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September 16, 2009

U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555
ATTN: David B. Matthews, Director
Division of New Reactor Licensing

SUBJECT: COMANCHE PEAK NUCLEAR POWER PLANT, UNITS 3 AND 4
DOCKET NUMBERS 52-034 AND 52-035
SUPPLEMENTAL INFORMATION FOR THE ENVIRONMENTAL REVIEW RAI

Dear Sir:

Luminant Generation Company LLC (Luminant) herein submits supplemental information for the responses to Environmental Review Request for Additional Information Questions GEN-03, HYD-16, SOC-23, SOC-27, TE-04, TE-11, TE-15, TE-18, and TE-19. Luminant is providing the supplemental information after having a teleconference with the NRC on August 20, 2009. Should you have any questions regarding the information, please contact Don Woodlan (254-897-6887, Donald.Woodlan@luminant.com) or me.

There are no commitments in this letter.

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

Executed on September 16, 2009.

Sincerely,

Luminant Generation Company LLC

Donald R. Woodlan for

Rafael Flores

Attachment: Supplemental Responses to Request for Additional Information

D090
NRO

Email Distribution w/ attachment

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SUPPLEMENTAL RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

Comanche Peak, Units 3 and 4

Luminant Generation Company LLC

Docket Nos. 52-034 and 52-035

RAI REGARDING THE ENVIRONMENTAL REVIEW

DATE OF RAI ISSUE: 6/26/2009

QUESTION NO.: GEN-03 (3.6.1-1)

Provide a detailed description of the construction and proposed operation of the evaporation ponds and the "three-month storage" pond and their associated physical and chemical characteristics.

SUPPLEMENTAL INFORMATION:

The existing design of the CPNPP Units 3 and 4 Blowdown Treatment Facility (BDTF) and the associated evaporation pond are in the conceptual design phase. Distances to transmission lines, pond design, and water spray/misting systems have not been finalized. However, the potential impacts from salt dispersion has been assessed as discussed below.

Conceptually, the BDTF will consist of one large 2364 ft by 2364 ft pond dissected into six 788 ft by 1182 ft cells. Evaporation will be enhanced using a misting or spray system. Salt drift can be minimized and monitored by employing certain devices, such as wind speed sensors, to stop misting machines when wind speeds increase to levels that may cause salt drift beyond the pond areas. Salt fencing can be placed around the pond area to minimize salt drift. The detailed design process includes evaluating the need for salt drift minimization.

Impact on R-COLA

None.

Impact on S-COLA

None.

Impact on DCD

None.

QUESTION NO.: HYD-16

Provide a description of baseline water quality conditions for the Brazos River downstream of Lake Granbury and the impact that Unit 3 and 4 thermal and chemical discharges to Lake Granbury and Squaw Creek Reservoir would have on water quality downstream of Lake Granbury. This description should include a summary of the information gathering efforts for quantitative data on chemical concentrations and temperature.

SUPPLEMENTAL INFORMATION:

The NRC expressed an interest in the Region G Plan Amendment process and impact assessments performed to support the Regional Plan Amendment. Amending the Region G Water Plan, and ultimately the State Water Plan, to include water for CPNPP Units 3 and 4 was not driven by regulatory requirements. At the request of the BRA, Luminant elected to amend these plans to ensure project transparency and an early opportunity for public participation. To support the amendment process, HDR (Brazos G Planning Group Hydrological Consultant) included a planning-level environmental assessment of the activity based predominantly on literature search. This information was included in the Region G Plan Amendment previously provided to the NRC. State water planning rules do not require an environmental ground reconnaissance for a plan amendment.

As to water level fluctuations and associated ecological impacts, these situations currently exist naturally as evidenced by recent level decreases in Possum Kingdom, Lake Granbury, and Lake Whitney as a result of recent drought conditions in the area. It is not uncommon for these lake levels to vary naturally, thereby changing the littoral setting of these aquatic systems and associated fringe terrestrial communities. Since level fluctuations are not an unusual occurrence, it would be expected that the aquatic and terrestrial communities along the fringes of these lakes would be comprised of highly adaptable ecological habitats. Under normal conditions, BRA expects the additional water withdrawal for CPNPP Units 3 and 4 to have minimal effect on Lake Granbury water level. During drought conditions, in which the decrease lake level would naturally alter the ecological setting of the shoreline, the additional water withdrawal would have little additional effect to shoreline aquatic or terrestrial habitat.

A question was posed relative to water rights, water priority, and impact of the Regional Plan Amendment on other water users. Water to be made available for CPNPP Units 3 and 4 will be sourced primarily from the BRA System Operating Permit (SOP) which will be "junior" in time priority to many older water rights in the Brazos Basin. In modeling the Basin prior to the permit application and then again to assess water availability for CPNPP Units 3 and 4, all prior permits were considered in the modeling as if they were fully utilized. Therefore, the water made available for CPNPP Units 3 and 4 out of the SOP will not impact water availability for other water users in the Regional Plan. Although, at least some of the water for CPNPP Units 3 and 4 will be considered junior to many other basin water rights due to the priority date of the SOP, this water will be backed by BRA reservoir stored water and will be available 100% of the time during a repeat of Drought of Record conditions. Once water is stored under the current BRA water rights or SOP permit, it is not subject to senior call and is available to meet BRA commitments. Consequently, this water will not be subject to a senior call by downstream water rights as has occurred during the current drought. Additionally, Luminant understands that should it be necessary for BRA to reduce or curtail water delivery under severe drought conditions (i.e., the Drought of Record), that requirement is placed on all BRA contract customers, regardless of the date of their water supply agreement.

The NRC also expressed an interest in the effects on downstream environmental flows and associated impacts. This environmental aspect is addressed separately by the permitting process of the SOP. The

permit will be issued by the Texas Commission on Environmental Quality (TCEQ) to the BRA and water to be made available for CPNPP Units 3 and 4 will be sourced primarily from this permit. The public is already involved in this highly visible process through the notice and public meeting requirements of the TCEQ water rights permitting process and many factors will be considered as this permit moves forward. Environmental flows will be one of those factors. The State of Texas, through the passage of Senate Bill 3 during the 2007 session of the State legislature, established a far-reaching requirement for environmental flows for water rights permits, and the BRA SOP will be one of the first water rights permits subject to these standards. Meeting environmental flow requirements will the responsibility of the BRA as the water rights holder. Therefore, the SOP process is the appropriate avenue for addressing environmental flows.

Impact on R-COLA

None.

Impact on S-COLA

None.

Impact on DCD

None.

QUESTION NO.: SOC-23 (5.8.1.1-1)

Provide the following information about the operations period workforce:

1. A revised ER text explaining why CPNPP Units 3 and 4 require only 550 operations workers while CPNPP Units 1 and 2 are using 1000 workers.

2. The maximum number of workers involved in peak hour morning and evening shift changes during the operations period.

3. The daily number of operations-related deliveries expected for CPNPP Units 3 and 4.

ANSWER (REVISED):

The difference in workers is chiefly attributable to the difference in reactor type. While CPNPP Units 1 and 2 use Westinghouse technology from the early 1970's, the US-APWR uses subsequent advancements in digital technology, which significantly increase the use of digital instrumentation and control equipment. Additionally, the US-APWR uses lesson-learned from world-wide plant operating history resulting in improvements in equipment availability and reliability. Collectively, these enhancements have reduced maintenance, surveillance, and operations activities, and have reduced the need for many support staff. Some of the support staff from CPNPP Units 1 and 2 will also support the operation of CPNPP Units 3 and 4. The number of licensed operators will remain the same for CPNPP Units 3 and 4 as it is for CPNPP Units 1 and 2.

The maximum number of workers involved in peak morning shift changes for CPNPP Units 1 and 2 is approximately 900 people on an average day, with an afternoon/evening peak number of approximately 200 workers. During outages, the number of workers increases. During a standard outage there are 1600 workers during the peak morning shift change and 400 workers for afternoon/evening peak times.

The maximum number of workers involved in peak morning shift changes for CPNPP Units 3 and 4 is anticipated to be 405 people on an average day, with an afternoon/evening peak number of approximately 89 workers. During a standard outage 1105 workers are expected to be onsite during the peak morning shift change and 289 workers for afternoon/evening peak times.

The daily number of operations-related deliveries for Units 1 and 2 is approximately 15. During outages this would increase to approximately 45 per day. The daily number of operations-related deliveries for Units 3 and 4 is anticipated to be similar to Units 1 and 2.

Impact on R-COLA

None.

Impact on S-COLA

None.

Impact on DCD

None.

QUESTION NO.: SOC-27 (5.8.2.3.4-1)

Provide the following information on recreation:

1. The extent to which the water level of Lake Granbury will be affected by extraction of cooling water and how that is expected to affect recreation.

The extent to which the water temperature of Lake Granbury would be affected by the cooling process and how that is expected to affect recreation.

ANSWER (REVISED):

The lake levels of Lake Granbury are governed by the Brazos River Authority (BRA). The BRA provides historical lake elevation data since the lake was completed in 1969. The top of the conservation pool is at elevation 693-ft. Since completion of the lake:

- 23 percent of the time the elevation has been below 692-ft
- 9 percent of the time the elevation has been below 691-ft
- 4 percent of the time the elevation has been below 690-ft
- The lowest recorded elevation is 685.5-ft

The BRA is permitted by the state to annually withdraw up to 100,000 ac-ft for water sales from Lake Granbury. Over the last 25 years, annual inflow to Lake Granbury has averaged about 470,000 ac-ft per year (BRA 2009).

Luminant has requested a water supply of up to 90,000 ac-ft per year for CPNPP Units 3 and 4. Of the water diverted from Lake Granbury for CPNPP Units 3 and 4, two-thirds is consumed by evaporation in the cooling towers and one-third is returned to Lake Granbury. As discussed in Subsection 5.2.2.2, based on published elevation storage relationships, the 171 ac-ft/day consumptive water use for CPNPP Units 3 and

4 would result in a negligible (less than 0.1 ft) decrease in water level elevation on Lake Granbury. During average rainfall years and wet years, there is no effect on lake levels. However, the additional water used by CPNPP Units 3 and 4 could result in the lake level being as much as 1.5-ft lower than it would have been during drought conditions which is about 30 percent of the time. During extreme drought, such as experienced in the 1950s, the lake could be as much as 4-ft lower than it would have been without any water use by CPNPP Units 3 and 4. This data is for year 2020 lake conditions (BRA 2009).

The fluctuations in water level are not expected to impact the recreational users of Lake Granbury or the shoreline habitat. As described in Subsection 2.3.2.2.2, recreational use in the vicinity is supported by numerous state parks and by public facilities for boating and camping at various lakes and reservoirs. Lake Granbury has five public access areas for picnicking and fishing, four of which have primitive camping sites. A boating capacity study identified 6000 private boat slips and boat ramp access at 12 launch ramps. The survey indicated that the majority of Lake Granbury boaters appear to spend most of their time on the lake waterskiing (26.7 percent), cruising (21.8 percent), fishing (21.6 percent), on personal watercraft (10.1 percent), or swimming (9.9 percent). The lake is currently listed by the Texas Parks and Wildlife Division as having a fluctuation of one foot or less. This fluctuation is not impacted by CPNPP Units 3 and 4 during average or wet rainfall years. During drought conditions, the fluctuation is only increased by a maximum of 1.5 feet. A fluctuation of this magnitude does not impact boat access to the lake or access to swimming areas. Only during extreme drought conditions are the lake levels affected more than 1.5 feet. However, even during low-flow conditions, lake-level reduction associated with consumptive water losses resulting from CPNPP Units 3 and 4 is not expected to affect recreational boating and fishing in summer, when lake use is at its highest, due to the length of time for drawdown (see Table 2.3-38). Also, the withdrawal of water for use by CPNPP Units 3 and 4 is anticipated to have minimal impact on boating and fishing downstream of the dam. Thus, issues of water level due to the plant operations do not impact recreational use of the lake.

Shoreline habitat along Lake Granbury tends to be steep and rocky, and highly developed. Vegetation is limited either by development or rock habitat. Because the banks are steep and the depth of Lake Granbury increases quickly, lowering the water levels will not create expanses of exposed soil. Therefore, temporary lake level fluctuations are not anticipated to affect the limited available shoreline habitat.

The temperature affect on Lake Granbury due to CPNPP Units 3 and 4 is restricted to the area near the DeCordova Bend Dam where the multiport diffuser is placed. The maximum temperature of water discharged into the reservoir is 93_F. As discussed in Subsection 5.2.3.1, CORMIX was used to simulate the thermal plume that is anticipated in Lake Granbury due to CPNPP Units 3 and 4. Results of these simulations predict a small thermal plume that dissipates quickly. Directional flow of the reservoir water toward the dam pulls the plume towards the dam where it can mix with ambient water from the lake. Also, the thermal plume is smallest in the summer, the season of maximum recreational usage.

Two public access areas are located near the DeCordova Bend Dam. The first is a recreation area on the north side of the lake, containing a boat launching ramp, fishing pier, picnic tables, a swimming area, and overnight camping. The second is an observation point with picnic tables. Both sites are upstream from the proposed diffuser. Thus, the thermal discharge into Lake Granbury is not expected to impact recreation.

Impact on R-COLA

None.

Impact on S-COLA

None.

Impact on DCD

None.

QUESTION NO.: TE-04 (2.4.1-1)

Provide copy of the following document that is referenced in the ER: (PBS&J 2007) Golden-Cheeked Warbler Bird Survey Report (for) TXU Power, Comanche Peak Power Plant, Somervell County, Texas. Prepared for TXU Power, 1601 Bryan Street, Dallas, Texas 75201 by PBS&J, 18383 Preston Road, Suite 110, Dallas, Texas 75252. May.

SUPPLEMENTAL INFORMATION:

Environmental Report (ER) Subsections 2.4.1 and 2.4.1.1.3.2 describe surveys conducted for the golden-cheeked warbler along the peninsula area west of Squaw Creek Reservoir. However habitat surveys conducted in the area of the blowdown treatment facility are not currently included in the ER. The following provides a summary of the survey conducted in 2007 and additional survey in 2009.

Infrared aerial photographs of the blowdown treatment area to determine which areas would provide potentially suitable habitat for the golden-cheeked warbler based on habitat descriptions provided by the U.S. Fish and Wildlife Service. Photographic signatures of trees species were used to identify areas that had a mixture of Ashe juniper and hardwood tree species, and that might require focused surveys. Areas were identified that had a mixture of Ashe juniper and deciduous hardwoods. These areas were ground-truthed by a visual qualitative analysis of density, canopy cover, and tree age on November 14, 2007 to determine if habitat was present that would be suitable for golden-cheeked warblers. It was determined the blowdown treatment area did not contain the density and maturity of Ashe junipers necessary to qualify as suitable for golden-cheeked warblers.

Point-transect data was taken in November 14, 2007 within a known golden-cheeked warbler occupied site in Dinosaur Valley State Park. Percent cover was calculated and compared to relative densities within the blowdown treatment area. It was confirmed that suitable habitat for golden-cheeked warblers was not present in the blowdown treatment area. Additional site reconnaissance performed on February 04, 2009 reconfirmed suitable golden-cheeked warbler habitat is absent from the area of the blowdown treatment facility.

Impact on R-COLA

ER Revision 0 page 2.4-3 has been revised to reflect this RAI response.

See attached changes for page 2.4-3. Because of the text additions and deletions, the page numbers on the mark-up ER pages may not be the same as the page numbers in ER Revision 0.

Impact on S-COLA

None.

Impact on DCD

None.

Unless characterized otherwise in the individual discussions below, the visits were for the purpose of ecological reconnaissance. Ecological reconnaissance refers to the examination or survey of the general ecological characteristics of a site or region, and usually results in a qualitative, not quantitative, overview of habitat and other features of ecological interest The visits occurred during daylight hours, generally between 8 a.m. and 5 p.m., and lasted the entire day unless terminated early due to inclement weather. The visits were made by professional terrestrial and aquatic ecologists. Additionally, subjective evaluation of wildlife habitat is based correctly on the assumptions that (a) the vegetation structure, including species composition and physiognomy (the outward appearance of a stand), is sufficient to define its suitability for wildlife; (b) a positive relationship exists between vegetation diversity and wildlife species diversity; and (c) the vegetation species composition and primary productivity directly influence wildlife population density.

- A walk-over reconnaissance in October 2006 of the Ashe juniper habitat on the SCR peninsula slated for construction of the CPNPP Units 3 and 4 cooling towers was followed by a return visit in January, 2007 to collect quantitative vegetation data there along 100-m line-intercept transects.

- An initial walk-over reconnaissance of the existing water pipeline right-of-way (ROW) between SCR and Lake Granbury in December, 2006 was followed by return reconnaissance visits in April and July, 2007 to characterize vegetation communities there, including any possible wetlands. The April visit also focused on evaluating emergent wetlands associated with on-site ponds and SCR, and tallying on-site species of birds with special attention to the golden-cheeked warbler and black-capped vireo by listening for their calls. The area was revisited during November 2007 to observe ecological conditions on three alternate routes for the expanded water pipeline on the CPNPP site (Subsection 2.4.1.2.2).

- Informal surveys for the golden-cheeked warbler and the black-capped vireo were conducted during April 2007 at various times of day over the course of three days. Recordings of the songs and calls of both species were studied prior to field survey. Survey for these species concentrated on the peninsula area proposed for construction of the new cooling towers. Survey methods consisted of walking transects on an east/west axes spaced approximately 100 m apart. Neither species was ~~heard or observed~~audibly or visually identified during the April survey. CTS-00709

- A habitat survey was performed in the area of the blowdown treatment facility (BDTF) November, 2007 and compared to a reference site where known golden-cheeked warbler populations exist. Additional site reconnaissance was performed February 4, 2009, which reconfirmed suitable golden-cheeked warbler habitat is absent from the area of the BDTF. RAI TE-04

- Emergent wetland vegetation along the shore of the SCR peninsula was delineated using GPS point coordinates obtained while surveying the lake shoreline by boat in February and May, 2007. Additionally, a May visit identified harvester ant colonies on-site that were carefully examined for presence of the Texas horned lizard. None were found. These areas were also revisited during the July, 2007 visit, which also failed to note presence of the species. Also recorded during an early May visit was a woven, pendulous nest in a

QUESTION NO.: TE-11 (5.3.3.2.3-1)

Provide information on expected impacts to birds (i.e., bird strikes), bats, and other wildlife from transmission line crossings of ponds to be constructed within the blowdown treatment area.

SUPPLEMENTAL INFORMATION:

The existing design of the CPNPP Units 3 and Blowdown Treatment Facility (BDTF) and the associated evaporation spray pond are in the early design phase. Details of the evaporation pond location, distances to transmission lines, pond design, and possible water spray systems have not been finalized.

The proposed location of CPNPP Units 3 and 4 is on the same site as operating Units 1 and 2. Historical experience at the site provides evidence of very rare occurrences severe fogging based from the nearby heated water of Squaw Creek Reservoir, unheated Units 1 and 2 evaporation ponds, and Lake Granbury. The surface area of the proposed BDTF evaporation spray pond, including the effects of a spray system (if used), would be much smaller than Squaw Creek Reservoir and Lake Granbury, and would not be expected to generate severe fogging conditions. Additionally, a search of the literature has not produced any information that would lead to a conclusion that the operation of CPNPP Units 3 and 4 BDTF evaporation pond would produce fogging.

Fog generation is a result of the surface boundary layer of the pond at a given temperature coming into contact with the ambient air over the pond at a different temperature. This interface area is convective and dependent upon the mixing of the air saturated at the surface temperature. Using the Fog Excess Water (FEW) Index (see Hicks, Argonne National Laboratory (Hicks 1978)) as a good measure of the likelihood of steam fog to occur, it is evident that the potential for fog development is a function of the difference in temperature between the saturated vapor pond vapor and the ambient background air. Data used to substantiate the FEW Index indicate that greater temperatures differences, typically exceeding 20°C, produce a greater degree of fogging. Water temperature in the CPNPP Units 3 and 4 BDTF evaporation pond is expected to be near ambient conditions, thus the formation of fog based on an extreme temperature differential between the surface layer above the pond and ambient air is unlikely.

The use of spray nozzles or misters would increase the amount water vapor in the surface layer above the pond through increased evaporation and under the right atmospheric conditions might cause localized fogging. However, any localized affect is expected to be less than what has historically occurred at and around the site, and is expected to be temporary.

As the design of the BDTF evolves, the CPNPP design process ensures that appropriate practices are employed to minimize pond fogging. With fogging kept to a minimum, Luminant expects there will be minimal occurrences of bird strikes due to transmission lines being obscured by fog.

Reference:

(Hicks 1978) Hicks, B.B., 1978, On the Prediction of Local Effects of Proposed Cooling Ponds, Argonne National Laboratory.

Impact on R-COLA

None.

Impact on S-COLA

None.

Impact on DCD

None.

QUESTION NO.: TE-15 (4.3.1.4-3)

Please provide a functional assessment for any mitigation proposed for aquatic resources, including wetlands, which demonstrates replacement of lost wetland functions.

SUPPLEMENTAL INFORMATION:

A small wetland area along the inlet southwest of the cooling tower peninsula is currently within the construction area. While very small, disturbance to this area was discussed with the NRC.

Environmental Report Figure 4.3-1 shows the wetland of interest and the potential for partial disturbance. As noted in ER Subsection 4.3.1.4, the U. S. Army Corps of Engineers (USACE) is responsible for determining jurisdiction over wetlands and providing guidance regarding compensatory mitigation and the need for permitting. During the NRC Environmental Review Site Visit (Ecology portion) in February 2009, the drainage map for the proposed site was reviewed and a planned storm water sedimentation pond was superimposed over the areas of concern. The pond is shown on FSAR Figure 2.4.2-202. The sedimentation pond will partially affect the wetland of interest. Total acreage of the wetland is 0.78 acre. The affected portion is estimated at 0.35 acre or 45 percent of the total, leaving 0.43 acre or 55 percent of the wetland intact. The attached revised Figure 3 from the "Wetland and Other Potentially Jurisdictional Waterbody Identification and Delineation Report" indicates the area that will be affected.

Updated ER Table 1.2-1, Sheet 2 addresses interactions with federal, state and local authorities and specifically identifies the 404 permitting with the USACE for construction in a wetland or shoreline. As noted on this table, Luminant plans to submit an application, as necessary, 24 months prior to dredging/filling activities.

Luminant has already initiated informal discussion with local representatives of the USACE regarding the permitting that will be required for the construction of CPNPP Units 3 and 4. Although the discussions are informal and preliminary, the minimal impact as well as the minimal functionality of the wetlands was identified. Discussions included the possibility that impacts could be addressed via the nationwide permitting (NWP) process in lieu of a specific project permit. Because functionality and area impacted are both minimal, mitigation may not be necessary. It is likely the new shoreline will develop over time into essentially equivalent wetlands. As stated above, these discussions are ongoing but preliminary, as it is too early to apply for a permit. Detailed construction plans are necessary prior to holding detailed discussions with the USACE and to prepare applications for the appropriate permits.

Luminant's conclusion is that the environmental impact of disturbing this wetland area to construct a sedimentation pond has little or, in the long run, no environmental impact. The disturbance may well be overshadowed by the value of the sedimentation pond, which will protect the quality of SCR, especially in this section of the reservoir, and the potential new wetlands that may develop over time in the same area.

Impact on R-COLA

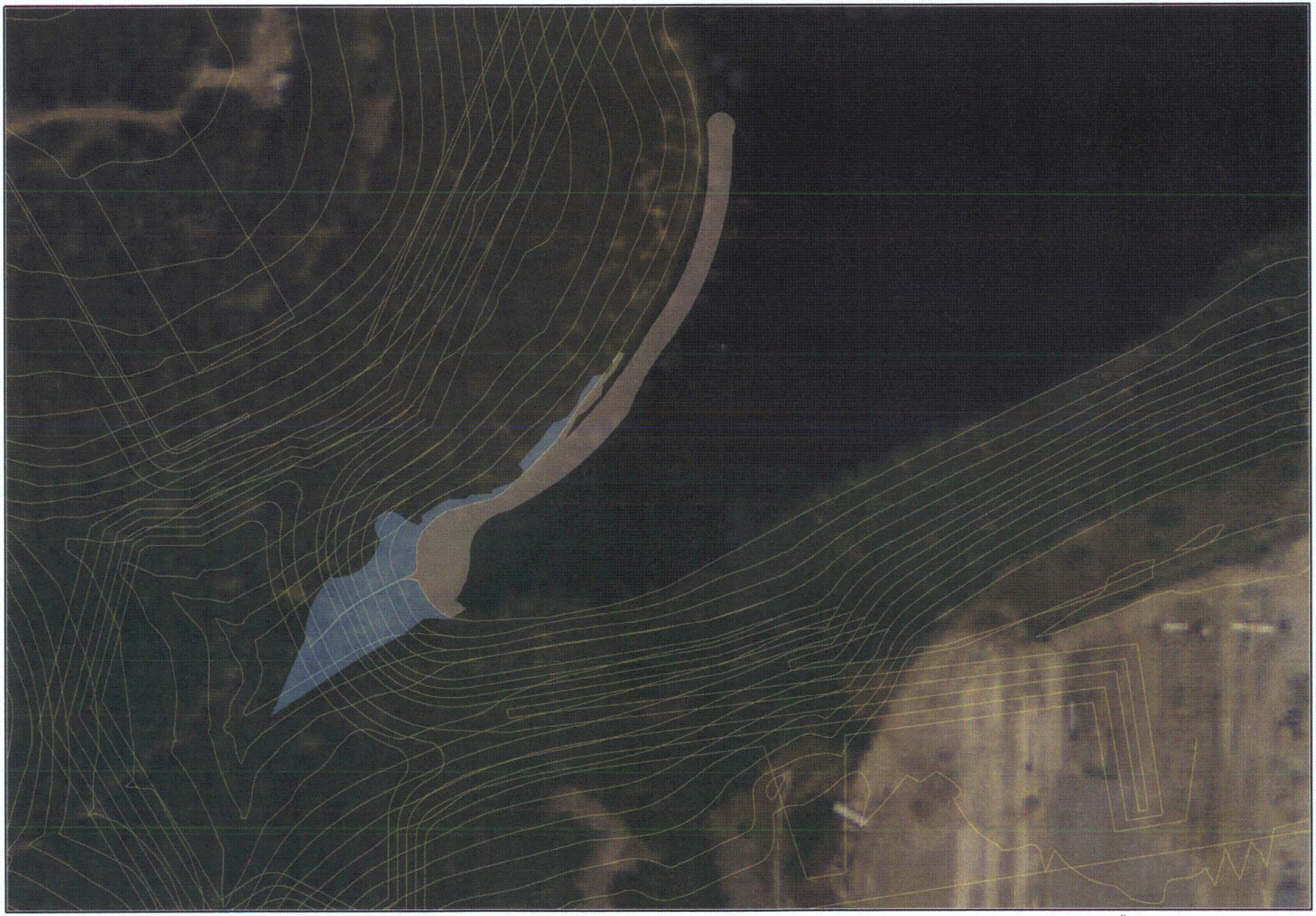
None.

Impact on S-COLA

None.

Impact on DCD

None.



Legend

Southwest Peninsula Wetland
Affected
Not Affected

Topography

Comanche Peak Nuclear Power Plant
Squaw Creek Reservoir
Wetland Delineation
Figure 3

0 0.01 0.02 0.04 0.06
Miles

QUESTION NO.: TE-18 (5.6.1-1)

Provide information supporting conclusion that electrocution threat to raptors from transmission lines is small, including any references to documents in support of the conclusion.

SUPPLEMENTAL INFORMATION:

The NRC expressed some Interest in the potential for fogging at the BDTF (blow down treatment facility) and whether the fogging could result in a significant increase of bird impacts with the transmission lines nearby. These potentials might be influenced by the use of sprays or other devices at the BDTF to enhance evaporation.

The only data that Luminant has with respect to bird strikes on transmission lines is a lack of data. Luminant searched the Corrective Action Program data base for CPNPP Units 1 and 2 for records of such bird strikes. This program is used to address issues that may require correction, improvement, or management attention in addition to "non-corrective" action issues that need a robust tracking or reporting process. Although this search identified no significant data, Luminant also polled selected individuals at CPNPP Units 1 and 2 and Luminant corporate organizations that might be aware of such strikes within north central Texas. CPNPP and other plants experience fogging of adjacent water sources as a normal meteorological process and have transmission lines that pass over or near these water sources. At CPNPP, only one event was identified that involved birds striking transmission lines during the more than 19 years of operation. This event occurred on a day when the fog developed rapidly and involved approximately six ducks. No written records were located that documented this event. Neither Luminant corporate nor station personnel contacted could identify any bird impact issues. During the NRC's alternate site visit, the plant manager of the Trading House plant, a coal plant with numerous lines that pass over the water source, was asked if his plant had a bird strike problem. He replied in the negative. Of all the personnel contacted, no one could say that bird strikes never happen, with or without fog, but all felt that if there had been a significant number of strikes that they would have been aware of the challenge.

In summary, Luminant concludes that bird strikes due to the construction of the BDTF and its associated storage and evaporation ponds will not be a significant issue, even considering fogging and the location of the transmission lines. Luminant was not able to identify documentation that has the same conclusion, but there is little or no documentation or personnel knowledge of such a problem at locations with similar conditions in north central Texas.

Impact on R-COLA

None.

Impact on S-COLA

None.

Impact on DCD

None.

QUESTION NO.: TE-19 (5.6.1-2)

Provide information on the extent to which lighting associated with the two new reactors will contribute to sky glow light pollution that could affect wildlife such as birds, and any steps to be taken to reduce light pollution impact (see www.darksky.org for information on light pollution).

SUPPLEMENTAL INFORMATION:

The NRC expressed interest in the impact of the light glow from the plant at night. Updated ER Subsection 2.5.2.5 notes that in an effort to improve the aesthetics of the area, light pollution from CPNPP Units 1 and 2 was reduced by using low-sodium lighting after residents complained about not being able to see the stars. This practice is continued for CPNPP Units 3 and 4.

This matter was first identified to Luminant as a result of a community environmental advisory panel meeting. Luminant sponsors these meeting to obtain feedback from the local community regarding the environmental impact of CPNPP Units 1 and 2 and to solicit suggestions regarding how that impact can be mitigated. Several years ago, the challenge of the light glow of the plant was identified. Some individuals wanted to minimize the glow which, in their opinion diminished the night view of the sky and amateur astronomy efforts. Luminant balanced this impact against the lighting needs for safety and security at the plant. The primary enhancement was the conversion to low-sodium lighting. Subsequently, Luminant was complimented by concerned citizens for the improvement.

This panel and the outreach to the local public is an informal activity and as a result essentially no documentation is developed or retained. Nevertheless, Luminant considers such local feedback as valuable and intends to continue such outreach efforts. Enhancements adopted for Units 1 and 2, such as the conversion to low-sodium lighting where acceptable, are being evaluated for Units 3 and 4 as well.

Impact on R-COLA

None.

Impact on S-COLA

None.

Impact on DCD

None.