

NRR-PMDAPEm Resource

From: Kim, James
Sent: Friday, May 19, 2017 7:43 AM
To: MATZKE, ERICK P
Cc: BLOME, BRADLEY H
Subject: Fort Calhoun PSDAR - Findings and Concerns

Erick,

NRC staff's findings and concerns on the Fort Calhoun PSDAR are shown below.

Thanks,
Jim Kim

Most of the analyses presented in the PSDAR satisfy 10 CFR 50.82(a)(4) and generally follow the guidance contained in RG 1.185, Rev. 1 (ML13140A038; June 2013) governing the PSDAR content and the use of NUREG-0586, Supplement 1 (GEIS on Decommissioning of Nuclear Facilities, or "Decommissioning GEIS") (ML023470304; November 2002), as appropriate. The PSDAR could have done a better job at describing baseline conditions and highlighting relevant details to support conclusions (e.g., including information on the air quality designation of Washington County; highlighting that there would be a decrease in air emissions from worker vehicles in Section 5.1.4; the identification of Federally and State-listed species in Section 5.1.7 and minority and low-income populations in Section 5.1.13; and identifying the distance to nearby noise sensitive receptors in Section 5.1.16).

Further, it should be noted that the date of the Fort Calhoun Station license renewal SEIS (PSDAR Reference 8) discussed in Section 5.1.14 is incorrectly listed as having been published in August 2007, rather than the actual published date of August 2003. This could lead one to erroneously assume that the data in the PSDAR is more recent than it is.

Additionally and more specifically, NRC regulations require licensees to provide an explanation in the PSDAR as to why projected site-specific decommissioning impacts at their nuclear power plant would be bounded by the impacts previously evaluated in the construction FES, operation FES, LR SEIS, or the Decommissioning GEIS. As documented in Section 6.1 of the Decommissioning GEIS, however, there are six site-specific issues where the environmental impacts of decommissioning activities could not be resolved generically.

Four of these impact issues were found to be conditionally generic or site-specific "beyond the operational areas," including offsite land use, aquatic ecology, terrestrial ecology, and cultural and historic resource impacts. NRC staff concluded that the two remaining issues require site-specific analyses to determine the impacts at each nuclear power plant. These issues are impacts to threatened and endangered species and impacts to minority and low-income populations (i.e., environmental justice). RERP technical staff have identified several concerns with the site-specific analyses presented in the Fort Calhoun PSDAR for these two issues. If NRC staff cannot validate the site-specific analyses performed by the licensee in its PSDAR, NRC staff would need to complete the site-specific analysis, including appropriate inter-agency consultations as explained below.

Specific Questions and Concerns Regarding Omaha Public Power District's Post-Shutdown Decommissioning Activities Report

NRC regulations in 10 CFR 50.82(a)(6)(ii) state that licensees shall not perform any major decommissioning activities that result in significant environmental impacts not previously reviewed. The Omaha Public Power District's (OPPD) Post-Shutdown Decommissioning Activities Report (PSDAR) provides an assessment of environmental impacts associated with decommissioning activities at Fort Calhoun Station (FCS). The NRC staff has concerns regarding the completeness of Section 5.1.7, "Threatened and Endangered Species" in the PSDAR because it does not discuss the potential occurrence and impacts to some Federally and State-listed species. The NRC staff also has concerns regarding the completeness of Section 5.1.13, "Environmental Justice" in the PSDAR because it references 2000 Census data, does not provide current information on minority and low-income populations living in the vicinity of Fort Calhoun, and concludes the impacts of decommissioning on environmental justice are small and bounded by the GEIS – when the GEIS says "the impacts must be determined on a site-specific basis."

Area of Concern 1: Identification of Federally and State-listed Species

As noted by OPPD in its PSDAR, the decommissioning GEIS states that a site-specific analysis should be conducted to determine the impacts from decommissioning activities to Federally and State threatened and endangered species. Section 4.3.7.3 of the decommissioning generic environmental impact statement (GEIS) specifically states that the likelihood of impacts to threatened and endangered species is related to their presence or absence, and the site-specific analysis should include identification of Federally and State-listed species that have the potential to occur at the site.

To determine the potential presence of threatened and endangered species at Fort Calhoun Station (FCS), OPPD reviewed the Federally and State-listed species described in NRC's License Renewal (LR) Supplemental Environmental Impact Statement (SEIS) (NUREG-1437, Supplement 12). In its PSDAR, OPPD discussed State-listed species that are also Federally listed, but did not discuss any species that are only State-listed. For Federally listed species, OPPD discussed Federally threatened and endangered species that were included in the FCS LR SEIS. However, the FCS LR SEIS was published nearly 15 years ago, in 2003, and the U.S. Fish and Wildlife Service (FWS) regularly updates its list of threatened and endangered species. In addition, Regulatory Guide 1.185 states that the list of threatened and endangered species has likely changed since the most recent environmental document was published, and therefore, licensees "should obtain a current list from the appropriate U.S. Fish and Wildlife Service office and should make a determination as to the likelihood that a protected species is found on the site. If any species is likely to be affected by the decommissioning of the facility, the PSDAR should identify this potential."

The NRC staff reviewed FWS's Information, Planning, and Conservation System, which is a database that provides occurrence data for Federally-listed species, and determined that a total of six Federally threatened species may occur within the vicinity of FCS. OPPD discussed four of these species in the PSDAR, including the least tern (*Sterna antillarum*), piping plover (*Charadrius melodus*), pallid sturgeon (*Scaphirhynchus albus*), and the western prairie fringed orchid (*Platanthera praeclara*). Two of the six Federally-listed species were not discussed in PSDAR, including the northern long-eared bat (*Myotis septentrionalis*) and the prairie bush-clover (*Lespedeza leptostachya*). FWS listed the northern long-eared bat as a Federally threatened species on April 2, 2015 (80 FR 17973), which was several years after the LR SEIS was published.

Does OPPD plan to discuss the potential occurrence and impacts to the northern long-eared bat and the prairie bush-clover? In addition, does OPPD plan to describe the State threatened and endangered species that may occur at the FCS and discuss potential impacts to those species?

Area of Concern 2: Federally and State-listed Species Analysis of Impacts

As noted above, the decommissioning GEIS states that a site-specific analysis is required to determine impacts to Federally and State-listed species. Section 5.1.7 of OPPD's PSDAR provides a site-specific analysis of potential impacts to Federally-listed terrestrial species, including potential direct impacts during dismantling activities. However, the PSDAR does not discuss the potential impacts associated with noise from dismantling facilities and bird collisions with crane booms or other construction equipment. Noise could disrupt nesting, foraging, or resting behaviors for birds and bats that have the potential to occur on or near FCS and could result in indirect adverse impacts. Bird and bat collisions with equipment could result in direct impacts, such as bird mortality or injury, if they were to occur.

Does OPPD plan to discuss the potential impacts from noise and bird collisions to threatened and endangered species?

Area of Concern 3: Environmental Justice Impact Analysis

After having considered available information on the potential impacts of decommissioning on environmental justice, the decommissioning GEIS (Section 4.3.13.4, page 4-65) states, "the staff has concluded that the adverse impacts and associated significance of the impacts must be determined on a site-specific basis...Subsequent to the submittal of the PSDAR, the NRC staff will consider the impacts related to environmental justice from decommissioning activities." Section 5.1.13 of OPPD's PSDAR provides an analysis of potential impacts to minority and low-income populations, including human health and environmental effects. However, the analysis utilizes out-of-date 2000 Census information. Demographic data from the latest 2010 Census is readily available as well as recent 2015 – 2016 American Community Survey (ACS) data.

The decommissioning GEIS (Section 4.3.13.2, page 4-64) also states, "decommissioning activities that may affect environmental justice are related to organizational or staffing changes and offsite transportation issues...Any decommissioning activity that results in a disproportionate share of the negative environmental consequences to minority or low-income groups has the potential to be an adverse environmental justice impact." The GEIS goes on to state, "Detectability and destabilization, as they relate to environmental justice, must be defined in proportion to the minority and low-income populations that reside in the area of the power plant. Proportionment must be determined at each site at the time of decommissioning." The OPPD analysis in the PSDAR does not address proportionment at the time of decommissioning and is silent on the potential impacts of dismantlement and decontamination activities on minority and low-income populations living near FCS. Increased commuter vehicle traffic during shift changes and truck traffic delivering dismantlement equipment and removing waste material (e.g., rubble) from the FCS site could have a disproportionate effect on minority and low-income populations living near site access roads during this time period. In addition, the reduction in tax revenue could decrease the availability of public or social services. This could disproportionately affect minority and low-income populations that have become dependent on these services.

Does OPPD plan to provide a more up-to-date site-specific impact analysis using 2010 Census or recent ACS data and address potential dismantlement and decontamination impacts, including offsite transportation issues associated with the delivery of dismantlement equipment and the removal of waste material?

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