PMBelCOL PEmails

From: Creek, Carolyn P [cpcreek@tva.gov]
Sent: Tuesday, May 20, 2008 9:39 AM
To: AGAUGHTM@SOUTHERNCO.COM; AMONROE@scana.com; David.Waters@pgnmail.com; erg-xl@cox.net; fbeck@enercon.com; fredwanz@enercon.com; Joseph Sebrosky; jrcassid@duke-energy.com; MCNolan@duke-energy.com; neilhaggerty@comcast.net; Ray, Phillip M; skowkabany@enercon.com; Steve_Franzone@fpl.com; twilli2@entergy.com; William_Maher@fpl.com; x2gabeck@SOUTHERNCO.COM
Cc: crpierce@SOUTHERNCO.COM; don lindgren @ westinghouse ; garry.miller@pgnmail.com; georges.serviere@edf.fr; gzinke@entergy.com; marilyn.kray@exeloncorp.com; Martha.Shields@nuclear.energy.gov; martin_gettler@fpl.com; michael.cazaubon@exeloncorp.com; phinnen@entergy.com; pshastings@duke-energy.com; R Sisk @ Westinghouse ; RCLARY@scana.com; Rebecca.Smith-Kevern@nuclear.energy.gov; rgrumbir@gmail.com; Richard.Reister@nuclear.energy.gov; robert.kitchen@pgnmail.com; sfrantz@morganlewis.com
Subject: Letter to NRC Dated May 16, 2008
Attachments: TVA - Ltr ER04_Cover Letter_Response to Cultural Resources Info Needs_Final to TVA_16May08.doc; TVA - Ltr ER04_Enclosure_Response to Cultural Resources Info Needs_Final to TVA_16May08.doc; Cultural Resources Att. A Final.pdf; Cultural Resources Att. B Final.pdf; Cultural Resources Att. C Final.pdf; Cultural Resources Att. D Final.pdf

Find attached the Letter NRC Dated May 16, 2008

Response to NRC Information Needs Related to Cultural Resources

Including Cover Letter, Enclosure, and Attachment A-D

<<TVA - Ltr ER04_Cover Letter_Response to Cultural Resources Info Needs_Final to TVA_16May08.doc>>
<<TVA - Ltr ER04_Enclosure_Response to Cultural Resources Info Needs_Final to TVA_16May08.doc>> <<Cultural Resources Att. A Final.pdf>> <<Cultural Resources Att. B Final.pdf>> <<Cultural Resources Att. C Final.pdf>> <<Cultural Resources Att. D Final.pdf>>

Carolyn Creek
Management Assistant
Nuclear Generation Development
1101 Market Street, LP 5A
Chattanooga, Tn. 37402
(423) 751-6518 Fax: (423)-751-6509

Hearing Identifier: Bellefonte_COL_Public_EX
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Subject: Letter to NRC Dated May 16, 2008
Sent Date: 5/20/2008 9:38:41 AM
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From: Creek, Carolyn P

Created By: cpcreek@tva.gov

Recipients:
"crpierce@SOUTHERNCO.COM" <crpierce@SOUTHERNCO.COM>
Tracking Status: None
"don lindgren @ westinghouse " <lindg1da@westinghouse.com>
Tracking Status: None
"garry.miller@pgnmail.com" <garry.miller@pgnmail.com>
Tracking Status: None
"georges.serviere@edf.fr" <georges.serviere@edf.fr>
Tracking Status: None
"gzinke@entergy.com" <gzinke@entergy.com>
Tracking Status: None
"marilyn.kray@exeloncorp.com" <marilyn.kray@exeloncorp.com>
Tracking Status: None
"Martha.Shields@nuclear.energy.gov" <Martha.Shields@nuclear.energy.gov>
Tracking Status: None
"martin_gettler@fpl.com" <martin_gettler@fpl.com>
Tracking Status: None
"michael.cazaubon@exeloncorp.com" <michael.cazaubon@exeloncorp.com>
Tracking Status: None
"phinnen@entergy.com" <phinnen@entergy.com>
Tracking Status: None
"pshastings@duke-energy.com" <pshastings@duke-energy.com>
Tracking Status: None
"R Sisk @ Westinghouse " <sisk1rb@westinghouse.com>
Tracking Status: None
"RCLARY@scana.com" <RCLARY@scana.com>
Tracking Status: None
"Rebecca.Smith-Kevern@nuclear.energy.gov" <Rebecca.Smith-Kevern@nuclear.energy.gov>
Tracking Status: None
"rgrumbir@gmail.com" <rgrumbir@gmail.com>
Tracking Status: None
"Richard.Reister@nuclear.energy.gov" <Richard.Reister@nuclear.energy.gov>
Tracking Status: None
"robert.kitchen@pgnmail.com" <robert.kitchen@pgnmail.com>
Tracking Status: None
"sfrantz@morganlewis.com" <sfrantz@morganlewis.com>
Tracking Status: None
"AGAUGHTM@SOUTHERNCO.COM" <AGAUGHTM@SOUTHERNCO.COM>
Tracking Status: None
"AMONROE@scana.com" <AMONROE@scana.com>
Tracking Status: None
"David.Waters@pgnmail.com" <David.Waters@pgnmail.com>

Tracking Status: None
"erg-xl@cox.net" <erg-xl@cox.net>
Tracking Status: None
"fbeck@enercon.com" <fbeck@enercon.com>
Tracking Status: None
"fredwanz@enercon.com" <fredwanz@enercon.com>
Tracking Status: None
"Joseph Sebrosky" <Joseph.Sebrosky@nrc.gov>
Tracking Status: None
"jrcassid@duke-energy.com" <jrcassid@duke-energy.com>
Tracking Status: None
"MCNolan@duke-energy.com" <MCNolan@duke-energy.com>
Tracking Status: None
"neilhaggerty@comcast.net" <neilhaggerty@comcast.net>
Tracking Status: None
"Ray, Phillip M" <pmray@tva.gov>
Tracking Status: None
"skowkabany@enercon.com" <skowkabany@enercon.com>
Tracking Status: None
"Steve_Franzone@fpl.com" <Steve_Franzone@fpl.com>
Tracking Status: None
"twilli2@entergy.com" <twilli2@entergy.com>
Tracking Status: None
"William_Maher@fpl.com" <William_Maher@fpl.com>
Tracking Status: None
"x2gabeck@SOUTHERNCO.COM" <x2gabeck@SOUTHERNCO.COM>
Tracking Status: None

Post Office: TVACOCXVS1.main.tva.gov

Files	**Size**	**Date & Time**
MESSAGE	727	5/20/2008 9:43:53 AM
TVA - Ltr ER04_Cover Letter_Response to Cultural Resources Info Needs_Final to TVA_16May08.doc	56384	
TVA - Ltr ER04_Enclosure_Response to Cultural Resources Info Needs_Final to TVA_16May08.doc	211008	
Cultural Resources Att. A Final.pdf	490584	
Cultural Resources Att. B Final.pdf	491873	
Cultural Resources Att. C Final.pdf	733270	
Cultural Resources Att. D Final.pdf	1933019	

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Recipients Received:

Tennessee Valley Authority, 1101 Market Street, LP 5A, Chattanooga, Tennessee 37402-2801

May 16, 2008

10 CFR 52.75

Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

In the Matter of)
Tennessee Valley Authority)

Docket Numbers 52-014 and 52-015

NUCLEAR REGULATORY COMMISSION (NRC) – BELLEFONTE NUCLEAR PLANT (BLN) – RESPONSE TO NRC INFORMATION NEEDS RELATED TO CULTURAL RESOURCES

Reference: Letter from Ashok Bhatnagar (TVA) to Mr. R. William Borchardt (NRC), "Application for Combined License for BLN Units 3 and 4," dated October 30, 2007

The purpose of this letter is to provide responses to the NRC Cultural Resources information needs that were identified by the NRC reviewers during the Environmental Report (ER) site audit conducted at the Tennessee Valley Authority (TVA) Bellefonte Nuclear Plant Units 3 and 4 (BLN) site from March 31 through April 4, 2008.

By letter dated October 30, 2007 (Reference 1), TVA submitted an application for a combined license for two AP1000 advanced passive pressurized-water reactors at the BLN site. Included in the review of a combined license application (COLA) is a week-long environmental site audit during which the NRC staff tours the proposed plant site and environs and reviews the applicable documents that support the information provided in the ER. At the April 4, 2008, exit meeting for the BLN site audit, the NRC staff provided a list of information that was determined to be necessary to complete the review of the ER.

The NRC Information Needs list includes 41 items related to review of the Cultural Resources (CR) material in the BLN ER. These information needs are identified as CR-01 through CR-41. The enclosure to this letter provides the TVA response to 36 of the 41 CR information needs. Where practical and appropriate, similar comments are addressed with a combined, concise response. There are no ER changes as a result of the information needs addressed by this letter. Attachments A through D to this letter provide the documents that are identified in the BLN responses to Information Needs CR-10, CR-11, CR-15, and CR-16.

The enclosure to this letter provides responses to all but five of the 41 CR information needs. The following information needs are related to an aboveground structures survey that TVA agreed to perform during the site audit:

- CR-04
- CR-07
- CR-08
- CR-18
- CR-24

The survey has since been completed, and the survey report is currently undergoing a 30-day review by the Alabama State Historic Preservation Officer. Upon completion of this 30-day review, TVA will respond to these five remaining information needs, with the submittal of the aboveground survey results. This information is expected to be submitted by June 30, 2008.

If there are any questions regarding this application, please contact Phillip Ray at 1101 Market Street, LP 5A, Chattanooga, Tennessee 37402-2801, by telephone at (423) 751-7030, or via email at pmray@tva.gov.

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

Executed on this _____ day of _____ , 2008.

Jack A. Bailey
Vice President, Nuclear Generation Development

Enclosure and Attachments A - D:

A. Aerial Photograph – Bellefonte Site - Project Area of Potential Effect

B. Topographic Map – Bellefonte Site – Aboveground Survey One-Mile Radius Area of Potential Effect

C1. Aerial Photograph - Bellefonte Site Under Construction in October 1977

C2. Aerial Photograph - Bellefonte Site Under Construction Between 1977 and 1981

C3. Aerial Photograph - Bellefonte Site Under Construction in June 1981

D. Final Environmental Assessment, Bellefonte Nuclear Plant Redress, Jackson County, Alabama - 2006

cc (Enclosure and Attachments A - D):
J. M. Sebrosky, NRC/HQ
M. A. Hood, NRC/HQ

cc (w/o Enclosure and Attachments A - D):
T. A. Bergman, NRC/HQ
R. W. Borchardt, NRC/HQ
W. B. Burton, NRC/HQ
M. P. Cazaubon, NuStart
S. M. Coffin, NRC/HQ
M. Concepcion, NRC/NRO/DCIP/CQVPS.
C. B Cook, NRC/NRO/DSER/RHEB
S. P. Frantz, Morgan Lewis
R. C. Grumbir, NuStart
P. S. Hastings, NuStart
P. L. Hiland, NRC/NRR/ADES/DE
G. M. Holahan, NRC/HQ
K. A. Kavanagh, NRC/NRO/DCIP/CQVP
R. H. Kitchen, PGN
M. C. Kray, NuStart
Y. Malave, NRC/NRO/DSER/RHEB
D. B. Matthews, NRC/HQ
V. M. McCree, NRC/RII
E. M. McKenna, NRC/HQ
A. M. Monroe, SCE&G
J. D. Peralta, NRC/NRO/DCIP/CQVP
C. R. Pierce, SNC
L. R. Plisco, NRC
K. R.See, NRC/NRO/DSER/RHEB
M. E.Shields, DOE/HQ
R. F. Smith-Kevern, DOE/HQ
G. A.Zinke, NuStart

cc (w/o Enclosure and Attachments A - D):

G. Arent, EQB 1A-WBN
A. L. Sterdis, LP 5A-C
A. S. Bhatnagar, LP 6A-C
S. A. Vance, WT 6A-K
E. J. Vigluicci, WT 6A-K
EDMS, WT CA-K

Response to NRC Information Needs Related to Cultural Resources (CR)

NRC Review of the BLN Environmental Report

NRC Information Needs - BLN ER Site Audit Exit Meeting

NRC Environmental Category: CULTURAL RESOURCES

During the NRC's BLN Environmental Report site audit exit meeting on April 4, 2008, the staff identified the following information needs:

CR-01: Provide copies of all consultation letters with SHPO.

CR-02: Provide copies of all consultation letters with Tribes and interested parties and responses.

CR-03: Provide a list of tribes contacted.

BLN INFORMATION NEEDS: CR-01, CR-02, and CR-03

BLN RESPONSE:

Subsection 2.5.3.2 of the BLN ER provides a discussion of the consultation letters that were sent to the Alabama State Historic Preservation Officer (SHPO), the Native American Tribal Historic Preservation Officers (THPO), and related tribal authorities for federally and state-recognized tribes that have a historical, cultural, and traditional interest in Jackson County, Alabama. The consultation letters and responses are provided in ER Appendix A. Appendix A includes letters sent to and received from regulatory agencies in regard to issues surrounding the Cultural Resources assessments for the BLN, including letters to and from the Tribes, the Alabama SHPO, Tennessee Valley Authority (TVA), and the NuStart consortium. ER Section 2.5.3.2 also provides the names of the federally and state-recognized tribes with which TVA consulted for the Bellefonte project.

However, during the sufficiency review of the BLN Combined License Application (COLA), the NRC reviewers identified, in comment ER10, that some additional correspondence between the SHPO and TVA, NuStart, and their consultants was referenced but not included in Appendix A. By correspondence dated May 2, 2008, TVA provided responses to comments made by the NRC reviewers during the sufficiency review of the BLN COLA, including the Applicant's Environmental Report. In response to comment ER10, TVA provided copies of five letters related to National Historic Preservation Act (NHPA) Section 106 consultation that were inadvertently omitted from ER Appendix A. TVA refers the reviewers to this response provided in TVA's May 2, 2008, letter for this additional correspondence.

ASSOCIATED BLN COL APPLICATION REVISIONS:

None.

ATTACHMENTS:

None.

NRC Review of the BLN Environmental Report

NRC Information Needs - BLN ER Site Audit Exit Meeting

NRC Environmental Category: CULTURAL RESOURCES

During the NRC's BLN Environmental Report site audit exit meeting on April 4, 2008, the staff identified the following information needs:

CR-05: Describe the process to identify Tribes and interested parties regarding cultural resources.

CR-19: Describe process for evaluating potential for traditional cultural properties to be present and/or affected.

BLN INFORMATION NEEDS: CR-05 and CR-19

BLN RESPONSE:

TVA regularly consults with 18 federally recognized Indian tribes that have an interest in the Tennessee Valley. These tribes work with TVA's tribal liaison to determine the types of projects of interest and the areas in which they are interested. TVA has held two meetings with these tribes to enhance TVA's consultation process. To date, TVA has developed Memoranda of Understanding with two of these tribes (Eastern Band of Cherokee Indians and the United Keetoowah Band). Seventeen of the 18 tribes have expressed an interest in TVA-related projects in northern Alabama. In summer 2006, NuStart Energy Development LLC (NuStart) sent consultation letters to Tribal Historic Preservation Officers and related tribal authorities of the 18 federally recognized tribes. Consultation letters were also sent to four state-recognized tribes. The purpose of these letters was to seek tribal identification of nearby historic, archaeological, or cultural resources, including traditional cultural properties (TCPs) under their jurisdiction that should be considered in the analysis for the BLN combined license application.

NuStart received one response; the Choctaw Nation of Oklahoma (ER Appendix A) indicated that to the best of their knowledge, the BLN project will have no adverse effect on any historic properties in the project's area of potential effect. The response requested immediate notification if buried archaeological or building materials such as chipped stone, tools, pottery, bone, historic crockery, glass, or metal items are exposed during construction activities. However, no historical, archaeological, or cultural resources, including TCPs for these tribes, were revealed through consultation with them. Because these tribes were separated from their ancestral lands during the Removal Period (approximately 1815 – 1836), most do not have the opportunity to visit these lands on a regular basis. As a result, fewer TCPs have been identified in the TVA region than at other sites where tribes have better access to the lands. Subsequent to receipt of the NuStart consultation letters, the BLN project, among other topics, was discussed during a general consultation meeting in August 2006 between TVA's liaison and several tribal representatives. Tribal representatives did not express any concerns regarding the BLN project at this meeting. At that time, TVA also clarified its role in the BLN project, as well as that of NuStart and Enercon, and ensured the tribes that TVA would communicate with them through formal correspondence.

ASSOCIATED BLN COL APPLICATION REVISIONS:

None.

ATTACHMENTS:

None.

NRC Review of the BLN Environmental Report

NRC Information Needs - BLN ER Site Audit Exit Meeting

NRC Environmental Category: CULTURAL RESOURCES

During the NRC's BLN Environmental Report site audit exit meeting on April 4, 2008, the staff identified the following information need:

CR-06: Describe the cultural background (prehistoric and historic) at the Bellefonte site to put the cultural resources in context.

BLN INFORMATION NEED: CR-06

BLN RESPONSE:

During the week of March 31 through April 4, 2008, the NRC staff conducted an audit of the BLN site, including a review of the documentation supporting the BLN ER. The documentation provided to the staff included a report titled "Phase I Archaeological Survey of 606 Acres at the Bellefonte Nuclear Site, Jackson County, Alabama, Final Report," dated March 2007. This Phase I report provides a description of the cultural background (prehistoric and historic) of the Bellefonte site and the surrounding region. Based on the depth of the cultural overview in the Phase I report, TVA understands that the NRC staff considers this comment resolved and no additional documentation is required in response to this information request.

ASSOCIATED BLN COL APPLICATION REVISIONS:

None.

ATTACHMENTS:

None.

NRC Review of the BLN Environmental Report

NRC Information Needs - BLN ER Site Audit Exit Meeting

NRC Environmental Category: CULTURAL RESOURCES

During the NRC's BLN Environmental Report site audit exit meeting on April 4, 2008, the staff identified the following information need:

CR-09: Provide historic maps/records/aerial photographs/deeds records associated with the BLN site.

BLN INFORMATION NEED: CR-09

BLN RESPONSE:

During the week of March 31 through April 4, 2008, the NRC staff conducted an audit of the BLN site, including a review of the documentation supporting the BLN ER. The documentation provided to the staff included TVA's land acquisition maps for the BLN site, which were produced by TVA at the time it acquired the property (1934). The maps depict the standing structures and buildings that were present at the time of acquisition, as well as the property boundaries and previous owners of the land that was purchased by TVA. Deed records were not readily available at the time of the audit, and would not provide any more useful information than that which can be drawn from the land acquisition maps. Aerial photographs of the property during construction of Bellefonte Units 1 and 2 are provided in this letter, in response to Information Need CR-11. Based on discussions with the NRC's Cultural Resource reviewers and subsequent confirmation at the audit exit meeting, TVA understands that the NRC staff considers this comment resolved and no additional documentation is required in response to this information request.

ASSOCIATED BLN COL APPLICATION REVISIONS:

None.

ATTACHMENTS:

None.

NRC Review of the BLN Environmental Report

NRC Information Needs - BLN ER Site Audit Exit Meeting

NRC Environmental Category: CULTURAL RESOURCES

During the NRC's BLN Environmental Report site audit exit meeting on April 4, 2008, the staff identified the following information needs:

CR-10: Provide current aerial photographs of BLN site, if available.

CR-15: Describe process for determining APE.

BLN INFORMATION NEEDS: CR-10 and CR-15

BLN RESPONSE:

A current aerial photograph of the BLN site, with the project area of potential effect (APE) superimposed, is provided as Attachment A to this letter.

TVA recommended a project APE consisting of approximately 606 acres of land located within the BLN site. This APE was defined so as to include the primary construction footprint, as well as laydown areas, anticipated on-site road construction, and other ground-disturbing activities that are expected to occur as a result of plant construction and operation.

During the BLN site audit held on March 31 through April 4, 2008, NRC staff and TVA agreed that a survey of the aboveground structures would be conducted. For this particular survey, the APE is the area within a one-mile radius of the center point between the two existing cooling towers. The aboveground structures survey has been completed and is currently under review by the Alabama State Historic Preservation Officer (SHPO). Upon completion of the SHPO review, TVA will submit the results of the aboveground structures survey to the NRC, in response to Information Need CR-08. TVA plans to provide the aboveground survey to the NRC by June 30, 2008. A topographical map that shows the BLN site and the APE (one-mile radius) associated with the aboveground structures survey is provided as Attachment B to this letter.

ASSOCIATED BLN COL APPLICATION REVISIONS:

None.

ATTACHMENTS:

The following images are provided as Attachments A and B:

A. Aerial Photograph – Bellefonte Site - Project Area of Potential Effect

B. Topographic Map – Bellefonte Site – Aboveground Survey One-Mile Radius Area of Potential Effect

NRC Review of the BLN Environmental Report

NRC Information Needs - BLN ER Site Audit Exit Meeting

NRC Environmental Category: CULTURAL RESOURCES

During the NRC's BLN Environmental Report site audit exit meeting on April 4, 2008, the staff identified the following information need:

CR-11: Provide historic aerial photographs of BLN site showing extent of construction disturbance, if available.

BLN INFORMATION NEED: CR-11

BLN RESPONSE:

Three aerial photographs showing the Bellefonte site during construction of the Bellefonte Units 1 and 2 reactors, cooling towers, and other facilities are provided as attachments to this letter. These photographs depict the extent of construction disturbance in October 1977, June 1981, and during the interim period between these two dates.

ASSOCIATED BLN COL APPLICATION REVISIONS:

None.

ATTACHMENTS:

The following aerial photographs are provided as Attachments C1, C2, and C3:

C1. Aerial Photograph - Bellefonte Site Under Construction in October 1977

C2. Aerial Photograph - Bellefonte Site Under Construction Between 1977 and 1981

C3. Aerial Photograph - Bellefonte Site Under Construction in June 1981

NRC Review of the BLN Environmental Report

NRC Information Needs - BLN ER Site Audit Exit Meeting

NRC Environmental Category: CULTURAL RESOURCES

During the NRC's BLN Environmental Report site audit exit meeting on April 4, 2008, the staff identified the following information need:

CR-12: Describe process for establishing percentage of area disturbed by past BLN site construction.

BLN INFORMATION NEED: CR-12

BLN RESPONSE:

The methodology used by TVA to establish the area disturbed by past BLN site construction was a standard approach to generating aerial measurements and deriving groundcover percentages. TVA provided the cultural resource Phase I survey contractor with a geographical information system (GIS) shapefile of the project area of potential effect (APE). Using ArcGIS 9.1, this APE was overlaid on a georeferenced, Digital Raster Graphic image of a 1:24,000 scale, 7.5' U.S. Geological Survey (USGS) topographic map, which allowed areas to be defined as disturbed or undisturbed. Area calculations performed using the GIS program produced the percentage of area disturbed by previous BLN site construction. In viewing 1-meter resolution, color orthophoto aerial imagery of the BLN site and in-field reconnaissance, TRC determined that no new ground disturbance was present. Additionally, global positioning system (GPS) technology was used in the field to map point, line, and area features important to the study, including areas surveyed versus areas surveyed and shovel tested. The GPS used provided submeter accuracy. During this process, no new areas of disturbance were observed that would have required updates to the GIS estimates of disturbed areas. Additional disturbed or undisturbed areas discovered in the field would have been mapped using GPS if found, and used to correct the GIS spatial dataset of disturbed versus undisturbed areas generated from the topographic map and APE. However, corrections were not necessary as no new disturbances, or undisturbed areas mistaken for disturbed, were found

ASSOCIATED BLN COL APPLICATION REVISIONS:

None.

ATTACHMENTS:

None.

NRC Review of the BLN Environmental Report

NRC Information Needs - BLN ER Site Audit Exit Meeting

NRC Environmental Category: CULTURAL RESOURCES

During the NRC's BLN Environmental Report site audit exit meeting on April 4, 2008, the staff identified the following information needs:

CR-13: Figure 2.5-7

CR-14: Provide copy of map showing the APE.

BLN INFORMATION NEEDS: CR-13 and CR-14

BLN RESPONSE:

During the week of March 31 through April 4, 2008, the NRC staff conducted an audit of the BLN site, including a review of the documentation supporting the BLN ER. The documentation provided to the staff included ER Figure 2.5-7, which illustrates the APE. TVA requested that this figure be withheld from public disclosure under 10 CFR 2.390(a)(3), because it includes information concerning the nature and location of archaeological resources required to be protected from public disclosure under the Archaeological Resources Protection Act of 1979, 16 U.S.C. § 470hh. The NRC accepted TVA's request to withhold this information in the referenced letter, dated March 27, 2008. Because Figure 2.5-7 is included in Part 9, Withheld Information, of the BLN COLA, TVA will not resubmit this figure to the NRC, but instead requests that the NRC's contractor obtain a copy directly from the staff. Based on discussions with the NRC's Cultural Resource reviewers, TVA understands that the NRC staff considers this comment resolved and no additional documentation is required in response to this information request.

ASSOCIATED BLN COL APPLICATION REVISIONS:

None.

ATTACHMENTS:

None.

REFERENCE:

Letter from Tanya Simms, NRC, to Mr. Phillip M. Ray, TVA, "Bellefonte Request for Withholding Information from Public Disclosure," dated March 27, 2008 [ML080560004].

NRC Review of the BLN Environmental Report

NRC Information Need identified at BLN ER Site Audit Exit Meeting

NRC Environmental Category: CULTURAL RESOURCES

During the BLN Environmental Report site audit exit meeting on April 4, 2008, the NRC staff identified the following information need:

CR-16: Provide copies of References 84 - 91, 69 from Section 2.5.6 of the ER

BLN INFORMATION NEED: CR-16

BLN RESPONSE:

During the week of March 31 through April 4, 2008, the NRC staff conducted an audit of the BLN site, including a review of the documentation supporting the BLN ER. The documentation provided for staff review included an Alabama Historical Commission policy report and six archaeological reports on the BLN site, Guntersville Reservoir area, Guntersville Basin on the Tennessee River in Northern Alabama, and the town of Bellefonte, all of which are listed below. NRC Cultural Resource reviewers also requested ER Section 2.5, Reference 69, TVA's *Final Environmental Assessment, Bellefonte Nuclear Plant Redress*, dated 2006. This document is provided as Attachment D to this letter.

Reference 91 is an Alabama Office of Archaeological Research (AOAR) online cultural resource database. Access to this web-based resource is restricted to authorized users, due to the sensitive nature of database contents. Only reference information for the AOAR online database is listed below. By providing Attachment D, and with the understanding that AOAR cultural resource information cannot be attached, TVA understands that the NRC staff considers this comment resolved and no additional documentation is required in response to this information request.

The following referenced documents were provided to the NRC reviewers:

84. Alabama Historical Commission, *2002 Policy for Archaeological Survey and Testing in Alabama*, Alabama State Historic Preservation Office, Montgomery, AL, 2002.

85. Deter-Wolf, A., *Phase I Archaeological Survey of 606 Acres at the Bellefonte Nuclear Site, Jackson County*, Alabama, Nashville office of TRC, Inc., TRC Project #54882, Report on file, Alabama Office of State Archaeology, Moundville, AL, 2006.

86. Solis, C. and E. M. Futato, *Cultural Resource Investigations in the Guntersville Reservoir Area, Marshall and Jackson Counties, Alabama and Marion County, Tennessee*, Alabama State Museum of Natural History, Office of Archaeological Research, Report of Investigations 48, University of Alabama, Tuscaloosa, AL, 1987.

87. Nance, C. R. and B. E. Bastian, *Report on Old Bellefonte: An Historical Site in North Alabama*, University of Alabama, Birmingham and the Tennessee Valley Authority, Report on file, Alabama Office of State Archaeol ogy, Moundville, AL, 1974.

88. Futato, E. M., *The Bellefonte Site: 1Ja300*. University of Alabama, Office of Archaeological Research, Research Series 2, University of Alabama, Tuscaloosa, AL, 1977.

89. Oakley, C. B., *An Archaeological Survey of the Bellefonte Power Plant Site*, University of Alabama, in cooperation with the Tennessee Valley Authority, Report on file, Alabama Office of State Archaeology, Moundville, AL, 1972.

90. Webb, W. S., and Wilder, C. G, *An Archaeological Survey of the Guntersville Basin on the Tennessee River in Northern Alabama*, University of Kentucky Press, Lexington, KY, 1951.

91. Alabama Office of Archaeological Research, 2006 Alabama Online Cultural Resources Database, Website (restricted access), http://appserver.oas.ua.edu/assf/servlet/GetUserInfo, Hardcopy site forms also available at the AOAR, Moundville, AL.

ASSOCIATED BLN COL APPLICATION REVISIONS:

None.

ATTACHMENTS:

The following document is provided as Attachment D:

D. Tennessee Valley Authority, *2006 Final Environmental Assessment, Bellefonte Nuclear Plant Redress, Jackson County, Alabama*, Website, http://www.tva.gov/environment/reports/bellefonte2/index.htm.

NRC Review of the BLN Environmental Report

NRC Information Needs - BLN ER Site Audit Exit Meeting

NRC Environmental Category: CULTURAL RESOURCES

During the NRC's BLN Environmental Report site audit exit meeting on April 4, 2008, the staff identified the following information need:

CR-17: Provide copies of archaeological site records and any updates for sites located within the BLN site and transmission line corridors and within one mile of the BLN site and transmission line corridors.

BLN INFORMATION NEED: CR-17

BLN RESPONSE:

During the week of March 31 through April 4, 2008, the NRC staff conducted an audit of the BLN site, including a review of the documentation supporting the BLN ER. The documentation provided to the staff included archaeological site records for sites located within the BLN archaeological APE and within one mile of the APE boundaries. Because the extant transmission lines will be used to carry power from the BLN site, and the BLN project will not involve any ground-disturbing activities along the corridor, TVA did not locate or provide forms for archaeological sites within one mile of the transmission line corridors. Cultural resources located near the transmission lines may be assessed in the future under TVA's Sensitive Area Review (SAR) process. The cultural resource forms provided to the NRC staff correspond to the archaeological sites listed in ER Table 2.5-21 and to the aboveground historic properties listed in Table 2.5-20. These include the archaeological site forms for sites within the BLN archaeological APE, within one mile of the APE boundaries, and the National Register of Historic Places (NRHP) and Alabama Register of Landmarks and Heritage-listed nomination forms for aboveground standing structures located within 10 miles of the BLN site centerpoint. The fact that one of the many aboveground listed properties located within 10 miles of the BLN site centerpoint also falls within one mile of the transmission line corridor is only coincidental, as the BLN cultural resource review is limited to resources that may be impacted by BLN construction activities, thereby excluding the transmission line corridors.

Subsequent to the site audit, TVA reviewed the state files, and confirmed that there are no updates to these files, except for those updates that were derived from the 2006 cultural resource survey on the BLN site archaeological APE performed in preparation for the COLA. These few update forms have been requested by TVA from the authors of that survey report and are anticipated to be forthcoming. Based on this expectation, and given that the information on the site updates already provided to NRC staff via text, graphics, and photos in the survey report is more than would be included on the update forms, TVA understands that the NRC staff considers this comment resolved and no additional documentation is required in response to this information request.

ASSOCIATED BLN COL APPLICATION REVISIONS:
None.

ATTACHMENTS:
None.

NRC Review of the BLN Environmental Report

NRC Information Needs - BLN ER Site Audit Exit Meeting

NRC Environmental Category: CULTURAL RESOURCES

During the NRC's BLN Environmental Report site audit exit meeting on April 4, 2008, the staff identified the following information need:

CR-20: Provide archaeological/historical records associated with the historic town of Bellefonte and clarification on site boundary.

BLN INFORMATION NEED: CR-20

BLN RESPONSE:

During the week of March 31 through April 4, 2008, the NRC staff conducted an audit of the BLN site, including a review of the documentation supporting the BLN ER. A document titled "Report on Old Bellefonte: An Historical Site in North Alabama," dated 1974, was made available for NRC review. This report is the only known work on the town of Bellefonte, as no archaeological investigations of the town have been conducted to date, and it contains a map of town boundaries that was used to determine the Old Town of Bellefonte boundaries shown in ER Figure 2.5-7. The other known documents related to the town of Bellefonte are those pertaining to the nomination of the Bellefonte Town Cemetery for listing in the Alabama Cemetery Register. Upon completion of the SHPO review in mid-June 2008, the documents associated with the cemetery nomination will be made available along with the aboveground structures survey report.

ASSOCIATED BLN COL APPLICATION REVISIONS:

None.

ATTACHMENTS:

None.

NRC Review of the BLN Environmental Report

NRC Information Needs - BLN ER Site Audit Exit Meeting

NRC Environmental Category: CULTURAL RESOURCES

During the NRC's BLN Environmental Report site audit exit meeting on April 4, 2008, the staff identified the following information need:

CR-21: Describe process for being assured that site 1JA300 has been completely destroyed either by data recovery in 1974 or by construction of the intake channel.

BLN INFORMATION NEED: CR-21

BLN RESPONSE:

TVA provided the cultural resource Phase I survey contractor with a geographical information system (GIS) shapefile of the project APE. Using ArcGIS 9.1, that APE was overlaid on a georeferenced, Digital Raster Graphic image of a 1:24,000 scale, 7.5' U.S. Geological Survey topographic map, which allowed areas to be defined as disturbed or undisturbed. Global positioning system equipment with submeter accuracy was used in the field to map the observed disturbed areas for the intake. Site boundary data from archaeological reports and site forms pertaining to site 1JA300 were added to the GIS map, which subsequently illustrated that the boundaries of the site were entirely within the boundaries of the disturbed area of the intake.

Furthermore, as discussed in the Phase I report (including Figures 6 and 8), the contractor's field team conducted shovel-testing and an intensive pedestrian survey across remaining areas of the APE in the general area of the intake in order to determine whether the site extended beyond the boundaries originally established by earlier survey and excavation reports. The contractor found no evidence that the site boundary extended beyond areas already destroyed by the construction of the intake channel. It is also worth noting that, although destroyed by the intake construction, Site 1JA300 had been mitigated for that intake prior to construction, and much of the site was destroyed during the mitigation's data recovery. Nine burials and other features were excavated. Finally, the one nearby area that could still contain elements of site 1JA300 has been defined as site 1JA111, and that site will be protected as stated in ER Subsection 4.1.3. The possibility that 1JA111 is actually an extension of 1JA300 is discussed in the Phase I report and in the ER. Nonetheless, the area containing cultural materials that was defined as site 1JA300, as opposed to that area defined as site 1JA111, has been completely removed by the intake.

ASSOCIATED BLN COL APPLICATION REVISIONS:

None.

ATTACHMENTS:

None.

NRC Review of the BLN Environmental Report

NRC Information Needs - BLN ER Site Audit Exit Meeting

NRC Environmental Category: CULTURAL RESOURCES

During the NRC's BLN Environmental Report site audit exit meeting on April 4, 2008, the staff identified the following information need:

CR-22: Provide maps showing locations of surveys and shovel test pits conducted for the 2006 phase one survey.

BLN INFORMATION NEED: CR-22

BLN RESPONSE:
During the week of March 31 through April 4, 2008, the NRC staff conducted an audit of the BLN site, including a review of the documentation supporting the BLN ER. The documentation provided to the staff included a report titled "Phase I Archaeological Survey of 606 Acres at the Bellefonte Nuclear Site, Jackson County, Alabama, Final Report," dated March 2007. Section IV of this Phase I survey report includes a discussion of the archaeological field methods used for this survey, including a combination of systematic pedestrian examination of exposed ground surfaces and shovel-testing of areas having poor surface visibility. Figure 6 of the Phase I survey report provides a map of the project APE, depicting the locations of the various archaeological survey methods used on the BLN site, and Figures 8 and 9 show more detailed maps of portions of the project APE depicting shovel-test transects and numbers of test locations.

ASSOCIATED BLN COL APPLICATION REVISIONS:

None.

ATTACHMENTS:

None.

NRC Review of the BLN Environmental Report

NRC Information Needs - BLN ER Site Audit Exit Meeting

NRC Environmental Category: CULTURAL RESOURCES

During the NRC's BLN Environmental Report site audit exit meeting on April 4, 2008, the staff identified the following information needs:

CR-23: Describe process for conducting reconnaissance survey of existing transmission lines and any cultural resources located within the transmission line corridors as well as historic structures identifies within vicinity of the transmission lines.

CR-26: Provide copy of Sensitive Area Review.

BLN INFORMATION NEEDS: CR-23 and CR-26

BLN RESPONSE:

During the week of March 31 through April 4, 2008, the NRC staff conducted an audit of the BLN site, including a review of the documentation supporting the BLN ER. The documentation provided to the staff included a document titled, "Sensitive Area Review (SAR) Process," which summarizes the environmental compliance review process TVA uses for maintenance and modifications of transmission lines. A brief description of the process by which TVA's Cultural Resources staff conducts sensitive area reviews for transmissions operations and maintenance projects is included in the SAR Process document. TVA understands that the SAR process described in this document is consistent with the NRC expectations for conducting reconnaissance surveys of existing transmission lines and transmission line corridors; therefore, no additional documentation is provided in response to this information request.

ASSOCIATED BLN COL APPLICATION REVISIONS:

None.

ATTACHMENTS:

None.

NRC Review of the BLN Environmental Report

NRC Information Needs - BLN ER Site Audit Exit Meeting

NRC Environmental Category: CULTURAL RESOURCES

During the NRC's BLN Environmental Report site audit exit meeting on April 4, 2008, the staff identified the following information needs:

CR-25: Identify how you intend to address Choctaw Nation's request to be notified of inadvertent discoveries.

CR-31: Provide copy of procedures that identify measures to be taken if cultural or historic resources are inadvertently discovered during construction.

BLN INFORMATION NEEDS: CR-25 and CR-31

BLN RESPONSE:

TVA is a Federal entity that is responsible for compliance with both the National Historic Preservation Act (NHPA) and the Native American Graves Protection and Repatriation Act (NAGPRA). These laws include provisions for both post-review discoveries (Section 106 of the NHPA – 36 CFR Part 800) and inadvertent discoveries of human remains, funerary objects, sacred objects or objects of cultural patrimony (NAGPRA – 43 CFR Part 10) that may occur during construction and operation at the BLN site.

TVA will follow these regulations and notify the Alabama State Historic Preservation Officer, federally recognized Indian tribes with an interest in this area, including the Choctaw Nation, and other consulting parties that may have an interest in the discovery within the specified amount of time designated in the regulations. TVA will follow up with a written letter and initiate consultation under the appropriate legislation. Additional actions associated with consultation may include on-site visits, face-to-face meetings, conference calls, or written consultation depending on the type of resource discovered. TVA will work with the affected parties to reduce adverse affects to the resources and ensure protection and/or mitigation when necessary.

In addition, TVA will follow the stipulations agreed upon in the Memoranda of Understanding with the Eastern Band of Cherokee Indians and the United Keetoowah Band.

ASSOCIATED BLN COL APPLICATION REVISIONS:

None.

ATTACHMENTS:

None.

NRC Review of the BLN Environmental Report

NRC Information Needs - BLN ER Site Audit Exit Meeting

NRC Environmental Category: CULTURAL RESOURCES

During the NRC's BLN Environmental Report site audit exit meeting on April 4, 2008, the staff identified the following information need:

CR-27: Provide status of National Register evaluation of 1JA111.

BLN INFORMATION NEED: CR-27

BLN RESPONSE:

By correspondence dated May 2, 2008, TVA provided responses to comments made by the NRC reviewers during the sufficiency review of the BLN COLA, including the Applicant's Environmental Report. In response to comment ER09, TVA addressed the NRC reviewer's questions regarding NRHP evaluation of Site 1JA111. Because NRC Information Need CR-27 requests the same information as that provided in response to ER09, TVA refers the reviewers to this response provided in TVA's May 2, 2008, letter.

ASSOCIATED BLN COL APPLICATION REVISIONS:

None.

ATTACHMENTS:

None.

NRC Review of the BLN Environmental Report

NRC Information Needs - BLN ER Site Audit Exit Meeting

NRC Environmental Category: CULTURAL RESOURCES

During the NRC's BLN Environmental Report site audit exit meeting on April 4, 2008, the staff identified the following information needs:

CR-28: Provide measures for avoidance, minimization, or mitigation of any adverse effects that have been identified in particular to 1JA111.

CR-29: Provide copy of official correspondence assuring protection referenced in ER.

BLN INFORMATION NEEDS: CR-28 and CR-29

BLN RESPONSE:

By correspondence dated May 2, 2008, TVA provided responses to comments made by the NRC reviewers during the sufficiency review of the BLN COLA, including the Applicant's Environmental Report. In response to comments ER09, ER10, and ER12, TVA addressed the NRC reviewer's questions regarding measures for avoidance of Site 1JA111. The BLN response to these comments included a copy of official correspondence assuring Site 1JA111 site protection, as discussed in the Environmental Report. Because NRC Information Needs CR-28 and CR-29 request the same information as that provided in response to ER09, ER10, and ER12, TVA refers the reviewers to these responses provided in TVA's May 2, 2008, letter.

ASSOCIATED BLN COL APPLICATION REVISIONS:

None.

ATTACHMENTS:

None.

NRC Review of the BLN Environmental Report

NRC Information Needs - BLN ER Site Audit Exit Meeting

NRC Environmental Category: CULTURAL RESOURCES

During the NRC's BLN Environmental Report site audit exit meeting on April 4, 2008, the staff identified the following information need:

CR-30: Describe process for establishing 50-protective buffer at 1JA111.

BLN INFORMATION NEED: CR-30

BLN RESPONSE:

A Phase I archaeological survey was conducted within the archaeological area of potential effects for this undertaking. This survey identified site 1JA111 as being potentially eligible for listing in the National Register of Historic Places. TVA agreed with this determination and decided to avoid the site, rather than proceed with Phase II testing to determine its eligibility status. Because the site was not subjected to Phase II testing, TVA established a 50-foot protective buffer around site 1JA111 to provide assurance that the actual site boundaries will be avoided by construction activities. Establishing a buffer that is 50 feet beyond the site boundary recorded by a site survey is common practice for any site TVA wants to avoid and protect. In addition, TVA will place an obstructive barrier around site 1JA111 and its 50-foot protective buffer to provide additional protection against construction activities inadvertently intruding into the area. These protective measures were reviewed and approved by the Alabama State Historic Preservation Officer.

ASSOCIATED BLN COL APPLICATION REVISIONS:

None.

ATTACHMENTS:

None.

NRC Review of the BLN Environmental Report

NRC Information Needs - BLN ER Site Audit Exit Meeting

NRC Environmental Category: CULTURAL RESOURCES

During the NRC's BLN Environmental Report site audit exit meeting on April 4, 2008, the staff identified the following information needs:

CR-32: Provide copy of archaeological monitoring procedures.

CR-33: Provide copy of NAGPRA plan of action, if available.

BLN INFORMATION NEEDS: CR-32 and CR-33

BLN RESPONSE:

By correspondence dated May 2, 2008, TVA provided responses to comments made by the NRC reviewers during the sufficiency review of the BLN COLA, including the Applicant's Environmental Report. In response to comment ER12, TVA addressed the NRC reviewer's questions regarding archaeological monitoring during construction, in terms of site avoidance and compliance with NAGPRA provisions. Because NRC Information Needs CR-32 and CR-33 request the same information as that provided in response to ER12, TVA refers the reviewers to this response provided in TVA's May 2, 2008, letter.

ASSOCIATED BLN COL APPLICATION REVISIONS:

None.

ATTACHMENTS:

None.

NRC Review of the BLN Environmental Report

NRC Information Needs - BLN ER Site Audit Exit Meeting

NRC Environmental Category: CULTURAL RESOURCES

During the NRC's BLN Environmental Report site audit exit meeting on April 4, 2008, the staff identified the following information need:

CR-34: Explain how the impacts to historic properties are determined to be "small."

BLN INFORMATION NEED: CR-34

BLN RESPONSE:

As documented in ER Subsections 2.5.3, 4.1.3, and 5.1.3, there are no archaeological sites or aboveground historic properties that are eligible or potentially eligible for the National Register of Historic Places on the BLN site APE, other than site 1JA111. The protection of site 1JA111 has been addressed by TVA, in consultation with the SHPO, in accordance with 36 CFR Part 800. Cultural resources within the archaeological APE other than site 1JA111 have been determined ineligible by reason of their lack of preservation or lack of integrity of deposits and, by association, their lack of ability to contribute to our understanding of the past. These determinations were based on review of previous cultural resource actions taken on the BLN property, along with the actions taken by the 2006 Phase I cultural resource survey (final report issued in 2007). That survey proceeded under the most current agency guidelines for such surveys, and the resulting report passed review by both the land-entitled Federal agency (TVA) and the Alabama SHPO. According to 36 CFR 800.16 (i), the legal definition of impact or effect is specifically "alteration to the characteristics of a historic property qualifying it for inclusion in or eligibility for the National Register." As no such potentially eligible, or eligible, properties exist within the BLN APE, with the exception of site 1JA111, which will be protected, there can be no impacts/effects on cultural resources or historic properties from construction or operation within the APE at the BLN site. By definition, there can be no impacts/effects on historic properties on the BLN site, as all cultural resources are either determined ineligible or are to be protected; therefore, impacts are considered to be SMALL.

ASSOCIATED BLN COL APPLICATION REVISIONS:

None.

ATTACHMENTS:

None.

NRC Review of the BLN Environmental Report

NRC Information Need identified at BLN ER Site Audit Exit Meeting

NRC Environmental Category: CULTURAL RESOURCES

During the BLN Environmental Report site audit exit meeting on April 4, 2008, the NRC staff identified the following information need:

CR-35: In light of the recent LWA Rule – if TVA will be conducting preconstruction activities and/or applying for a LWA - explain the impacts to cultural resources from regulated construction activities and then from non-regulated construction activities.

BLN INFORMATION NEED: CR-35

BLN RESPONSE:

Although TVA does not intend to apply for an LWA, there are certain preconstruction activities that have been or will be performed at the BLN site. These site exploration activities include the necessary borings to determine foundation conditions and other preconstruction monitoring to establish background information related to the suitability of the site or the environmental impacts of construction or operation. For example, potential borrows areas may be explored to ascertain the available borrow material properties. Notwithstanding the potential for additional preconstruction activities, TVA's review of the Proposed Interim Staff Guidance (ISG) on Limited Work Authorizations determined that any potential impacts to cultural resources would be the result of non-regulated construction activities, as archaeological sites are most susceptible to damage during ground-disturbing work (e.g., site preparation work, including clearing, grading, construction of roads and borrow areas, installation of drainage, erosion, of other environmental mitigation measures, etc.)

The response to NRC Information Need CR-34 provides the basis for determining that the cultural resource impacts are considered to be SMALL. Based on the above discussion of impact separation, the majority of these SMALL impacts would be attributed to non-regulated construction activities; the remaining impacts attributed to regulated construction activities would be considered negligible.

ASSOCIATED BLN COL APPLICATION REVISIONS:

None.

ATTACHMENTS:

None.

NRC Review of the BLN Environmental Report

NRC Information Needs - BLN ER Site Audit Exit Meeting

NRC Environmental Category: CULTURAL RESOURCES

During the NRC's BLN Environmental Report site audit exit meeting on April 4, 2008, the staff identified the following information need:

CR-36: Describe the cumulative impacts to cultural resources and the process for making the determination.

BLN INFORMATION NEED: CR-36

BLN RESPONSE:

Impacts on cultural resources at the BLN site are discussed in ER Subsections 4.1.3 and 5.1.3. For the BLN project, cumulative impacts are the combined impacts from construction and operation of the BLN and concurrent developments in the region, which are either unrelated or only indirectly related to the BLN. For cultural resources, the first concern is that what might appear as minor losses of archaeological sites due to an individual development project could become significant losses, when the impact of concurrent developments and projects are taken into consideration. The second concern is that the cumulative reduction in the number of prehistoric or Historic Period properties might inadvertently reduce one or more common types to rare types. The concern is at what point an increase in rarity ought to be recognized as influencing National Register of Historic Places (NRHP) eligibility for properties that in the past were considered ineligible due to their common occurrence. An example of this would be 1930s WPA-constructed, stone-laid road culverts which, despite their excellent condition and craftsmanship, are so common as to be recorded but not considered eligible for the NRHP; however, the day may come when they are rare enough that some will be preserved as NRHP-listed properties.

It is mandatory for federal undertakings and for non-federal developments that require federal permits, to identify and record prehistoric and Historic Period properties, and to avoid/protect or perform data recovery on those that are potentially eligible for, eligible for, or already NRHP-listed. Assuming compliance, cumulative impacts should be limited to the destruction of sites or structures determined ineligible for the NRHP, and avoidance/protection or data recovery (or relocation) should be provided for each of the more significant historic properties.

The identification and inventory of cultural resources and site protection are positive cumulative results of concurrent developments in a region. Relocation of standing structures to parks or museum grounds can contribute to their protection, and even value in terms of education, and their new setting, though not original, can be enhanced as to its historic feel. Data recovery from archaeological sites also has a positive quality in contributing to research; however, overall it should be considered a negative impact, because salvage efforts are less likely to apply a meaningful research design, and the site is destroyed for future investigations that might include new and better techniques.

The destruction of sites determined ineligible has no impact on our cultural heritage as long as the site location and type has been inventoried. Site type and location data have value for

analyzing spatial correlations and settlement patterns, but ineligible sites contain no elements which themselves require protection, because those elements are considered incapable of adding to our collective knowledge of the past. Inadvertent discoveries at an ineligible site during construction can elevate its status, at which point it could require data recovery or avoidance/protection. However, without a change in status, the destruction of ineligible sites cumulatively by multiple concurrent development projects is still a SMALL cumulative impact on our cultural heritage, and the cumulative number of protected sites resulting from concurrent Section 106 undertakings is still positive.

The second concern, that cumulative impacts may change the NRHP status of properties once thought to be common, requires the recognition that commonality is not typically an overriding criterion for determining a property to be ineligible for the NRHP. Integrity of the resource is also a major concern; that is, integrity in terms of condition, as in a completely dilapidated Historic-Period home or an archaeological site with a mix of modern materials, no depth to the deposits and erosion. Such properties would not achieve eligibility status despite their rarity, as nothing could be gained. In other words, if cumulative developments are reducing the number of ineligible sites that are ineligible because they lack integrity, that alone is no contribution to impacts. According to 36 CFR 800.16 (i), an impact or "effect" is specifically "alteration to the characteristics of a historic property qualifying it for inclusion in or eligibility for the National Register." For the BLN region, it is not known to what extent the BLN project and concurrent developments are reducing the commonality of sites of specific types, as opposed to only reducing the number of sites that are ineligible because they lack integrity. What is known is that the BLN project is not itself contributing impacts to cultural resources located within the APE, or to currently listed NRHP standing structures within 10 miles. Furthermore, the fact that 1JA111 is to be protected is a positive result.

Cumulative impacts are reported in the ER as SMALL, because they are evaluated in terms of what level of impact the BLN development itself is contributing to cumulative impacts in the region. If BLN impacts are SMALL, then BLN contributions to cumulative impacts in the region are also SMALL. The BLN development will likely contribute to the regional losses of Historic Period sites through the ground disturbance activities anticipated to possibly destroy what remains of site 1JA1103. However, that site is considered ineligible not because it is a common example of a site type, but because it lacks integrity of deposits due to disturbance and reuse. In fact, all sites determined ineligible at the BLN site were determined ineligible based on the lack of physical integrity of the site deposits, not the commonality of the resource type. Overall, it is concluded that the combination of the loss of these resources along with the protection of site 1JA111, both as a result of the BLN project, will together contribute only SMALL cumulative impacts to cultural resources in the region.

Concurrent developments discussed in Subsection 2.5.1.2.1 and Section 2.1 of the ER that should be considered for cumulative impacts on cultural resources are as follows:

- Subsection 2.5.1.2.1 states, "As a part of the Base Realignment and Closure Act of 2005, Redstone Arsenal, located at the periphery of the BLN 50-mi. region is to be realigned. It is estimated that during realignment construction at Redstone Arsenal, from 2006 to 2009, between 10,000 and 16,000 new direct and indirect jobs are expected within the Huntsville region (Reference 128). The four-county Huntsville region defined in the

report includes Limestone, Madison, Marshall, and Morgan counties, all of which are within the BLN region. Assuming 50 percent of construction and realigned personnel move into the region and a family size of four, the regional population would increase by 32,000 people, or 2.7 percent during the construction period. During operation at Redstone Arsenal after realignment, approximately 4870 new direct and indirect jobs are expected within the four-county region (Reference 128). Assuming that 50 percent of realigned personnel move into the region and a family size of four, the regional population would increase by 9740 people, or 0.81 percent during operation."

These developments would lead to increases in infrastructure and housing developments. Combined with the BLN project, more high-income housing could result in a biased increase in lakeshore properties, and more low-income housing could result in a bias of impacts on lands farther from recreational and other amenities. The former would tend to impact prehistoric sites far more than would be expected from a random distribution of new housing developments, as prehistoric sites cluster near open water sources; the latter would impact a higher proportion of the total Historic Period sites than prehistoric. Low-income housing could result from rising prices for existing homes due to the influx of new population such that not all low-income housing would be associated with new arrivals. This might result in more low-income housing than would otherwise be expected. These and more specific assessments of how concurrent and secondary developments might impact cultural resources in the region are beyond the scope of this current BLN cultural resource study.

- ER Section 2.1 states, "Interstate 59 connects Birmingham, Alabama, with Chattanooga, Tennessee; its closest point to the BLN is approximately 18 mi. east-southeast."

  There are planned developments for Interstate 59 that will have to be assessed independently as to their individual impacts on cultural resources along with their contributions to cumulative regional impacts. That assessment is beyond the scope of this current BLN cultural resource study.

Secondary impacts may arise from the BLN project itself, as addressed in the response to CR-37.

ASSOCIATED BLN COL APPLICATION REVISIONS:

None.

ATTACHMENTS:

None.

NRC Review of the BLN Environmental Report

NRC Information Needs - BLN ER Site Audit Exit Meeting

NRC Environmental Category: CULTURAL RESOURCES

During the NRC's BLN Environmental Report site audit exit meeting on April 4, 2008, the staff identified the following information need:

CR-37: Describe construction and operating impacts to cultural resources (as secondary impacts) and process for making the determination.

BLN INFORMATION NEED: CR-37

BLN RESPONSE:

Impacts to cultural resources (historic properties) on the BLN site and within 10 miles of its center from construction and operation of the BLN are discussed in ER Subsections 4.1.3 and 5.1.3, and relate to activities such as ground disturbance within the project area of potential effect (APE), and alteration of the visual and auditory setting of historic properties within 10 miles of the BLN site. Not specifically addressed in the ER are secondary impacts and off-site impacts (outside of the APE) to cultural resources that may arise as a consequence of mitigation efforts recommended within other sections of the ER and summarized in ER Table 4.6-1. The following table lists impacts and mitigation measures (by discipline) from Table 4.6-1, which could cause alterations of cultural resource properties beyond the APE. Impacts that are controlled by limiting their extent to the APE are generally not listed, as they have already been considered within the definition of the APE for the cultural resource study. The exception is the type of activities that might otherwise be expected to extend beyond the APE, such as drainage contouring and vegetation clearance. Potential construction mitigation impacts (i.e., secondary impacts) addressed in following table may apply also to the operational phase, but at a reduced potential and scale.

Section Reference	Impact Description or Activity	Specific Measures and Controls	Potential alterations of cultural resource properties
4.1.1 Site and Vicinity	Ground-disturbing activities, including grading and re-contouring.	Limit ground disturbances to the smallest amount of area practical to construct and maintain the units.	Limited to APE; already assessed.
4.1.1	Removal of existing vegetation.	Limit vegetation removal to the area within the BLN site designated for construction activities.	Limited to APE; already assessed.
4.1.1	Stockpiling of soils on-site.	Restrict soil stockpiling and reuse to designated areas on the BLN site.	Limited to APE; already assessed.

Section Reference	Impact Description or Activity	Specific Measures and Controls	Potential alterations of cultural resource properties
4.1.1	Disposition of dredge materials and use of borrow material.	Use best management practices and minimize footprint to the degree feasible. Placement of dredge materials above the 500-year flood elevation.	Limited to APE; already assessed. This assumes that the area of the APE that is above the 500-year flood elevation is sufficient for material's footprint under best management practices (BMPs).
4.2.1 Hydrologic Alterations	Maintenance activities on water intake structures could result in minor hydrologic changes.	Adhere to applicable regulations and permits.	Minor hydrologic changes are considered to have small of impacts to cultural resources given the Subsection 4.2.1.2 statement that "temporary increase in turbidity could occur in Guntersville Reservoir near the intake structure during construction and dredging activities. The additional turbidity from these construction activities is expected to dissipate quickly due to the location of the dredging." Bank cut erosion locally is to be protected by riprap within the current APE.
4.2.3 Water-Use Impacts	Potential maintenance or refurbishment of the barge facility, dredging of the intake canal, or construction water discharges to Tennessee River at the BLN vicinity.	Use of best management practices in addition to TVA, USACE, and ADEM controls to protect affected water bodies.	On-shore engineering limited to APE; already assessed. If dredging and off-shore cofferdams are limited to the area of the artificial waterway that is the intake canal, then no direct impacts would be expected. It is also assumed that disturbance from this remediation will be limited to the area drained within the cofferdams. Within the area drained for the cofferdams, inadvertent discovery regulations pertaining to both Section 106 and NAGPRA would apply. Beyond the cofferdams, there should be only SMALL impacts to downstream cultural resources due to the use of the cofferdams. Any increased sedimentation down river would not adversely impact elements of cultural resources.
4.2.3	Potential erosion, and sediment and stormwater runoff from construction activities into water bodies.	Install stormwater drainage system at construction sites and stabilize disturbed soils. Use best management practices to minimize erosion and sedimentation.	There should be only SMALL impacts to downstream cultural resources due to the remediation. Furthermore, any increased down-stream sedimentation would not adversely impact elements of cultural resources. Erosion on-site is not expected to translate to erosion off-site.

Section Reference	Impact Description or Activity	Specific Measures and Controls	Potential alterations of cultural resource properties
4.3.2 Aquatic Ecosystems	Erosion and runoff into nearby water bodies. Potential increased sediment load during construction	Implement erosion and sediment control plans that incorporate recognized Best Management Practices. Install appropriate barriers	See previous entry.
4.4.1 Socioeconomic Impacts (Physical)	Increased debris to existing landfills	Establish procedures for, and perform audits to verify waste disposal according to applicable regulations such as the Resource Conservation and Recovery Act (RCRA). Establish a waste minimization program.	This off-site issue is addressed for "existing" landfills. It is possible that the increased load on the landfill could contribute to its aerial expansion at some point in the future which could have impacts on adjacent cultural resources. If such expansion were to occur, a separate Section 106 undertaking would be implemented at that time if required by permitting or land jurisdiction. This is beyond the scope of current cultural resource efforts and may be irrelevant given existing landfill lifespan estimates, but does represent a potential secondary impact.
4.4.2 Social and Economic Impacts	Traffic congestion impacts in the vicinity of BLN due to increased traffic during peak construction period.	Develop traffic-control mitigation plan. Establish centralized parking area away from site and shuttling construction workers to the site. Install traffic control lighting. Stagger shifts, encourage car pooling, and time deliveries to avoid shift change or commute times. Erect signs alerting drivers of construction and potential for increased construction traffic.	Traffic lights and signs may not have a large enough impact to require a Section 106 undertaking. Existing roads are considered sufficient. However, if a new parking area for shuttle commuters to the BLN were to be constructed off-site, that would introduce potential adverse impacts on cultural resources. These would likely require consideration as a separate Section 106 undertaking and inadvertent discoveries would fall under Section 106 and/or NAGPRA. This is beyond the scope of current cultural resource efforts.
4.4.2	Potential short-term housing shortage.	Anticipate that any housing shortages are mitigated through new construction in anticipation of arrival of construction workforce.	These would be separate Section 106 undertakings if required by permitting or land jurisdiction. This is beyond the scope of current cultural resource efforts.
4.4.2	Potential for increased housing construction impacts.	Comply with land-use ordinances to prevent overcrowding and promote "smart growth."	"Smart Growth" initiatives give the opportunity to reduce potential impacts of new housing construction on cultural resources. These would be separate Section 106 undertakings if required by permitting or land jurisdiction. This is beyond the scope

Section Reference	Impact Description or Activity	Specific Measures and Controls	Potential alterations of cultural resource properties
			of current cultural resource efforts.
4.4.2	Potential short-term ability of infrastructure and schools to accommodate influx of students without additional facilities and teachers.	Fund additional community facilities and infrastructure, police, and fire protection through increased revenues that result from the large construction project.	New facilities and infrastructure including additional school buildings, police or fire stations, or roads, and related utilities would have potential impacts on cultural resources. These would be separate Section 106 undertakings if required by permitting or land jurisdiction. This is beyond the scope of current cultural resource efforts.

Potential off-site activities that are directly related to BLN facility development that may impact cultural resources are limited to potential borrow areas. Should TVA determine that additional borrow areas (outside the project area of potential effect) will be required, these areas will be evaluated under Section 106 of the National Historic Preservation Act prior to TVA's decision to construct BLN.

ASSOCIATED BLN COL APPLICATION REVISIONS:

None.

ATTACHMENTS:

None.

NRC Review of the BLN Environmental Report

NRC Information Needs - BLN ER Site Audit Exit Meeting

NRC Environmental Category: CULTURAL RESOURCES

During the NRC's BLN Environmental Report site audit exit meeting on April 4, 2008, the staff identified the following information need:

CR-38: Describe off-site activities to cultural resources and process for making the determination.

BLN INFORMATION NEED: CR-38

BLN RESPONSE:

Potential off-site activities that could have a direct impact on cultural resources are limited to the potential use of off-site borrow areas. The process for determining the need for obtaining borrow material from off-site will be largely dependent upon whether the on-site borrow locations are capable of providing sufficient material that meets the structural requirements. If additional borrow locations are necessary, TVA will first consider locations within the project area of potential effect (APE) prior to researching off-site borrow locations. TVA currently plans to obtain borrow material from on-site locations; however, should TVA determine that additional borrow areas (outside the project APE) will be required, these areas will be evaluated under Section 106 of the NHPA prior to TVA's decision to construct BLN.

ASSOCIATED BLN COL APPLICATION REVISIONS:

None.

ATTACHMENTS:

None.

NRC Review of the BLN Environmental Report

NRC Information Needs - BLN ER Site Audit Exit Meeting

NRC Environmental Category: CULTURAL RESOURCES

During the NRC's BLN Environmental Report site audit exit meeting on April 4, 2008, the staff identified the following information need:

CR-39: Explain how cultural resources were considered in the site selection process.

BLN INFORMATION NEED: CR-39

BLN RESPONSE:

In response to an NRC information need associated with TVA's alternate site evaluation (BLN Information Need Alt-18), TVA is preparing a paper to provide additional detail on the site selection process. TVA's paper will include a brief description of the method by which cultural resources were considered in the site selection process. TVA's response to the NRC information needs associated with the site selection process, including Alt-18, is expected to be submitted to the NRC by May 22, 2008.

ASSOCIATED BLN COL APPLICATION REVISIONS:

None.

ATTACHMENTS:

None.

NRC Review of the BLN Environmental Report

NRC Information Needs - BLN ER Site Audit Exit Meeting

NRC Environmental Category: CULTURAL RESOURCES

During the NRC's BLN Environmental Report site audit exit meeting on April 4, 2008, the staff identified the following information need:

CR-40: Explain the cultural background and known cultural resources at the alternative site locations at a reconnaissance level.

BLN INFORMATION NEED: CR-40

BLN RESPONSE:

During the week of March 31 through April 4, 2008, the NRC staff conducted an audit of the BLN site, including a review of the documentation supporting the BLN ER. Reports on archaeological studies conducted at the alternate sites, prior to construction of nuclear plants and other projects planned for those sites, were made available to NRC for review and are listed below. Based on discussions with the NRC's Cultural Resource reviewers, TVA understands that the NRC staff considers this information need resolved, and no additional documentation is required in response to this information request.

Yellow Creek

Thorne, R. M. and B. J. Broyles, "Yellow Creek Archaeological Project," Volume 1, *Archaeological Papers of the Center for Archaeological Research*, No. 1 and *Tennessee Valley Authority Publications in Anthropology*, Number 27, Report on file in the TVA Cultural Resource's Office, Knoxville, Tennessee, 1981.

Thorne, R. M. and B. J. Broyles, "Yellow Creek Archaeological Project," Volume 2, *Archaeological Papers of the Center for Archaeological Research*, No. 1, and *Tennessee Valley Authority Publications in Anthropology,* Number 27, Report on file in the TVA Cultural Resource's Office. Knoxville, Tennessee, 1981.

Murphy Hill

Cole, G., "The Murphy Hill Site (1MS300): The Structural Study of a Copena Mound and Comparative Review of the Copena Mortuary Complex," *Tennessee Valley Authority Publications in Anthropology*, *Number 31*, and *Office of Archaeological Research, University of Alabama, Research Series*, No. 3, Report on file in the TVA Cultural Resource's Office, Knoxville, Tennessee, 1981.

Phipps Bend

Lafferty, R. H., "The Phipps Bend Archaeological Project," *Office of Archaeological Research, University of Alabama, Research Series No. 3*, and *Tennessee Valley Authority Publications in Anthropology*, Number 26, Report on file in the TVA Cultural Resource's Office, Knoxville, Tennessee, 1981.

Hartsville

Pietak, L. M., J. L. Holland, and G. D. Price, "Phase I Archaeological Survey of Three Tracts Associated with the Hartsville Nuclear Plant and Phase II Archaeological Testing of Site 40SM157, Smith and Trousdale Counties, Tennessee," 2001.

Pietak, L. M. and M. Wild, "Phase I Archaeological Survey of the Hartsville Nuclear Tract, Alternate A, Trousdale County, Tennessee," 2002.

ASSOCIATED BLN COL APPLICATION REVISIONS:

None.

ATTACHMENTS:

None.

NRC Review of the BLN Environmental Report

NRC Information Need identified at BLN ER Site Audit Exit Meeting

NRC Environmental Category: CULTURAL RESOURCES

During the BLN Environmental Report site audit exit meeting on April 4, 2008, the NRC staff identified the following information need:

CR-41: Provide references 2, 3, 4, and 5 from Section 9.3.4 describing the cultural resources at the alternative sites.

BLN INFORMATION NEED: CR-41

BLN RESPONSE:

The requested references include the Final Environmental Statements associated with the licensing activities for TVA's Bellefonte Nuclear Plant, Units 1 and 2 (ER Section 9.3, Reference 2), Hartsville Nuclear Plant (Reference 3), and Yellow Creek Nuclear Plant (Reference 5) and the Environmental Report for Phipps Bend (Reference 4).

During the week of March 31 through April 4, 2008, the NRC staff conducted an audit of the BLN site, including a review of the documentation supporting the BLN ER. The documentation provided to the staff included Cultural Resource sections of the Final Environmental Statements for Bellefonte Nuclear Plant, Units 1 and 2 and Yellow Creek Nuclear Plant. The Hartsville Nuclear Plant Final Environmental Statement, dated 1975, is cited in the ER, and the Cultural Resource section of this document was provided; however, NRC staff were also provided with the Cultural Resource section of the Environmental Assessment and Finding of No Significant Impact for Hartsville Nuclear Plant Site, dated 2002. The Phipps Bend Nuclear Plant Environmental Report, dated 1977, is cited in the ER; however, NRC reviewers indicated that a copy of the Final Environmental Statement for Phipps Bend, dated 1977, was preferable.

The Cultural Resource sections from the following documents were provided to the NRC reviewers at the site audit:

- Tennessee Valley Authority, *Final Environmental Statement – Bellefonte Nuclear Plant, Units 1 and 2*, 1974.
- Tennessee Valley Authority, *Final Environmental Statement – Hartsville Nuclear Plants, Volume 1*, 1975.
- Tennessee Valley Authority, *Environmental Assessment and Finding of No Significant Impact, – Hartsville Nuclear Plant Site, Trousdale and Smith Counties, Tennessee, Transfer of TVA Property, 2002.*
- Tennessee Valley Authority, *Final Environmental Statement – Phipps Bend Nuclear Plant, 1977.*
- Tennessee Valley Authority, *Final Environmental Statement – Yellow Creek Nuclear Plant, Units 1 and 2*, 1978.

Based on discussions with the NRC's Cultural Resource reviewers and subsequent confirmation at the audit exit meeting, TVA understands that the NRC staff considers this comment resolved and no additional documentation is required in response to this information request.

ASSOCIATED BLN COL APPLICATION REVISIONS:

None.

ATTACHMENTS:

None.

AERIAL PHOTOGRAPH
BELLEFONTE SITE AND PROJECT AREA OF POTENTIAL EFFECT

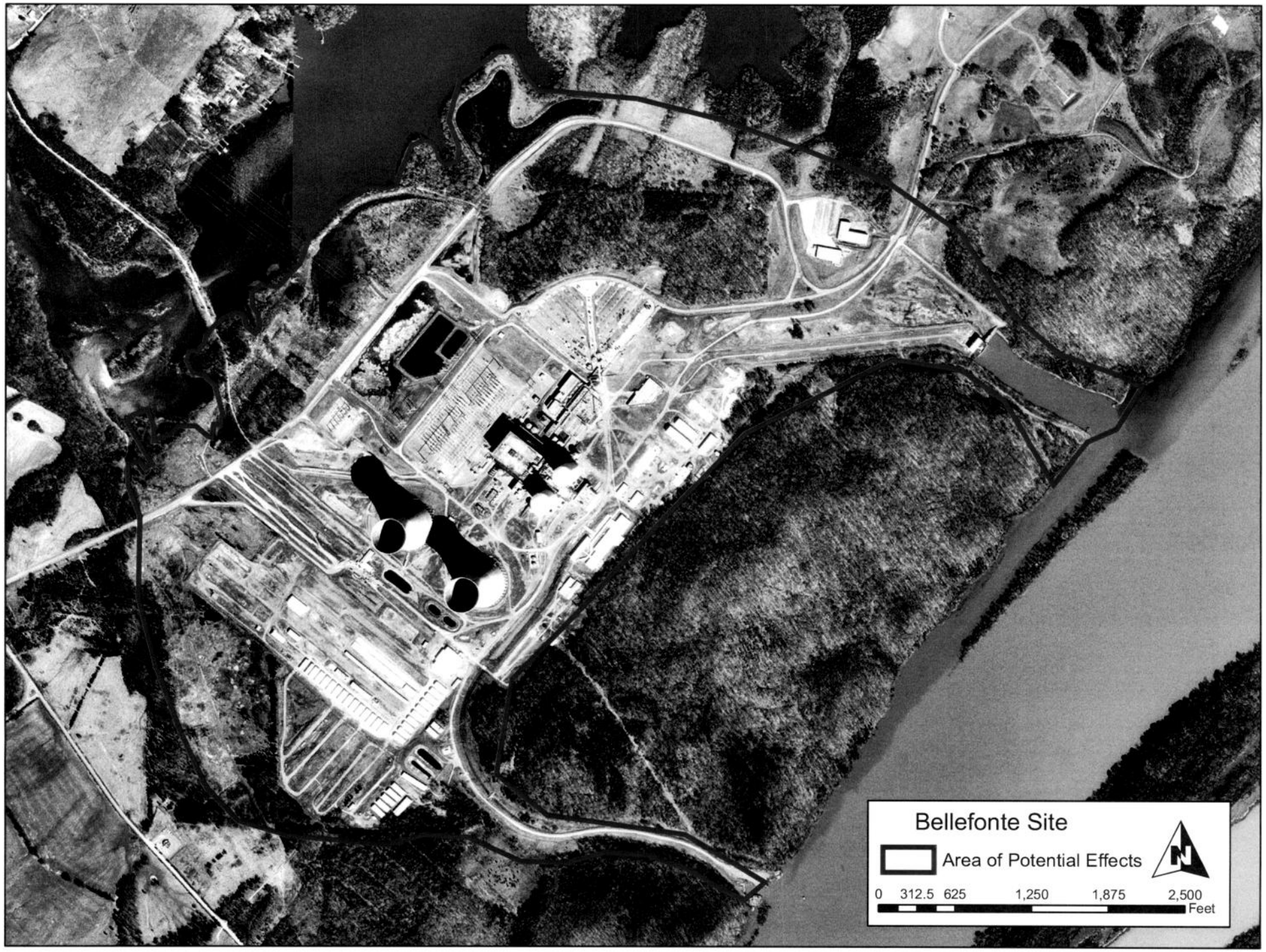
Topographic Map
Bellefonte Site – Aboveground Survey
One-Mile Radius Area of Potential Effect

Aerial Photographs
Bellefonte Site Under Construction
(1977 – 1981)

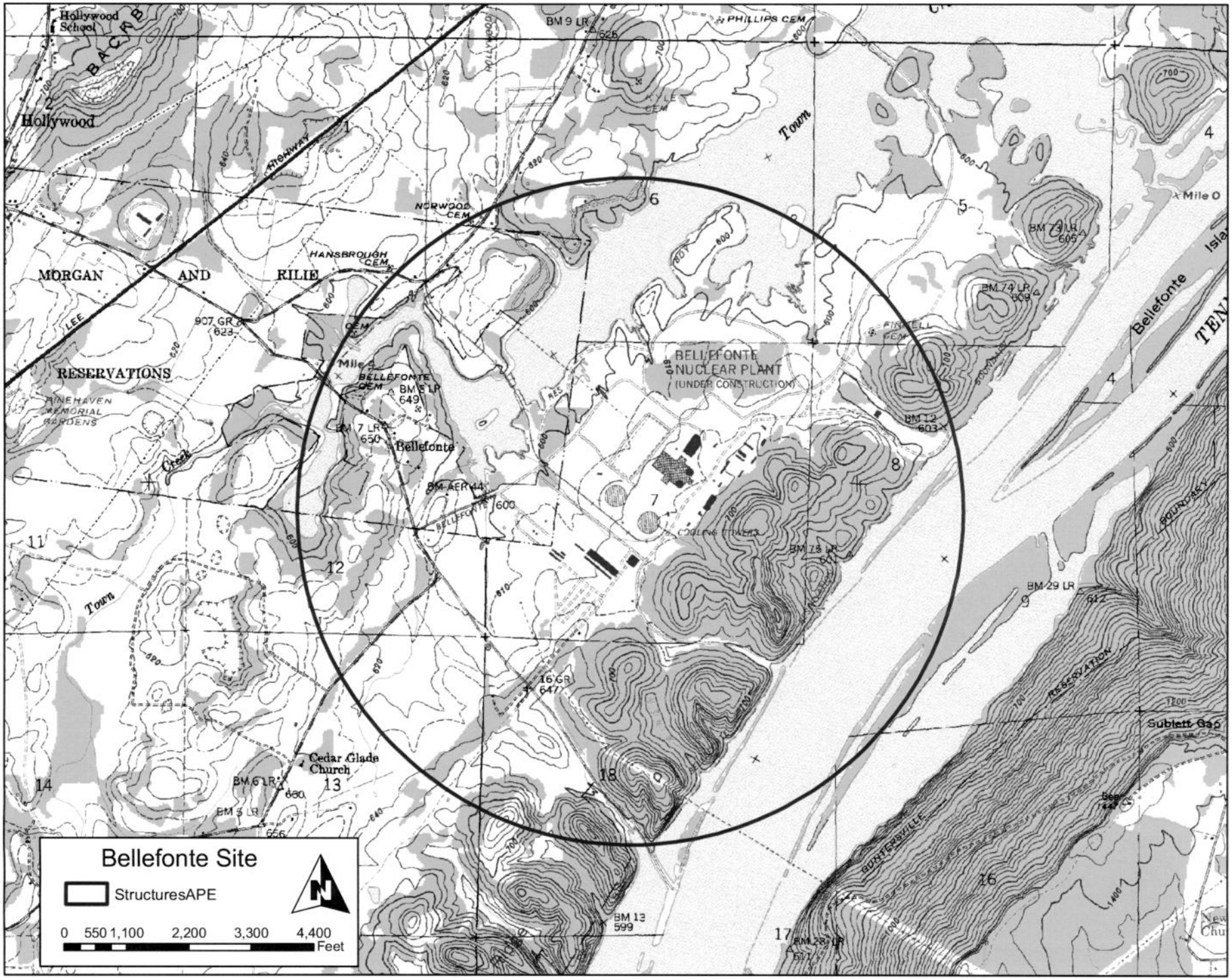
Final Environmental Assessment
Bellefonte Nuclear Plant Redress
Jackson County, Alabama

2006

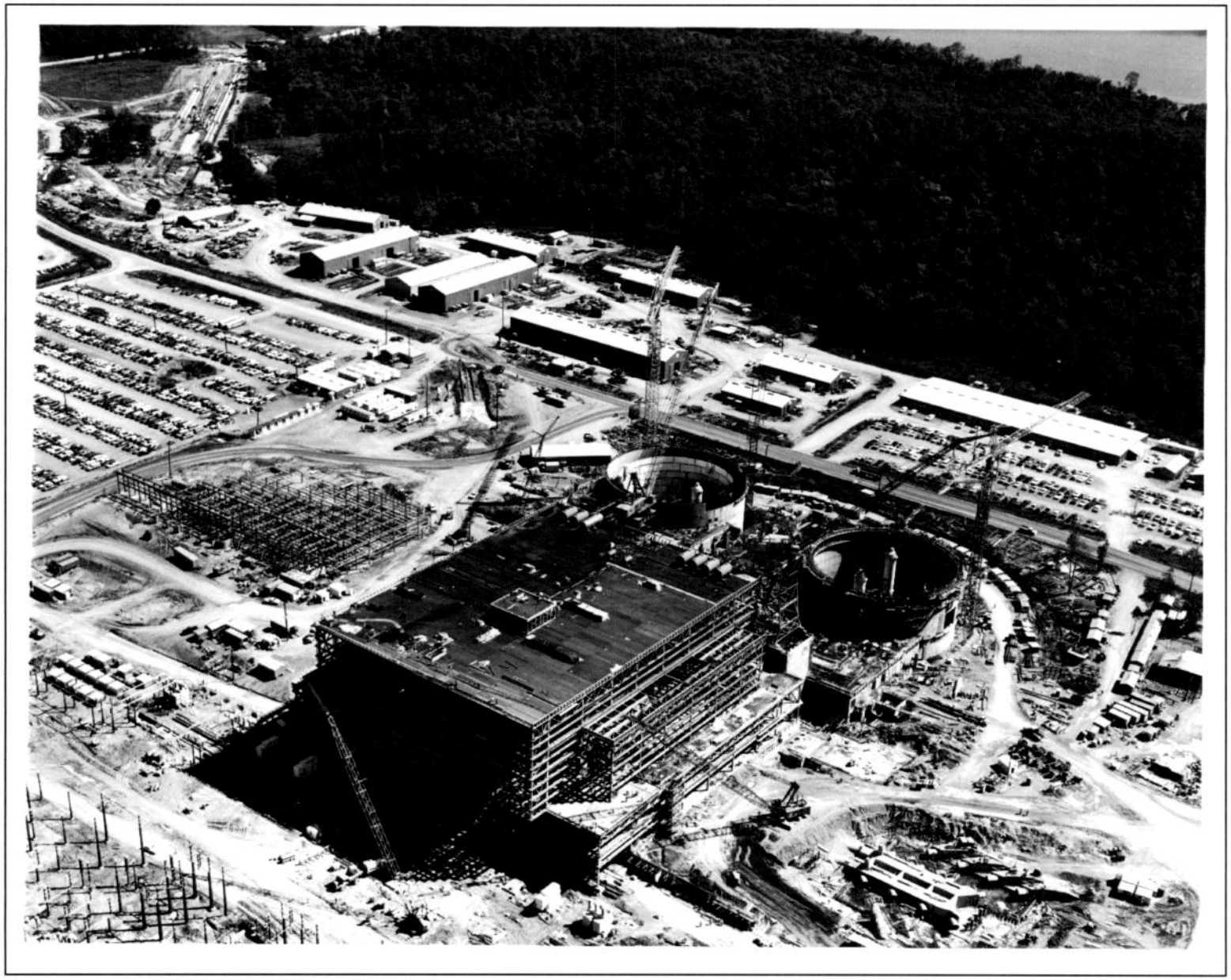
AERIAL PHOTOGRAPH
BELLEFONTE SITE AND PROJECT AREA OF POTENTIAL EFFECT


Bellefonte Site
Area of Potential Effects
N
0 312.5 625 1,250 1,875 2,500
Feet

Topographic Map
Bellefonte Site – Aboveground Survey
One-Mile Radius Area of Potential Effect

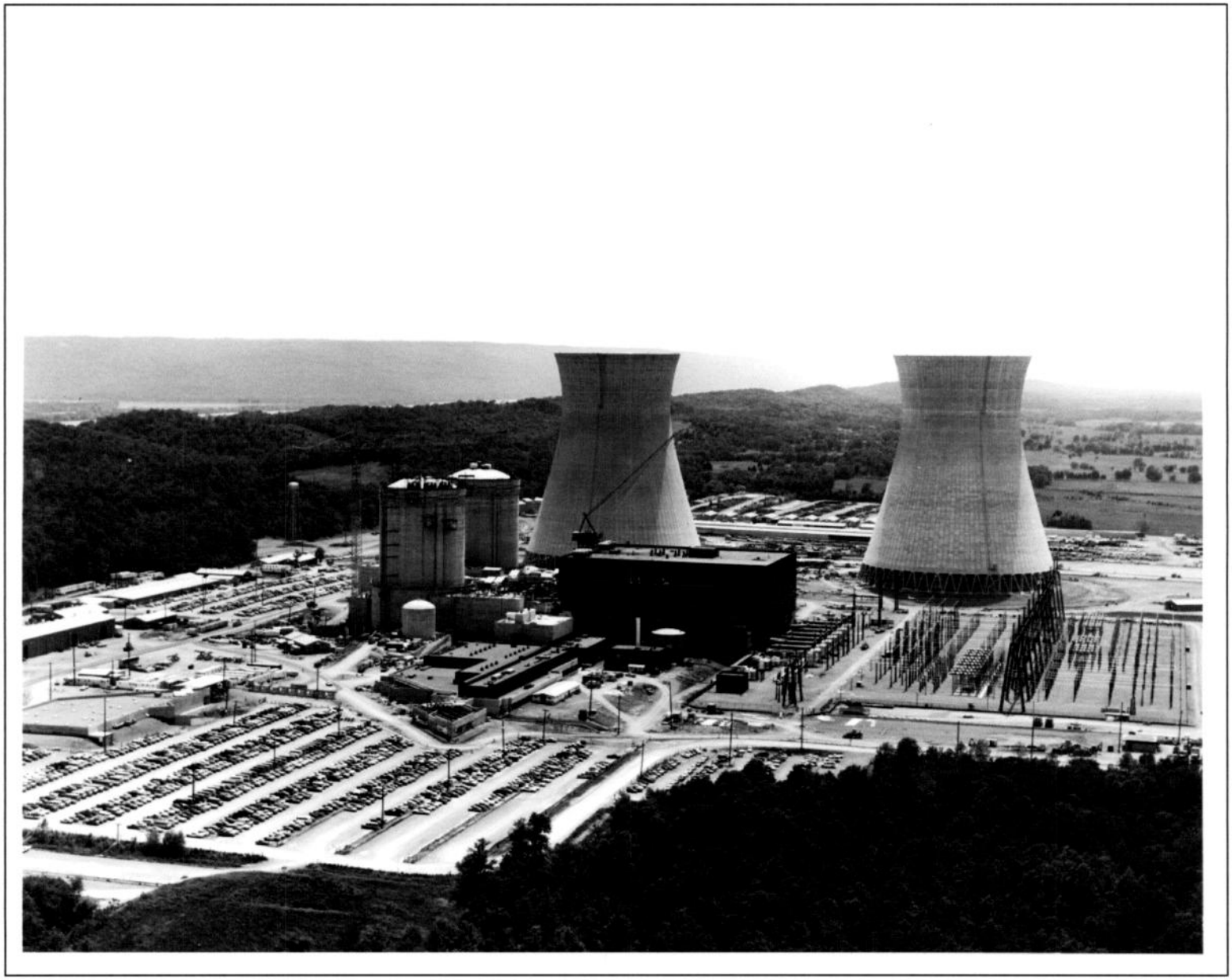

Bellefonte Site
StructuresAPE
0 550 1,100 2,200 3,300 4,400
Feet
Hollywood School
Hollywood
MORGAN AND RILIE
RESERVATIONS
PINEHAVEN MEMORIAL GARDENS
HANSBROUGH CEM
NORWOOD CEM
PHILLIPS CEM
KYLE CEM
BELLEFONTE CEM
BELLEFONTE NUCLEAR PLANT
(UNDER CONSTRUCTION)
COOLING TOWERS
Bellefonte
Cedar Glade Church
Subiett Gap
Mile 0
Mile 5
BM 9 LR
BM 7 LR
BM 5 LR
BM 6 LR
BM 12
BM 29 LR
BM 13
16 GR
907 GR
Town
Bellefonte Island
TENN

Aerial Photographs
Bellefonte Site Under Construction
(1977 – 1981)



Bellefonte Nuclear Plant under construction in October 1977

Bellefonte Nuclear Plant under Construction between October 1977 and June 1981



Bellefonte Nuclear Plant under Construction in June 1981

Final Environmental Assessment
Bellefonte Nuclear Plant Redress
Jackson County, Alabama

2006

Document Type: EA Administrative Records
Index Field: **Final** Environmental Document
Project Name: Bellefonte Nuclear Plant Redress
Project Number: 2006-20

FINAL ENVIRONMENTAL ASSESSMENT

BELLEFONTE NUCLEAR PLANT REDRESS

Jackson County, Alabama

TENNESSEE VALLEY AUTHORITY
JANUARY 2006

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FINAL ENVIRONMENTAL ASSESSMENT

BELLEFONTE NUCLEAR PLANT REDRESS
JACKSON COUNTY, ALABAMA

TENNESSEE VALLEY AUTHORITY

JANUARY 2006

The Proposed Decision and Need

The United States Nuclear Regulatory Commission (NRC) issued the construction permits for both units of the Tennessee Valley Authority's (TVA) Bellefonte Nuclear Plant (BLN) in December 1974. By 1988, Unit 1 was approximately 90 percent complete, and Unit 2 was about 58 percent complete. On July 29, 1988, TVA notified NRC that BLN was being deferred as a result of a lower load forecast for the near future. The plant remained in deferred status until March 23, 1993, when TVA notified NRC of plans to complete BLN Units 1 and 2. TVA's decision to complete BLN came after three years of extensive studies that concluded completion of the facility as a nuclear power plant was viable. Subsequently, in December 1994, the TVA Board of Directors (Board) announced that BLN would not be completed as a nuclear plant without a partner and put further construction activities on hold until a comprehensive evaluation of TVA's power needs was completed. In June 2005, the Board approved amortizing TVA's investment in the deferred BLN nuclear generating units' costs over 10 years, and in November 2005, contingent upon notification of NRC approved the cancellation of the BLN construction project.

The BLN plant site now is also under consideration as the location of an advanced technology nuclear plant. Canceling construction of the existing facility and withdrawal of the construction permits is necessary in order to close out the existing BLN project. These actions also facilitate the consideration of other possible uses of the BLN site. A letter notifying the NRC that TVA has placed BLN Units 1 and 2 in terminated status was sent in December 2005.

Other Environmental Reviews and Documentation

- Tennessee Valley Authority, *Energy Vision 2020, Integrated Resource Plan Environmental Impact Statement,* Volumes 1-3, dated December 21, 1995

- Tennessee Valley Authority, *Final Environmental Impact Statement, Bellefonte Nuclear Plant, Units 1 and 2,* Volumes 1 and 2, dated May 24, 1974

- Tennessee Valley Authority, *Review of Final Environmental Impact Statement, Bellefonte Nuclear Plant Units 1 and 2,* dated March 1993

- Tennessee Valley Authority, *Final Environmental Impact Statement, Bellefonte Nuclear Plant Conversion Project,* dated October 1997

Alternatives and Comparison

TVA considered two alternatives in this EA: (1) the No Action Alternative (Alternative A) and (2) the Action Alternative (Alternative B), to cancel construction of the existing facility, seek the withdrawal of the construction permits, and redress the BLN site.

Under Alternative A, TVA would seek to retain BLN's existing construction permits. TVA would also continue to seek a partner for the completion of BLN Units 1 and 2 as an industrial nuclear plant facility. It has been more than 10 years since TVA announced that it would consider completing BLN if a partner could be found to share in the cost and financial risks of doing this and TVA has yet to receive a reasonable, financially viable proposal. Consequently, the viability of this alternative has become increasingly doubtful and TVA no longer considers this to be a reasonable alternative. If this alternative is chosen, however, any potential impacts of completing BLN in accordance with its existing licenses have already been addressed by the above referenced environmental reviews.

Under Alternative B, TVA would cancel construction of the existing facility, TVA would seek the withdrawal of the construction permits, and TVA would redress the BLN site as described herein. Because there is other ongoing activity on the BLN site (i.e., training centers for the Transmission Service Organization and the Tennessee Valley Public Power Association) and because the switchyard at BLN is utilized as a substation for system operations in the region, TVA would not withdraw existing environmental permits or remove equipment associated with these other activities. Because so much of the site will be maintained, the general activities associated with the present decision involving redress of the site are relatively minor in nature and would include the following:

- Identifying equipment and structures that are necessary for other site activities and environmental permits associated with other activities at the site.
- Equipment or structures not identified necessary for other site activities would have the power disconnected and would either be sold for reuse or abandoned in place.
- Any unwanted construction material or waste associated with disposition of equipment/structures would be properly disposed of in accordance with pertinent federal, state, and local laws, regulations and ordinances, as well as TVA processes and procedures.

Affected Environment and Evaluation of Impacts

Site Description

BLN is located on an approximately 1,600-acre site adjacent to the Tennessee River near Hollywood, Alabama. See Attachment 1 for a location map. By 1988 when TVA deferred completion of the plant, Unit 1 was approximately 90 percent complete, and Unit 2 was about 58 percent complete. As the plant did not become operational, no nuclear fuel or waste is on site. The only radioactive material to be disposed of would result from removal of smoke detectors and exit signs from various buildings to be sold, demolished, or abandoned in place.

The current environmental status of BLN is as follows:

Air - Minor Source Status granted June 24, 1996, by the Alabama Department of Environmental Management (ADEM). There is no expiration date for a minor source permit.

Toxics - There are no polychlorinated biphenyl (PCB) transformers on site; however, there are other PCB-containing items/equipment/articles on site but not in service. All PCB information is reported annually in the *PCB Annual Document Log.*

Wastes (Environmental Protection Agency Identification Number AL5640090002):

Hazardous - Small Quantity Generator

Solid - Presently disposed of off site by contract at an ADEM-permitted facility

Wastewater (National Pollutant Discharge Elimination System [NPDES] Permit Number AL0024635) - Construction and permanent sewage currently routed to Hollywood Sewer System. Current NPDES permit expires on November 30, 2009.

Water - Drinking water is purchased from the city of Hollywood, a community public water system regulated by the state.

Potential Impacts

TVA would keep and maintain BLN in regulatory compliance regardless of the termination of the NRC permits. Compliance activities would include NPDES permits, division monitoring reports, demolition permits (10 day notifications), and air permits that are applicable to the entire site. These measures would continue as long as TVA has ownership of the BLN site. Maintaining and complying with these existing permits and regulations would ensure the stability of the site, until such time that TVA may decide, if or how the site would be alternatively utilized. Such a future decision would be subjected to the appropriate environmental review at that time.

Most of the minor environmental impacts resulting from redress would be associated with removal of equipment or structures not identified as necessary for other site activities. Materials and structures removed would be above grade or in areas that have experienced substantial previous ground disturbance for the original construction of the plant. TVA currently plans to maintain such major components as the intake and discharge facilities, cooling towers, wastewater system, and transmission switch yards. Under current plans, the existing containment, turbine, and auxiliary buildings would not be demolished. The other structures not identified as necessary would be sold, taken apart, and removed from the site, abandoned in place, or demolished. These structures, most of which are metal and wood warehouses located to the western portion of the site, are as shown to the right of the cooling towers in the photograph included with Attachment 1. Any demolition wastes generated would be disposed of in appropriately permitted solid waste or other disposal facilities.

Equipment identified as unnecessary would have the power disconnected and would either be reused by other TVA facilities, sold for reuse, or abandoned in place. Such items may include, but are not limited to: valves; strainers; battery boards and chargers;

transfer switches; vent fans; motors; cabinet panels; breakers; power systems; shop equipment such as lathes, air compressors, and dryers; as well as other miscellaneous equipment. Additional materials may include, but are not limited to items such as: piping, tubing, and conduit; cable; instrumentation; and general construction materials. TVA would continue to conduct periodic site inspections to ensure that none of the equipment or materials are causing environmental, health, or safety problems.

Redress would involve the removal of diesel generator fuel (approximately 45,000 gallons per generator) and lube or control fluids from the main turbine lube oil tanks (16,500 gallons each), feedwater pump lube oil tanks (1500 gallons each), RX coolant pump motors (400 gallons each), control fluid tanks (1200 gallons each), and diesel generator lube oil sumps (1500 gallons each). Fuel and lubricant would be removed and storage containers would be closed in accordance with all applicable federal, state, or local laws and regulations.

TVA has both agency and site processes and procedures in place to safely handle the demolition and removal the identified equipment, structures, and fuels or lubricants in an environmentally sound manner. The details of the environmental impacts of redress are identified in the CEC shown as Attachment 2. If there were any changes to the redress plan beyond the scope of this EA, TVA would perform an evaluation to determine if a further NEPA review needed to be performed.

Cumulative Impacts

Because the redress activities at the BLN site would constitute minor, insignificant, routine activities, there would be no cumulative impacts associated with the redress activities.

Mitigation Measures

There would be no additional mitigation measures other than the routine mitigation measures, i.e., best management practices, listed in the CEC.

Preferred Alternative

TVA's preferred alternative is Alternative B, to cancel construction of the existing facility, to seek the withdrawal of the construction permits, and to redress the BLN site.

TVA Preparers

Diedre Nida and Bruce Yeager, Senior NEPA Specialists, EA preparer

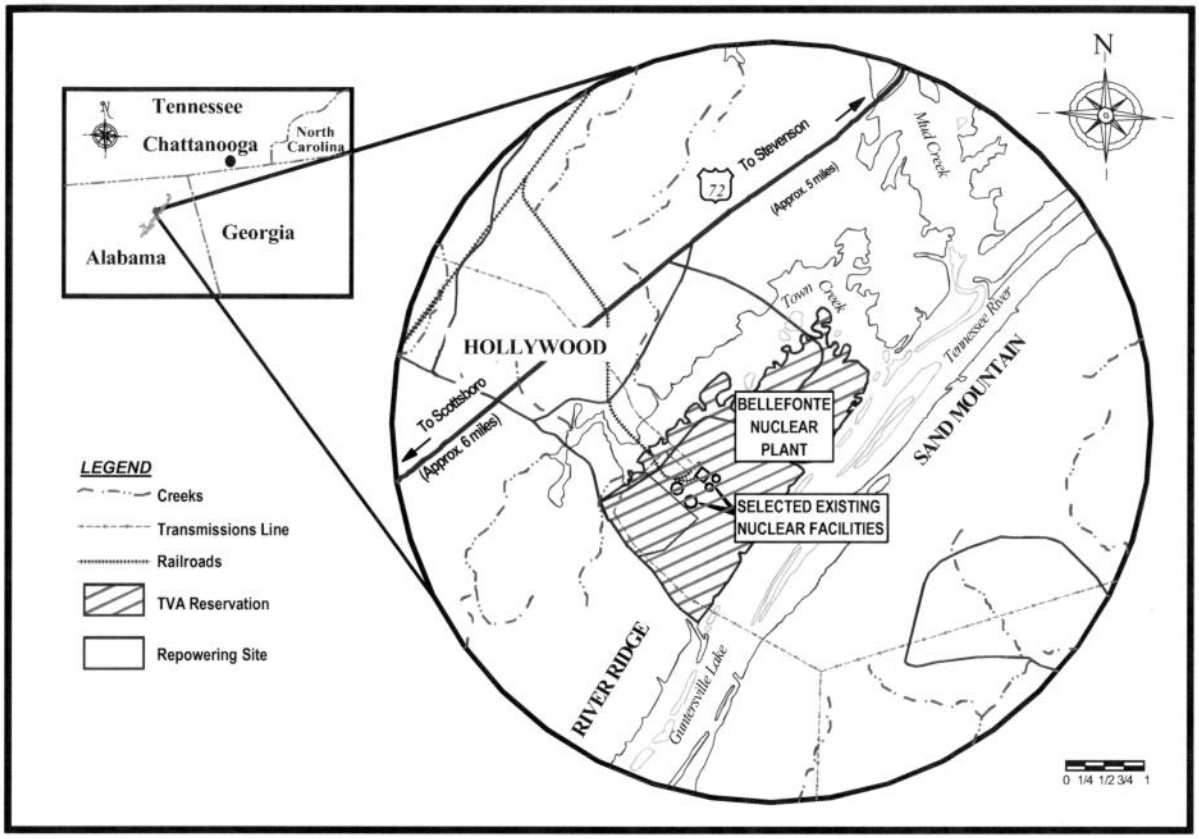
Casey Cothran, Facilities Management Environmental Program Administrator, CEC preparer

Attachments

Attachment 1 - Location Map and Aerial Photo of Site

Attachment 2 - Categorical Exclusion Checklist 11066

Attachment 1 - Location Map and Aerial Photograph of Site



Attachment 2 - Categorical Exclusion Checklist 11066

Categorical Exclusion Checklist for Proposed TVA Actions

Categorical Exclusion Number Claimed	Organization ID Number	Tracking Number *(NEPA Administration Use Only)* 11066
Form Preparer Casey B Cothron	**Project Initiator/Manager** Aaron B Nix	**Business Unit** Facilities Management
Project Title Bellefonte Nuclear Plant Redress		**Hydrologic Unit Code**
Description of Proposed Action *(Include Anticipated Dates of Implementation)* For Proposed Action See Attachments and References	☒ **Continued on Page 3** ***(if more than one line)***	
Initiating TVA Facility or Office	**TVA Business Units Involved in Project**	
Location *(City, County, State)* Bellefonte Nuclear Plant, AL		

Parts 1 through 4 verify that there are no extraordinary circumstances associated with this action:

Part 1. Project Characteristics

Is there evidence that the proposed action---	No	Yes	Information Source
1. Is major in scope?	X		Cothron C. B. 10/06/2005
2. Is part of a larger project proposal involving other TVA actions or other federal agencies?	X		Cothron C. B. 10/06/2005
*3. Involves non-routine mitigation to avoid adverse impacts?	X		Cothron C. B. 10/06/2005
4. Is opposed by another federal, state, or local government agency?	X		Cothron C. B. 10/06/2005
*5. Has environmental effects which are controversial?	X		Cothron C. B. 10/06/2005
*6. Is one of many actions that will affect the same resources?	X		Cothron C. B. 10/06/2005
7. Involves more than minor amount of land?	X		Cothron C. B. 10/06/2005

* If "yes" is marked for any of the above boxes, consult with NEPA Administration on the suitability of this project for a categorical exclusion.

Part 2. Natural and Cultural Features Affected

Would the proposed action---	No	Yes	Permit	Commitment	Information Source for Insignificience
1. Potentially affect endangered, threatened, or special status species?	X		No	No	Cothron C. B. 10/06/2005
2. Potentially affect historic structures, historic sites, Native American religious or cultural properties, or archaeological sites?	X		No	No	Cothron C. B. 10/06/2005
3. Potentially take prime or unique farmland out of production?	X		No	No	Cothron C. B. 10/06/2005
4. Potentially affect Wild and Scenic Rivers or their tributaries?	X		No	No	Cothron C. B. 10/06/2005
5. Potentially affect a stream on the Nationwide Rivers Inventory?	X		No	No	Cothron C. B. 10/06/2005
6. Potentially affect wetlands, water flow, or stream channels?	X		No	No	Cothron C. B. 10/06/2005
7. Potentially affect the 100-year floodplain?	X		No	No	Cothron C. B. 10/06/2005
8. Potentially affect ecologically critical areas, federal, state, or local park lands, national or state forests, wilderness areas, scenic areas, wildlife management areas, recreational areas, greenways, or trails?	X		No	No	Cothron C. B. 10/06/2005
9. Contribute to the spread of exotic or invasive species?	X		No	No	Cothron C. B. 10/06/2005
10. Potentially affect migratory bird populations?	X		No	No	Cothron C. B. 10/06/2005
11. Involve water withdrawal of a magnitude that may affect aquatic life or involve interbasin transfer of water?	X		No	No	Cothron C. B. 10/06/2005
12. Potentially affect surface water?	X		No	No	Cothron C. B. 10/06/2005
13. Potentially affect drinking water supply?	X		No	No	Cothron C. B. 10/06/2005
14. Potentially affect groundwater?	X		No	No	Cothron C. B. 10/06/2005
15. Potentially affect unique or important terrestrial habitat?	X		No	No	Cothron C. B. 10/06/2005
16. Potentially affect unique or important aquatic habitat?	X		No	No	Cothron C. B. 10/06/2005

Part 3. Potential Pollutant Generation

Would the proposed action potentially (including accidental or unplanned)---	No	Yes	Per-mit	Commit-ment	Information Source for Insignificience
1. Release air pollutants?	X		No	No	For comments see attachments
2. Generate water pollutants?	X		No	No	Cothron C. B. 10/06/2005
3. Generate wastewater streams?	X		No	No	Cothron C. B. 10/06/2005
4. Cause soil erosion?	X		No	No	Cothron C. B. 10/06/2005
5. Discharge dredged or fill materials?	X		No	No	Cothron C. B. 10/06/2005
6. Generate large amounts of solid waste or waste not ordinarily generated?		X	No	No	For comments see attachments
7. Generate or release hazardous waste (RCRA)?		X	No	No	For comments see attachments
8. Generate or release universal or special waste, or used oil?		X	No	No	For comments see attachments
9. Generate or release toxic substances (CERCLA, TSCA)?	X		No	No	Cothron C. B. 10/06/2005
10. Involve materials such as PCBs, solvents, asbestos, sandblasting material, mercury, lead, or paints?		X	No	No	For comments see attachments
11. Involve disturbance of pre-existing contamination?	X		No	No	Cothron C. B. 10/06/2005
12. Generate noise levels with off-site impacts?	X		No	No	Cothron C. B. 10/06/2005
13. Generate odor with off-site impacts?	X		No	No	Cothron C. B. 10/06/2005
14. Produce light which causes disturbance?	X		No	No	Cothron C. B. 10/06/2005
15. Release of radioactive materials?		X	No	No	For comments see attachments
16. Involve underground or above-ground storage tanks or bulk storage?	X		No	No	Cothron C. B. 10/06/2005
17. Involve materials that require special handling?	X		No	No	Cothron C. B. 10/06/2005

Part 4. Social and Economic Effects

Would the proposed action---	No	Yes	Commit-ment	Information Source for Insignificience
1. Potentially cause public health effects?	X		No	Cothron C. B. 10/06/2005
2. Increase the potential for accidents affecting the public?	X		No	Cothron C. B. 10/06/2005
3. Cause the displacement or relocation of businesses, residences, cemeteries, or farms?	X		No	Cothron C. B. 10/06/2005
4. Contrast with existing land use, or potentially affect resources described as unique or significant in a federal, state, or local plan?	X		No	Cothron C. B. 10/06/2005
5. Disproportionately affect minority or low-income populations?	X		No	Cothron C. B. 10/06/2005
6. Involve genetically engineered organisms or materials?	X		No	Cothron C. B. 10/06/2005
7. Produce visual contrast or visual discord?	X		No	Cothron C. B. 10/06/2005
8. Potentially interfere with recreational or educational uses?	X		No	Cothron C. B. 10/06/2005
9. Potentially interfere with river or other navigation?	X		No	Cothron C. B. 10/06/2005
10. Potentially generate highway or railroad traffic problems?	X		No	Cothron C. B. 10/06/2005

Part 5. Other Environmental Compliance/Reporting Issues

Would the proposed action---	No	Yes	Commit-ment	Information Source for Insignificience
1. Release or otherwise use substances on the Toxic Release Inventory list?		X	No	For comments see attachments
2. Involve a structure taller than 200 feet above ground level?	X		No	Cothron C. B. 10/06/2005
3. Involve site-specific chemical traffic control?	X		No	Cothron C. B. 10/06/2005
4. Require a site-specific emergency notification process?	X		No	Cothron C. B. 10/06/2005
5. Cause a modification to equipment with an environmental permit?	X		No	Cothron C. B. 10/06/2005
6. Potentially impact operation of the river system or require special water elevations or flow conditions??	X		No	Cothron C. B. 10/06/2005

Description of Proposed Action *(Include Anticipated Dates of Implementation)*	☐ **Continued from Page 1**

Parts 1 through 4: If "yes" is checked, describe in the discussion section following this form why the effect is insignificant. Attach any conditions or commitments which will ensure insignificant impacts. Use of non-routine commitments to avoid significance is an indication that consultation with NEPA Administration is needed.

An ☒ EA or ☐ EIS will be prepared.

Based upon my review of environmental impacts, the discussions attached, and/or consultations with NEPA Administration, I have determined that the above action does not have a significant impact on the quality of the human environment and that no extraordinary circumstances exist. Therefore, this proposal qualifies for a categorical exclusion under Section 5.2._____ of TVA NEPA Procedures.

Project Initiator/Manager Aaron B Nix		**Date** 11/07/2005
TVA Organization ADMIN	**E-mail** abnix@tva.gov	**Telephone**

Site Environmental Compliance Reviewer

_____
Signature

Final Review/Closure

Diedre B Nida 11/28/2005
Signature

Other Review Signatures *(as required by your organization)*

Casey B Cothron 11/28/2005
Signature

Signature

Signature

Signature

Signature

Signature

Attachments/References

Description of Proposed Action

An environmental and safety review is being conducted to identify equipment which is vital to the plant in regards to safety and environmental permit compliance. Equipment not identified as vital would have the power disconnected. The equipment would then either be sold for reuse or abandoned in place. If sold or donated, transportation of equipment/material would comply with all associated DOT Regulations. Any waste would be disposed of according to state and federal regulations. TVA is attempting to sell several warehouses onsite. The warehouses are composed of metal and wood. Some of the warehouses contain insulation which has been tested and is non-asbestos. The warehouses would be completely empty prior to demolition. Once sold, the buyer would take apart the warehouse and remove wanted construction material from site. Any unwanted construction material would be disposed of accordingly. A 10 day notification of demolition shall be submitted to the State of Alabama prior to any demolition.

CEC Comment Listing

Part 3 Comments

1. ADEM will be notified 10 days prior to start of demolition of sheds
   By: Lynne M Koby 10/13/2005
6. Solid waste will be contained in a rolloff and disposed of accordingly
   By: Casey B Cothron 10/06/2005
7. Any chemicals which cannot be reused and considered hazardous waste will be disposed of according to state and federal regulations.
   By: Casey B Cothron 11/14/2005
8. If equipment being transported contains and fluid it shall be drained prior to transportation. Used oil and flourescent lighting shall be recycled
   By: Casey B Cothron 11/14/2005
9. All bulbs inside the warehouse are incandescent and shall be thrown in trash prior to demolition. The bulbs outside will need to be recycled. Contact PAE for proper handling.
   By: Casey B Cothron 10/06/2005
10. Any ballasts removed shall be recycled. Any asbestos removed shall be done by certified personnel.
    By: Casey B Cothron 11/14/2005
15. Any smoke detectors or exit signs removed shall be sent to an NRC approved recycler
    By: Casey B Cothron 11/14/2005

Part 5 Comments

1. Total amount of scrap metal shall be provided to PAE
   By: Casey B Cothron 10/06/2005