Yu
Assistant General Counsel

cc: James S. Alves, Hopping, Green and Sams
Chris O'Gara, District 2
Sandra Whitmire

FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION



RODNEY BARRETO
Miami

SANDRA T. KAUPÉ
Palm Beach
DEPARTMENT OF
ENVIRONMENTAL PROTECTION

H.A. "HERKY" HUFFMAN
Enterprise

DAVID K. MEEHAN
St. Petersburg

KATHY BARO
Jacksonville

D A. CORBETT
Tampa

BRIAN S. YABLONSKI
Tallahassee

SEP 05 2006

KENNETH D. HADDAD, Executive Director
VICTOR J. HELLER, Assistant Executive Director

SITING COORDINATION

MARY ANN POOLE, DIRECTOR
OFFICE OF POLICY AND STAKEHOLDER COORDINATION
(850)488-6661 TDD (850)488-9542
FAX (850)922-5679

September 1, 2006

Mr. Hamilton S. Oven, Jr., P.E.
Siting Coordination Office
Department of Environmental Protection
2600 Blair Stone Road, MS 48
Tallahassee, FL 32399-2400

RE: PA 78-10A, Seminole Electric Power
Electric Cooperative, Inc., Unit 3,
Application for Site Certification, Putnam
County

Dear Mr. Oven:

The Division of Habitat and Species Conservation, Habitat Conservation Scientific Services Section (HCSS), of the Florida Fish and Wildlife Conservation Commission (FWC) has reviewed the referenced certification application, and has concluded that the certification of this proposed facility would not cause any significant impacts to fish and wildlife resources under our jurisdiction. The Florida Fish and Wildlife Conservation Commission does not object to certification of the Project under the condition that if protected species of fish or wildlife are impacted subsequent to our approval of this certification then the requirements of Article IV, Section 9 of the Florida Constitution, and the rules thereto, as well as statutes relating to protected species, are applicable and the FWC shall be contacted prior to taking any action related to those species.

We appreciate the opportunity to comment. If we may provide any additional assistance, please contact us.

Sincerely,

Srf.Y &

Mary Ann Poole, Director
Office of Policy and Stakeholder Coord.

map/tgw
ENV 2-11-2/3
Seminole Unit 3_351
cc: Ann Seiler, DEP
Jim Antista, FWC

Florida Department of

Environmental Protection

DEPAR1MhN1 uF
ENVIRONMENTAL PROTECTION

Memorandum

TO: Mr. Hamilton Oven, P.E. Administrator
FL Dept. of Environmental Protection
Siting Coordination Office
MS #48

SEP 14 2006,

SITING COORDINATION

Ann Seiler, Environmental Specialist – Web Manager
Florida Energy Office, Siting Coordination
MS #48

FROM: Emerson C. Raulerson, P.E.

DATE: September 11, 2006

SUBJECT: Review of the Site Certification Application for Seminole Electric Cooperative, Inc.
Facility I.D. No. FL0036498
Power Plant Site Certification No. PA78-10
Seminole Generating Station, Unit 3
Palatka, Putnam County, Florida

The Northeast District's Solid Waste Section requests that the following certification conditions be added:

Operation of Unit 3. Unit 3 shall not be placed into operation, including start-up testing and/or shake-down prior to the proposed landfill having been constructed in accordance with this certification and the Department having accepted, in writing, that the construction met and the proposed operation will meet, the requirements of this certification.

Construction and Operation Requirements. Construction of the proposed landfill shall not begin until the Facility provides and the Solid Waste Section of the Department's Northeast District reviews and approves, in writing, sufficiently detailed information that shows how it will be constructed, operated and closed (including how it will be constructed while continuing to operate the existing landfill); how it will be monitored and maintained, both during operation, and during and after closure; and that it will meet the Class I landfill requirements (except for submitting and receiving a permit and/or a permit application) contained in the following Rules:

62-701.300;
62-701.320(6), (7)(b & d through i) and (15)
62-701.330(3)(c through j);
62-701.340(1) and (4)
62-701.400(1), (2), (3)(a & c through f), (4), (6), (7), (9) through (11);

62-701.410;
62-701.430;
62-701.500(1) through (5) and (7) through (13);
62-701.510;
62-701.520(3) and (4);
62-701.530, and;
62-701.630.

Landfill Closure Requirements. At the time of closure, the Facility shall meet the Class I landfill requirements (except for submitting and receiving a permit and/or a permit application) contained in the following Rules:

62-701.600(1)(b), (2)(a), and (3) through (7);
62-701.610(2) through (4), (7) and (8), and;
62-701.620(1), (5) through (7), (9) and (10), and;

Information Format. Although a permit and/or a permit application are not required, information for the construction, operation and closure of the proposed landfill shall be submitted in the format required for a permit.

Leachate Recirculation. Leachate shall not be recirculated.

Annual Notice of Compliance. By January 15 of each year and within 60 days of the promulgation of new Solid Waste Rules, the Facility shall provide written certification to the Solid Waste Section of the Department's Northeast District that it is either in compliance with all Solid Waste Rules and certification conditions or shall list the Rules and/or conditions that it is not in compliance with and the actions that have been or will taken to bring it back into compliance. The certification shall also indicate which new Solid Waste Rules apply to the Facility and what is being done to come into compliance with them.

Document Storage. A copy of the Department approved engineering drawings, plans, reports, operation and contingency plans, all revisions and supporting information, as well as a copy of this certification shall be kept onsite at the Facility office at all times for reference and inspections.

Applicable Permits. Receipt of any certification from the Department does not relieve the applicant from obtaining federal, state, and local permits required by law, including those of the St. Johns River Water Management District.

Other Regulatory Requirements. If any other regulatory agency should require revisions or modification to any portion of the site certified project directly or indirectly related to the proposed landfill, the Solid Waste Section of the Department's Northeast District office is to be

notified of the revisions so that a determination can be made as to whether modification of the certification conditions is required.

Notification in Case of Emergency. The Permittee shall immediately notify the Department by telephone whenever a serious problem occurs at the facility, including a fire or other emergency that poses an unanticipated threat to the public health or the environment. During regular business hours, notification shall be made to the Solid Waste Section of the Department's Northeast District at (904) 807-3300. If an emergency occurs outside regular business hours, the Permittee shall telephone the 24-hour emergency phone number (800) 320-0519. This number is for emergencies only. Within seven (7) days of any emergency, the Facility shall submit to the Solid Waste Section of the Department's Northeast District, a written report explaining the extent of the problem, the cause and what actions have been or will be taken to correct the problem and prevent its recurrence.

Provisions for Potable Water Sources. The Facility shall provide a temporary source of potable water within seven (7) days and a permanent safe drinking water supply within 180 days of discovery of contamination to replace any potable water well that is shown by chemical and hydrogeologic analysis to be contaminated by the facility. This water shall meet all drinking water standards set forth in F.A.C. Chapter 62-550 and shall be provided at the Facility's expense.

Liner Trench Maintenance and Waste Limits.

- a. The facility shall post and maintain markers to note the edge of the liner and anchor trench for the proposed landfill and the limits of waste. The facility shall place the markers at a minimum frequency of every 100 feet and shall provide them during construction of the proposed landfill.
- b. The facility shall maintain the anchor trenches and slopes to prevent erosion, rutting, or other conditions that may cause damage to the liner. In maintaining the area, the facility shall conduct maintenance and grading activities in a manner that will not impact the liner's integrity.

Inspections. The Permittee is responsible for the operation and maintenance of the leachate collection and removal system and shall, each day the facility receives waste, perform inspections of the leak detection and collection systems for the proposed landfill. Any discrepancies observed during the inspection shall be repaired as soon as possible, but not to exceed within seven days of detection. These inspections shall be documented and kept on file at the Facility's onsite office.

Quantitative Records of Leachate. Quantitative records of leachate collected, in gallons per day, at the proposed landfill's collection and detection systems, and leachate sent off-site for treatment and/or disposal, shall be compiled monthly. This information shall be maintained at

the landfill office and shall be made available to the Department at the Department's request, including during a routine inspection. This information shall indicate the daily volume of leachate flow and shall be sent to the Solid Waste Section of the Department's Northeast District by January 15 of each year, at the request of the department, and as otherwise indicated in other certification conditions.

Leachate System Cleaning and Inspection. The facility's leachate collection systems shall be water pressure cleaned, or inspected by video recording at a minimum frequency of once every five years, beginning on the date of construction certification. Results of the respective leachate collection system inspections and/or cleanings shall be provided to the Solid Waste Section of the Department's Northeast District within 30 days, and at the Department's request. The facility shall in an appropriate manner clean out the leachate collection system if and when obvious signs of obstruction(s) are exhibited, and shall notify the Solid Waste Section of the Department's Northeast District, in writing, of the event within 14 days of discovery and shall provide the results at the Department's request.

Backup Pumps and Power. The facility shall provide and maintain a generator onsite to be utilized in the event of a power failure at the proposed landfill to prevent leachate from backing up in the system. The facility shall also have backup pumps available at the facility that will be able to be placed in service in lieu of a pump that is taken out of service for repair and/or maintenance.

Ash Storage and Transport. Prior to transport to the landfill, ash shall be stored in an enclosed building on an impervious surface. Final disposal of the ash shall be into the proposed landfill or other method approved by the Solid Waste Section of the Department's Northeast District. Any leachate generated from within the building shall be collected and disposed of by a method approved by the Solid Waste Section of the Department's Northeast District.

Prohibition of Hazardous Wastes. Unless approved by the Department with subsequent modification of conditions, this facility shall not accept materials defined by applicable Federal, State or local statutes, rules, regulations or ordinances as "Hazardous Wastes."

Ash Sampling. A representative composite ash sample shall be gathered within 30 days after commencement of disposal in the proposed landfill and prepared for analysis by total digestion, using EPA Method 3050 Acid Digestion of Sediments, Sludges and Soils, "Test Methods of Evaluating Solid Waste Physical/Chemical Methods," EPA Publication SW-848 (3rd edition as amended by Update 1/12/87). Ash samples shall be collected and analyzed by the methods listed in the Quality Assurance/Quality Control plan as required under F.A.C. 62-702 and as approved by the Solid Waste Section of the Department's Northeast District.

Submittal of Ash Sampling Results. Results of the ash analysis shall be submitted to the Solid Waste Section of the Department's Northeast District within 30 days of receipt. Results will be used by the Solid Waste Section of the Department's Northeast District to establish a baseline of

levels of metals concentrations in the ash as compared to other facilities in the state. Results of these analyses may also be used for correlation with groundwater monitoring information or ash leachate as discussed in F.A.C. 62-702 and in any subsequent modification of conditions.

Also, please refer to the accompanying review memorandum from Richard S. Rachal, P.G. that focuses primarily on groundwater related issues as they relate to the disposal and storage of solid waste.

Florida Department of Environmental Protection

Memorandum

TO: Emerson C. Raulerson, P.E.
Northeast District Solid Waste Section

Mary Nogas, P.E.
Northeast District Solid Waste Supervisor

FROM: Richard S. Rachal, III, P.G.
Northeast District Waste Cleanup Supervisor

DATE: September 11, 2006

SUBJECT: Review of the Site Certification Application for Seminole Electric
Cooperative, Inc.
Facility I.D. No. FL0036498
Power Plant Site Certification No. PA78-10
Seminole Generating Station, Unit 3
Palatka, Putnam County, Florida

As part of your recommendations, I suggest you include the following to address groundwater monitoring associated with the new disposal area:

Prior to the acceptance of any waste in the proposed landfill, the facility shall provide for Department review, in conjunction with any requested additional information, and obtain Department approval of a revised groundwater monitoring plan to address potential discharges from the landfill. The groundwater monitoring plan shall be of sufficient detail to show how the landfill will be monitored and to provide technical justification for the monitoring locations, parameters and frequency. The facility shall conduct initial sampling prior to the acceptance of waste in accordance with the approved groundwater monitoring program.

The groundwater monitoring plan shall also comply with the portions of 62-522 and 62-701 listed herein.

62-522.600 (3) Monitoring Plan Contents. Using part or all of the information listed from (a) through (m) below, the installation owner shall provide the Department with a plan containing findings and recommendations for ground water monitoring derived from site-specific information. Pursuant to Chapters 492 and 471, F.S., the ground water monitoring plan shall be signed and sealed by the professional geologist or professional engineer who prepared or approved it. The plan shall show the locations of the proposed background and downgradient monitor wells, construction details of the monitor wells, and a water sampling and chemical analysis protocol. The plan shall indicate how to

determine background or natural background (where available) quality of the ground water in the vicinity of the site and any deviations in the quality of the receiving ground water in the downgradient monitor wells. The Department shall evaluate the adequacy of the plan upon submittal; however, the applicant should arrange a preapplication meeting with the Department to resolve the needed information at an early stage. The following information is generally required for detailed assessment of the most complex plans unless otherwise specified in other Department rules. Less complex cases will need less information:

- (a) Hydrogeological, physical and chemical data for the site, such as:
 - 1. Direction and rate of ground water flow, background ground water quality (all field verified), and natural background ground water quality where available;
 - 2. Porosity, horizontal and vertical permeability for the aquifer(s);
 - 3. The depth to, and lithology of, the first confining bed(s);
 - 4. Vertical permeability, thickness, and extent of any confining beds;
 - 5. Topography, soil information and surface water drainage systems surrounding the site;
 - 6. Fracture trace analysis;
 - 7. Geophysical methods such as ground penetrating radar surveys;
 - (b) Waste disposal rate and frequency, chemical composition, method of discharge, pond volume, spray-field dimension, or other applicable site specific information;
 - (c) Toxicity of waste;
 - (d) Present and anticipated discharge volume and seepage rate to the receiving ground water; and physical, chemical, and microbiological characteristics of the leachate;
 - (e) Disposal system water balance;
 - (f) Present and reasonably expected future pollution sources located within one mile radius of the site;
 - (g) Inventory depth, construction details, and cones of depression of water supply wells or wellfields and monitor wells located within one mile radius of the site or potentially affected by the discharge;
 - (h) Site specific economic and feasibility considerations;
 - (i) Chronological information on water levels in the monitor wells and water quality data on water supplies collected from the water supply and monitor wells;
 - (j) Type and number of waste disposal facilities within the installation;
 - (k) Chronological information on surface water flows and water quality upstream and downstream from the site;
 - (l) Construction and operation details of disposal facilities;
 - (m) History of construction and land development in the vicinity of the site.
- (4) Plan Approval. Within 90 days of the date of the Department's receipt of a completed monitoring plan from existing installations described in (2)(b) above, or at the time of permit issuance or denial, whichever is appropriate, the Department shall either approve or deny the monitoring plan.

62-522.600 (6) Location of Monitoring Wells to Detect Migration of Contaminants. Unless the installation owner can demonstrate that detection can be obtained by a methodology other than the use of monitoring wells, wells shall be located as follows:

- (a) One upgradient well located as close as possible to the site, without being affected by that site's discharge, to determine the background, or natural background quality where available, of the ground water (background well);
- (b) One well at the edge of the zone of discharge downgradient from the site (compliance well);
- (c) One well downgradient from the site and within the zone of discharge designed to detect the chemical, physical, and microbiological (if applicable) characteristics of the discharge plume (intermediate well); and;
- (d) Such other wells as are dictated by the complexity of the hydrogeology of the site, the magnitude and direction of the plume or the likelihood of threat to the public health, to ensure adequate and reliable monitoring data in generally accepted engineering or hydrogeological practice.

62-701.410 (1) Hydrogeological investigation and site report. The hydrogeological investigation and site report required by Rule 62-701.330(3), F.A.C., shall be site specific, shall be conducted by or under the supervision of a professional geologist or professional engineer with experience in hydrogeologic investigations, and shall:

- (a) Define the landfill site geology and hydrology and its relationship to the local and regional hydrogeologic patterns including:
 - 1. Direction and rate of ground water and surface water flow, including seasonal variations;
 - 2. Background quality of ground water and surface water;
 - 3. Any on site hydraulic connections between aquifers;
 - 4. For all confining layers, semi-confining layers, and all aquifers below the landfill site that may be affected by the landfill, the porosity or effective porosity, horizontal and vertical permeabilities, and the depth to and lithology of the layers and aquifers; and
 - 5. Topography, soil types and characteristics, and surface water drainage systems of the site and surrounding the site.
 - (b) Include an inventory of all the public and private water wells within a one-mile radius of the proposed landfill site. The inventory shall include, where available:
 - 1. The approximate elevation of the top of the well casing and the depth of each well;
 - 2. The name of the owner, the age and usage of each well, and the estimated daily pumpage; and
 - 3. The stratigraphic unit screened, well construction technique, and static water levels of each well.
 - (c) Identify and locate any existing contaminated areas on the landfill site.
 - (d) Include a map showing the locations of all potable wells within 500 feet of the waste storage and disposal areas, and locations of all wells serving community water supplies within 1000 feet of the waste storage and disposal areas, to demonstrate compliance with Rule 62-701.300(2)(b) and (h), F.A.C.
- (2) Geotechnical site investigation. The geotechnical site investigation required by Rule 62-701.330(3), F.A.C., shall be conducted by or under the supervision of a professional engineer with experience in geotechnical engineering. Prior to any construction on the landfill site, the engineer shall define the engineering properties of the site that are

necessary for the design, construction, and support of the landfill and all installations of the facility and shall:

- (a) Explore and describe subsurface conditions including soil stratigraphy and ground water table conditions;
- (b) Explore and address the presence of muck, previously filled areas, soft ground, lineaments, and sinkholes;
- (c) Evaluate and address fault areas, seismic impact zones, and unstable areas as described in 40 C.F.R. 258.13, 258.14 and 258.15;
- (d) Include estimates of the average and maximum high ground water table across the site; and
- (e) Include a foundation analysis to determine the ability of the foundation to support the loads and stresses imposed by the landfill. It may include geotechnical measures necessary to modify the foundation to accommodate the imposed loads and stresses. The foundation shall be analyzed for short-term, end of construction, and long-term stability and settlement conditions. Considering the existing or proposed subgrade conditions and the landfill geometry, analysis shall include:
 - 1. Foundation bearing capacity;
 - 2. Subgrade settlements, both total and differential; and
 - 3. Subgrade slope stability.
- (3) Report. The geotechnical site investigation report shall describe the site subsurface conditions and shall include, at a minimum, the methods used in the investigation, all soil boring logs and laboratory results, analytical calculations, cross sections, interpretations and conclusions.
- (4) Report verification. The site reports and supporting information, including detailed description of the methods, calculations, and interpretations used, shall be signed and sealed by the professional engineer or geologist.

62-701.510 (2) Water quality monitoring plan and system.

- (a) The permit applicant shall provide to the Department a water quality monitoring plan for the landfill that describes the proposed ground water, surface water, and leachate monitoring systems. The plan shall be based on the hydrogeological investigation required in Rule 62-701.410, F.A.C., and be prepared by, or under the supervision of, a professional geologist or professional engineer with experience in hydrogeologic investigations. The plan shall be signed and sealed by the professional geologist or professional engineer.
- (b) The water quality monitoring system shall be installed and consist of: a sufficient number of ground water wells installed at appropriate locations and depths to yield ground water samples from the uppermost aquifer, as well as other aquifers reasonably expected to be affected by the landfill; surface water monitoring points installed at locations to yield samples of surface water that may be affected by the landfill; and leachate monitoring points to yield representative leachate samples. All sampling and analysis activities shall be performed in accordance with Chapter 62-160, F.A.C.
- (c) The water quality monitoring plan shall comply with the provisions of Rule 62-522.600(3), F.A.C. The applicant shall specify sampling locations and frequency in the water quality monitoring plan, and shall provide justification for these locations and frequencies based upon site conditions.

(3) Ground water monitoring.

(a) Two or more detection wells shall be located within the zone of discharge hydraulically downgradient from the solid waste disposal unit, to detect leachate releases. These wells shall be located no more than 50 feet from the edge of the solid waste disposal unit, unless site specific conditions make such placement impractical. These wells shall be capable of monitoring each solid waste disposal unit as it is operated. However, in accordance with Section 403.704(14), F.S., only one detection well is required at Class II landfills unless it is affirmatively demonstrated by the Department that a significant change in the initial quality of the water has occurred in the detection well which adversely affects the beneficial uses of the water.

(b) Multiple downgradient compliance wells shall be located at or immediately adjacent to the compliance line of the zone of discharge, if required in subsection (7) of this section. If site-specific conditions require installation of compliance wells within the zone of discharge, then a confirmed exceedance of a ground water standard above background at such wells will be considered a violation of that standard.

(c) A sufficient number of background wells installed as part of the site hydrogeological investigation required in Rule 62-701.410, F.A.C., shall be maintained throughout the design life of the landfill to provide information on background water quality.

(d) Monitoring wells.

1. The location of each well, in degrees, minutes and seconds of latitude and longitude, and the elevation of the top of the well casing to the nearest .01 foot, National Geodetic Vertical Datum (NGVD 1929), shall be determined by a registered Florida land surveyor.

2. An identification number shall be assigned by the Department to each monitoring well in accordance with the Department's Water Assurance Compliance System computer file. The identification number shall be used on all water quality monitoring reports.

3. Well spacing shall be spaced no greater than 500 feet apart across the downgradient direction of ground water flow, and no greater than 1500 feet apart across the upgradient direction of ground water flow, in the uppermost aquifer within the zone of discharge, unless site specific conditions support the use of alternate well spacing.

Conditions to be considered include, but are not limited to, ground water flow directions and rates, estimated longitudinal and transverse dispersivity rates, proximity to or presence of sensitive environments and ground water users, nature of the wastes, method of disposal, and the proposed design and size of the facility.

4. Well screens shall be located to readily detect representative ground water conditions within the saturated thickness of the uppermost aquifer within the zone of discharge. Well screens shall not act as conduits through confining layers between water bearing strata. The annular space (the space between the borehole and well casing) above the sampling depth shall be sealed to prevent contamination of samples and ground water. Wells monitoring the unconfined water table shall be screened so that the water table can be sampled at all times. The applicant shall provide technical justification for the actual screen length chosen.

5. Any monitoring wells which are abandoned or which will be covered due to lateral expansions of a landfill or the construction of new solid waste disposal units shall be plugged as necessary so that they do not act as a conduit for any leachate

release to the ground water. The Department shall be notified in writing before any monitoring wells are abandoned or plugged.

6. Detection sensors capable of detecting changes in ground water that may indicate leachate releases, linked to a data recorder, may be used to augment detection wells or may be used as an alternative to detection wells, upon demonstration of their effectiveness to the Department.

(4) Surface water monitoring.

(a) All surface water bodies that may be affected by a contaminant release from the facility shall be monitored, except bodies of water contained completely within the property boundaries of the disposal site which do not discharge from the site to surface waters. In bodies of standing water, one or more representative monitoring points shall be located as close as practical to the facility. For flowing water bodies, a sufficient number of upgradient and downgradient locations shall be used to allow the effect of the landfill to be measured.

(b) Discharges from detention ponds for storm water shall be sampled at the point of discharge to waters of the state or from the property, whichever is closer to the detention pond.

(c) The details concerning the sampling locations and the analysis requirements shall be specified in the water quality monitoring plan. Each monitoring location shall be marked and its position shall be determined by a registered Florida land surveyor in degrees, minutes and seconds of latitude and longitude.

62-701.510 (6) Initial and routine sampling frequency and requirements. Except as otherwise specified in a Department permit or order or in subsection (7) of this section, frequency of sampling and analysis shall comply with the following. However, the owner or operator of a solid waste disposal unit may request a permit modification from the appropriate District Office of the Department to delete specific monitoring parameters or field parameters from routine analyses of detection or compliance wells and surface water.

The Department will grant such modification upon a demonstration that these parameters are not reasonably expected to be in or derived from the waste contained in the unit.

(a) Demonstration to delete parameters. A demonstration to delete monitoring parameters may include an evaluation of:

1. The concentration or contrast between monitoring parameters in leachate and in background water quality; and
2. The types, quantities and concentrations of constituents in the wastes, and their degradation products, managed at the facility;

(b) Initial background water quality.

1. Initial background water quality for a proposed landfill shall be determined by analysis of at least one water sample taken from each well that was installed, and each surface water monitoring location that was established, during the site hydrogeological investigation. The water quality information shall be submitted to the Department as part of the supporting information for the permit application.

2. Sampling and analysis for initial background ground water quality shall be for the parameters listed in paragraphs (8)(a) and (8)(d) of this section.

3. Sampling and analysis for initial background surface water quality shall be for the parameters listed in paragraph (8)(b) of this section.

62-701.510 (d) Routine monitoring well sampling. All detection wells, and a representative sample of background wells, shall be sampled and analyzed for the ground water parameters listed in paragraph (8)(a) of this section, in accordance with the water quality monitoring plan. For lined landfills, this shall be done at least semi-annually. The owner or operator of a solid waste disposal unit may request a permit condition or modification from the appropriate District Office of the Department to use an alternate monitoring frequency for background wells. The Department will approve such condition or modification upon a demonstration that the alternate frequency is appropriate based upon site specific lithology of the aquifer and unsaturated zone, hydraulic conductivity of the aquifer and unsaturated zone, ground water flow rates, minimum distance of travel and the fate and transport of parameters detected.

(e) Routine surface water sampling. Surface waters shall be sampled and analyzed semi-annually for the parameters listed in paragraph (8)(b) of this section, in accordance with the water quality monitoring plan.

(7) Evaluation monitoring, prevention measures and corrective action.

(a) Evaluation monitoring. If monitoring parameters are detected in detection wells in concentrations which are significantly above background water quality, or which are at levels above the Department's water quality standards or criteria specified in Chapter 62-520, F.A.C., the permittee may resample the wells within 30 days after the sampling data is received, to confirm the data. Should the permittee choose not to resample, the Department will consider the water quality analysis as representative of current ground water conditions at the facility. If the data is confirmed, or if the permittee chooses not to resample, the permittee shall notify the Department in writing within 14 days of this finding. Upon notification by the Department, the permittee shall initiate evaluation monitoring as follows:

1. Routine monitoring of all monitoring wells, surface water monitoring locations and leachate sampling locations shall continue according to the requirements of subsection (6) of this section.
2. Within 90 days of initiating evaluation monitoring and annually thereafter, the permittee shall sample and analyze a representative sample of the background wells and all affected detection wells for the parameters listed in paragraph (8)(d) of this section. Any new parameters detected and confirmed in the affected downgradient wells shall be added to the routine ground water monitoring parameter lists required in subsection (6) of this section for the affected wells.
3. Within 90 days of initiating evaluation monitoring, the permittee shall install and sample compliance monitoring wells at the compliance line of the zone of discharge and downgradient from the affected detection monitoring wells. These wells shall be installed according to the requirements of paragraph (3)(d) of this section, and samples from these wells and the affected detection wells shall be analyzed quarterly for the parameters listed in paragraphs (8)(a) and (d) of this section.
4. Within 180 days of initiating evaluation monitoring, the permittee shall submit a contamination evaluation plan to the appropriate Department District Office. This plan shall be designed to delineate the extent and cause of the contamination, in order

to predict the likelihood that Department water quality standards will be violated outside the zone of discharge, and to evaluate methods to prevent any such violations. After the Department and the permittee agree that the plan is so designed, the permittee shall implement this plan and submit a contamination evaluation report in accordance with the plan. All reasonable efforts shall be made by the permittee to prevent further degradation of water quality from the landfill activities.

5. The owner or operator of a solid waste disposal unit may request a modification from the appropriate District Office of the Department to use an alternate monitoring frequency, for repeated sampling during evaluation monitoring. The Department will grant such modification upon a demonstration that the alternate frequency is appropriate based upon site specific lithology of the aquifer and unsaturated zone, hydraulic conductivity of the aquifer and unsaturated zone, ground water flow rates, minimum distance of travel and the fate and transport of parameters detected.

6. The owner or operator of a solid waste disposal unit may request a permit modification from the appropriate District Office of the Department to delete specific monitoring parameters or field parameters from evaluation analyses of detection or compliance wells. The Department will grant such modification upon a demonstration that these parameters are not reasonably expected to be in or derived from the waste contained in the unit.

7. The permittee shall not discontinue evaluation monitoring, and return to routine monitoring only, until authorized to do so by the Department. The Department shall make this determination based upon the results of the contamination evaluation report and other relevant water quality data.

(b) Prevention measures and corrective actions.

1. If the contamination evaluation report indicates that water quality standards are likely to be violated outside the zone of discharge, the permittee shall, within 90 days, submit a prevention measures plan to the Department. Upon approval, the permittee shall initiate prevention measures to prevent such violations.

2. If any contaminants are detected and confirmed in compliance wells in concentrations which exceed both background levels and Department water quality standards or criteria, or are detected and confirmed in detection wells in concentrations which are above Department water quality minimum criteria, the permittee shall notify the Department within 14 days of this finding and shall initiate corrective actions. Evaluation monitoring shall continue according to the requirements of paragraph (7)(a) of this section.

62-701.510 (9) Water quality monitoring reporting.

(a) The landfill owner or operator shall report all water quality and leachate monitoring results to the Department semi-annually, unless a different monitoring frequency is specified in the permit. Water quality data contained in the report may be submitted to the Department electronically, and may be used in place of written copies of the data, if approved by the Department in the permit. The Department shall approve such submittals if the permittee specifies in the operation plan a method of electronic submittals which is compatible with the Department's information systems. The operator of the landfill shall notify the Department at least 14 days before the sampling is scheduled to occur so that the Department may collect split samples. The report shall include at least the following:

1. The facility name and identification number, sample collection dates, and analysis dates;
2. All analytical results, including all peaks even if below maximum contaminant levels;
3. Identification number and designation of all surface water and ground water monitoring points;
4. Applicable water quality standards;
5. Quality assurance, quality control notations;
6. Method detection limits;
7. STORET code numbers for all parameters;
8. Water levels recorded prior to evaluating wells or sample collection. Elevation reference shall include the top of the well casing and land surface at each well site at a precision of plus or minus 0.01 foot (NGVD); and

(9) Water quality monitoring reporting.

(a) The landfill owner or operator shall report all water quality and leachate monitoring results to the Department semi-annually, unless a different monitoring frequency is specified in the permit. Water quality data contained in the report may be submitted to the Department electronically, and may be used in place of written copies of the data, if approved by the Department in the permit. The Department shall approve such submittals if the permittee specifies in the operation plan a method of electronic submittals which is compatible with the Department's information systems. The operator of the landfill shall notify the Department at least 14 days before the sampling is scheduled to occur so that the Department may collect split samples. The report shall include at least the following:

1. The facility name and identification number, sample collection dates, and analysis dates;
2. All analytical results, including all peaks even if below maximum contaminant levels;
3. Identification number and designation of all surface water and ground water monitoring points;
4. Applicable water quality standards;
5. Quality assurance, quality control notations;
6. Method detection limits;
7. STORET code numbers for all parameters;
8. Water levels recorded prior to evaluating wells or sample collection. Elevation reference shall include the top of the well casing and land surface at each well site at a precision of plus or minus 0.01 foot (NGVD); and
9. An updated ground water table contour map signed and sealed by a professional geologist or professional engineer with experience in hydrogeologic investigations, with contours at no greater than one-foot intervals unless site-specific conditions dictate otherwise, which indicates ground water elevations and flow direction; and
10. A summary of any water quality standards or criteria that are exceeded.

(b) A technical report, signed and sealed by a professional geologist or professional engineer with experience in hydrogeologic investigations, shall be submitted to the Department every two years, and shall be updated at the time of permit renewal. The report shall summarize and interpret the water quality and leachate monitoring results and water level measurements collected during the past two years. The report shall contain, at a minimum, the following:

1. Tabular displays of any data which shows that a monitoring parameter has been detected, and graphical displays of any leachate key indicator parameters detected (such as pH, specific conductance, TDS, TOC, sulfate, chloride, sodium and iron), including hydrographes for all monitor wells;
2. Trend analyses of any monitoring parameters consistently detected;
3. Comparisons among shallow, middle, and deep zone wells;
4. Comparisons between background water quality and the water quality in detection and compliance wells;
5. Correlations between related parameters such as total dissolved solids and specific conductance;
6. Discussion of erratic and/or poorly correlated data;
7. An interpretation of the ground water contour maps, including an evaluation of ground water flow rates; and
8. An evaluation of the adequacy of the water quality monitoring frequency and sampling locations based upon site conditions.

(c) All field and laboratory records specified in Rules 62-160.600-.630, F.A.C., shall be made available to the Department and be retained for the design period of the landfill.

Seiler, Ann

From: Seiler, Ann
Sent: Monday, July 17, 2006 3:43 PM
To: Shi, Junhong; Maher, Jim
Cc: Oven, Hamilton
Subject: RE: Seminole - Unit 3 Sufficiency Responses

Hi Junhong,

Again thank you for your comments. We appreciate your time and effort into this application process.

We hope that the need for additional information in your memo can be handled through a post certification review. The Conditions of Certification can be written as per below (modify to fit this situation) to alleviate your concerns and to ensure that the applicant follows the wastewater and stormwater permitting rules. Let me know what you both think. Thank you, Ann

STORMWATER REVIEW

1. At least ninety days prior to the commencement of construction, provide all information necessary for a complete Environmental Resource Permit application including the engineering drawings and supporting documentation necessary to demonstrate that the stormwater runoff from the proposed project will be treated and attenuated in accordance with Rules 40C-4, 40C-41 and 40C-42, F.A.C. The drawings and documentation shall be signed, sealed and dated by a professional engineer registered in the State of Florida.
2. Prior to the commencement of construction the Department shall conduct a timely review of the submitted information and request the correction of any errors and omissions and any additional information necessary to complete the application. This shall be done in accordance with timeframes established in Chapter 120.60, F.S. and Rule 62-4.055, F.A.C.
3. The Department shall notify the permittee in writing that the application is complete upon review of all requested information and the correction of any errors or omissions. Construction shall not begin until the Department has provided such written notification.
4. Turbidity and sediments must be controlled to prevent violations of water quality pursuant to Rule 62-302.500, 62-302.530(70) and 62-4.242 Florida Administrative Code (FAC). Best Management Practices, as specified in the Florida Stormwater, Erosion and Sedimentation Control Inspectors Manual, shall be installed and maintained at all locations where the possibility of transferring suspended solids into wetlands and/or surface waters due to the permitted activity. If site-specific conditions require additional measures, then the Applicant shall implement them as necessary to prevent adverse impacts to wetlands and/or surface waters.
5. The existing ambient water quality within Outstanding Florida Waters shall not be lowered as a result of the proposed activity, except as authorized by the FDEP under 62-4.242(2) FAC.
6. At least 90 days prior to start of construction on Unit B a copy of the National Pollutant Discharge Elimination System (NPDES) Notice of Intent (NOI) to use a Construction General Permit (CGP) for stormwater discharges shall be submitted to DEP and a copy shall also be submitted to the Putnam County EPD and copied to the Putnam County EPD NPDES Administrator

Ann Seiler
 Environmental Specialist - Web Manager
 Florida Energy Office, Siting Coordination
 Dept of Environmental Protection
 2600 Blalston Rd. MS 48

7/17/2006

Tallahassee, FL 32399-2400
(850) 245-8008
Ann.Seiler@dep.state.fl.us

From: Shi, Junhong
Sent: Monday, July 17, 2006 12:22 PM
To: Seiler, Ann
Cc: Maher, Jim
Subject: RE: Seminole - Unit 3 Sufficiency Responses

Hi Ann,

It was nice talking to you last week. We had pre-2nd RAI meeting with applicant and engineer, but did not receive sufficient information to avoid the 2nd RAI. So please see following memo regarding the request. Please let me know if you have any question in this matter. Thank you.

Junhong Shi, P. E.
Northeast District
SunCom 804-3361

-- Original Message --

From: Seiler, Ann
Sent: Wednesday, June 28, 2006 9:30 AM
To: Hubbard, Allen; Gilbert, Douglas; Burger, Candice; Harris, Marc; Mandrup-Poulsen, Jan; Holladay, Cleve; Halpin, Mike; Koerner, Jeff; Shi, Junhong; Maher, Jim; Sears, Andrew; 'watsonf@doacs.state.fl.us'; Raulerson, Emerson; Magley, Wayne; Blyden, Tamara; Kirts, Christopher; Cordova, Ed; Seibold, Vince; Strong, Greg; Noble, Fred
Cc: Oven, Hamilton
Subject: Seminole - Unit 3 Sufficiency Responses

Hi all,

The Siting Office received the Sufficiency Responses late Monday afternoon, June 26th. I have distributed cd's and hard copies as follows;

Al Hubbard, Doug Gilbert and Candice Burger (hard copy and 2 cd's)
Fred Noble (hard copy)
Northeast District – Junhoung Shi, Chris Kirts and Vince Seibold (hard copy and 2 cd's)
You should, if haven't already, receive these shortly.

Also, for those interested, the sufficiency response is on the web at
http://www.dep.state.fl.us/siting/Highlights/applications_in_process.htm
under SECT Seminole Unit 3.

Please review the responses and let me know if any additional information (another sufficiency response) is required. Deadline for request is July 17, 2006.

Thank you for your attention to this matter.

Ann Seiler
Environmental Specialist - Web Manager
Florida Energy Office, Siting Coordination
Dept of Environmental Protection
2600 Blairstone Rd. MS 48
Tallahassee, FL 32399-2400

7/17/2006

(850) 245-8008
Ann.Seiler@dep.state.fl.us

Pt3'ttl'Oh
'p'

s&.

FLORIISA



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
NORTHEAST DISTRICT
7825 BAYMEADOWS WAY, SUITE B200
JACKSONVILLE, FL 32256-7590

Interoffice Memorandum

TO: Mrs. Ann Seiler
Siting Coordination Office

THROUGH: James R. Maher, P.E.
SLERP Administrator

FROM: Junhong Shi, P.E.
Wastewater and Stormwater Permitting

DATE : July 17, 2006

SUBJECT: 2nd RAI for Stormwater Co-Review
Seminole Generating Station, Putnam County
Unit 3 Project Power Plant Siting
Application No. PA 78-10A2

This office has reviewed additional information included in Response to Sufficiency, Section 4.0 Northeast District Wastewater/Stormwater and found that following information may be necessary for a complete evaluation of the application:

1. All orifice diameters are larger than calculated value. Since the calculations are based on one-half treatment volume to be recovered in 24 hours, increasing diameter will result recovering time less than 24 hours, which does not meet rule requirement of 24 to 30 hours. Please verify and revise the design.
2. Please indicate top elevation on cross section of each pond to reflect design and total geometry of the pond. This is important information since proposed pond area has great fluctuation in existing ground elevations.
3. What type of impervious area will be after development? If surface is paved, a curve number of 98 shall be considered instead of 85 according to TR-55. Please verify each area.
4. Tc calculation was not based on TR-55 and Tc computer input sheets have not been received. Please submit all modeling input and result sheets.

5. Revised design for Pond #5 has not been received. Based on soil boring report submitted, estimated seasonal high water table is 72.00 feet, which is at bottom elevation of the pond. Rule requires that bottom of pond shall be above seasonal high water table.
6. There is no soil boring report for swale area. Therefore, seasonal high water table and soil profile are still unknown. Please provide the information since bottom of the swale shall be above seasonal high water table.
7. Double-ring infiltrometer test was conducted at depth of 1' instead of at most restrictive layer below the bottom of swales. Please verify.
8. Infiltration rates (Kvs) used in swale calculation is much higher than infiltrometer test results. Please use tested infiltration results in calculation to design the swales.

Kelly, Steven Michael

From: Kelly, Steven Michael
Sent: Thursday, July 13, 2006 2:00 PM
To: Seiler, Ann
Cc: Noble, Fred
Subject: RE: Seminole - Unit 3 Sufficiency Responses

Ms. Seiler:

Fred Noble asked me to review the "Response to Sufficiency Request for Information – Seminole Electric Cooperative Generating Station Unit 3, Palatka Florida on behalf of the NPDES Stormwater Program.

The NPDES Stormwater Program does not have any comments on the submittal or need any additional information at this time. I will return the binder and disk to your office.

Please contact me if you have any additional assistance.

Steven Michael Kelly
Environmental Consultant
NPDES Stormwater Program
(850) 245-7518
(850) 245-7524 (fax)

From: Seiler, Ann
Sent: Wednesday, June 28, 2006 9:30 AM
To: Hubbard, Allen; Gilbert, Douglas; Burger, Candice; Harris, Marc; Mandrup-Poulsen, Jan; Holladay, Cleve; Halpin, Mike; Koerner, Jeff; Shi, Junhong; Maher, Jim; Sears, Andrew; 'watsonf@doacs.state.fl.us'; Raulerson, Emerson; Magley, Wayne; Blyden, Tamara; Kirts, Christopher; Cordova, Ed; Seibold, Vince; Strong, Greg; Noble, Fred
Cc: Oven, Hamilton
Subject: Seminole - Unit 3 Sufficiency Responses

Hi all,

The Siting Office received the Sufficiency Responses late Monday afternoon, June 26th. I have distributed cd's and hard copies as follows;

Al Hubbard, Doug Gilbert and Candice Burger (hard copy and 2 cd's)
Fred Noble (hard copy)
Northeast District – Junhoung Shi, Chris Kirts and Vince Seibold (hard copy and 2 cd's)
You should, if haven't already, receive these shortly.

Also, for those interested, the sufficiency response is on the web at
http://www.dep.state.fl.us/siting/Highlights/applications_in_process.htm
under SECT Seminole Unit 3.

Please review the responses and let me know if any additional information (another sufficiency response) is required.
Deadline for request is July 17, 2006.

Thank you for your attention to this matter.

Ann Seiler
Environmental Specialist - Web Manager
Florida Energy Office, Siting Coordination
Dept of Environmental Protection
2600 Blairstone Rd. MS 48
Tallahassee, FL 32399-2400
(850) 245-8008

7/13/2006