

July 6, 2009

MEMORANDUM TO: Thomas G. Hiltz, Chief  
Advanced Fuel Cycle, Enrichment,  
and Uranium Conversion Branch  
Division of Fuel Cycle Safety  
and Safeguards  
Office of Nuclear Material Safety  
and Safeguards

Andrea L. Kock, Chief  
Environmental Review Branch  
Division of Waste Management and  
Environmental Protection  
Office of Federal and State Materials and  
Environmental Management Programs

FROM: M. Breeda Reilly **/RA/**  
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Advanced Fuel Cycle, Enrichment,  
and Uranium Conversion Branch  
Division of Fuel Cycle Safety  
and Safeguards  
Office of Nuclear Material Safety  
and Safeguards

SUBJECT: MAY 28, 2009, TELEPHONE CALL SUMMARIES: AREVA  
ENRICHMENT SERVICES EAGLE ROCK LICENSE APPLICATION -  
ENVIRONMENTAL REVIEW INFORMATION NEEDS –  
TRANSPORTATION, NOISE, AIR QUALITY, AND WATER USE

On May 28, 2009, U.S. Nuclear Regulatory Commission staff held four telephone conference calls with staff from AREVA Enrichment Services (AREVA) to discuss information needs for the environmental review for the topics of (1) transportation; (2) noise; (3) air quality;

CONTACT: Breeda Reilly, NMSS/FCSS  
(301) 492-3110

and (4) water use. I am enclosing the telephone summaries of these calls for your use. The summary contains no proprietary or classified information.

Docket: 70-7015

Enclosures: As stated

cc: Stan Day, AREVA  
Bruce Biwer, Argonne National Laboratory

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OFFICE	NMSS/AFCB	NMSS/AFCB	NMSS/AFCB
NAME	BReilly	CGibbs	THiltz
DATE	6/26/09	7/1/09	7/6/09

**OFFICIAL RECORD COPY**

## Telephone Conference Call Summary

### Environmental Review Transportation

Date and Time: 9:00 AM (EDT); May 28, 2009

Call Participants: B. Reilly/U.S. Nuclear Regulatory Commission (NRC)  
G. Kulesa/NRC  
B. Biwer/Argonne National Laboratory  
K. Fischer/Argonne National Laboratory

S. Day/AREVA  
S. Thomson/AREVA  
A. Mancini/AREVA  
T. Doerr/MWH

During the conference call, staff discussed NRC's information needs concerning transportation. These information needs are TR-1 and TR-2, as identified by NRC:

TR-1: Provide a subject matter expert to discuss transportation impacts, including:

- RADTRAN assumptions and calculations performed in support of incident-free and accident risk analyses for radioactive material transportation, including output files and package- or shipment-specific input parameters (i.e., radionuclide inventory and external dose rates),
- centrifuge/parts shipments (redacted from Table 4.2-3),
- projections of construction-related shipments for years 4-11 and site access traffic during decommissioning, and
- revised projections of waste removal trips resulting from the doubling of facility capacity.

For the first bullet, the AREVA staff agreed to make input files and calculations available for review, either in conjunction with, or after the site visit to the proposed facility location.

For the second bullet, AREVA staff pointed out that a value for the general number of shipments is provided on page 4.2-5 of the Environmental Report.

For the third bullet, the Argonne staff discussed that Table 4.2-4 provides projections of construction-related shipments for the first three years of construction and asked whether AREVA had considered estimates to the completion of construction (years 4 through 11). AREVA agreed to review their discussion related to Table 4.2-4 for completeness and provide supplemental information as needed. For the fourth bullet, AREVA staff agreed to confirm their revised projections, specifically Table 4.2-2, line item 5 and Page 4.2-4, second paragraph; and, Table 4.2-2, line item 1 and Page 4.2-8 to ensure consistency. AREVA will followup on these items during the site visit.

TR-2: Provide a subject matter expert to discuss the affected transportation environment, including:

- anticipated traffic impacts from the construction of access/entrances to the proposed Eagle Rock Enrichment Facility,
- the design capacity of the proposed shipping route to/from the proposed EREF in relation to the projected traffic increase, and
- the number/types of radioactive material shipments currently taking place along the proposed shipping route to/from Idaho National Laboratory.

The NRC staff plans to address the first two bullets through discussions with State of Idaho transportation officials. For the third bullet, AREVA has asked Idaho National Laboratory for an estimate of shipments currently taking place.

## Telephone Conference Call Summary

### Environmental Review Noise

Date and Time: 10:30 AM (EDT); May 28, 2009

Call Participants: B. Reilly/U.S. Nuclear Regulatory Commission (NRC)  
G. Kulesa/NRC  
B. Biwer/Argonne National Laboratory  
R. Kolpa/Argonne National Laboratory

S. Day/AREVA  
S. Thomson/AREVA  
T. Doerr/MWH  
G. van Noordennen/AREVA

During the conference call, staff discussed AREVA's approach for considering the impacts of noise and NRC's information needs, identified as NO-1 through NO-5.

NO-1: Sections 4.5 and 4.7 provide details of vehicles and equipment used in construction and summary estimates of resulting construction-related noise. Provide additional details on the weather conditions (e.g. the existence of a temperature inversion, extent of cloud cover) presumed to exist in estimating the construction-related noise levels that were provided; provide additional details on the noise impacts of blasting and pile driving (number of events, estimated impulse noise from blasting events, location of blasting and pile driving activities relative to site boundaries); and provide an estimate of construction-related noise impacts on those occasions where construction extends into nighttime periods.

The AREVA staff discussed that they used NUREG-1748, as well as considered the Environmental Reports submitted to NRC to support the license applications for LES and USEC. For construction, AREVA considered the most likely types of construction equipment to be used and approximated the noise levels of the equipment with the largest profile, at the closest boundary. AREVA also obtained some general information from an existing AREVA facility in Europe and used it as a general comparison for the noise profile for the proposed facility.

NO-2: Provide manufacturer's specifications or best estimates regarding noise signatures of major pieces of processing equipment (air compressors, chillers, roof fans, cooling water pumps, material transfer pumps, centrifuges, etc.) listed in Section 4.7.2; identify all equipment that will be operating outside of a building, including any noise shielding such equipment may have.

NO-3: Please include a discussion on the expected performance of Cascade Hall building construction materials (steel walls and insulated sandwich panels) for noise control.

The AREVA staff suggested that details about equipment and the construction materials can be found in the Integrated Safety Analysis Summary, specifically Section 3.3.1.1.2. AREVA will follow up on information on the construction of the cascade halls and the effect it has on noise.

NO-4: Section 4.5.4 provides an estimate of noise levels at the site boundaries during operation. Clarify whether production will occur during one, two, or three shifts and whether the noise levels presented represent daytime or nighttime values. Identify the weather conditions presumed to exist in estimating this value.

NO-5: Noise mitigation strategies discussed in Section 4.7.5 rely, in part, on sound pressure levels decreasing by 6 dB with each doubling of distance from the noise source. Please provide an expanded discussion on how the extant land surface conditions and topography at the site (including alterations to land surfaces as a result of facility construction) may alter that attenuation rate.

The AREVA staff reported that the noise levels were estimated conservatively, assuming the noise profile of the largest piece of equipment, located closest to a site boundary. Nighttime values were not considered. AREVA has not completed its planning for construction, but it is likely construction will occur over three shifts as needed. AREVA will verify what controls for noise may be put in place, taking into consideration parameters such as time of day and cloud cover. The site is surrounded by open grazing land with the closest home about 4.5 miles to the east. Idaho National Laboratory is about 10 miles away. Land cover includes big sage brush and the topography is rolling. Section 4.5.3 of the Environmental Report provides information concerning the area of disturbance to the land, including the amount of vegetation that would be cleared.

## Telephone Conference Call Summary

### Environmental Review Air Quality

Date and Time: 11:30 AM (EDT); May 28, 2009

Call Participants: B. Reilly/U.S. Nuclear Regulatory Commission (NRC)  
G. Kulesa/NRC  
B. Biwer/Argonne National Laboratory  
R. Kolpa/Argonne National Laboratory  
  
S. Day/AREVA  
S. Thomson/AREVA  
P. Ballard/AREVA  
M. Wurmbrand/AREVA  
M. Bandeira/ NTS  
M. Majidian/AREVA

During the conference call, staff discussed NRC's information needs for the environmental review concerning the topic of air quality. These information needs are AQ-1 through AQ-6, as identified by NRC:

AQ-1: For the construction period, provide a subject matter expert who can provide details on dust suppression, foundation excavations, on-site fuel storage and dispensing, impacts to visibility at the closest Class I area, and remediation of disturbed land surfaces.

Argonne and AREVA staff discussed the information needed and AREVA agreed to discuss the control of fugitive dust and excavation techniques during the site visit. AREVA staff also indicated that they were gathering information internally concerning on-site fuel storage during construction, and if necessary, would supplement the environmental report.

AQ-2: Provide a subject matter expert who can discuss air quality impacts during the period when construction and operation overlap.

NRC and AREVA staff agreed that this topic should be discussed in conjunction with the site visit.

AQ-5: Provide a copy of the permit application submitted to the Idaho Department of Environmental Quality/Air Quality Division (IDEQ/AQD) (reference IDAPA 2008i) (or any petition for categorization as a minor source of criteria pollutants or hazardous air pollutants that may also have been submitted).

AREVA stated that they had not submitted any permit applications to IDEQ/AQD. The reference cites a portion of Idaho's Administrative Code.

AQ-6: For the operational period, please make available an expert who can provide additional details on the following:

- Specifications preventative maintenance schedules, and details of fuel support (type, percent sulfur, tank type and size, expected annual throughput) for emergency generators and internal combustion engines.



- An inventory of hazardous air pollutant sources and estimated emissions.
- Additional details on the gaseous effluent ventilation system (control equipment, physical and chemical parameters of the exhaust gas [chemical constituency, temperature, volumetric flow, speed, temperature], annual hours of operation).
- Additional details and potential for air emissions related to centrifuge cooling systems, cylinder cleaning activities, solid waste management, vacuum pump rebuilding, valve and pump dismantling workshop, mechanical, electrical and instrument shop, and chemical trap workshop.
- Expected performance specifications for high efficiency particulate air filters and charcoal filters serving the Technical Support Building (TSB) Gaseous Effluent Ventilation system.
- Additional details on the pollution control devices and their expected performance for the TSB Contaminated Air heating, ventilation and air conditioning system exhaust.

AREVA agreed that an expert would be available during the site visit for further discussion.

AREVA also identified additional information as being available in the Integrated Safety Analysis Summary, specifically Sections 3.4.9.1, 3.5.5, and 3.4.

## Telephone Conference Call Summary

### Environmental Review Water Use

Date and Time: 3:00 PM (EDT); May 28, 2009

Call Participants: B. Reilly/U.S. Nuclear Regulatory Commission (NRC)  
G. Kulesa/NRC  
B. Biwer/Argonne National Laboratory  
T. Patton/Argonne National Laboratory

S. Day/AREVA  
S. Thomson/AREVA  
P. Ballard/AREVA  
M. Bandeira/ NTS  
M. Majidian/AREVA  
N. Pazarino/ Dade Moeller & Associates  
F. Schimmenti/AREVA  
I. Marsh/AREVA

During the conference call, staff discussed NRC's information needs for the environmental review concerning the topic of water use. These information needs are HY-1 and HY-2, as identified by NRC:

HY-1: Provide a subject matter expert familiar with the facility's water use and discharge plans.

The AREVA staff identified Table 3.4-3 as providing information on the fire water protection tanks and Section 3.5.4.1.2 of the Integrated Safety Analysis Summary as providing information on the process water system. AREVA staff can also make the methodology for their analysis of storm water runoff available during the site visit.

HY-2: Provide further details on the water right appropriation that will authorize the water transfer and water use designation (cited on p. 4.4-7 of ER, Rev. 1).

Details on the water appropriation can be discussed at the site visit. Copies of correspondence, for example, related to jurisdictional wetlands, are included in Appendix A of the environmental report.