UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

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Chief, Rulemaking and Directives Branch
Office of Administration
Mail Stop: TWB-05-B01M
U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001

8/12/2010
75 FR 48998
(1)

Dear Chief:

In accordance with the National Environmental Policy Act and Section 309 of the Clean Air Act, Environmental Protection Agency (EPA) Region 6 has reviewed the Draft Environmental Impact Statement (DEIS) dated August 2010, for Combined Licenses (COLs) for Comanche Peak Nuclear Power Plant (CPNPP) Units 3 and 4. The DEIS would authorize construction and operation of two new units at the CPNPP.

EPA rates the DEIS as "**EC-2**," i.e., EPA has "Environmental Concerns and Requests Additional Information in the Final EIS (FEIS)." Detailed comments are enclosed with this letter and more clearly identify our concerns and the informational needs requested for incorporation into the FEIS.

EPA appreciates the opportunity to review the DEIS. Please send our office five copies of the FEIS when it is sent to the Office of Federal Activities, EPA (Mail Code 2252A), Ariel Rios Federal Building, 1200 Pennsylvania Ave, N.W., Washington, D.C. 20004. Our classification will be published on the EPA website, www.epa.gov, according to our responsibility under Section 309 of the Clean Air Act to inform the public of our views on proposed Federal actions. If you have any questions, please contact Michael Jansky of my staff at jansky.michael@epa.gov or (214) 665-7451 for assistance.

Sincerely,

Rhonda M. Smith
Chief, Office of Planning
and Coordination

Enclosure

SUNSI Review Complete

E-RIDS = ADM-03
Add =

Template = ADM-013

M. Wielinghaus
(MHW1)

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DETAILED COMMENTS
ON THE
NUCLEAR REGULATORY COMMISSION
DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)
FOR COMBINED LINCENSES
FOR COMANCHE PEAK NUCLEAR POWER PLANT (CPNPP) UNITS 3 AND 4

COMMENTS

Radiological

EPA recommends CPNPP sample above and below the dam on Squaw Creek Reservoir. The reason being many older existing nuclear power plants (e.g., Oyster Creek in New Jersey for instance) is experiencing tritium leaks of close to 20,000 pico-curie /liter. Please respond to this concern in the FEIS.

Surface Water

According to the DEIS, the project may cause the long term ambient water quality for Total Dissolved Solids (TDS) and chlorides to increase. The DEIS also states that treatment chemicals containing phosphorus will be added to the cooling water. EPA is concerned that this could possibly cause problems in the future with excess nutrients in Lake Granbury leading to algae blooms. Blue Green algae blooms are related to excessive nutrients, especially phosphorus. Currently, water quality data for Lake Granbury and Lake Whitney (downstream of Granbury) indicate that chlorophyll A levels are above their screening values. Additional loadings of phosphorus into the system may become a problem in the future. Please discuss this concern in the FEIS.

Ground Water

The DEIS explains that CPNPP will use only a small amount of groundwater and that depletion of the aquifer should not be a concern. The CPNPP is located in Hood and Somervell counties. Hood County is in the Upper Trinity Groundwater Conservation District and Somervell County is in the Prairieland Groundwater Conservation District, no legal restrictions are imposed on groundwater withdrawals. However, if the amount of groundwater usage should increase in the future, EPA recommends that the Groundwater Conservation Districts (GCD) should be contacted. Their contact information can be found at the following website. http://www.twdb.state.tx.us/gwrd/gcd/gcdhome.htm

The CPNPP is located in the Trinity Aquifers outcrop area where released contaminants have the potential to percolate to the Twin Peaks formation which is a source of fresh water for down gradient users. From the groundwater point of view, a major concern of EPA is the facility's reliance on a Blowdown Treatment Facility (BDTF) that has a 47 acre storage pond and a 128 acre evaporation pond to treat high TDS waters. This could result in a build-up of even higher TDS as the minerals build up in the evaporation pond as evaporation reduces the water volume. This water has the potential to overflow, given that the freeboard design is only for a 10

year, 2 hour rainfall event. EPA is concerned that over time, the accumulation of salts from the cool down towers and the misters at the BDTF have the potential to infiltrate into the groundwater. An alternate disposal method for the accumulated salts could be underground injection which would require a Class I, non-hazardous Underground Injection Control (UIC) permitted well. EPA asks that NRC's consideration of an alternative treatment method of treatment be discussed in the FEIS.

Also, because of potential groundwater contamination, EPA recommends that the twenty 100 feet deep well clusters that were installed in 2006 for baseline monitoring for CPNPP Units 3 and 4 continue to be monitored during operational time of the CPNPP and for the same time after Units 3 and 4 have been discontinued to insure no contaminants (salts from evaporation and lagoon leakage) are endangering the groundwater in the project vicinity.

According to the Draft Statement, the consumptive use of water for Units 3 and 4 will be 62,700 acre-feet/year from Lake Granbury, and 92,600 acre-feet/year with all four reactors running. The DEIS states on page 2-21 that less than 20,000 acre-feet are lost to evaporation in Units 1 and 2. EPA needs an explanation as to why there is such a large increase in consumptive water use with Units 3 and 4. Please discuss in the FEIS.

The DEIS explains that the right to use surface water in the State of Texas is regulated by the Texas Water Code which is administered by the Texas Commission of Environmental Quality (TCEQ). In the Brazos River Basin, the CPNPP will have to obtain its additional water by entering a contract with the Brazos River Authority (BRA). TCEQ will then have to grant this need for more water to the BRA. EPA suggests that NRC closely coordinate with both parties on the matter of increased amounts of surface water use. Of particular concern is how this use will affect the water supply for the entire region in times of sustained drought. A decrease in surface water may have a detrimental affect on groundwater wells in the area. Please address this concern in the FEIS.

Drinking Water

EPA recommends mitigating low-flow or drought source water issues by ensuring that CPNPP contractually require BRA to (a) have banked (stored) water set-aside to mitigate the risk of supplies being inadequate and (b) BRA curtail other contracted water users as required.

According to the DEIS, BRA will obtain rights to Texas water from TCEQ to fulfill the proposed CPNPP contract in accordance with the Texas Water Code to provide surface water to operate. The Final EIS should confirm, in consultation with the TCEQ Water Division (Public Drinking Water) and the Texas Water Development Board (TWDB), that the lowered Lake Granbury and Possum Kingdom Lake water levels and the reduced Brazos River flow will not destabilize water use including conditions under low flow. CPNPP Units 3 and 4 operations are estimated (via the TCEQ Water Availability Model) to result in averages of 0.6 ft lower water levels in Lake Granbury and 1.5 ft lower water levels in Possum Kingdom Lake.

The Final EIS should also confirm, in consultation with applicable water treatment plant(s) (including Lake Granbury Surface Water and Treatment Plant) that the lowered Lake Granbury and Possum Kingdom Lake water levels will not destabilize water use which would include drinking water treatment and raw water intake. Any increased water treatment cost at the water treatment plant(s); and any resultant socioeconomic impacts associated with water quality alteration should be fully evaluated. Although the DEIS concludes that impacts on surface water quality would be "Small" to "Moderate", higher levels of TDS and chlorides may increase the need for public water supply treatment capacity. EPA recommends including an analysis of water quality and resultant treatment and cost impacts resulting from concentrated contaminants to include applicable inorganic chemicals, metals, etc. (contaminants in addition to chloride and TDS).

EPA also recommends ensuring that the storm water management system will be designed in accordance with TCEQ standards. When quantifying surface water quantity impact and socioeconomic effects, EPA suggests considering tourism and recreation in determination of the DEIS "significance levels".

Socioeconomic/Environmental Justice

According to the DEIS, generally the construction and operation of this facility at this site will not disproportionately and adversely impact low-income and minority residents in the area, however, in some ways it may impact residents of Hood and Somervell Counties adversely and negatively. The DEIS describes the need for increased water supply for the plant's cooling system, etc. from local water sources (Lake Granbury, Possum Kingdom Lake and the Brazos River). Because of frequent droughts, increasing population rates and global warming, these water sources are decreasing. This may cause water rates to increase as the local municipalities seek solutions to their water problems. This could have a disproportionate effect on the low-income residents who do live in these two counties because they have low-paying jobs and few resources.

The DEIS discusses the impact of heavy truck traffic on the roads and highways during the construction phase. During the operational phase, traffic will increase due to the additional workers at the plant. Although the counties/municipalities will receive large tax revenues from the facility, taxes may increase for the residents to offset the cost of increased services (police, fire protection, social services, etc.). These tax increases for residents could have a disproportionately negative impact on low-income residents.

The construction phase will require skilled labor and the low-income residents are unlikely to be hired for this work. After construction, the majority of workers at the nuclear power plant will be technical in nature. Please address in the FEIS the number of jobs that will be available to local residents, and or a plan to include the residents in the work force at the Comanche Peak Nuclear Power Plant.