

March 25, 2010

Mr. Jim Kay, Licensing Manager  
Eagle Rock Enrichment Facility  
AREVA Enrichment Services LLC  
400 Donald Lynch Boulevard  
Marlborough, MA 01752

SUBJECT: QUALITY ASSURANCE REQUIREMENTS FOR FIRE PROTECTION ITEMS  
RELIED ON FOR SAFETY-- AREVA ENRICHMENT SERVICES LLC LICENSE  
APPLICATION FOR THE EAGLE ROCK ENRICHMENT FACILITY  
(TAC NO. 32707)

Dear Mr. Kay:

On November 23, 2009, a conference call was held between the U.S. Nuclear Regulatory Commission (NRC) and AREVA Enrichment Services LLC (AES) staffs to discuss a request for additional information item ISA-27. In ISA-27, the NRC staff requested a justification from AES for not using available engineered controls as items relied on for safety (IROFS) for fire protection features at the Eagle Rock Enrichment Facility (EREF). During the meeting, NRC agreed to provide written guidance to AES regarding Quality Assurance (QA) requirements for fire protection IROFS. The purpose of this letter is to provide such guidance.

To date, the NRC has accepted and is also reviewing a graded QA program from an applicant in which fire protection IROFS, that are not "sole" IROFS (such as a sprinkler system and a combustible controls program), are procured from commercial suppliers, so long as the items are: (1) manufactured to an established, acceptable code or standard based on qualification testing or periodic testing of selected characteristics of the component; and (2) the conformance of the item to the procurement requirements has been reviewed and verified by the licensee prior to use as a basic component. It is expected that this review or verification process will be documented as a quality assurance record, in accordance with the management measures required by Title 10 of the *Code of Federal Regulations* (10 CFR) Part 70.

A minimum acceptable level of requirements for management measures, including QA requirements for engineered fire protection systems, is the level that the National Fire Protection Association (NFPA) codes require, such as equipment listed by an acceptable organization (e.g. Underwriters Laboratories, Inc., or Factory Mutual Global). Installation, testing, surveillance, and maintenance should be as specified by appropriate NFPA codes.

The current EREF QA Program Description (QAPD) requires IROFS that are not "sole" IROFS (such as a sprinkler system and a combustible controls program), to comply with QA Level 2 requirements. The QAPD requires acceptance of these items through Source Verification, Receiving Inspection, or Post-Installation Testing (which is already required by NFPA 13, "Standard for the Installation of Sprinkler Systems"). Commercial Grade Dedication is described as an acceptable procurement method for QA Level 2 components. Other aspects of the QA program may need to be revised or clarified to support the implementation of fire protection

features listed as IROFS as described above. Reporting and notification requirements in 10 CFR 21 and Appendix A of 10 CFR 70 are considered applicable to fire protection features listed as IROFS.

For new facilities, 10 CFR 70.64(b) requires that facility and system design and facility layout be based on defense-in-depth practices. The design must incorporate to the extent practicable a preference for the selection of engineered controls over administrative controls. For fire protection, this requirement can be met by selecting at least one engineered system to meet the 10 CFR 70.61 performance requirements for every fire-initiated sequence where practicable.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

If you have any questions regarding this letter, please contact me at (301) 492-3110 or via e-mail to [breeda.reilly@nrc.gov](mailto:breeda.reilly@nrc.gov).

Sincerely,

**/RA/**

M. Breeda Reilly, Senior Project Manager  
Advanced Fuel Cycle, Enrichment, and  
Uranium Conversion Branch  
Special Projects and Technical Support  
Directorate  
Division of Fuel Cycle Safety  
and Safeguards  
Office of Nuclear Material Safety  
and Safeguards

Docket No.: 70-7015

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Sincerely,

**/RA/**

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