



10 CFR 70.5

October 15, 2009

AES-O-NRC-09-00150-0

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 – AES Eagle Rock Enrichment Facility Exemption Request Related to Commencement of Construction (TAC L32730)

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 June 17, 2009, AES submitted a request for exemption from 10 CFR 70.4, 10 CFR 70.23(a)(7), 10 CFR 30.4, 10 CFR 30.33(a)(5), 10 CFR 40.4, and 10 CFR 40.32(e) requirements governing commencement of construction (Ref. 2).

On September 14, 2009, the NRC transmitted to AES a Request for Additional Information (RAI) regarding the EREF License Application (Ref. 3).

Enclosure 1 provides the AES response to the RAI and markups of the Environmental Report. This enclosure does not contain any proprietary, security-related sensitive unclassified non-safeguards information (SUNSI), or Export Control Information (ECI) as controlled under 10 CFR 810.

The EREF License Application will be revised to include the changes identified in the markups provided in Enclosure 1 in Revision 2 of the EREF License Application.

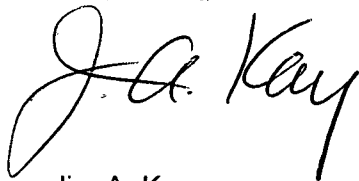
**AREVA ENRICHMENT SERVICES LLC**

Solomon Pond Park - 400 Donald Lynch Boulevard, Marlborough, MA 01752  
Tel. : 508 229 2100 - Fax : 508 573 6610 - www.aveva.com

NM5801  
NM55

If you have any questions regarding this submittal, please contact me at (508) 573-6554.

Respectfully,



Jim A. Kay  
Licensing Manager

References:

- 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) S. Shakir (AES) Letter to the U.S. Nuclear Regulatory Commission, Request for Exemption from 10 CFR 70.4, 10 CFR 70.23(a)(7), 10 CFR 30.4, 10 CFR 30.33(a)(5), 10 CFR 40.4, and 10 CFR 40.32(e) Requirements Governing Commencement of Construction, dated June 17, 2009.
- 3) 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 for AREVA Enrichment Services Eagle Rock Enrichment Facility Exemption Request Related to Commencement of Construction, dated September 14, 2009.

Enclosure:

- 1) Response to NRC Request for Additional Information and Supporting Information

Commitment:

The EREF License Application will be revised to include the changes identified in the markups provided in Enclosure 1 in Revision 2 of the EREF License Application.

cc:

- ✓ Breeda Reilly, U.S. NRC Senior Project Manager
- ✓ Steve Lemont, U.S. NRC Senior Project Manager

AREVA Enrichment Services LLC  
Eagle Rock Enrichment Facility  
AES-O-NRC-09-00150-0

**Enclosure 1  
Response to  
Request for Additional Information  
and Supporting Information**

<b>Enclosure</b>	<b>Subject or Title</b>
1.1	Response to Request for Additional Information and the Impacts of Pre-construction and Construction Activities
1.2	Markup Pages of the EREF Environmental Report

**NRC RAI:**

Enclosure 1, Page 5 of 9

Enclosure 1, "Request for Exemption from Title 10 of the Code of Federal Regulations (10 CFR) 70.4, 10 CFR 70.23(a)(7), 10 CFR 30.4, 10 CFR 30.33(a)(5), 10 CFR 40.4, and 10 CFR 40.32(e) Requirements Governing Commencement of Construction," contains a list of activities identified by AREVA Enrichment Services (AES) as items that should be excluded from the definition of construction. Provide the following information:

1. Under the seventh bullet, "Installing utilities (e.g., temporary and permanent power) and storage tanks, " the purpose of the storage tanks and whether they fall under the license application is not clear. Provide additional detail on the storage tanks that you propose to consider under pre-construction activities, including, a description of the materials and quantities of materials to be stored in these tanks; the purpose of the storage tanks and the intended use of the stored materials; whether the storage tanks would be temporary or permanent items; whether they would be used strictly for construction purposes; and any design and construction features that would require the U.S. Nuclear Regulatory Commission (NRC) approval for their use.
2. Concerning the eighth bullet, "Installing fences for investment protection (not used to implement the Physical Security Plan), describe what is meant by the term "investment protection," explain the purpose of the fence that you propose to include under pre-construction activities and identify whether the fence would be temporary or permanent.
3. Under the ninth bullet, "Installing construction buildings, offices (including construction trailers), warehouses and guardhouses," confirm that the guardhouses that you propose to include under pre-construction activities are not part of the Physical Security Plan required under 10 CFR 73.67. Provide additional detail on the guardhouses that you propose to include under pre-construction activities including a description of their purpose.
4. Under the ninth bullet, "Installing construction buildings, offices (including construction trailers), warehouses and guardhouses," confirm that the buildings, offices and warehouses that you propose to include under pre-construction activities are not part of the Standard Practice Procedures Plan for the Protection of Classified Information or otherwise require NRC approval.

**AES Response to NRC RAI:**

The following response is provided for each part:

1. The proposed pre-construction storage tanks will store well water which will be utilized for 1) dust control of earthworks to reduce air emissions, 2) wash down of construction vehicles and equipment, as needed, and 3) general non-potable water use during pre-construction activities such as concrete production.

The temporary water storage tanks will either be new tanks, the existing water tanks on site used for farming, or mobile truck tanks. The temporary tanks will be used strictly for

construction purposes. The permanent tanks to be constructed are the process water and fire protection tanks that each has a capacity of 200,000 gallons, and the potable water tank with a capacity of 50,000 gallons. The materials of construction of the permanent tanks are carbon steel. The permanent tanks will initially be used for construction purposes using well water and then be used for their intended purpose during operations.

The permanent and temporary tanks do not contain any design and construction features that would require the U.S. Nuclear Regulatory Commission (NRC) approval for their use.

2. The term "investment protection" is used to describe a function that is performed when AES has expended resources on an item or service and the potential exists for the item or service to be lost or damaged if the function is not performed, thereby causing AES to lose the resources expended. In this context, the purpose of the fence is to prevent access to the construction site by unauthorized personnel that might remove or damage equipment on which AES has already expended resources. Additionally, the fence will prevent access to the construction site by the public for safety reasons, for example to prevent access to open excavations. The temporary fence is not part of the Physical Security Plan.
3. The guardhouse(s) to be built during pre-construction activities is to control access to the construction area through the temporary construction fence. The guardhouse(s) is not part of the Physical Security Plan.
4. The building, offices, construction trailers and warehouses to be built during pre-construction activities are not part of the Standard Practice Procedures Plan for the Protection of Classified Information or would otherwise require NRC approval.

### **Impacts of Construction versus Pre-Construction Activities**

The NRC Request for Information also requested AES submit a supplement to the Environmental Report to distinguish between the environmental impacts of pre-construction and construction activities. A discussion will be added to Section 8.5 of the Environmental Report to provide this information. A new table distinguishing the environmental impacts of pre-construction versus construction activities for each category will also be added to Section 8.5 of the Environmental Report.

### **Associated EREF License Application Revisions:**

The EREF License Application will be revised as follows to incorporate this RAI response:

ER Section 8.5 will be revised to add a discussion on the pre-construction versus construction environmental impacts along with a new table showing the degree of impact in each category analyzed in the Environmental Report.

**Commitments:**

The EREF License Application will be revised to include the SAR markup in Revision 2 of the EREF License Application.

**Attachments:**

Enclosure 1.2 shows the markup to EREF ER Section 8.5.

**References:**

None

AREVA Enrichment Services LLC  
Eagle Rock Enrichment Facility  
AES-O-NRC-09-00150-0

**Enclosure 1.2**  
**Markups to the Environmental Report**

## Markups of Environmental Report

LIST OF TABLES

Table 8.8-1 Estimated Annual Economic Impacts from the Eagle Rock Enrichment Facility  
(Bonneville County and Nearby)

*Table 8.5-1 Summary of Preconstruction and Construction  
Related Impacts*



earthwork will likely be the period of highest emissions with the greatest number of construction vehicles operating on an unprepared surface. However, no more than 14% of the site, or about 240 ha (592 acres), will be involved in this type of work. Airborne dust will be controlled through the use of BMPs such as surface water sprays (when required), by ensuring trucks' loads and soil piles are covered, and by promptly removing construction wastes from the site. The application of water sprays for dust suppression will be applied only when required so that water resources can be conserved to the maximum extent possible.

Construction of the EREF is expected to have generally positive socioeconomic impacts on the region. No radioactive releases (other than natural radioactive materials, for example, in soil) will result from site development and facility construction activities.

→ Insert for Section 8.5

**Insert at the End of ER Section 8.5:**

Pre-construction activities are those that are not considered construction activities under the definition of construction currently provided in 10 CFR 51.4. AES considers the following activities and facilities as pre-construction:

- Clearing the site
- Site grading and erosion control
- Excavating the site including rock blasting and removal
- Installing parking areas
- Constructing the storm water detention pond
- Constructing highway access roadways and site roads
- Installing utilities (e.g., temporary and permanent power) and storage tanks
- Installing fences for investment protection (not used to implement the Physical Security Plan)
- Installing construction buildings, offices (including construction trailers), warehouses and guardhouses

Table 8.5-1 provides estimates of the percentage of impacts attributable to pre-construction and construction activities as well as a summary of the basis for the estimates and a qualitative impact significance level.

The estimated pre-construction and construction related impacts presented in the table were based on three factors below. Information related to these factors is provided as follows:

- **Construction Area** - The area that will be impacted for pre-construction and construction activities is estimated to be approximately 240 ha (592 acres) which includes 53.6 ha (132.5 acres) used for temporary construction activities. It is assumed that pre-construction activities of clearing, grubbing and site preparation will impact 95% of the land area to be occupied by both pre-construction and construction structures and activities.
- **Construction Duration** – Pre-construction activities (i.e., work that can be performed without any prior NRC approval) is estimated to occur during the first 8 months or approximately 10% of the 84 month construction schedule.
- **Water Usage** - The quantity of water to be used for pre-construction is estimated to be 10% of the total construction water requirements based on ER Table 3.4-15 and additional information. Pre-construction activities were assumed to use eight months of Year 1 (2011) water usage to align with the assumption that pre-construction activities comprise 10% of the construction duration.

The qualitative significance levels in Table 8.5-1, denoted as SMALL, MODERATE, or LARGE, were assigned based on deployment and effective implementation of mitigation measures and controls required by local, state and federal regulations. The significance levels are defined in 10 CFR 51, Subpart A, Appendix B, Table B-1, Footnote 3:

- SMALL - Environmental effects are not detectable or are so minor that they will neither destabilize nor noticeably alter any important attribute of the resource.
- MODERATE - Environmental effects are sufficient to alter noticeably, but not to destabilize, any important attribute of the resource.
- LARGE - Environmental effects are clearly noticeable and are sufficient to destabilize important attributes of the resource.

**Table 8.5-1: Summary of Pre-construction and Construction Related Impacts**

Potential Impact (ER Section Reference)	Significance <sup>(a)</sup>	Estimated Impacts (%)		Basis of Estimate
		Pre-Construction <sup>(b)</sup>	Construction	
Land Use (Section 4.1 and 5.1.1)	SMALL	95	5	Based on the proposed EREF site area of 240 ha (592 ac), including the temporary area of 53.6 ha (132.5 ac), being disturbed during pre-construction and construction activities. Greater than 80% of the property would remain undeveloped and current activities on nearby properties would not change.
Transportation (Section 4.2 and 5.1.2)	MODERATE	10	90	Based on the planned 84-month duration for all phases of development for EREF, of which approximately 10% is for pre-construction, including installation of highway entrances and access roads. Impact due to increased highway traffic associated with construction duration.

Potential Impact (ER Section Reference)	Significance <sup>(a)</sup>	Estimated Impacts (%)		Basis of Estimate
		Pre-Construction <sup>(b)</sup>	Construction	
Geology and Soils (Section 4.3 and 5.1.3)	SMALL	95	5	<p>Geology impacts based on pre-construction land use, during which the majority of blasting may occur to develop foundations.</p> <p>Greater than 80% of the property would remain undeveloped and current activities on nearby properties would not change.</p> <p>Soils impacts based on the pre-construction area impacted as described previously in Land Use.</p> <p>Potential short-term erosion during pre-construction, but enhanced afterward due to soil stabilization.</p>
Water Resources (Section 4.4 and 5.1.4)	SMALL	10	90	Based on the quantity of water to be used during pre-construction being 10% of the total water requirement, as shown in ER Table 3.4-15.
Ecological Resources (Section 4.5 and 5.1.5)	SMALL	95	5	Based on the pre-construction area impacted as described previously in Land Use.
Air Quality (Section 4.6 and 5.1.6)	SMALL	10	90	Based on the planned 84 months of construction, of which approximately 10% is for pre-construction, as described previously in Transportation.
Noise (Section 4.7 and 5.1.7)	SMALL	10	90	Based on the planned 84 months of construction, of which approximately 10% is for pre-construction, as described previously in Transportation.

Potential Impact (ER Section Reference)	Significance <sup>(a)</sup>	Estimated Impacts (%)		Basis of Estimate
		Pre-Construction <sup>(b)</sup>	Construction	
Historic and Cultural Resources (Section 4.8 and 5.1.8)	SMALL	95	5	Based on the percentage of the pre-construction area impacted during pre-construction estimated to be 95%, as described previously in Land Use, with potential historic properties being identified and mitigation plans established prior to land clearing and other pre-construction activities.
Visual/Scenic Resources (Section 4.9 and 5.1.9)	SMALL	10	90	Based on the assumption that aesthetic and scenic quality impacts will be small during pre-construction.
Socioeconomic (Section 4.10 and 5.1.10)	SMALL	10	90	Based on the planned 84 months of construction, of which approximately 10% is for pre-construction, as described previously in Transportation.
Environmental Justice (Section 4.11 and 5.1.11)	SMALL	10	90	Based on the planned 84 months of construction, of which approximately 10% is for pre-construction, as described previously in Transportation.
Public and Occupational Health (Section 4.12 and 5.1.12)	SMALL	10	90	Based on the planned 84 months of construction, of which approximately 10% is for pre-construction, as described previously in Transportation.
Waste Management (Rad/NonRad) (Section 4.13 and 5.1.13)	SMALL	10	90	Based on the planned 84 months of construction, of which approximately 10% is for pre-construction, as described previously in Transportation.

Potential Impact (ER Section Reference)	Significance <sup>(a)</sup>	Estimated Impacts (%)		Basis of Estimate
		Pre-Construction <sup>(b)</sup>	Construction	
Notes:				
a) The qualitative significance levels of SMALL, MODERATE, or LARGE have been assigned based on 10 CFR 51, Subpart A, Appendix B, Table B-1, Footnote 3:				
<ul style="list-style-type: none"> <li>- SMALL - Environmental effects are not detectable or are so minor that they will neither destabilize nor noticeably alter any important attribute of the resource.</li> <li>- MODERATE - Environmental effects are sufficient to alter noticeably, but not to destabilize, any important attribute of the resource.</li> <li>- LARGE - Environmental effects are clearly noticeable and are sufficient to destabilize important attributes of the resource.</li> </ul>				
b) "Construction," as defined in 10 CFR 50.2 "Definitions" refers to the construction of "safety-related structures, systems, or components (SSCs) of a facility". For the EREF, this is defined as work that can be performed without any prior NRC approval.				