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From: Mallecia Hood
Sent: Friday, December 14, 2007 5:37 PM
To: Robert Schaaf
Subject: Acceptance Review Issues Summary.doc
Attachments: Acceptance Review Issues Summary.doc

Here is everything for review.

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Transmission Lines

Section 2.2.2

It may be necessary to obtain further descriptions of the transmission corridors with regard to terrestrial and cultural issues. Section 3.7 refers to surveys completed on topic during original application, but no details are provided.

Sections 2.5.3, 4.1.3, and 5.1.3

Details of cultural resource surveys and identified cultural resources for the transmission line corridors are not clear.

No details for cultural resources located within the transmission line corridors were provided or indication of monitoring, or avoidance measures that may be implemented to avoid such resources, if any. It is also unclear if cumulative and/or secondary impacts resulting from modifications to the docking facilities and discharge structure and potential off-site activities associated with the need for borrow material described in Section 4.1, 4.2, and 4.3 have been adequately addressed in the ER.

No indication of SHPO comments on these resources.

Section 5.1.2

Seasonal access to transmission corridors that cross land in agricultural or other productive use is not explicitly addressed. To assess cumulative impacts, some additional descriptive information may be required. In addition, impacts of the activities required to re-energize the transmission lines (listed in Section 3.7) need to be addressed.

Section 5.6.2

Need reference to procedures used by TVA for ROW maintenance near aquatic ecosystems.

Cultural Resources

Sections 2.5.3, 4.1.3, and 5.1.3

Only the Alabama SHPO and affected Tribes in the region were contacted. More effort to contact historical organizations or family members who may continue to visit the two historic cemeteries located in closed proximity to the BLN site may be warranted.

One of the five archaeological sites (1JA111) located on the BLN site has not been formally evaluated but is described as "potentially eligible". A formal evaluation has not been completed and would be necessary if the site cannot be avoided.

Additional correspondence beyond initial correspondence between SHPO and the archaeological contractor and NuStart and SHPO and TVA was referenced but not included.

A cultural and historical overview is not included. A general/brief description of the cultural and historical context for the region would be helpful for understanding significance of resources being affected. It is also unclear if cumulative and/or secondary impacts resulting from modifications to the docking facilities and discharge structure and potential off-site activities associated with the need for borrow material described in Sections 4.1, 4.2 and 4.3 have been adequately addressed in the ER.

ER indicates that TVA intends to develop a plan of action to address NAGPRA and an MOA to address conditions of construction monitoring. Proposed contents of the subject plan of action and MOA were not included.

Environmental Justice

Section 2.5.4

Provide information on any organizations contacted to locate and assess uniquely vulnerable minority and low-income communities located on or near the proposed station site.

Need more information regarding identification and analysis of any unique minority or low-income communities within each environmental-impact area that are likely to be disproportionately affected by the proposed project construction or operation.

Section 4.4.3

Provide indication that analysis is based on community-specific information. Assumptions that there are no particular pathways or vulnerabilities relevant to the minority populations in the area is not supported and therefore limiting consideration to whether the overall impacts would be enough to affect the minority population (as they would affect anyone else) is inadequate.

Need detailed explanation of method of assessment (qualitative or quantitative, as appropriate) of the degree to which each minority or low-income population would disproportionately experience adverse human health or environmental (including socioeconomic) impacts during construction as compared with the entire geographic area. A referenceable source for this information is needed.

Need detailed explanation of method of assessment (qualitative or quantitative, as appropriate) of the significance or potential significance of such environmental impacts on each minority and low-income population. A referenceable source for this information is needed.

Need detailed explanation of assessment of the degree to which each minority and low-income population would disproportionately receive any benefits compared with the entire geographic area. . A referenceable source for this information is needed.

Section 5.8.3

Provide analysis of special pathways or vulnerabilities pertinent to minority populations. A referenceable source for this information is needed.

Transportation

Sections 3.8 and 7.4

The analysis in Sec 3.8 incorrectly assumes NRC has approved higher enrichments and burnup levels for advanced reactors and cites NUREG-1437 and NUREG-1555 as basis. A full and detailed analysis of transportation impacts is not provided as required by 10 CFR 51.52(b).

Shipping distances from the proposed reactor site to the spent fuel disposal facility were not provided.

Radiological Exposure Pathways

Section 5.4.1

Table 2.7-119 appears to be incomplete (e.g., no residences in 13 sectors and yet gardens in most sectors) and hard to reconcile with FSAR Figure 2.1-206.

Table 5.4-6 has some, but not all, of the information regarding grazing seasons and fraction of daily intake of cows, meat animals, and milk goats derived from pasture or fresh forage during the grazing season, and conflicts with Table 2.7-119 on distance to nearest residence/house. Table 5.4-6 claims to define "Nearest" as "the location at which the highest radiation dose to an individual from the applicable pathways has been estimated. Locations by all compass directions and distances are not provided because the highest dose location is identified." The source of much of the data in Table 5.4-6 is not given.

Table 5.4-1 has some suspect entries. If these were used in other calculations, their results are also suspect. The questionable entries include:

- Average Distance to Where Fish are Caught (mi.);
- Downstream Distance ... commercial fishing;
- Downstream distance... shoreline activities (mi.);
- Dilution Factor for Sport Fishing (mi.).

The latter should not be in miles. These 4 entries have identical values, which is suspect, especially since one of them should not be in miles.

Projected population is provided for 2057, not 5 years from the time of the projected licensing action. Meat, milk, vegetables are averages, not by compass point.

Major commercial fish and invertebrate catch locations, distances, transit times (unless 0 is used) not specified. Dilution factors in Table 5.4-1 have some problems. If these were used in other calculations, their results are suspect. Dilution Factor for Sport Fishing should not be in miles.

There is little information on irrigation rate, crop yield, annual production, and growing period for irrigated land, and no statement that crop production has <10% dose contribution. Section 5.4.2.1 states: "There is no record of crop or pasture downstream of the BLN site, therefore this pathway is not evaluated." "There is no record of consumption of aquatic vegetation in the area surrounding the BLN site, therefore this pathway is not evaluated."

Radiological Impacts to Members of the Public

Section 5.4.3

Collective doses to the population within 80 km (50 mi) of the facility and occupational collective doses are not provided.

Severe Accidents

Section 7.2

Information is needed on why current census data are used with no projection to start up time.

There is no discussion as to potential changes in land use.

Need to provide modeling details for surface water pathway results given in ER. Also need to provide some information on groundwater pathway.

Alternatives

Section 9.2.3

Decommissioning costs were not directly addressed for the alternatives.

Section 9.3

The description of how the site selection process was used to identify and select the ROI and potential, candidate, and alternative sites lacks detail and current references. More information is needed regarding the exact condition of the sites (for brownfields) – both how TVA left them when it ceased construction and sold the sites and the current land-use activities on the sites. All references are dated. The key studies cited are all the original EISs completed in 1974, 1975, 1977, and 1978. There are no updated references.

Site/Design

Section 2.3.1

Lakes and impoundments detailed bathymetry data base may not be present in the references. The color shaded and contoured map (Section 2.3.1.2.5, Figure 2.3-9) may not be sufficient, and a data base of the bathymetry data may be required to support analyses and the creation of maps and figures in the EIS.

Section 2.3.2

The applicant states in Section 2.3.2.2 that "Quantitative estimates for instream water use within the Tennessee River Basin watershed have not been completed to date."

Section 2.5.2

Related to the area's economic base, including need detailed workforce information and regional expenditure information a referenceable source for this information is needed.

Section 2.7

Dewpoint temperature summary information not included.

Section 2.8

Nearby industrial facilities and other nuclear facilities in the region are not listed.

Section 3.1

A topographic map is provided, along with some other figures, but these lack some of the required detail, i.e., liquid and gaseous release points (elevations of gaseous release points are given in the text), meteorological towers.

Section 4.3.1

Are there buildings scheduled for demolition? Where specifically will borrow areas and dredge spoils be located? Black-and-white figure format does not provide adequate detail.

Section 4.3.1

Potential grade and fill impacts to surface water flow outside the construction zone not addressed. Will special species habitat be impacted outside construction area?

Section 4.3.1

Laydown areas not identified.

Section 4.3.2

4.3.2.1 Preliminary surveys indicate existing intake channel may function appropriately without dredging. 4.2.1.2 and 4.2.1.4 state that dredging is either "anticipated" or "expected." Maps of the area to be dredged were not located. In particular, Section 4.2.1.2 discusses maintenance dredging, installation of riprap to stabilize banks of 4.3.2.1 Preliminary surveys indicate existing intake channel may function appropriately without dredging. 4.2.1.2 and 4.2.1.4 state that dredging is either "anticipated" or "expected." Maps of the area to be dredged were not located. In particular, Section 4.2.1.2 discusses maintenance dredging installation of riprap to stabilize banks of the embayment and river shoreline. But details and maps are not provided. 4.3.2.5 Construction of reservoir may involve pile driving, dredging, barge traffic, and other noise producing activities. No details provided as to what or where.

Section 4.3.2

4.2.1.1 – states that there will be "Construction or modification of existing cooling water intake structure and discharge structure for water withdrawn from and discharged into the Gunter'sville Reservoir/Tennessee River.... construction of new and/or potential modification of docking facilities for barges/vessels." However, no maps of impacted areas or details on the construction or modification of these structures was found.

Section 4.3.2

Section 4.3.2.1 provides information related to dredging. No information provided relative to impacts from modifications to barge slip or discharge.

Section 4.3.2

4.2.1.4 states they plan to place dredged material above the 500 yr flood elevation. Details on location not provided.

Ecological Data

Section 2.4.1

Although it was determined Alabama is between flyways, waterfowl species are listed as occurring on the site and habitats are present but not sufficiently described.

Section 2.4.1

USFWS recommended surveys during flowering/ fruiting, yet winter surveys were conducted. No evidence of USFWS approval of winter survey as stated in Section 2.4.1.4.1 unless this is when plants are flowering or fruiting.

Section 2.4.2

2.4.2.1 Species composition. Not much information on intake canal or on Town Creek Embayment beyond "Aquatic communities have been extensively studied" and "productive ecosystem and is characterized by diverse aquatic fauna and flora. 2.4.2.4 For river, the assumption is made that the fish community is substantially similar from TRM 375.2 to TRM 424.0. But that data is not in the ER. Habitat and life histories described in general by Family – not specifics by species. 2.4.2.1.3 Onsite ponds – "Other populations migrated from surrounding areas and are therefore, not considered rare or unique to the onsite pond habitats". There is no data, such as species lists to back this statement.

Section 2.4.2

2.4.2.4 Site-specific data is not provided or referenced. Studies are mentioned. Is data is available.

Section 5.3.1.2

5.3.1.2.1 Important species were identified in part. Additional information and data needed related to abundance of pink mucket mussel and Anthony's river snail. Information on recreationally important species and potential for entrapment, impingement and entrainment needed.

Section 5.3.1.2

5.3.1.2.1 Species composition data is needed to verify statement that sampling near intake and discharge is not warranted. Details on Widows Creek Fossil Plant cooling system (design, water flow rate, etc.) are needed.

Section 5.3.1.2

5.3.1.2.1 Need more information for tie-in to Widows Creek Fossil Plant as a surrogate and more information on species.

Section 5.3.2.2

Are there "important" aquatic species present? Are the types, life stages, and relative abundance of impacted "important" biota etc. 5.3.2.2 more information needed to determine.

Section 5.3.2.2

5.3.2.2 Need references from Chapter 2 related to fish abundance in vicinity of discharge.

Section 5.3.2.2

5.3.2.2 Need reference related to 2007 survey for mussels and information specific to recreationally important species

Water Quality

Section 4.2.1

There is a potential for dewatering during excavation and construction in areas where excavations will reach ~10 ft below the water table. However, potential dewatering efforts are not described or quantified in any detail.

Section 5.3.3.2

Chemical concentrations are not provided on seasonal basis in Table 5.3-3. Suspended solids information is not provided.

Section 5.3.3.2

No discussion of impacts of water level flux in Guntersville Res. or Town Creek Embayment

Sociological Data

Section 4.1.1

4.4.1.3 expects roads adequate to handle construction activities, but 4.1.1.1 indicates that the construction of new roads, both temporary and permanent, are planned, but provides no additional detail

Section 5.8.2

Section 5.8.2.2 bases the estimate on a regional model, but text does not discuss expenditures for materials and services or provide any specific information, as it also did not in Section 4.4.2.

Section 5.8.2

Section 5.8.2.3.1 does not consistently reflect that in most cases transition to the operations stage will require downsizing, rather than a further increase in capacity in local infrastructure.

Section 5.8.2

Section 5.8.2.2.1 Provide estimates of taxes, and relate expected revenues to expected needed expenditures

Section 5.8.3

5.8.3 Provide analysis of special pathways or vulnerabilities pertinent to minority populations