



Tennessee Valley Authority, 400 West Summit Hill Drive, Knoxville, TN 37902

October 9, 2015

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TN. HISTORICAL
COMMISSION

To Those Listed:

TENNESSEE VALLEY AUTHORITY (TVA), PROGRAMMATIC AGREEMENT, THE CLINCH RIVER
SMR PROJECT

Enclosed is the final copy of the subject PA regarding the management of historic properties affected by the Clinch River SMR Project. TVA has consulted with your office during the development of the PA. This agreement is printed on acid-free paper and includes original signatures.

If you have any questions or comments, please contact Richard Yarnell, by phone at (865) 632-3463, or by e-mail at ryarnell@tva.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Clinton E. Jones".

Clinton E. Jones
Manager, Biological and Cultural Compliance
Safety, River Management and Environment
WT11C-K

MSH:CSD
Enclosures

cc: E. Patrick McIntyre, Jr.
Director
Tennessee Historical Commission

Michelle Hicks
THPO
Eastern Band of Cherokee Indians

George Wickliffe
Chief
United Keetoowah Band of Cherokee Indians in Oklahoma

PROGRAMMATIC AGREEMENT
BETWEEN THE TENNESSEE VALLEY AUTHORITY
AND THE

TENNESSEE STATE HISTORIC PRESERVATION OFFICE

REGARDING THE MANAGEMENT OF HISTORIC PROPERTIES AFFECTED BY
THE CLINCH RIVER SMR PROJECT

WHEREAS, the Tennessee Valley Authority (TVA) proposes to apply for an Early Site Permit from the Nuclear Regulatory Commission (NRC) for the eventual construction of two or more small modular nuclear reactors ("Undertaking") within the Clinch River Small Modular Reactor (SMR) project area bordering Watts Bar Reservoir in Roane County, Tennessee (Appendix A); and

WHEREAS, upon NRC approval of the Early Site Permit TVA will apply for a Combined License for the proposed SMR facility; and

WHEREAS, TVA considers these two related actions—the Early Site Permit Application (ESPA) and the eventual Combined License Application (COLA)—as two sequential parts of a single, complex Undertaking, as "undertaking" is defined at 36 CFR § 800.16(y); and

WHEREAS, this Undertaking has the potential to affect historic properties as defined at 36 CFR § 800.16(l); and

WHEREAS, TVA, in consultation with the Tennessee State Historic Preservation Officer (TN SHPO) and pursuant to 36 CFR § 800.4(a)(1), has determined the area of potential effects (APE) for this proposed federal undertaking, for archaeological resources, to be an approximately 1305-acre area bounded on the west, south, and east by Watts Bar Reservoir (between Clinch River miles 14.05 and 19.0); and on the northeast by land owned by the Department of Energy (DOE) (Appendix B); and

WHEREAS, TVA has consulted with TN SHPO regarding this undertaking, in accordance with 36 CFR Part 800, regulations of the Advisory Council on Historic Preservation ("Council") implementing Section 106 of the National Historic Preservation Act (NHPA); and,

WHEREAS, TVA has consulted on a government-to-government basis regarding this undertaking with the Eastern Band of Cherokee Indians, Cherokee Nation, Chickasaw Nation, Alabama Quassarte Tribal Town, Muscogee (Creek) Nation, Alabama-Coushatta Tribe of Texas, Thlopthlocco Tribal Town, Seminole Nation of Oklahoma, Eastern Shawnee Tribe of Oklahoma, Absentee Shawnee Tribe of Oklahoma, Kialegee Tribal Town, United Keetoowah Band of Cherokee Indians in Oklahoma, Seminole Tribe of Florida, Shawnee Tribe, and Poarch Band of Creek Indians; and

WHEREAS, TVA has conducted four archaeological surveys, including all parts of the APE (Appendix B), with the exceptions of ca. 101 acres of DOE land in the northwestern

STIPULATIONS

TVA shall ensure that the following stipulations are implemented:

I. PHASED IDENTIFICATION AND EVALUATION OF HISTORIC PROPERTIES

A. IDENTIFICATION

As TVA develops the details of the Undertaking, TVA will consider further the possible effects of the Undertaking on eligible and potentially eligible properties within the APE. The APE will remain as shown in Appendix B unless TVA determines, in consultation with the TN SHPO, that final project plans warrant revising the APE in order to better delineate the area in which there is potential for effects on historic properties. Should the APE be revised by TVA in consultation with TN SHPO, TVA shall take any additional steps necessary to identify historic properties within the revised APE, and this may include one or more additional Phase I identification surveys. Said surveys shall be carried out in a manner consistent with the Secretary of the Interior's *Standards and Guidelines for Identification* (48 FR 44720-23) and the Tennessee Historic Commission, Review and Compliance Section, *Reporting Standards: Archaeological and Architectural Resource Identification Studies (Survey Reports)*. TVA shall submit draft and final Survey Reports to TN SHPO and the Signatories for comment within a thirty (30) day period, pursuant to 36 CFR § 800.4(d).

If project plans include activities that would disturb soils or sediments to depths greater than the maximum depth investigated previously during the archaeological surveys of the APE (approximately 80 cm or 31 in), in areas with potential for deeply buried cultural deposits, the APE will be enlarged in the vertical dimension, within areas with potential for deeply buried deposits (see Appendix D), to include deposits not previously investigated that could be affected by the Undertaking. Such testing will be carried out in the manner described in the preceding paragraph.

B. EVALUATION

1. TVA shall evaluate the NRHP eligibility of any cultural resources within the APE that TVA and TN SHPO have agreed are "potentially eligible" or of "undetermined" NRHP eligibility, and that would be adversely affected by the Undertaking, pursuant to 36 CFR § 800.4(c). The terms "potentially eligible" and "of undetermined eligibility" are equivalent for purposes of this PA.
2. TVA, in consultation with TN SHPO and federally-recognized tribes, shall conduct investigations to evaluate the significance of the following two (2) types of cultural resources, pursuant to § 800.4(c)(1):
 - a) Archaeological sites which are of undetermined NRHP eligibility and would be adversely affected by the Undertaking; and
 - b) Above-ground historic resources which have not been previously evaluated or require further evaluation in order to determine their eligibility for listing on the NRHP and would be adversely affected by the Undertaking.

3. The investigation stipulated by part I.B.2, above, shall consist of conducting a Phase II evaluation study in a manner consistent with the Secretary of the Interior's *Standards and Guidelines for Identification* (48 FR 44720-23) and the Tennessee Historic Commission, Review and Compliance Section, *Reporting Standards: Archaeological and Architectural Resource Identification Studies (Survey Reports)*. A scope of work will be developed in consultation prior to the implementation of the investigation, and will specify the procedures to be used in determining the eligibility of the property pursuant to 36 CFR § 800.4(c). TVA shall submit draft and final reports, which shall contain a recommendation on the property's eligibility for listing on the NRHP, to TN SHPO and federally-recognized Indian tribes for comment within a thirty (30) day period.
4. Upon completion of the Phase II evaluation study of an undetermined property, if TVA and TN SHPO agree that the property meets NRHP criteria, the property shall be considered eligible for inclusion in the NRHP. Should a dispute arise on the eligibility of an identified property, TVA will consult with TN SHPO to resolve the objection. If TVA and the SHPO do not agree, or if the Advisory Council on Historic Preservation (Council) or the Secretary of the Interior (Secretary) so request, TVA shall obtain a determination of eligibility from the Secretary of Interior pursuant to 36 CFR § 63. If an Indian tribe that attaches religious or cultural significance to an identified property does not agree, it may ask the Council, pursuant to 36 CFR § 800.4(c)(2), to request the TVA Federal Preservation Officer to obtain a determination of eligibility from the Secretary of Interior.

C. RESULTS OF IDENTIFICATION AND EVALUATION

If, after carrying out the steps in Section I.B (above), TVA has found (in consultation with TN SHPO and federally-recognized Indian tribes) that the property in question is not eligible for the NRHP, then TVA shall notify the Signatories and make the documentation available for public inspection pursuant to 36 CFR § 800.4(d)(1).

If, after carrying out the steps in Section I.B (above) and finding (in consultation with TN SHPO and federally-recognized Indian tribes) that the property in question is eligible for inclusion in the NRHP, TVA shall continue to seek ways to avoid adverse effects to the historic property, as outlined below in Section II of this PA.

II. AVOIDANCE

TVA, in consultation with the Signatories, shall seek ways to avoid adverse effects to properties determined eligible for inclusion in the NRHP whenever economically prudent and technically feasible. To the extent practicable, the following measures shall be taken by TVA to avoid adverse effects to historic properties:

- A. Avoid locating any project elements within the identified boundaries of NRHP-eligible historic properties.
- B. Mark or delineate sensitive archaeological areas located within the APE on the plans to be used in construction. Any special conditions placed on such areas for construction will be detailed on these plans.
- C. Avoid locating any TL structure, substation, building, or infrastructure within the viewshed of any NRHP-eligible historic architectural resource.

III. RESOLUTION OF ADVERSE EFFECTS TO HISTORIC PROPERTIES

If, after carrying out the steps in Sections I and II, TVA finds that the undertaking would result in an adverse effect to an historic property, and has determined in consultation with the Signatories that avoidance of the historic property in the APE is not possible, then TVA shall notify the Council pursuant to 36 CFR § 800.6(a)(1), providing the documentation specified in § 800.11(e), and shall invite the Council to participate. TVA shall treat that historic property in the manner outlined below.

A. MINIMIZATION

TVA will consult with the Signatories in order to seek a course of action that will minimize any adverse project-related effects to historic properties, if any such course is realistically possible.

B. MITIGATION

1. If avoidance and minimization alternatives have been determined by TVA, in consultation with the Signatories, not to be technically feasible or economically prudent, TVA will notify the Council pursuant to 36 CFR § 800.6(a)(1), and will develop treatment measures for mitigation of adverse effect(s) to historic properties. TVA shall consult with the Signatories to reach agreement on appropriate treatment measures.
2. In the case of an NRHP-eligible archaeological site, mitigation shall consist of data recovery. TVA will develop a Data Recovery Plan written by a qualified professional archaeologist that meets the standards set forth in *Archeology and Historic Preservation: Secretary of Interior's Standards and Guidelines*. Upon concurrence by the Signatories, TVA will distribute the Data Recovery Plan to all Signatories. The Data Recovery Plan shall be developed consistent with the applicable provisions in 36 CFR §§ 800.5 and 800.16, the standards set forth in *Archeology and Historic Preservation: Secretary of Interior's Standards and Guidelines*, and the standards set forth in the Tennessee SHPO Standards and Guidelines for Archaeological Resource

Management Studies (March 2009 revision). The Data Recovery Plan shall specify, at a minimum:

- a) the property, properties, or portions of properties where data recovery is to be carried out;
 - b) any property, properties, or portions of properties that will be destroyed without data recovery;
 - c) the research questions to be addressed through data recovery, with an explanation of their relevance and importance;
 - d) the field and laboratory methods to be used, with an explanation of their relevance to the research questions;
 - e) the methods to be used in analysis, data management, and dissemination of data;
 - f) a schedule for the implementation of the above parts of the Plan;
 - g) the curation facility selected by TVA in consultation with the TN SHPO; and the procedures for curation of the recovered materials and records consistent with the curation standards prescribed in 36 CFR Part 79 except for items specified under Stipulation V.B below (human remains);
 - h) procedures (outlined below in Section V of this PA) for the treatment of any human remains discovered within the APE as a consequence of the implementation of the Data Recovery Plan;
 - i) proposed methods for involving the interested public in data recovery and for disseminating results of the work to the interested public; and
 - j) a proposed schedule for the submission of progress reports to the TN SHPO.
3. In the event of potential for impacts to historic architectural properties (historic district, site, building, structure, or object), mitigation would be developed in consultation with the Signatories. Such measures could include any of the following (as well as any other measures that TVA and TN SHPO (and the Council, if the Council has decided to participate), agree TVA should implement):
- a) Vegetation screening
 - b) HABS- or HAER-equivalent documentation
 - c) Preparation of a Tennessee Historical and Architectural Resource form
 - d) National Register of Historic Places nomination

- e) Interpretive panels presenting summary historical information about the resource in a location accessible for public viewing.
- f) Presentation of a historical research paper at a public meeting or professional conference.

IV. POST REVIEW DISCOVERIES

TVA shall ensure that previously unidentified archaeological sites located within the Undertaking's APE that are inadvertently discovered during the implementation of the Undertaking will be subject to the following compliance measures:

- A. Sites will be protected and stabilized to prevent any further disturbance until the Signatories make an informed NRHP eligibility determination.
- B. Any additional compliance steps necessary to fulfill TVA's obligations under Section 106 and the terms of this PA will be completed.
- C. Ground-disturbing work will stop within a 50-foot radius of the discovery until steps IV.A and B have been completed in consultation with TN SHPO.

V. TREATMENT OF HUMAN REMAINS

If human remains are identified within the APE as a consequence of the implementation of the Undertaking or any treatment plans developed through implementation of this PA, TVA shall:

- A. ensure that the treatment of any human remains discovered within the APE complies with all state and federal laws concerning archaeological sites and treatment of human remains;
- B. immediately cease all ground-disturbing activities within a three (3) meter (ca. 10-ft) radius of the burial;
- C. notify the Roane County Coroner and the Tennessee State Archaeologist within twenty-four (24) hours;
- D. notify the Signatories and potentially culturally affiliated federally-recognized tribal governments within seventy-two (72) hours and invite them to comment on any plans developed to treat the human remains; and
- E. ensure that the remains are treated in a manner consistent with the Council's *Policy Statement Regarding Treatment of Burial Sites, Human Remains and Funerary Objects* (2007); and will be conducted in accordance with the applicable provisions of Tennessee Code Annotated (T.C.A.) 46-4-101 et seq. (*Termination of Use of Land as a Cemetery*); T.C.A. 11-6-116, (*Excavation of Areas Containing Native American Indian Remains*); T.C.A. 11-6-119 (*Reburial of Human Remains or Native American Burial Objects following Discovery or Confiscation*), and Tennessee Rules and Regulations Chapter 0400-9-1 (*Native American Indian Cemetery Removal and Reburial*).

VI. REPORTS

TVA shall ensure that all cultural resources investigations undertaken for compliance with this PA are recorded in formal written reports that meet the Secretary of Interior's Standards and Guidelines for Identification (48 FR 44720-23) and the Tennessee Historic Commission, Review and Compliance Section, *Reporting*

Standards: Archaeological and Architectural Resource Identification Studies (Survey Reports). The TN SHPO and other consulting parties shall be afforded thirty (30) days to review and comment on any archaeological reports submitted as compliance with this agreement.

TVA shall distribute copies of all final reports and Plans to the Signatories. Throughout the duration of this PA, Signatories shall have 30 days to review and comment on all cultural resource survey reports concerning identification of historic properties or evaluation of identified properties, and proposed plans provided by TVA. Comments received by TVA from the Signatories shall be taken into consideration in preparing final documents.

VII. ADMINISTRATIVE CONDITIONS

A. DURATION

This PA will be in effect for the duration of the Undertaking (i.e., until the Construction and Operating License has been approved by the NRC or the Undertaking has been terminated).

B. TERMINATION

If any Signatory to this PA determines that the terms cannot be or are not being carried out, that party shall immediately consult with the other signatories to seek amendments of the agreement. If the agreement is not amended within thirty (30) days of the initiation of such consultation (or another time period agreed to by all signatories), any Signatory may terminate the PA upon written notification to the other signatories.

Once the PA is terminated, and prior to work continuing on the Undertaking, TVA must either (a) execute a different PA, or (b) request, take into account, and respond to the comments of the Advisory Council under 36 CFR § 800.7. TVA shall notify TNSHPO as to the course of action it will pursue.

If TVA permanently cancels the Undertaking, all signatories will be notified and this PA will be terminated.

C. DISPUTE RESOLUTION

Should a Signatory or Invited Signatory object within thirty (30) days after receipt of any plans, specifications, contracts, or other documents provided for review pursuant to this Agreement, TVA shall consult with the objecting party to resolve the dispute. If TVA determines that the objection cannot be resolved, TVA, or the objecting party, may seek guidance from the Council pursuant to 36 CFR § 800.2(b)(2). TVA will take any Council comment provided in response to such a request into account in resolving any such dispute. The Signatories are responsible for carrying out all actions under this PA that are not the subject of the dispute.

D. AMENDMENT

If a Signatory to this PA determines that the terms of the PA cannot be or are not being carried out, the Signatories shall consult to seek a resolution of the issue.

If, after due consultation, the issue is not resolved by amending the PA, then any Signatory may terminate the agreement after giving the other Signatories fifteen (15) days' notice. If the agreement is so terminated, TVA shall ensure that historic properties within the APE for the Undertaking are protected from adverse project effects in accordance with Section 106 of the NHPA until such time that TVA may enter into a new PA with the Signatories or request the comments of the Council pursuant to 36 CFR § 800.7(a).

EXECUTION of this Programmatic Agreement by the Tennessee Valley Authority and the Tennessee State Historic Preservation Officer, the filing of this Agreement with the Advisory Council on Historic Preservation (Council), and the implementation of the terms of the Agreement evidence that TVA has, in accordance with Section 106 of the National Historic Preservation Act, taken into account the effects of this Undertaking on Historic Properties and afforded the Council an opportunity to comment.

SIGNATORY

TENNESSEE VALLEY AUTHORITY

By: Wilbourne C. Markham, Jr.

Wilbourne C. Markham, Jr.

Director, Environmental Permitting and Compliance, Safety, River Management, and
Environment; and Federal Preservation Officer

Date: 7/20/15

SIGNATORY

THE TENNESSEE STATE HISTORIC PRESERVATION OFFICER


By: E. Patrick McIntyre, Jr. Date: 8/27/15
E. Patrick McIntyre, Jr., Tennessee State Historic Preservation Officer

CONCURRING

By: _____
George Wickliffe, Chief
United Keetoowah Band of Cherokee Indians in Oklahoma

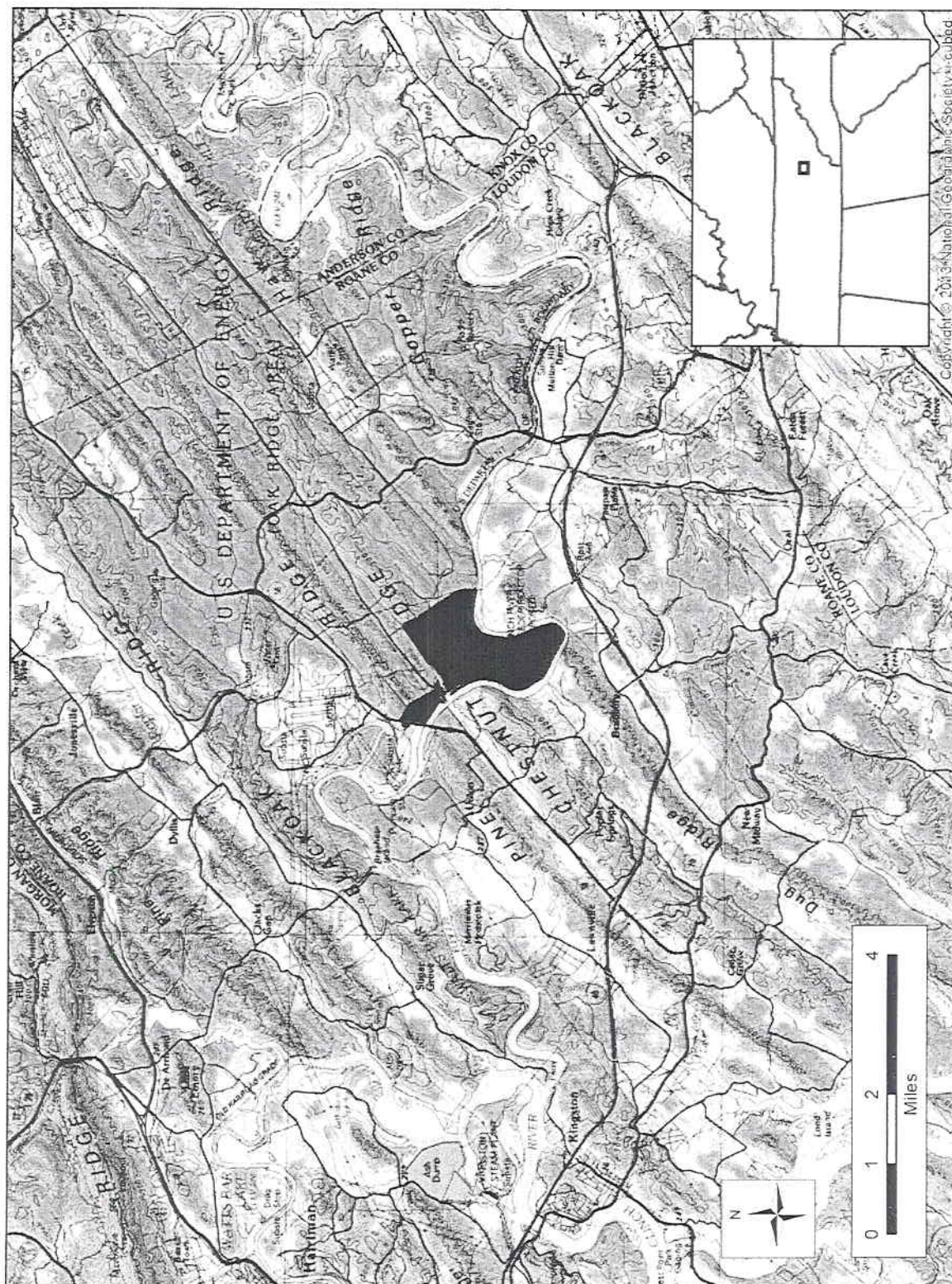
Date: _____

CONCURRING

By:  _____
Michael Hicks, Principal Chief
Eastern Band of Cherokee Indians

Date: 9-17-15

Appendix A
Clinch River SMR Project Location



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Appendix B

Clinch River SMR, Area of Potential Effects

Appendix C

Clinch River SMR, Eligible and Potentially Eligible Archaeological Sites

Exempted from Disclosure by Statute – Withheld Under 10 CFR 2.390(a)(3)

Appendix D

**Clinch River SMR, Areas With Potential for Deeply Stratified Holocene Deposits.
Based on Figure 1 in Leigh 1999 (below).**

Note: Areas in the northwestern portion of the APE (DOE land) were not included in Leigh's study.

Exempted from Disclosure by Statute – Withheld Under 10 CFR 2.390(a)(3)

Appendix E

Reed, Mary Beth, Diana Valk, David Price, and J.W. Joseph (2011) *Archaeological Survey and Testing of the Happy Valley Worker Camp, Roane County, Tennessee*. Report prepared by New South Associates, Stone Mountain, Georgia. Submitted to SAIC, Oak Ridge, TN.