

Bryan W. Shaw, Ph.D., *Chairman*  
Buddy Garcia, *Commissioner*  
Carlos Rubinstein, *Commissioner*  
Mark R. Vickery, P.G., *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

October 7, 2011

TO: Persons on the attached mailing list.

RE: Southwestern Electric Power Company  
TPDES Permit No. WQ0002496000

### **Decision of the Executive Director.**

The executive director has made a decision that the above-referenced permit application meets the requirements of applicable law. **This decision does not authorize construction or operation of any proposed facilities.** Unless a timely request for contested case hearing or reconsideration is received (see below), the TCEQ executive director will act on the application and issue the permit.

Enclosed with this letter is a copy of the Executive Director's Response to Comments. A copy of the complete application, draft permit and related documents, including public comments, is available for review at the TCEQ Central office. A copy of the complete application, the draft permit, and executive director's preliminary decision are available for viewing and copying at the Marshall Public Library, 300 South Alamo Street, Marshall, Texas.

If you disagree with the executive director's decision, and you believe you are an "affected person" as defined below, you may request a contested case hearing. In addition, anyone may request reconsideration of the executive director's decision. A brief description of the procedures for these two requests follows.

### **How To Request a Contested Case Hearing.**

It is important that your request include all the information that supports your right to a contested case hearing. You must demonstrate that you meet the applicable legal requirements to have your hearing request granted. The commission's consideration of your request will be based on the information you provide.

The request must include the following:

- (1) Your name, address, daytime telephone number, and, if possible, a fax number.
- (2) If the request is made by a group or association, the request must identify:
  - (A) one person by name, address, daytime telephone number, and, if possible, the fax number, of the person who will be responsible for receiving all communications and documents for the group; and

- (B) one or more members of the group that would otherwise have standing to request a hearing in their own right. The interests the group seeks to protect must relate to the organization's purpose. Neither the claim asserted nor the relief requested must require the participation of the individual members in the case.
- (3) The name of the applicant, the permit number and other numbers listed above so that your request may be processed properly.
- (4) A statement clearly expressing that you are requesting a contested case hearing. For example, the following statement would be sufficient: "I request a contested case hearing."

Your request must demonstrate that you are an **"affected person."** An affected person is one who has a personal justiciable interest related to a legal right, duty, privilege, power, or economic interest affected by the application. Your request must describe how and why you would be adversely affected by the proposed facility or activity in a manner not common to the general public. For example, to the extent your request is based on these concerns, you should describe the likely impact on your health, safety, or uses of your property which may be adversely affected by the proposed facility or activities. To demonstrate that you have a personal justiciable interest, you must state, as specifically as you are able, your location and the distance between your location and the proposed facility or activities.

Your request must raise disputed issues of fact that are relevant and material to the commission's decision on this application. The request must be based on issues that were raised during the comment period. The request cannot be based solely on issues raised in comments that have been withdrawn. The enclosed Response to Comments will allow you to determine the issues that were raised during the comment period and whether all comments raising an issue have been withdrawn. The public comments filed for this application are available for review and copying at the Chief Clerk's office at the address below.

To facilitate the commission's determination of the number and scope of issues to be referred to hearing, you should: 1) specify any of the executive director's responses to comments that you dispute; and 2) the factual basis of the dispute. In addition, you should list, to the extent possible, any disputed issues of law or policy.

### **How To Request Reconsideration of the Executive Director's Decision.**

Unlike a request for a contested case hearing, anyone may request reconsideration of the executive director's decision. A request for reconsideration should contain your name, address, daytime phone number, and, if possible, your fax number. The request must state that you are requesting reconsideration of the executive director's decision, and must explain why you believe the decision should be reconsidered.

## **Deadline for Submitting Requests.**

A request for a contested case hearing or reconsideration of the executive director's decision must be **received by** the Chief Clerk's office no later than **30 calendar days** after the date of this letter. You may submit your request electronically at <http://www.tceq.texas.gov/about/comments.html> or by mail to the following address:

Bridget C. Bohac, Chief Clerk  
TCEQ, MC-105  
P.O. Box 13087  
Austin, Texas 78711-3087

## **Processing of Requests.**

Timely requests for a contested case hearing or for reconsideration of the executive director's decision will be referred to the alternative dispute resolution director and set on the agenda of one of the commission's regularly scheduled meetings. Additional instructions explaining these procedures will be sent to the attached mailing list when this meeting has been scheduled.

## **How to Obtain Additional Information.**

If you have any questions or need additional information about the procedures described in this letter, please call the Public Education Program, toll free, at 1-800-687-4040.

Sincerely,



Bridget C. Bohac  
Chief Clerk

BCB/ms

Enclosure

MAILING LIST  
for  
Southwestern Electric Power Company  
TPDES Permit No. WQ0002496000

FOR THE APPLICANT:

Paul Franklin, Vice President  
Southwestern Electric Power Company  
2400 Farm-to-Market Road 3251  
Hallsville, Texas 75650

Franklin L. Mills  
American Electric Power  
1201 Elm Street, Suite 800  
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PROTESTANTS/INTERESTED  
PERSONS:

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FOR THE EXECUTIVE DIRECTOR  
via electronic mail:

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Texas Commission on Environmental  
Quality  
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FOR PUBLIC INTEREST COUNSEL  
via electronic mail:

Blas J. Coy, Jr., Attorney  
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Quality  
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FOR THE CHIEF CLERK  
via electronic mail:

Bridget C. Bohac, Chief Clerk  
Texas Commission on Environmental  
Quality  
Office of Chief Clerk MC-105  
P.O. Box 13087  
Austin, Texas 78711-3087

**TPDES Permit No. WQ0002496000**

**Application by  
Southwestern Electric  
Power Company  
for TPDES Permit No.  
WQ0002496000**

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BEFORE THE  
TEXAS COMMISSION  
ON  
ENVIRONMENTAL  
QUALITY

2011 OCT 5 PM 2:27

CHIEF CLERK'S OFFICE

TEXAS  
COMMISSION  
ON ENVIRONMENTAL  
QUALITY

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**EXECUTIVE DIRECTOR'S RESPONSE TO PUBLIC COMMENT**

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The Executive Director (ED) of the Texas Commission on Environmental Quality (the Commission or TCEQ) files this Response to Public Comments (Response) on the application by Southwestern Electric Power Company (permittee or SWEPCO) for an amendment and renewal of Texas Pollutant Discharge Elimination System (TPDES) permit No. WQ0002496000, and on the ED's preliminary decision. As required by Title 30 of the Texas Administrative Code (TAC) § 55.156, before a permit is issued, the ED prepares a response to all timely, relevant and material, or significant comments. The Office of the Chief Clerk at the TCEQ received a timely comment letter from Eric Allmon with the law firm of Lowerre, Frederick, Perales, Allmon & Rockwell, representing "Public Citizen." This Response addresses all timely comments received, whether or not withdrawn.

If you need more information about this permit application or the wastewater permitting process, please call the TCEQ Public Education Program, Toll Free, at 1-800-687-4040. General information about the TCEQ can be found at our website at [www.tecq.texas.gov](http://www.tecq.texas.gov).

**I. Background**

**A. Description of Facility**

SWEPCO operates the Henry W. Pirkey Power Plant, an electric power generation facility located adjacent to Red Oak Road at a point approximately six miles southeast of the City of Hallsville, Harrison County, Texas 75650.

SWEPCO has applied to the TCEQ for the renewal of the existing TPDES Permit No. WQ0002496000 with a major amendment that would authorize: (a) an increase in the capacity of the Flue Gas Desulfurization (FGD) & Fly Ash Landfill Retention Pond (Landfill Pond), (b) the diversion of wastewater from the Ash Pond into the Landfill Pond on an infrequent basis, (c) a reduction in the monitoring frequency for total suspended solids (TSS) at Outfalls 004 and 005 from once per month to once per quarter, (d) a reduction in the monitoring frequency for oil and grease (O&G) at Outfall

006 from once per month to once per quarter, (e) a reduction in the monitoring frequency for O&G at Outfall 102 from once per quarter to once per year, (f) a reduction in the monitoring frequency for biochemical oxygen demand, 5-day (BOD<sub>5</sub>) at Outfall 302 from once per two months to once per quarter, and (g) a temporary reduction in the two-foot freeboard requirement for ponds during storm events.

The existing permit authorizes the discharge of once-through cooling water and previously monitored effluent (low volume wastewater on an intermittent and flow variable basis via Outfall 102; treated effluent from Plant "X" at a daily average flow not to exceed 800,000 gallons per day via Outfall 202; and domestic wastewater at a daily average flow not to exceed 15,000 gallons per day via Outfall 302) at a daily average flow not to exceed 600,000,000 gallons per day via Outfall 002; storm water from the Lignite Runoff Pond on an intermittent and flow variable basis via Outfall 003; storm water from the Landfill Pond on an intermittent and flow variable basis via Outfall 004; storm water from the Limestone Runoff Pond on an intermittent and flow variable basis via Outfall 005; and wastewater from the Ash Pond on an intermittent and flow variable basis via Outfall 006.

Once-through condenser cooling water and once-through miscellaneous cooling water (collectively referred to as "once-through cooling water" in the permit) receive no treatment prior to discharge at Outfall 002. Low volume wastes (demineralizer regenerant, floor drains, and yard drains) are routed to the Ecology Pit for settling, precipitation, and flocculation prior to discharge via Outfall 102.

Additionally, demineralizer regenerant is routed to a chemical sump and neutralization tank prior to being routed to the Ecology Pit. The permittee may route metal cleaning wastes, chemical metal cleaning wastes, wastewater from the Ash Pond, and wastewater from the Lignite Runoff Pond to Plant "X."

Plant "X" provides pH neutralization, filtration, settling, oil-water separation, and chemical wastewater treatment prior to discharge via Outfall 202. Additionally, metal cleaning wastes and chemical metal cleaning wastes are routed to the Metal Cleaning Waste Pond prior to being routed to Plant "X."

Domestic sewage is subject to pH neutralization, filtration, settling and clarifier solids separation, chlorination, and chemical wastewater treatment prior to discharge via Outfall 302.

Storm water from the lignite storage area is routed to the Lignite Runoff Pond where it is subject to settling, precipitation, and flocculation prior to discharge via Outfall 003. Storm water runoff from the flue gas desulfurization & fly ash sludge landfill (the landfill) is routed to the Landfill Pond where it is subject to settling, precipitation, and flocculation prior to discharge via Outfall 004. The permittee may transfer wastewater from the Lignite Runoff Pond to the Landfill Pond for treatment and discharge via Outfall 004. The permittee may divert wastewater from the Ash Pond

into the Landfill Pond on an infrequent basis, on compliance with the technology-based effluent limitations at internal Outfall 104.

Storm water from the limestone storage area is routed to the Limestone Runoff Pond where it is subject to settling, precipitation, and flocculation prior to discharge via Outfall 005. Low volume wastes (boiler blowdown and demineralizer regenerant) and ash transport water are routed to the Ash Pond where they are subject to oil-water separation, pH adjustment, settling, precipitation, and flocculation prior to discharge via Outfall 006.

## **B. Effluent Limitations**

Effluent limitations for discharges via Outfall 002 include: 600 million gallons per day (MGD) daily average and daily maximum flow, 122 degrees Fahrenheit (°F) daily maximum temperature, 0.2 milligrams per liter (mg/L) and 75.6 pounds per day (lbs/day) daily maximum total residual chlorine (TRC), and a report requirement for the daily average and the daily maximum dissolved oxygen (DO) concentrations.

Effluent limitations for discharges via Outfall 102 include: 30 mg/L for the daily average and 100 mg/L daily maximum for TSS, 15 mg/L daily average and 20 mg/L daily maximum for O&G, 0.012 mg/L daily average and 0.025 mg/L daily maximum for total selenium, a range of 6.0 to 9.0 standard units for pH, and a report requirement for the daily average and the daily maximum flow volumes.

Effluent limitations for discharges via Outfall 202 include: 0.8 MGD daily average and daily maximum flow, 30 mg/L daily average and 50 mg/L daily maximum for TSS, 15 mg/L daily average and 20 mg/L daily maximum for O&G, 0.016 mg/L daily average and 0.033 mg/L daily maximum for total selenium, 1.0 mg/L daily average and daily maximum for total iron, 0.5 mg/L daily average and 1.0 mg/L daily maximum for total copper, and a range of 6.0 to 9.0 standard units for pH.

Effluent limitations for discharges via Outfall 302 include: 0.015 MGD daily average and 0.030 MGD daily maximum flow, 20 mg/L and 2.5 lbs/day daily average and 65 mg/L daily maximum for BOD<sub>5</sub>, 20 mg/L and 2.5 lbs/day daily average and 65 mg/L daily maximum for TSS, a minimum of 1.0 mg/L for TRC, a range of 6.0 to 9.0 standard units for pH, and a report requirement for the daily maximum concentration of the TRC.

Effluent limitations for discharges via Outfall 003 include: 50 mg/L daily maximum for TSS, 20 mg/L daily maximum for O&G, 0.033 mg/L daily maximum for total selenium, a range of 6.0 to 9.0 standard units for pH, and a report requirement for the daily average and the daily maximum flow volumes.

Effluent limitations for discharges via Outfall 004 include: 50 mg/L daily maximum for TSS, 20 mg/L daily maximum for O&G, 0.036 mg/L daily maximum for

total selenium, a range of 6.0 to 9.0 standard units for pH, and a report requirement for the daily average and the daily maximum flow volumes.

Effluent limitations for discharges via Outfall 104 include: 30 mg/L daily average and 100 mg/L daily maximum for TSS, 15 mg/L daily average and 20 mg/L daily maximum for O&G, and a report requirement for the daily average and the daily maximum flow volumes.

Effluent limitations for discharges via Outfall 005 include: 50 mg/L daily maximum for TSS, 20 mg/L daily maximum for O&G, a range of 6.0 to 9.0 standard units for pH, and a report requirement for the daily average and the daily maximum flow volumes.

Effluent limitations for discharges via Outfall 006 include: 30 mg/L daily average and 100 mg/L daily maximum for TSS, 15 mg/L daily average and 20 mg/L daily maximum for O&G, 0.006 mg/L daily average and 0.013 mg/L daily maximum for total selenium, a range of 6.0 to 9.0 standard units for pH, and a report requirement for the daily average and the daily maximum flow volumes.

### **C. Discharge Route**

The effluent is discharged via Outfalls 002 and 003 to the Brandy Branch Reservoir; thence to Brandy Branch Creek; via Outfalls 004, 005, and 006 to unnamed tributaries of Hatley Creek; thence to Hatley Creek; thence all to Sabine River above Toledo Bend Reservoir in Segment No. 0505 of the Sabine River Basin.

The unclassified receiving waters have high aquatic life use for the Brandy Branch Reservoir and the Hatley Creek and no significant aquatic life use for the Brandy Branch Creek and the unnamed tributaries of Hatley Creek. The designated uses for Segment No. 0505 are high aquatic life use, contact recreation, and public water supply.

Segment No. 0505 is currently listed on the State's inventory of impaired and threatened waters (the 2008 Clean Water Act Section 303(d) list). The listing is specifically for elevated levels of bacteria in a 22-mile reach near SH 149. Although domestic wastewater is authorized for discharge via Outfall 002, it is not expected to cause or contribute to the elevated bacteria levels in the receiving waters because: (a) domestic wastewater discharges are controlled at internal Outfall 302 with effluent limitations for BOD<sub>5</sub> and TRC, and (b) the permittee met the effluent limitations for BOD<sub>5</sub> and TRC concentration limits in the past five-year period.

### **D. Antidegradation Review**

In accordance with 30 TAC §307.5 and the TCEQ implementation procedures (January 2003) for the Texas Surface Water Quality Standards (TSWQS), an antidegradation review of the receiving waters was performed. A Tier 1 antidegradation

review has preliminarily determined that existing water quality uses will not be impaired by this permit action. Numerical and narrative criteria to protect existing uses will be maintained. A Tier 2 review has preliminarily determined that no significant degradation of water quality is expected in Brandy Branch Reservoir and Hatley Creek, which have been identified as having high aquatic life use. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

### **E. Procedural Background**

The TCEQ received the application on August 31, 2010, the application was declared administratively complete on October 25, 2010 and technically complete on May 11, 2011. The Applicant published the *Notice of Receipt of Application and Intent to Obtain Water Quality Permit Amendment* (NORI) in English in *The Marshall News Messenger* on October 29, 2010 and in Spanish in *La Opinion* on November 3, 2010. On July 13, 2011, the Applicant published the *Notice of Application and Preliminary Decision for Water Quality TPDES Permit Amendment and Renewal* (NAPD) in English in *The Marshall News Messenger* and in Spanish in *La Opinion*. The public comment period ended on August 12, 2011. This application is subject to the procedural requirements adopted pursuant to House Bill 801, 76th Legislature, 1999.

### **F. Access to Rules, Laws, and Records**

The following websites may be useful:

Secretary of State website for all administrative rules: [www.sos.state.tx.us](http://www.sos.state.tx.us)

TCEQ rules in Title 30 of the Texas Administrative Code:  
[www.sos.state.tx.us/tac/](http://www.sos.state.tx.us/tac/) (select "TAC Viewer" on the right, then "Title 30 Environmental Quality")

Texas statutes: <http://www.statutes.legis.state.tx.us/>

TCEQ website: [www.tceq.state.tx.us](http://www.tceq.state.tx.us) (for downloadable rules in Adobe PDF formats, select "Rules," then "Current Rules and Regulations," then "Download TCEQ Rules")

Federal rules in Title 40 of the Code of Federal Regulations: <http://www.epa.gov/lawsregs/search/40cfr.html>

Federal environmental laws: <http://www.epa.gov/lawsregs/laws/index.html>

Commission records for this facility are available for viewing and copying at the TCEQ's main office in Austin, 12100 Park 35 Circle, Building F, 1st Floor (Office of the Chief Clerk, for the current application until final action is taken). The application for

this facility is available for viewing and copying at the Marshall Public Library located at 300 South Alamo Street, Marshall, Texas, since publication of the NORI. The final application, draft permit, and the *Fact Sheet and Executive Director's Preliminary Decision* (Fact Sheet) are available for viewing and copying at the same location since the publication of the NAPD.

## II. Comments and Responses

### Comment No. 1:

Public Citizen comments that the draft permit does not ensure adequate protection of surface water quality and does not include adequate protections for the attainable and designated uses of the receiving waters.

### Response No. 1:

In the permit application, the permittee provided information on the uses and characteristics of the receiving water. This information was used to supplement the ED's final determination of the uses of the receiving waters, in accordance with the TSWQS and the Procedures to Implement the Texas Surface Water Quality Standards (IPs). The TSWQS, 30 TAC Chapter 307, designate the criteria for the protection of aquatic life and human health in water in the state. Section 307.4(d) of the TSWQS states that "surface waters will not be toxic to man from ingestion of water, consumption of aquatic organisms, or contact with the skin, or to terrestrial or aquatic life."

The proposed discharge routes in the draft permit include the following unclassified water bodies: Brandy Branch Reservoir, Brandy Branch Creek, an unnamed tributary of Hatley Creek, and Hatley Creek. Brandy Branch Reservoir and Hatley Creek were determined to be perennial (flowing at all times). The unnamed tributary of Hatley Creek, and Brandy Branch Creek were determined to be intermittent (dry for at least one week during most years) until the confluence with Hatley Creek or the classified segment. Intermittent water bodies are assigned "no significant aquatic life uses" and perennial water bodies are presumed "high aquatic life uses" in accordance with 30 TAC § 307.4(h)(3) and (h)(4). The dissolved oxygen criterion for Brandy Branch Reservoir and Hatley Creek is 5.0 mg/L, and for the unnamed tributary and Brandy Branch Creek it is 2.0 mg/L. The classified perennial water body, Sabine River Above Toledo Bend, is assigned contact recreation, public water supply, and high aquatic life uses as designated within Appendix A of the TSWQS. The dissolved oxygen criterion for the Sabine River Above Toledo Bend is 5.0 mg/L.

Water bodies are designated for contact recreation use unless elevated concentrations of indicator bacteria (*E. coli*) frequently occur due to sources of pollution that cannot be reasonably controlled by existing regulations or if recreational activities are considered unsafe for other reasons, such as ship or barge traffic.

Dischargers are required to sample and submit analytical data for a set of potential pollutants. The submitted results are screened against the concentrations necessary to protect water quality.

If the effluent data shows pollutants that have the potential to exceed the calculated water quality-based limitations necessary to protect aquatic life, TCEQ staff will include additional monitoring requirements, effluent limitations, process control requirements, or a combination of these measures to the permit.

The TCEQ's practice for determining if discharges have a significant potential to exceed calculated water quality-based effluent limitations (significant potential) is to compare the reported analytical data against percentages of the calculated daily average water quality-based effluent limitations. Permit limitations are required when analytical data reported in the application exceeds 85 percent of the calculated daily average water quality-based effluent limitation. Monitoring and reporting is required when analytical data reported in the application exceeds 70 percent of the calculated daily average water quality-based effluent limitation.

Effluent analysis data provided in the permit application for discharges via Outfall 002 did not exhibit significant potential. Therefore, discharges via Outfall 002 were determined to be protective of the receiving waters. Segment No. 0505 is currently listed on the State's inventory of impaired and threatened waters (the 2008 Clean Water Act Section 303(d) list). The listing is specifically for elevated levels of bacteria in a 22-mile reach near SH 149. Although domestic wastewater is authorized for discharge via Outfall 002, it is not expected to cause or contribute to the elevated bacteria levels in the receiving waters because: (a) domestic wastewater discharges are controlled at internal Outfall 302 with effluent limitations for BOD<sub>5</sub> and TRC, and (b) the permittee met the effluent limitations for BOD<sub>5</sub> and TRC concentration limits in the past five-year period.

The effluent analysis data for discharges via Outfall 003 did not exhibit significant potential for all parameters except total selenium. At Outfall 003, the reported total selenium concentration of 0.128 mg/L exceeded the 70% value of 0.011 mg/L of the calculated daily average water quality-based effluent limitation of 0.016 mg/L, but is below the 85% value of 0.013 mg/L. Therefore, in accordance with the IPs, a monitoring requirement is warranted for total selenium at Outfall 003, but not an effluent limitation. However, since the existing permit included an effluent limitation for total selenium at Outfall 003, in compliance with the anti-backsliding rules provided at Title 40 Code of Federal Regulations (CFR) § 122.44(l), a daily maximum water-quality based effluent limitation of 0.033 mg/L, which is more protective than the monitoring requirement, was continued from the existing permit. Therefore, discharges via Outfall 003 were determined to be protective of the receiving water quality.

The effluent analysis data for discharges via Outfall 004 did not exhibit significant potential for all parameters except total selenium. At Outfall 004, the reported total selenium concentration of 0.028 mg/L exceeded the 85% value of 0.014 mg/L of the calculated daily average water quality-based effluent limitation of 0.017

mg/L. To address this exceedance, the daily maximum water quality-based effluent limitation of 0.036 mg/L was continued from the existing permit. Therefore, discharges via Outfall 004 were determined to be protective of the receiving water quality.

Effluent analysis data provided in the permit application for discharges via Outfall 005 did not exhibit significant potential. Therefore, discharges via Outfall 005 were determined to be protective of the receiving water quality.

No analytical data was available for screening against water quality-based effluent limitations for discharges via Outfall 006 because no discharges have occurred from this outfall since May 2008. Therefore, effluent limitations at Outfall 006 were continued from the existing permit. A new Other Requirement No. 13 was included in the draft permit to require the permittee to analyze the effluent at Outfall 006 after the first qualifying discharge event. Based on the review of this data, TCEQ staff has the ability to include additional monitoring requirements, effluent limitations, process control requirements, or a combination of these measures to the permit to protect the quality of the receiving waters. Therefore, discharges via Outfall 006 were determined to be protective of the receiving waters.

Further, via its Interoffice Memorandum dated December 15, 2010, the Water Quality Assessment Team in the Water Quality Division of the TCEQ has determined that the discharges from this facility are not anticipated to significantly deplete dissolved oxygen levels in the receiving waters.

Based on the information provided above and the effluent limitations established in the draft permit, the ED has determined that the draft permit includes adequate measures to protect the designated and attainable uses of the receiving waters. Attainable uses are uses which can be reasonably achieved by a water body in accordance with its physical, biological, and chemical characteristics whether it is currently meeting that use or not. The Standards Implementation Procedures have guidelines for the determination and review of attainable uses. The designated use, existing use, or presumed use of a water body may not necessarily be the attainable use.

**Comment No. 2:**

Public Citizen comments that increasing the capacity of the retention pond constitutes a “new source” and should be subject to the new source performance standard.

**Response No. 2:**

Increasing the capacity of the retention pond does not constitute “new source” under 40 CFR § 122.2. New source is defined as “any building, structure, facility, or installation from which there is or may be a ‘discharge of pollutants,’ the construction of which commenced ... [a]fter promulgation of standards of performance under section 306 of CWA which are applicable to such source. ...” Construction of a new source as defined under §122.2 commences if the owner or operator has started placing,

assembling, or installing any facilities or equipment; or if “significant site preparation work including clearing, excavation or removal of existing buildings, structures, or facilities which is necessary for the placement, assembly, or installation of new source facilities or equipment ...” has begun “as part of a continuous on-site construction program.”<sup>1</sup>

The standard of performance for the steam electric power generating point source category was adopted in 1982<sup>2</sup> and the facility commenced construction in 1979. According to the Draft Environmental Impact Statement (EIS) for the facility, the foundation areas for the wastewater ponds were built in 1979.<sup>3</sup> The retention pond is an existing facility. The construction of the facility and the retention ponds predates promulgation of the rules for steam electric power generating point source category, therefore any expansion of the pond would not constitute a “new source.”

Additionally, under the criteria for new source determination, a source is a new source only if it meets the definition of new source under § 122.2, and:

- (i) It is constructed at a site at which no other source is located; or
- (ii) It totally replaces the process or production equipment that causes the discharge of pollutants at an existing source; or
- (iii) Its processes are substantially independent of an existing source at the same site.<sup>4</sup>

First, any construction related to expanding the capacity of the retention pond does not meet the definition of “new source” under § 122.2; second, the retention pond is located at a site where other sources are located; and third, the expansion does not totally replace a process or production equipment.

Finally, the rules are amply clear that construction at a site where an “existing source is located results in a modification subject to §122.62 rather than a new source ... if the construction does not create a new building, structure, facility, or installation meeting the criteria of paragraph (b)(1) (ii) or (iii) of this section but otherwise alters, replaces, or adds to existing process or production equipment.”<sup>5</sup> Therefore the ED considers the expansion of the retention pond as a modification requiring an amendment to the existing permit under 30 TAC § 305.62.

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<sup>1</sup> 40 CFR § 122.29(b)(4).

<sup>2</sup> 40 CFR Part 423.

<sup>3</sup> See Draft Environmental Impact Statement, Henry W. Pirkey Power Plant, Unit-1/South Hallsville Surface Mine Project, Harrison County, Texas, EPA 906/9-82-004 (March 1982).

<sup>4</sup> 40 CFR § 122.29(b)(1).

<sup>5</sup> 40 CFR § 122.29(b)(3).

**Comment No. 3:**

Public Citizen expressed concern that the draft permit does not contain adequate effluent limitations to control barium and selenium.

**Response No. 3:**

The permittee provided analytical data for a set of potential pollutants in its permit application which included total selenium and total barium. As explained in the response to Comment No. 1, the ED screened the analytical data for total barium and total selenium along with the other parameters to determine if they exhibited significant potential to exceed the calculated water quality-based effluent limitations. This screening process was explained in Section X.D.2 of the Fact Sheet, which was prepared to explain conditions and effluent limitations in the draft permit. Variables used and the numerical values derived during the screening process were provided as Appendix B to the Fact Sheet.

Except for total selenium at Outfalls 003 and 004, none of the other potential pollutants, including total barium, demonstrated significant potential to exceed the calculated water quality-based effluent limitations. See Response No. 1 for a detailed explanation of the selenium effluent limitation.

**Comment No. 4:**

Public Citizen comments that the draft permit fails to include technology-based effluent limitations consistent with the current guidance for FGD wastewater issued by the United States Environmental Protection Agency (EPA). Public Citizen further comments that biological treatment systems constitute best available technology for FGD wastewater and that effluent limits should be established based on biological treatment systems.

**Response No. 4:**

Based on the following information gathered from the permittee, the permit application, and the EPA, the ED has determined that the EPA's interim guidance<sup>6</sup> on discharges from FGD impoundments is not applicable for discharges from this facility.

FGD wastes generated at the facility are re-used in the process and are not discharged. Once or twice a year during maintenance, sludges from the FGD system are transported to the landfill.

These sludges constitute a very small volume of the landfill because more than 99% of the landfill material is Fly Ash. Storm water from this landfill

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<sup>6</sup> June 7, 2010 Memorandum from James Hanlon, Office of Wastewater Management to Water Division Directors, Regions 1-10 – Subject: National Pollutant Discharge Elimination System (NPDES) Permitting of Wastewater Discharges from Flue Gas Desulfurization (FGD) and Coal Combustion Residuals (CCR) Impoundments at Steam Electric Power Plants.

drains to the Landfill Pond. Wastewaters from this Landfill Pond are anticipated to be discharged only intermittently, during large storm events.

The draft permit authorizes the discharge of storm water runoff from the Landfill Pond on an intermittent and flow variable basis via internal Outfall 202 (which discharges to Outfall 002) and Outfall 004. These intermittent discharges are expected to consist predominantly of storm water. In March 2010, the facility completed process changes to increase the recycling of waters in the Landfill Pond. Due to these changes, no discharges were made from the Landfill Pond since April 2010. Presently, storm water-dominant discharges are expected from the Landfill Pond only as a result of very large storm events.

Finally, The ED assumes that the guidance document referenced in this comment is the EPA's interim guidance - "Technology-based Effluent Limits, Flue Gas Desulfurization (FGD) Wastewater at Steam Electric Facilities (Attachment A)." The guidance document is not intended to replace EPA or TCEQ's wastewater permitting rules and policies. EPA stated in Section VI of the interim guidance that:

This guidance document does not change or substitute for any legal requirements, though it does provide clarification of some regulatory requirements. While EPA has made every effort to ensure the accuracy of the discussion in this document, the obligations of the regulated community are determined by the relevant statutes, regulations, or other legally binding requirements. This guidance document is not legally enforceable and does not confer legal rights or impose legal obligations upon any member of the public, EPA, states, or any other agency. In the event of a conflict between the discussion in this document and any statute or regulation, this document would not be controlling. ... This guidance may not apply in a particular situation based upon the circumstances, and EPA, states and Tribes retain the discretion to adopt approaches on a case-by-case basis that differ from the recommendations of this guidance document where appropriate.

**Comment No. 5:**

Public Citizen comments that the existing cooling water intake structure (CWIS) located at Lake O' the Pines does not reflect the best technology available (BTA) to minimize adverse environmental impacts – through screen velocity of 2.28 feet per second (fps) does not constitute BTA for new or existing cooling water intake structures.

**Response No. 5:**

Although the through screen velocity at the cooling water intake structure at the Pirkey Power Plant is greater than 0.5 fps, however, based on the results provided in the *Impingement Monitoring Data Report* dated March 2007 and information on the

operation and maintenance procedures for the CWIS provided in the *316(b) Proposal for Information Collection* dated September 2005, the ED determined that the operation of the CWIS has minimal adverse impact on the aquatic community. Even though there is a pump station located at Lake O' the Pines to provide make-up water for Brandy Branch Reservoir, it is not considered part of the CWIS for the electric generating facility.

**Comment No. 6:**

Public Citizen comments that a sufficient antidegradation analysis has not been performed to justify issuance of the permit.

**Response No. 6:**

In accordance with 30 TAC § 307.5 and the IPs, an antidegradation review of the receiving waters was performed. TCEQ's antidegradation policy applies to any increase in pollution authorized by a TPDES wastewater discharge permit. Increases in pollution are determined by information on effluent characteristics that are provided in the permit application, the draft permit, and other available sources.

The Standards Implementation Team conducts reviews of Tier 1, Tier 2, or both in accordance with the antidegradation policy stated in 30 TAC § 307.5. Antidegradation reviews under Tier 1 ensure that existing water quality uses are not impaired by increases in pollution loading. TPDES permit amendments or new permits that allow increased pollution loading are subject to review under Tier 1 of the antidegradation policy, and all pollutants that could cause an impairment of existing uses are included in the evaluation. Antidegradation reviews under Tier 2 ensure that where water quality exceeds the normal range of fishable/swimmable criteria, such water quality will be maintained unless lowering it is necessary for important economic or social development. The second tier of the antidegradation policy generally applies to water bodies that have existing, designated, or presumed uses of contact recreation and intermediate, high, or exceptional aquatic life waters. TPDES permit amendments and new permits that allow an increase in loading are subject to review under Tier 2 of the antidegradation policy.

A Tier 1 antidegradation review has preliminarily determined that existing water quality uses will not be impaired by this permit action. Numerical and narrative criteria to protect existing uses will be maintained.

A Tier 2 review has preliminarily determined that no significant degradation of water quality is expected in Brandy Branch Reservoir and Hatley Creek, which have been identified as having high aquatic life use. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

The applicant has applied for an amendment to the existing permit to request: (a) an increase in the capacity of the existing Landfill Pond, (b) the diversion of wastewater from the Ash Pond into the Landfill Pond on an infrequent basis, (c) a reduction in the monitoring frequency for TSS at Outfalls 004 and 005 from once per month to once per quarter, (d) a reduction in the monitoring frequency for O&G at Outfall 006 from once per month to once per quarter, (e) a reduction in the monitoring frequency for O&G at Outfall 102 from once per quarter to once per year, (f) a reduction in monitoring frequency for BOD<sub>5</sub> at Outfall 302 from once per two months to once per quarter, and (g) a temporary reduction in two-foot freeboard requirement for ponds during storm events. The draft permit does not authorize an increase in loading or the discharge of any new waste streams, therefore the ED has determined that if the permittee operates and maintains the facility according to all applicable TCEQ rules and the provisions in the draft permit, degradation of water quality is not anticipated.

**Comment No. 7:**

Public Citizen comments that no demonstration has been made that Lone Star POTW has adequate capacity to treat the wastes received from AEP Pirkey Power Plant.

**Response No. 7:**

Evaluation of the waste handling capacity of the Lone Star POTW is outside of the scope of the evaluation of this wastewater discharge permit application. The TPDES permitting process is limited to controlling the discharge of pollutants into or adjacent to water in the state and protecting the water quality of the state's rivers, lakes, and coastal waters. Currently, a permittee is not required to demonstrate that the off-site waste handlers have adequate treatment capacity as part of their application for a wastewater discharge permit.

**Comment No. 8:**

Public Citizen comments that the draft permit does not include proper protections for groundwater in the area of the plant and the Landfill Pond and other storage areas pose danger to groundwater.

**Response No. 8:**

The Landfill Pond along with the Lignite Runoff Pond, Ash Pond, and Limestone Runoff Pond are authorized to discharge to their associated outfalls by the draft permit. These outfalls discharge to surface water in the state.

The Water Quality Division has determined that the draft permit was prepared in accordance with the TSWQS, which ensure that the effluent discharge is protective of aquatic life, human health, and the environment. The review process for surface water quality is conducted by the Standards Implementation Team and the Water Quality Assessment Team surface water modelers. The Water Quality Division has determined

that if the surface water quality is protected, then the groundwater quality in the vicinity will not be impacted by the discharge.

Other Requirement 5.d. was updated to include the more stringent requirements of 30 TAC Chapter 217 for pond liners based on best professional judgment. These requirements have been determined by the Commission to be protective of groundwater quality.

**Comment No. 9:**

Public Citizen comments that the draft permit does not have adequate limitations and monitoring requirements to ensure the protection of aquatic life in the receiving waters.

**Response No. 9:**

The TSWQS found at 30 TAC Chapter 307 state that "surface waters will not be toxic to man from ingestion of water, consumption of aquatic organisms, or contact with the skin, or to terrestrial or aquatic life." The methodology outlined in the IPs is designed to ensure compliance with 30 TAC Chapter 307. Specifically, the methodology is designed to ensure that no source will be allowed to discharge any wastewater that: (1) results in instream aquatic toxicity; (2) causes a violation of an applicable narrative or numerical state water quality standard; (3) results in the endangerment of a drinking water supply; or (4) results in aquatic bioaccumulation that threatens human health.

Information on calculation of effluent limitation for the protection of aquatic life was provided in Section X.D.2 of the draft Fact Sheet. Information on the screening procedures used for establishing effluent limitations and monitoring requirements is provided in Response No. 1. The draft permit contains effluent limitations, monitoring and reporting requirements, sampling and analysis requirements, and other safeguards which are designed to be protective of aquatic life in the receiving waters. The effluent limitations applicable to each Outfall are discussed in Section I.B above.

**CHANGES MADE TO THE DRAFT PERMIT IN RESPONSE TO COMMENT**

No changes to the draft permit have been made in response to public comment.

Respectfully submitted,

Texas Commission on Environmental Quality

Mark R. Vickery, P.G.  
Executive Director

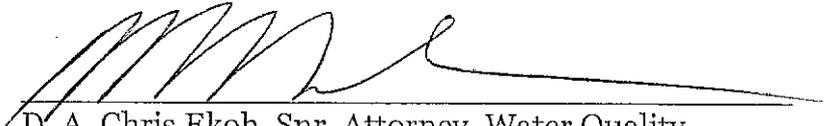
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By 

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**CERTIFICATE OF SERVICE**

I certify that on October 5, 2011, the "Executive Director's Response to Public Comment" for Permit No. WQ0002496000 was filed with the Office of the Chief Clerk, Texas Commission on Environmental Quality.

  
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