

South Texas Project Electric Generating Station P.O. Box 289 Wadsworth, Texas 77483

September 9, 2010 U7-C-STP-NRC-100205

STI 32741499

U. S. Nuclear Regulatory Commission Attention: Document Control Desk One White Flint North 11555 Rockville Pike Rockville, MD 20852-2738

South Texas Project Units 3 and 4 Docket Nos. 52-012 and 52-013 Additional Information Regarding Draft Environmental Impact Statement

References:

es: Letter, Scott Head to Document Control Desk, "Comments on Draft Environmental Impact Statement" dated June 2, 2010. U7-C-STP-NRC-100122. ML101580094.

With this letter, STP Nuclear Operating Company (STPNOC) submits additional information regarding questions identified by the Nuclear Regulatory Commission (NRC) during the August 25, 2010 teleconference to discuss topics raised in public comments on the Draft Environmental Impact Statement (DEIS).

Topics discussed in this meeting included:

- Groundwater well spacing
- Disposal of sewage sludge
- Location of the Main Drainage Channel
- Habitat acreage clarification
- Mitigation for impacts to jurisdictional waters
- Width of rotating screens for the Reservoir Makeup Pumping Facility (RMPF)
- Wastewater Treatment Plant (WWTP) clarification

Details regarding these topics are contained in the attachments to this letter.

There are no commitments in this letter.

If you have any questions regarding this response, please contact me at (361) 972-7206 or Russell W. Kiesling at (361) 972-4716.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on <u>9/9/2010</u>

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Vice President, Oversight & Regulatory Affairs South Texas Project Units 3 & 4

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Attachments:

Attachment 1. Groundwater Well Spacing

Attachment 2. Disposal of Sewage Sludge

Attachment 3. Main Drainage Channel

Attachment 4. Habitat Acreage

Attachment 5. Mitigation for Impacts to Jurisdictional Waters

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Attachment 6. RMPF Rotating Screens

Attachment 7. Wastewater Treatment Plant

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cc: w/o attachment except* (paper copy)

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Richard Peña Kevin Pollo L. D. Blaylock CPS Energy Groundwater Well Spacing

NRC Question:

The NRC analyzed the impact of groundwater well spacing on the STP site assuming wells would be separated by at least 2,500 ft. This was believed to be a regulatory requirement from the Coastal Plains Groundwater Conservation District (CPGCD). However, this requirement only pertains to well spacing on adjacent land parcels and would not apply to additional wells on the STP site. NRC requested verification that on-site well spacing would be at least 2,500 ft and inquired as to whether there were any internal policies, procedures or requirements pertaining to well separation that required such spacing intervals.

STPNOC Response:

STPNOC does not have formal policies or procedures that dictate minimum spacing between groundwater wells. However, prior to installation of a new well, prudent engineering design activities would include analysis of the aquifer to ensure that design-specified pumping rates would not adversely affect the aquifer recharge rate and consequently, any other on-site wells.

While minimum spacing between wells is not dictated by policy or procedure, other spacing requirements are in place. For example, the Unit 1 and 2 UFSAR at Section 2.4.13.2.5 states:

No sustained pumping is permitted within a 4,000 ft non-pumping exclusion radius from the plant area. The 4,000 ft sustained pumping exclusion radius is to restrict the withdrawal of significant amounts of groundwater from directly beneath the plant area in order to minimize the potential for regional subsidence resulting from lowering of the groundwater level in the deep aquifer.

In addition, the Units 3 and 4 FSAR (Revision 3) at Section 2.4S.12.3.3, Plant Groundwater Use and Effects, states:

As with STP 1 & 2, it is expected that no sustained pumping will be permitted within 4,000 ft of the plant safety-related facility areas in order to minimize the potential for regional subsidence resulting from lowering of the Deep Aquifer zone potentiometric head.

Based on the spacing requirements discussed above, STPNOC selected a location for the new groundwater well that was in excess of 4,000 ft from plant safety-related facilities.

Disposal of Sewage Sludge

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NRC Question:

The NRC asked for additional details regarding STPNOC's current disposal of sanitary sewage sludge.

STPNOC Response:

Sanitary sewage sludge was beneficially land applied on the STP site from March 1993 until March 2007 in an area permitted for that purpose north of the warehouses on the west side of the site.

When the proposed location for STP Units 3 & 4 was identified, the land application area was within the footprint for the new plants. It was determined that continued disposal of sewage sludge in this area should be discontinued. A review of the entire site concluded that there were no other accessible areas that could be used for land application that met the distance requirements between drainage ditches and surface waters required by the regulations. Consequently, offsite disposal was identified as the preferred option for sewage sludge management.

The last land application onsite was on March 21, 2007. The permit to land apply sludge onsite was allowed to expire on August 29, 2008. Sewage sludge is currently dewatered onsite and shipped offsite as a Texas Class 2 industrial solid waste to a permitted landfill operated by Republic Waste Services in Fresno, Texas.

Main Drainage Channel

NRC Question:

The NRC asked for clarification regarding the current location of the Main Drainage Channel (MDC).

STPNOC Response:

STPNOC elected to relocate the MDC to support proposed pre-construction sequencing. After completing a jurisdictional determination with the U.S. Army Corps of Engineers, STPNOC proceeded with relocation activities without infringing on any jurisdictional areas. Relocation activities began in the final quarter of 2009 and were completed during the first quarter of 2010.

COLA Part 3 Environmental Report (ER) indicates in Section 1.2.2 that preconstruction activities could include "removal and/or relocation of existing facilities in the new plant footprint." The existing MDC was identified as such a facility within the construction footprint and was slated for relocation. Further, ER Section 3.9S.3.2 indicates: "The existing drainage ditch that runs east and west through the STP 3 & 4 footprint, north of the existing switchyard, will be relocated to accommodate the new units." Finally, ER Section 4.3.1.1.1 specifies: "This ditch will be relocated 650-700 feet north of its present position, just north of the new power block...."

The attached DEIS Figure 2-12 accurately depicts the location and configuration of the MDC prior to relocation. STPNOC has annotated the figure labels to clarify that the MDC has already been relocated.

Main Drainage Channel

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NRC Question:

In response to a comment from Texas Parks and Wildlife Department (TPWD), NRC asked for a description of the habitat type of the approximately 56 acres of permanent impacts that are not outlined in the DEIS. In addition, TPWD requested that the category "Other" be defined as a specific habitat type(s).

STPNOC Response:

An analysis conducted by the NRC in the DEIS was unable to reconcile 56 acres of permanent impacts to site habitats. Rather than attempt to determine why the NRC analysis was unable to reconcile all habitat impacts, STPNOC is providing the actual acreages for each habitat type impacted either permanently or temporarily.

As engineering efforts proceed, STPNOC has continued to refine the site plot plan. This information has now been captured in geo-referenced format which allows for direct analysis when superimposed on the geo-referenced map depicting facility habitat types previously developed and submitted to the NRC in the 2008 report "Ecological Survey Report - Habitat Assessment" (ML090270986). This habitat map was recently updated to account for jurisdictional wetlands which had not been identified at the time the report was submitted.

The results of the habitat analysis using the updated site plot plan and updated habitat information are contained in the table below:

Habitats Impacted Temporarily	Acres
Existing Facilities	8.0
Maintained and Disturbed Areas	73.6
Mixed Grass Community	19.5
Scrub Shrub Communities	138.9
Sub-Total Temporary Impacts	240.0

Sub-10tal Temporary Impacts:

Habitats Impacted Permanently	Acres
Existing Facilities	130.0
Maintained and Disturbed Areas	79.4
Scrub Shrub Communities	90.6
Sub-Total Permanent Impacts:	300.0

Total Acreage Impacts 540.0

STPNOC previously addressed impact acreages in ER RAI 10.05S-03, which identified 540 acres for the total facility footprint based on construction planning. Of that, 300 acres were identified as being permanently dedicated to the new units and their supporting facilities. The remaining 240 acres were identified as temporary construction-related impacts. Based on STPNOC's updated habitat analysis, these numbers are confirmed.

Regarding TPWD's request that the "Other" category be defined as a specific habitat type, the "Other" category originated from the 2008 AECOM habitat report and reflects approximately 759 acres of levee system associated with the Main Cooling Reservoir (MCR) and the Essential Cooling Pond (ECP). These levees are comprised of earthen materials covered by mowed grasses on the outside, asphalt or concrete on the top (for roads) and concrete on the inside of the levees. While "Levee" doesn't truly describe a habitat type, it is more descriptive than "Other" and has been substituted for clarity.

To support the above discussion, the following figures are attached:

- Figure 1. Facility Habitat Types
- Figure 2. South Texas Project Location Map
- Figure 3. South Texas Project Plot Plan Units 1, 2, 3 & 4
- Figure 4. South Texas Project Barge Slips and Proposed Expansion









Mitigation for Impacts to Jurisdictional Waters

NRC Question:

During public review of the DEIS, TPWD requested that STPNOC supply a mitigation plan for impacts to jurisdictional waters associated with construction of the new units. The NRC requested that STPNOC provide an update regarding the status of mitigation in the pending U.S. Army Corps of Engineers (USACE) Individual Permit application.

STPNOC Response:

Based on comments received during Public Notice for the DEIS and during Public Notice for the USACE Individual Permit application, STPNOC has proposed to provide mitigation for impacts to jurisdictional waters associated with construction of Units 3 & 4.

Based on a stream functional assessment, USACE determined that mitigation was warranted for impacts to relatively permanent waters. Their assessment, using the Unified Stream Methodology, indicated that 135 ft of stream credits were required to mitigate for impacts to the relatively permanent waters impacted by the proposed construction activities.

STPNOC has proposed a mitigation package that would include on-site creation of 1,445 ft of relatively permanent water (during the relocation of the Main Drainage Channel) and 135 ft of stream credits from the Mill Creek Mitigation Bank.

Efforts to finalize the mitigation requirements are part of the USACE Individual Permit application process and are ongoing.

NRC Question:

NRC has requested that STPNOC verify that the width of rotating screens for the Reservoir Makeup Pumping Facility (RMPF) is 10 feet.

STPNOC Response:

During review of the DEIS, STPNOC noted that the figure used by NRC to depict the RMPF was from the STP Units 1 & 2 Construction Environmental Report. This drawing depicted 18 sets of 10 ft wide rotating screens. However, the STP Units 1 & 2 Operational Environmental Report depicts the correct configuration which was constructed and is currently in operation that includes 24 rotating screens. The width of the individual screens did not change. STPNOC supplied a copy of the drawing depicting the 24 screens with their DEIS comments.

Attached is a revision of the figure previously supplied in STPNOC's DEIS comment letter that indicates the screens are 10 ft wide.



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NRC Question:

NRC has requested clarification regarding whether the two Sanitary Waste Treatment Systems on site will be replaced or upgraded.

STPNOC Response:

The DEIS indicated that both the West Sanitary Waste Treatment System and the Nuclear Training Facility (NTF) Sanitary Waste Treatment System would be replaced by newer systems to accommodate the proposed expansion. STPNOC, in its comment letter on the DEIS, requested that the NRC's description be altered to state that the systems would be replaced or upgraded.

Based on the location of the proposed STP Units 3 & 4 circulating water discharge piping, the West Sanitary Waste Treatment System must be replaced by a new sanitary treatment plant located west of the existing facility. The existing treatment plant will then be removed. The NTF Sanitary Waste Treatment System may also be replaced in its entirety. However, engineering design has not been completed and STPNOC would like to retain the option to upgrade the facility if that would accommodate the expanded treatment needs in a more cost-effective fashion.

The STPNOC comment was offered to identify that options other than total replacement of both Sanitary Waste Treatment Systems are currently being evaluated. STPNOC does not expect impacts to be significantly different regardless of whether the NTF Sanitary Waste Treatment System is replaced or upgraded.