

## **Appendix E**

### **Selected Correspondence Pages E-4 to E-8**



UNITED STATES  
**NUCLEAR REGULATORY COMMISSION**  
WASHINGTON, D.C. 20555-0001

August 10, 2000

Cathy Buford Slater  
Arkansas State Historic Preservation Officer  
State Historic Preservation Office  
1500 Tower Building, 323 Center  
Little Rock, AR 72201

Dear Ms. Slater:

The Nuclear Regulatory Commission (NRC) is in the process of developing a supplemental Environmental Impact Statement (EIS) in support of Entergy Operations, Inc.'s (Entergy) application for license renewal of Arkansas Nuclear One Unit 1 (ANO-1) dated January 31, 2000. From April 3 through April 6, 2000, the NRC and its contractor, Pacific Northwest National Laboratories (PNNL), conducted a site audit as part of this review. The primary goal of the site audit was to review documentation and gather information to ensure that the environmental requirements necessary to support license renewal are met.

Entergy indicated that the archeological sites identified in the ANO-1 Environmental Report were limited to those that were identified by the Arkansas State Historic Preservation Office (ASHPO). During the audit, the review team's investigation of potential archeological sites at the ANO-1 site revealed that there were other sites of potential historic value on the ANO-1 property that were not identified in the license renewal application. These sites do not appear to be tracked by the applicant. In addition, the staff identified information that conflicted with information provided to the NRC relating to the location of certain sites that were identified in the Environmental Report submitted with the license renewal application. The staff has been told that there is a possibility that one of the identified sites may have been disturbed about 10 years ago during the construction of the General Services Building.

Also, Entergy recently implemented a reforestation program at the ANO site that, based on the staff's observation, disturbed some of the potential archeological sites not identified in the application. In addition, the staff notes that some of the newly-planted trees may require eventual removal to conform the site to NRC requirements. Removal of these trees has the potential to further disturb some of these sites. Enclosure 1 is a detailed report of the observations of the archeologist who was present during the site visit.

The staff has determined that the activities by Entergy described here are relevant to current ANO-1 operation, and therefore, will be dispositioned under the current reactor oversight process. We are forwarding this information to make you aware that these sites of potential historic value have or may have been disturbed, and are possibly not being tracked by Entergy. In addition, as part of the scoping process that was implemented to support development of the supplemental EIS, the staff received a letter from Mr. Robert Cast, Historic Preservation Officer for the Caddo Tribe of Oklahoma (Enclosure 2), who requests additional information on this matter. Attachment 3 is the NRC's response to his May 15, 2000, letter.

Ms. Cathy Buford Slater

-2-

If you have any questions related to the staff's environmental review in support of license renewal, please contact the ANO-1 Environmental Project Manager, Thomas Kenyon, at (301) 415-1120. If you have any questions concerning ANO-1 current operational activities, please contact the ANO-1 Operating Plant Project Manager, William D. Reckley, at (301) 415-1323.

Sincerely,



Cynthia A. Carpenter, Chief  
Generic Issues, Environmental, Financial  
and Rulemaking Branch  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation.

Enclosures: As stated

cc:

Mr. George McCluskey  
Senior Archeologist  
State Historic Preservation Office  
1500 Tower Building, 323 Center  
Little Rock, AR 72201

Dr. Ann Early  
State Archeologist  
Arkansas Archaeological Survey  
2475 North Hatch  
Fayetteville, AR 72704

**PNNL Letter Report**  
**Prepared for Task No. 7 Under**

**PILOT PLANT AND OWNERS GROUP LICENSE REVIEW ACTIVITIES  
AND ENVIRONMENTAL REVIEW OF APPLICATIONS**  
NRC Project JCN J-2442  
PNNL Project 27487

**Purpose**

The purpose of this technical letter is to report observations resulting from a site visit to the Arkansas Nuclear One plant site, located in Pope County, Arkansas, just west of the city of Russellville. During this site visit, associated baseline information was compiled as well as a brief field reconnaissance of the facility site in which recent ground disturbing activities were noted which resulted in significant damage to prehistoric and historic cultural resource properties.

**Background**

The Russellville Station of the Arkansas Archaeological Survey conducted an archaeological reconnaissance survey of the ca. 1100-acre plant site in the summer of 1969 (Cole 1969). Construction of the plant had begun in 1968; therefore the areas of ground disturbance for the facilities themselves could not be surveyed. Reconnaissance inspection of the remainder of the plant site resulted in the identification and recording of five prehistoric archaeological properties – designated 3PP62-66. None of the numerous historic period properties that occur within the site boundaries (see discussion below) was recorded by the 1969 field effort, including the fenced May Cemetery that has more than 100 interments. Of note, although not recorded as historic properties in 1969, the May Cemetery and about 20 historic homesteads are shown on the individual sketch maps appended to the Site Survey Forms completed for the five prehistoric properties.

The results of the 1969 survey of areas outside the construction zones were incorporated into the Final Environmental Impact Statement for Arkansas Nuclear One, Unit 1 (AEC 1973). Because the major construction activities were already underway or had been completed, the conclusion was that there would be no adverse effect on the recorded cultural resource properties.

The issue of cultural resource properties at the ANO Site apparently was not raised again until the past two years as part of the relicensing effort for the nuclear facility. A 3/30/98 letter from the Arkansas State Historic Preservation Officer (SHPO) to FTN Associates reports that “five archaeological sites (3PP62, 3PP63, 3PP65, 3PP66, and the May Cemetery) are located within the ANO property boundary” (Slater 1998). Of note is the fact that 3PP64, recorded during the 1969 survey, has been dropped from the list, and the cemetery, not recorded in 1969, has been added. The omission of 3PP64 appears to be an administrative oversight as the property is still carried on the Arkansas Archaeological Survey site file at the Research Station at Arkansas Tech University.

Enclosure 1

The 3/10/98 SHPO letter further states: "All five of these sites *are* potentially eligible for inclusion on the National Register of Historic Places. Other unknown archaeological sites may also be present." [emphasis added]

#### **Recent Impacts to Cultural Resource Properties at ANO**

In conjunction with the development of an Environmental Impact Statement for the ANO relicensing application, a site visit was conducted by the Nuclear Regulatory Commission (NRC) and a team of environmental specialists from the Pacific Northwest National Laboratory (PNNL) in early April 2000. Part of the site visit involves the opportunity for the scientists addressing individual resource areas to gather baseline information that is required to evaluate whether or not the proposed action will have an adverse effect on that particular resource area.

Review of the existing information for both known and potential cultural resources at the ANO site confirmed the presence of the five archaeological properties recorded in 1969, and further yielded information that as many as 35 or more additional historic period properties may exist within the site boundaries. The potential property locations were taken from soil and topographic maps dating 1913, 1940, and 1963. These potential properties include about 35 homesteads, in addition to the cemetery and historic trails/roads. Historic records indicate that some of these homesteads may date as early as the 1830s.

The site visit also revealed recent (within the past few weeks) and widespread disturbance to several hundred acres of land within the ANO property boundary that involved extensive remodification of the ground surface. These activities included removal and piling of existing woody vegetation, plowing or furrowing of the soil, and replanting of pine trees. In terms of potential for disturbance to cultural resource properties, the impacts involved were significant in that heavy equipment was involved, along with extensive disturbance of the surface and to a depth of probably 30 cm. or more (Photo 1).

During brief inspection of the impacted areas during the April site visit, considerable impacts to archaeological and historic properties were observed. Although extremely limited, the observations indicated at least five unrecorded historic period homesteads that had been plowed, including foundations, material culture dumps, and outbuildings (Photos 2, 3, and 4). In addition, two of the "potentially-eligible" archaeological properties recorded in 1969, 3PP63 and 3PP65 are located in the impact zone (Photos 2 and 4). Based on a comparison of the map locations of the historic homesteads and the areas disturbed during the reforestation activities, there are several other unrecorded historic properties located within the impact zone.

An additional impact to one of the previously recorded archaeological properties was brought to the attention of the visiting environmental review team when it was disclosed that the ANO office building may have been built on top of 3PP66 about 10 years ago. As noted above, this archaeological property is still being carried in the SHPO site files as one "potentially eligible for inclusion in the National Register of Historic Places." However, review of the 1969 field survey results casts some doubt on this situation since 3PP66 was originally recorded as being south of and outside of the ANO property line, meaning it may lie between the building and the edge of Lake Dardanelle. Consequently, whether or not this archaeological property still exists in an undisturbed condition remains to be determined.

### **Conclusions**

Numerous prehistoric and historic period cultural resource properties exist within the 1100-acre ANO plant site. The number easily exceeds 40 individual properties. The 1969 archaeological survey was limited in scope and coverage, restricting recording efforts to only prehistoric properties even though the surveyors noted the locations of numerous historic ones. None of the cultural resource properties at ANO, recorded or known but unrecorded, has been completely recorded nor evaluated for National Register of Historic Places eligibility.

Significant and damaging impacts occurred at many of these properties as a result of the surface disturbance associated with the reforestation program. Although the actual amount of damage to archaeological contexts has not been quantified, it is substantial.

### **References Cited**

- Cole, Kenneth W. 1969. "Archaeological Survey of the Arkansas Power and Light company Nuclear Power Plant construction Area, Pope County, Arkansas, 1969. Arkansas Archaeological Survey, University of Arkansas Museum, Fayetteville, AR.
- U.S. Atomic Energy Commission. 1973. "Final Environmental Impact Statement related to the Arkansas Nuclear One Unit 1, Arkansas Power and Light Company, Docket No. 50-313.
- Slater, Cathy Buford. 1998. Letter to Dr. Gary E. Tucker, FTN Associates, Ltd. Arkansas Historic Preservation Program, Little Rock, AR.

### **Photo Captions**

Photo 1: This photo indicates the widespread nature of the surface disturbance that resulted from the vegetation clearing and surface plowing. It was taken, looking west, along the northern side of Highway 333, in the northern sector of the plant site.

Photo 2: This photo depicts disturbance to an unrecorded historic homestead, located along the north side of Highway 333. Damage to the foundation is apparent, along with considerable disturbance of historic period artifacts. Previously recorded archaeological property 3PP65 is located on the ridge just north of this homestead in a similarly plowed area.

Photo 3: This photo shows an undisturbed fruit or storm cellar at a homestead about ¼-mile west of the one shown in Photo 2. Not evident in the foreground, but out of the view are the plowed remains of the habitation and artifact dump associated with the cellar.

Photo 4: This photo was taken along the eastern side of the plant access road, just south of the intersection with Highway 333 and north of the plant's meteorological tower. A former historic homestead is located in the vicinity of the tall trees, and archaeological property 3PP63 is located just over the rise, looking between the two trees.