



10 CFR 70.5

September 18, 2009

AES-O-NRC-09-00134-0

ATTN: Document Control Desk  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

AREVA Enrichment Services LLC  
Eagle Rock Enrichment Facility  
NRC Docket No: 70-7015

Subject: Response to Request for Additional Information – AREVA Enrichment Services LLC  
Environmental Report for the Eagle Rock Enrichment Facility – RAI 6.a.  
Unanticipated Discovery Plan

On April 23, 2009, AREVA Enrichment Services LLC (AES) submitted a revised License Application to the U.S. Nuclear Regulatory Commission (NRC) to construct and operate the Eagle Rock Enrichment Facility (EREF) in Bonneville County, Idaho (Ref. 1).

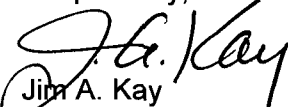
On August 10, 2009, the NRC transmitted to AES the Request for Additional Information regarding the Environmental Report for the EREF (Ref. 2).

On September 9, 2009, AES submitted the responses to the Requests for Additional Information regarding the Environmental Report to the NRC (Ref. 3). In this letter, AES committed to provide the Unanticipated Discoveries Plan to the NRC by September 21, 2009 in response to ER RAI 6.a.

AES hereby submits the Unanticipated Discoveries Plan, titled "Archaeological Monitoring and Discovery Plan for the Eagle Rock Enrichment Facility." Enclosure 1 provides the "Archaeological Monitoring and Discovery Plan for the Eagle Rock Enrichment Facility."

If you have any questions, please contact me at 508-573-6554.

Respectfully,

  
Jim A. Kay  
Licensing Manager

References:

**AREVA ENRICHMENT SERVICES LLC**

Solomon Pond Park - 400 Donald Lynch Boulevard, Marlborough, MA 01752  
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NMSSO1  
NMSS

- 1) S. Shakir (AES) Letter to the U.S. Nuclear Regulatory Commission, Revision 1 to License Application for the Eagle Rock Enrichment Facility, dated April 23, 2009.
- 2) B. Reilly (U.S. Nuclear Regulatory Commission) Letter to Jim Kay, Licensing Manager, Eagle Rock Enrichment Facility, AREVA Enrichment Services LLC, Request for Additional Information - AREVA Enrichment Services LLC Environmental Report for the Eagle Rock Enrichment Facility, dated August 10, 2009.
- 3) J. Kay (AES) Letter to the U.S. Nuclear Regulatory Commission, Response to Requests for Additional Information – AREVA Enrichment Services LLC Environmental Report for the Eagle Rock Enrichment Facility, dated September 9, 2009.

Enclosures:

- 1) Archaeological Monitoring and Discovery Plan for the Eagle Rock Enrichment Facility

Commitments:

None

CC:

Breeda Reilly, U.S. NRC Senior Project Manager

Gloria Kulesa, U.S. NRC Senior Project Manager

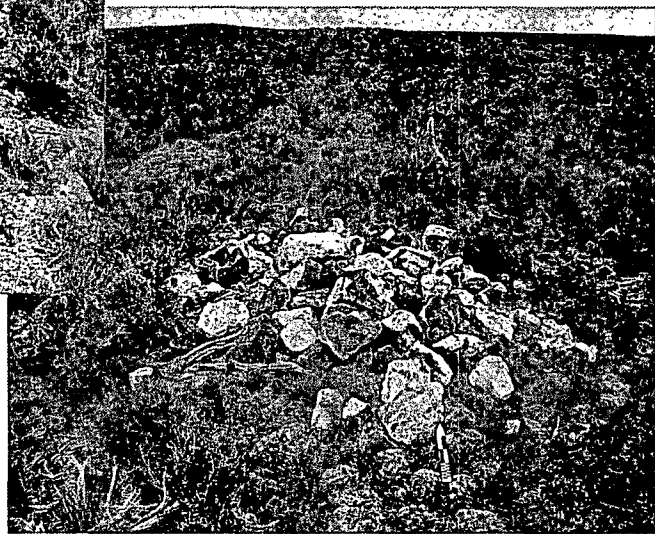
AREVA Enrichment Services LLC  
Eagle Rock Enrichment Facility  
AES-O-NRC-09-00134-0

**ENCLOSURE 1**  
**Archaeological Monitoring and Discovery Plan**  
**for the Eagle Rock Enrichment Facility**

**ENCLOSURE 1**

**ARCHAEOLOGICAL MONITORING AND DISCOVERY PLAN**  
**FOR THE EAGLE ROCK ENRICHMENT FACILITY**

**ARCHAEOLOGICAL MONITORING AND DISCOVERY PLAN  
FOR THE EAGLE ROCK ENRICHMENT FACILITY,  
AREVA ENRICHMENT SERVICES, LLC,  
IN BONNEVILLE COUNTY, IDAHO**



**Prepared for  
U.S. Nuclear Regulatory Commission**

**September 17, 2009**

**Prepared by**

**WCRM**  
WESTERN CULTURAL RESOURCE MANAGEMENT, INC.

**Under Contract With  
AREVA Enrichment Services, LLC**

**ARCHAEOLOGICAL MONITORING AND DISCOVERY PLAN  
FOR THE EAGLE ROCK ENRICHMENT FACILITY,  
AREVA ENRICHMENT SERVICES, LLC,  
IN BONNEVILLE COUNTY, IDAHO**

Prepared by

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Washington D.C. 2055-0001

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September 17, 2009

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## INTRODUCTION

Western Cultural Resource Management, Inc. (WCRM) prepared this Archaeological Monitoring and Discovery Plan (“Plan”) at the request of AREVA Enrichment Services, LLC (AES), and the Idaho State Historic Preservation Office (SHPO). AREVA, the project participant, is preparing an application to the U.S. Nuclear Regulatory Commission (NRC) to construct, operate, and decommission a gas centrifuge uranium enrichment plant in Bonneville County, Idaho. Class III survey and testing was conducted to identify, document, and evaluate cultural resources in the event that the proposed action is licensed as a future federal undertaking requiring the application of Section 106 of the National Historic Preservation Act (NHPA) as amended, its provisions, and policies.

The proposed project is expected to create ground disturbances during various activities, including but not necessarily limited to construction of road right-of-ways, temporary office and lay down areas, and batch plants and permanent building construction areas. These activities will alter or remove topsoil or subsoil.

The purpose of this Plan is to: 1) monitor and protect existing and known archaeological sites and historic properties located within the proposed Eagle Rock Enrichment Facility (EREF); 2) set forth the process for dealing with discoveries of human remains or previously unidentified archaeological sites that are discovered during activities that cause surface or subsurface disturbances and may result in a irreversible loss of the resource; and, 3) establish procedures for evaluation and treatment of unanticipated discoveries in accordance with 36CFR 800.13.

The intensive cultural resource inventory of the EREF (Estes and Raley 2009; Ringhoff et al. 2008) documented 13 archaeological sites (three prehistoric, six historic, and four multi-component) and 24 isolated finds (seven prehistoric, 14 historic, one multi-component, and two indeterminate). Prehistoric site types include a site with two projectile points, a lithic scatter associated with a rock feature, and a prehistoric flake associated with a small rock wall feature. Historic site types include four trash scatters, a trash scatter and associated rock feature, and a trash scatter associated with a two-track road. Multi-component site types include a prehistoric lithic scatter associated with a historic trash scatter, a prehistoric lithic scatter associated with the John Leopard homestead, a prehistoric scraper associated with a historic trash scatter, and a prehistoric projectile point midsection associated with a historic trash scatter and two rock features of indeterminate age. All of the 13 known sites have been marked for avoidance using lathe and multi-colored flagging that encloses a 30-meter (100-foot) buffer zone around the site

boundaries. The site buffer zones will be provided to AREVA as GIS files for use in construction planning.

## **MONITORING SPECIALISTS**

### **Cultural Resource Monitor**

Monitoring is recommended to ensure that unevaluated cultural resources are not impacted by ground disturbing activities prior to evaluation as potential historic properties. A buffer zone of 30 meters (100 feet) has been established between the edges of known sites to isolate them from ground disturbing activities. Although subsurface cultural deposits are unlikely in the EREF, monitoring of ground disturbing activities in areas containing deep soils is recommended. It should be noted that this does not pertain to the geotechnical borings which are expected to create little surface disturbance have little subsurface impact. The NRC in consultation with the Idaho SHPO will identify these areas with the cultural resource contractor based on geotechnical coring data and site characterization studies scheduled to begin the week of September 21, 2009.

A qualified cultural resource management consultant will provide a cultural resource monitor (hereafter referred to as "Monitor") to perform the services required under this Plan. The Monitor will meet or exceed the Secretary of Interior's Professional Qualifications Standards for archaeology, 48 FR 44738-9. The Monitor will have the following tasks:

1. Work closely with construction personnel to ensure that impacts do not occur to documented significant sites or sites that have not had an official determination of eligibility. The monitor will ensure that these sites are adequately fenced for avoidance prior to the initiation of construction activities;
2. Identify previously undocumented cultural resources ("Discovery") exposed by the construction activities. In the event of a Discovery, the archaeological monitor will implement the appropriate level of documentation;
3. Evaluate a newly discovered resource with regard to its potential eligibility for listing in the National Register of Historic Places (NRHP); and
4. Recommend treatment of discovered resources that qualify as historic properties.



### **Native American Observer**

It is assumed that Government-to-Government consultation with Native American groups for the project will occur and that the tribes may request to have an observer present during ground disturbing activities. The Native American observer would work with the Monitor and would communicate the results of monitoring and any discoveries made to the tribal council.

## **CULTURAL RESOURCE MONITORING**

### **Operator Training**

Prior to commencing the proposed surface disturbance work, all heavy equipment operators, drilling crews, and supervisors shall attend an instructional briefing during which the Monitor explains the purposes and procedures regarding the archaeological monitoring. It will be explained during the briefing that the Nuclear Regulatory Commission (NRC), as the federal lead agency, in concert with the Idaho SHPO has the authority to request that reasonable efforts be taken to avoid and minimize harm to known and newly discovered historic properties until the requirements of this Plan are met.

The Monitor will ensure that all known historic properties are avoided and that there is a buffer zone of at least 30 meters (100 feet) between archaeological sites and the edge of surface disturbing activities including access routes. The Monitor will instruct operators and supervisors on the types of materials that are likely to be discovered and the manner in which those materials that require Monitor's inspections are identified. The procedures for reporting discoveries will be explained, as will their responsibilities under Idaho State Code §27-502 through §27-504.

### **Monitoring Procedures**

All ground-disturbing activities in designated areas will be monitored. The designated areas are those areas that contain documented significant sites or sites that have not had an official determination of eligibility as well as those areas that are considered to have a potential to contain deeply buried archaeological sites. The NRC in consultation with the Idaho SHPO will define these areas with the cultural resource contractor based on the results of geotechnical assay data to be provided by AES. All of the 13 known sites have been marked for avoidance using lathe and multi-colored flagging that encloses a 100-foot buffer zone around the site boundaries.

The Monitor will be on-site for the duration of all ground disturbing activity that occurs during construction within the designated areas. The Monitor will keep a log of all ground-disturbing activities in the vicinity of known documented significant sites or sites that have not had an official determination of eligibility and within areas with deep soils. The monitor logs will be submitted to the NRC and the SHPO and the Monitor will communicate directly with the NRC, SHPO AND AES. Prior to the commencement of any surface disturbance within a designated area, a construction supervisor will coordinate with the Monitor to discuss the specific boundaries of the disturbance activities. If requested, this boundary will be walked by a construction supervisor and the Monitor. The Monitor will point out any designated sensitive areas that should be avoided near the boundaries.

The Monitor will comply with all applicable Federal, State, County and AES safety requirements while monitoring, including but not limited to OSHA safety equipment requirements. Ground disturbing activities by heavy equipment in designated areas will be monitored. In the event that a Discovery is made, the use of heavy equipment will cease in the area of the Discovery while it is being investigated. If the Monitor does not observe a Discovery, the construction crew will contact the Monitor in the event of a Discovery.

The Monitor shall observe if ground-disturbing activities are being carried out pursuant to this agreement. If the Monitor believes that such activities are not being performed under the provisions of this agreement, he/she shall immediately notify the supervisor or project lead supervisor that the ground disturbing activity does not comply with this agreement. The Monitor shall instruct the equipment operator to cease activity in the area in question immediately until a resolution is reached with AES and Idaho SHPO.

## **DISCOVERY PLAN**

### **Unexpected Discoveries**

The potential exists for locating unexpected discoveries during the monitoring of ground disturbing activities. If unexpected discoveries are made, the Monitor will notify the AES, NRC, and the Idaho SHPO by telephone within one business day. Discoveries include the following:

- Previously unidentified archaeological sites or features, or Traditional Cultural Properties (TCPs);
- Previously determined ineligible sites that during impact yield distinct cultural material not previously identified. The material obtained during ground disturbance activities must indicate that the site has the potential to qualify as eligible for nomination to the NRHP;
- Cultural resources identified adjacent to, but beyond, the boundaries of a known, eligible site as previously determined from surface observations;
- Evidence of human remains in any context. All bone discoveries should be treated by construction personnel as potential human remains until taxonomic identity can be determined; and
- Identification of construction or maintenance-related damage to historic properties or TCPs.

The Monitor will keep daily logs regarding the status of discoveries and will submit these to AES, the NRC, and the SHPO. Ground disturbing activities will cease in the vicinity of the Discovery while it is documented by the Monitor and evaluated for significance. While the Discovery is being documented, ground disturbing activities may continue at another location but must continue to be monitored. In such cases more than one Monitor must be present, one to document the Discovery and the other to monitor ground disturbing activities in another location away from the Discovery. If the Discovery is considered a cultural resource that would be eligible for listing on the NRHP (i.e., a historic property), a method of integrating the Discovery into a data recovery plan will be proposed by the cultural resource consultant in consultation with the NRC and the Idaho SHPO and presented to AES.

Idaho State Code §27-502, 503, and 504 details the procedures for reporting burial discoveries through inadvertent, construction related disturbance of graves. The law prohibits a person from willfully removing, mutilating, defacing, injuring or destroying any grave or burials. The law also requires that the human remains be reinterred, at least partially at the expense of the Idaho Historical Society. The law also addresses procedures for archaeological removal of human remains and the Native American involvement in that archaeological removal. This applies if the remains are believed to be those of a Native American. There are other sections of the Idaho code, such as §18-7027, that prohibit the desecration of graves, cemeteries, headstones or places of burial. These and all other applicable provisions of the Idaho Code will be followed.

### **Treatment of Discoveries**

The discovery of a possible archaeological deposit constitutes a Discovery.

When someone other than the Monitor makes a Discovery, the following steps will be implemented:

1. All construction activity in the immediate vicinity will cease. As soon as possible, all other ground disturbing activity within 30 meters (100 ft) of the discovery will also stop.
2. The individual making the Discovery must immediately notify the Monitor through their immediate supervisor.
3. The person making the Discovery will take appropriate steps including the rerouting of traffic around the area, the cessation of ground disturbing activities that may further affect the Discovery and similar measures to protect the Discovery until the Monitor arrives at the Discovery.

When the Monitor makes a Discovery, the eight steps outlined below will be taken.

1. All construction activity in the immediate vicinity will cease. As soon as possible, all other ground disturbing activity within 30 meters (100 ft) of the discovery will also stop.
2. The Monitor must confirm that the area has been secured.
3. Once the Discovery is secured, the Monitor will make an immediate inspection of the Discovery to determine the number and types of features or artifacts present and their apparent extent. The Monitor will inform the AES management by telephone if further immediate actions are required.

4. If the Monitor determines the Discovery is modern or is categorically not eligible to the NRHP such as a feature with no associated artifacts or an isolated artifact, the presence of the cultural materials will be documented on the appropriate Idaho cultural resource forms, described in the daily log, and plotted on project maps. The Monitor shall notify SHPO by telephone when a cultural resource is recommended as not eligible for inclusion in the NRHP and request verbal concurrence with this recommendation. If the SHPO concurs with this recommendation, construction activity may proceed. The Monitor will document this consultation in writing.
5. If the Monitor determines the Discovery is cultural (other than human remains) and that construction activity cannot proceed in the area of the Discovery, he/she will immediately notify AES management, the NRC, and the Idaho SHPO by telephone and retain the 30-meter (100 foot) buffer zone around the Discovery to prevent further disturbance. Ground disturbing activities may continue outside of the 30-meter (100 foot) buffer zone as long as the Discovery is protected. Such activities must continue to be monitored. In this case, more than one Monitor may be needed. The Monitor will document all potentially significant cultural resource discoveries on the appropriate Idaho cultural resource forms so that they can be evaluated for significance and eligibility for listing on the NRHP. As part of the documentation, the Monitor will photograph the Discovery, note relevant dimensions and the state of preservation, and clearly mark the boundaries of the 30-meter (100 foot) buffer zone. These boundaries will be delineated with boundary markers placed by the Monitor. Where possible, the Monitor will determine if the Discovery relates to known sites, loci, and features.
6. If the Monitor recommends that a Discovery is eligible for inclusion in the NRHP, consultation will be initiated with the NRC to make a formal determination of eligibility. The NRC will seek the concurrence of the SHPO on all determinations of eligibility. The Monitor will consult with the NRC and SHPO if the following property types are discovered:
  - a. Human remains with or without associated artifacts or features. In the event that human remains are encountered, all construction activity will cease within 90 meters (300 feet) of the Discovery, and the SHPO will be contacted immediately by the Monitor to assure compliance with the Idaho State Code, §27-502.
  - b. Intact prehistoric, protohistoric, or historic Native American features or Native American artifact deposits. In the case of unexpected discoveries of American Indian loci, it is recommended that the SHPO consult the appropriate Native American groups. Again, if any human remains are encountered during

construction, the Monitor is required by law to contact the NRC and the SHPO and the appropriate tribes will be contacted.

- c. Intact historic Euro-American features or artifact deposits.
  - d. The occurrence of a single artifact or feature type not previously documented, or whose presence is anomalous, rare, or poorly understood in the present archaeological database.
7. The cultural resource firm will curate artifacts with the appropriate institutions. Soil samples and similar specimens will not be curated; they will be disposed of at the completion of the project. Private landowners may request possession of materials located on their property, but should be encouraged to donate the materials to an appropriate curatorial facility.
  8. The Monitor shall provide AES, the NRC, and the Idaho SHPO with adequate documentation concerning any Discovery. This documentation shall include a brief report, maps, photographs, a relevant feature form, and description of the proposed treatment or mitigation of adverse effects to the Discovery. Appropriate cultural resource forms will also be provided if the feature is part of a previously unrecorded site. The NRC in consultation with SHPO will make a formal determination of eligibility and approve the proposed mitigation of adverse effects following receipt of adequate documentation.

**Contacts in the Event of a Discovery**

Individuals who will be notified in the event of a Discovery are listed in the tables below.

***CULTURAL RESOURCE CONTRACTOR***

**Table 1. Cultural Resource Contractor Contacts**

<b>Name</b>	<b>Title</b>	<b>Address/Phone Number</b>
Ed Stoner, M.A., RPA	Senior Archaeologist	50 Freeport Blvd, Ste. 15, Sparks, NV 89431/775-233-5178 (cell); 7750358-9003 (off.)
Tom Lennon, PhD, RPA	Principal Investigator	P.O. Box 2326, Boulder, CO 80306/303-449-1151

**AREVA ENRICHMENT SERVICES, LLC**

**Table 2. AREVA Enrichment Services, LLC Contacts**

<b>Name</b>	<b>Title</b>	<b>Address/Phone Number</b>
George Harper, PE	Vice President, Engineering	400 Donald Lynch Boulevard, Marlborough, MA 01752 Office: 508.573.6528; Cell: 508.795.9420

**U. S. NUCLEAR REGULATORY COMMISSION**

**Table 3. U.S. Nuclear Regulatory Commission Contacts**

<b>Name</b>	<b>Title</b>	<b>Address/Phone Number</b>
Gloria Kulesa	NRC Senior Project Manager	Washington D.C. 2055-0001/301-415-5308.

**STATE OF IDAHO**

**Table 4. State of Idaho Contacts in the Event of Discovery**

<b>Name</b>	<b>Title</b>	<b>Address/Phone Number</b>
Ken Reid, PhD	State Archaeologist and Deputy SHPO	210 Main Street (The Assay Office) Boise, ID 83702/208-334-3847 x110

## REFERENCES CITED

Estes, Mark, and Jaelyn Raley

2009 *Amendment to: A Class III Cultural Resource Inventory of the Proposed Eagle Rock Enrichment Facility, Bonneville County, Idaho.* Prepared for AREVA Enrichment Services LLC.

Ringhoff, Mary C., Edward J. Stoner, Collette Chambellan, and Steven F. Mehls

2008 *A Class III Cultural Resource Inventory of the Proposed Eagle Rock Enrichment Facility, Bonneville County, Idaho.* Prepared for AREVA Enrichment Services LLC.



**APPENDIX A:  
MONITOR'S DAILY LOG**

**APPENDIX B:**  
**STANDARD TREATMENT RECOMMENDATIONS**

**APPENDIX C:**  
**INITIAL DISCOVERY REPORT**