

10 CFR 70.5

June 15, 2009

AES-0-NRC-09-00055-0

ATTN: Document Control Desk U.S. Nuclear Regulatory Commission Washington, DC 20555-001

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

Subject: Notice of Organization Change for the Eagle Rock Enrichment Facility License Application

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. Section 19.2 of the Quality Assurance Program Description (QAPD) requires AES to notify the NRC of an organization change which affects the QA Program within 30 days of implementation of the organization change. The changes to the EREF Safety Analysis Report (SAR) and the QAPD were implemented on May 15, 2009 and are provided in Attachment 1. The organization changes maintain alignment with the evolving scope of responsibility to license, design, build and operate the EREF. The changes to the QAPD do not constitute a reduction in commitment.

The changes provided in Attachment 1 will be incorporated into the next revision of the License Application. Revision 2 of the license application will be submitted following the submittal of AES responses to NRC requests for additional information related to Revision 1 of the license application.

If you have any questions or require additional information, please contact Stan Day, AES Licensing Manager, at (860) 917-7590.

Sincerely,

George ( . Hanp

George A. Harper Vice President Engineering and EPC Project Manager

Attachment 1 – AES Organization Change, Marked-up Pages for the Safety Analysis Report and Quality Assurance Program Description

# AREVA ENRICHMENT SERVICES LLC

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Reference:

(1) Letter from Sam Shakir (AES) to the NRC, Revision 1 to License Application for the Eagle Rock Enrichment Facility, dated April 23, 2009.

cc: Breeda Reilly, NRC Senior Project Manager Gloria Kulesa, NRC Senior Project Manager AREVA Enrichment Services LLC Eagle Rock Enrichment Facility AES-0-NRC-09-00055-0 Attachment 1

# AES Organization Change

Marked-up Pages for the Safety Analysis Report and Quality Assurance Program Description

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# 2.0 ORGANIZATION AND ADMINISTRATION

This chapter describes the management system and administrative procedures for the effective implementation of Health, Safety, and Environmental functions at the Eagle Rock Enrichment Facility (EREF). The chapter presents the organizations responsible for managing the design, construction, operation, and decommissioning of the facility. The key management and supervisory positions and functions are described including the personnel qualifications for each key position at the facility.

Areva Enrichment Services (AES), LLC, a wholly owned subsidiary of Areva NC, has been formed to provide uranium enrichment services for nuclear power plants and to design, construct and operate EREF. The AES policy is to maintain a safe work place for its employees and to assure operational compliance within the terms and conditions of the license and applicable regulations. The AES President has overall responsibility for safety and compliance to this policy. In particular, AES employs the principle of keeping radiation and chemical exposures to employees and the general public as low as reasonably achievable (ALARA).

The facility organization, technical qualifications, procedures, and management controls in this license application are similar to those submitted for Nuclear Regulatory Commission (NRC) review in the LES license application for the National Enrichment Facility (NEF) (LES, 2005). The staff reviewed the NEF plans and commitments and concluded in the Safety Evaluation Report (SER) (NRC, 2005) that they provided reasonable assurance that an acceptable organization, administrative policies, and sufficient competent resources were established or committed, to satisfy the applicant's commitments for the design, construction, and operation of the facility per 10 CFR 30.33, 10 CFR 40.32, 10 CFR 70.22, 10 CFR 70.23, and 10 CFR 70.62(d). (NRC, 2005). The differences between the EREF and NEF organizations reflect AREVA's experience in operating fuel cycle facilities. Although some titles and scope of responsibility have been changed, the functions to be performed remain the same. The key differences in the EREF and NEF organization reviewed by the NRC in the referenced SER are as follows:

- Organization charts are provided in the Quality Assurance Program Description (QAPD) for the engineering, procurement and construction (EPC) phase and for the operations phase. During engineering, procurement and construction, the scope and size of the staff reporting to the Vice President Engineering and EPC Project Manager will be consistent with his overall responsibility for the engineering, construction and startup of the facility. Engineering and construction personnel will be integrated into the Operations organization to provide technical support during initial startup of the facility and transition into the operational phase. As the facility nears completion, systems will undergo acceptance testing as required by procedure, followed by turnover from the construction organization to the operations organization. Once operational, the Project Manager will be responsible for the engineering, procurement, construction and startup of any facility modifications and expansion.
- The Quality Assurance Manager and the Safety Review Committee report directly to the AES President rather than the Plant Manager.
- The position of Radiation Protection/Chemistry Manager reporting to the Environmental, Health, Safety and Licensing Manager is established at the EREF with the overall
- responsibility for the implementation of EREF programs designed to ensure the protection of workers and the public from radiological and non-radiological chemical exposures.

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# 2.1 ORGANIZATIONAL\_STRUCTURE

The AES organizational structure is described in the following sections. The organizational structure indicates the lines of communication and management control of activities associated with the <u>engineering</u>, procurement, construction, operation, and decommissioning of the facility.

### 2.1.1 Corporate Functions, Responsibilities, and Authorities

AREVA Enrichment Services (AES), LLC is a Delaware limited liability corporation. It has been formed solely to provide uranium enrichment services for commercial nuclear power plants. AES is a wholly owned subsidiary of AREVA NC Inc. AES is further described in Chapter 1, Section 1.2.

AES is responsible for the design, quality assurance, construction, operation, and decommissioning of the enrichment facility. The AES President has overall responsibility for these functions of the enrichment facility. Reporting to the President during the <u>engineering</u>, <u>procurement</u> and construction phase are the Vice President Engineering <u>and EPC Project</u> <u>Manager</u> and the Quality Assurance (QA) Manager as shown in Figure A-2 of the Quality Assurance Program Description (QAPD). Reporting to the President during the operating phase are the Plant Manager, the QA Manager, and the Safety Review Committee. Figure A-1 of the QAPD, Eagle Rock Enrichment Facility Organizational Chart, shows the authority and lines of communication for the operating phase.

# 2.1.2 <u>Engineering, Procurement and Construction Organization</u>

AES has contracted Enrichment Technology Company Limited (ETC) to design the core process technology while an architect/engineering firm will be contracted to further specify, design, and build the supporting structures and systems of the facility. AREVA NP conducted the site characterization and performed the Integrated Safety Analysis in support of the license application.

During the construction phase, preparation of construction documents and construction itself are contracted to qualified contractors. The AES Vice President Engineering and EPC Project <u>Manager</u> is responsible for managing the <u>engineering</u>, construction, initial startup, and procurement activities. A Deputy EPC Project Manager may assist the EPC Project Manager in <u>planning and implementation of the EPC activities</u>. Contractor QA Programs will be reviewed by AES QA and must be approved before work can start.

ETC will design, manufacture, and deliver to the site the centrifuges necessary for facility operation. In addition, ETC is supplying technical assistance and consultation for the facility. ETC has extensive experience in the gas centrifuge uranium enrichment process since it has supplied gas centrifuge technology to both URENCO and AREVA for enrichment plants in Europe and the United States. ETC is also conducting technical reviews of the design activities of the supporting structures and systems as appropriate to ensure that they are in accordance with ETC core process design requirements.

For procurement involving the use of vendors located outside the U.S., AES selects vendors only after a determination that their quality assurance programs meet the AES requirements. Any components supplied to AES are designed to meet applicable domestic industry code requirements or their equivalents as stated by the equipment specifications.

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Rev. 1<u>a</u> Page 2.1-1 The Vice President Engineering and EPC Project Manager is responsible for managing the work and contracts with ETC. Also reporting to the Vice President Engineering and EPC Project <u>Manager</u> are the <u>individuals responsible</u> for the areas of procurement, construction <u>and engineering</u> and design, licensing, safety systems, and start-up. The lines of communication of key management positions within the <u>engineering</u>, procurement and construction organization are shown in Figure A-2 of the QAPD.

Position descriptions of key management personnel in the <u>engineering</u>, <u>procurement and</u> construction organization will be accessible to all affected personnel and the NRC.

# 2.1.3 Operating Organization

The AES president has overall responsibility for the operation of the enrichment facility. He is also responsible for the QA Program. In the discharge of these responsibilities, he directs the activities of the following groups:

- Plant Management
- Quality Assurance
- Safety Review Committee
- Human Resources

The Plant Manager reports to the AES President and is responsible for the operation and maintenance of the EREF. In the discharge of these responsibilities, he directs the activities of the following groups:

- Operations
- Environmental, Health, Safety and Licensing
- Uranium Management
- Training
- Project Management (including Engineering, Procurement, Construction, Startup and the Technology Supplier)

The responsibilities, authorities, and lines of communication of key management positions within the operating organization are discussed in Section 2.2, Key Management Positions.

The QA Manager has the authority and responsibility to contact directly the AES President with any Quality Assurance concerns during operation.

Position descriptions for key management personnel in the operating organization will be accessible to all affected personnel and to the NRC.

# 2.1.4 Transition from <u>Engineering</u>, <u>Procurement</u> and Construction to Operations

AES is responsible for the design, quality assurance, construction, testing, initial startup, operation, and decommissioning of the facility.

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# 2.3 ADMINISTRATION

This section summarizes how the activities that are essential for implementation of the management measures and other EHS&L functions are documented in formally approved, written procedures, prepared in compliance with a formal document control program. The mechanism for reporting potentially unsafe conditions or activities to the EHS&L organization and facility management is also summarized. Details of the management measures are provided in Chapter 11, Management Measures.

# 2.3.1 Configuration Management

Configuration management is provided for Items Relied on for Safety (IROFS) throughout facility design, construction, testing, and operation. Configuration management provides the means to establish and maintain a technical baseline for the facility based on clearly defined requirements. During design and construction, the Vice President Engineering and EPC Project <u>Manager</u> has responsibility for configuration management through the design control process. Selected documentation is controlled under the configuration management system in accordance with appropriate QA program required procedures associated with design control, document control, and records management. Design changes to IROFS undergo formal review, including interdisciplinary reviews as appropriate, in accordance with these procedures.

Configuration management provides the means to establish and maintain the essential features of the design basis of IROFS. As the project progresses from design and construction to operation, configuration management is maintained by the facility engineering organization as the overall focus of activities changes.

Additional details on Configuration Management are provided in Chapter 11, Management Measures.

# 2.3.2 Maintenance

The maintenance program will be implemented for the operations phase of the facility. Preventive maintenance activities, surveillance, and performance trending provide reasonable and continuing assurance that IROFS will be available and reliable to perform their safety functions.

The purpose of planned and scheduled maintenance for IROFS is to ensure that the equipment and controls are kept in a condition of readiness to perform the planned and designed functions when required. Appropriate plant management is responsible for ensuring the operational readiness of IROFS under this control. For this reason, the maintenance function is administratively closely coupled to operations. The maintenance organization plans, schedules, tracks, and maintains records for maintenance activities.

Maintenance activities generally fall into the following categories:

- Corrective maintenance
- Preventive maintenance
- Surveillance/monitoring
- Functional testing.

These maintenance categories are discussed in detail in Chapter 11, Management Measures.

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#### 1.0 INTRODUCTION AND ORGANIZATION

The Quality Assurance Program Description (QAPD) described herein applies to the design, fabrication, testing, operation, and decommissioning of the Eagle Rock Enrichment Facility and meets the requirements of 10 CFR 70.64 (a) (1), "Quality standards and records." The Eagle Rock Enrichment Facility is located in Bonneville County, Idaho. The QAPD is applied as described in Section 2.0 of this QAPD.

#### ORGANIZATION 1.1

- 1.1.1 AREVA Enrichment Services, LLC (AES) maintains overall responsibility for design, refurbishment, construction, start-up, operations, and decommissioning of the Eagle Rock Enrichment Facility.
- 1.1.2 Figure A-1 of this QAPD shows the site management operating organization for the Eagle Rock Enrichment Facility (EREF).
- 1.1.3 Figure A-2 of the QAPD shows the engineering, procurement, construction, and initial start-up organization of the EREF.

#### 1.2 DESIGN, CONSTRUCTION, START-UP, AND OPERATIONS ORGANIZATION

- 1.2.1 The AES President has overall responsibility for the design, construction, startup, and operation of the Eagle Rock Enrichment Facility.
- 1.2.2 The AES President has overall responsibility for the Quality Assurance (QA) Program and for determining the status, adequacy, and effectiveness of the QAPD.
- The AES President has designated the Vice President Engineering and 1.2.3 Engineering, Procurement and Construction (EPC) Project Manager the responsibility for design, construction, procurement, and initial start-up for the Eagle Rock Enrichment Facility. The QAPD is binding on all AES and contractor personnel involved with the Eagle Rock Enrichment Facility.
- 1.2.4 A Deputy EPC Project Manager may assist the EPC Project Manager in planning and implementation of EPC activities.
- 1.2,5 The AES President has designated the Plant Manager the responsibility for operation, maintenance, and associated support activities for the Eagle Rock Enrichment Facility.
- The QA Manager reports to the AES President and has independent oversight 1.2,6 responsibility for implementation of the QAPD. The QA Manager has direct access to the AES President for QA matters.

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	responsibility for performing audits related to the implementation of the QA Program.	
1.2 <u>.8</u> _	The Quality Assurance Inspectors report to the QA Manager and have the responsibility for performing inspections related to the implementation of the QA Program.	Deleted: 7
1.2, <u>9</u>	The Quality Assurance Technical Support personnel report to the QA Manager and have the responsibility for providing technical support related to the implementation of the QA Program.	Deleted: 8
1.2,1(	The Operations Manager reports to the Plant Manager and is responsible for day-to-day facility operations activities at the Eagle Rock Enrichment Facility. Inherent in this responsibility is the assurance that the operations are conducted safely and in compliance with license conditions. The Operations Manager is also responsible for the plant maintenance function, which includes activities to assure that Items Relied On For Safety (IROFS) are reliable and available when needed.	Deleted: 9
1.2 <u>,11</u>	The Production Managers report to the Operations Manager. The Production Managers are responsible for enrichment operations, feed and withdrawal operations, utilities, shift operations, packaging, and transportation.	Deleted: 10
1.2 <u>,12</u>	The Production Supervisors report to their respective Production Manager. The Production Supervisors are directly responsible for control of materials, personnel, equipment and activities in specific areas. These responsibilities include assuring that formal approved procedures are available and adhered to by operators and other applicable personnel.	Deleted: 11
1.2 <u>,13</u>	The Maintenance Manager reports to the Operations Manager. The Maintenance Manager is responsible for safe and reliable performance of preventive and corrective maintenance and support services on systems, structures, and components (including IROFS), and for integrated planning and scheduling.	Deleted: 12
1.2 <u>,14</u>	The Uranium Management Manager reports to the Plant Manager. The Uranium Management Manager is responsible for UF <sub>6</sub> cylinder management (including compliance with transportation requirements) and directing the scheduling of enrichment operations to ensure smooth enrichment process output. This includes activities such as ensuring proper feed material and maintenance equipment are available for the facility.	Deleted: 13
1.2,15	The Training Manager reports to the Plant Manager. The Training Manager is responsible for the development, implementation, and administration of the plant training programs, including maintenance of the plant training database. The training programs provided and/or coordinated by the Training Manager address qualifications of workers to perform work as well as required safety training.	Deleted: 14
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1.2 <u>,16</u>	The Project Manager reports to the Plant Manager. The Project Manager has the overall responsibility for managing the engineering, construction, initial startup and procurement activities of facility modifications and expansion. This involves managing the work and contracts with the Technology Supplier (Enrichment Technology Company (ETC)).	<b>Deleted:</b> 15
1.2 <u>,17</u>	The Engineering Manager reports to the Project Manager. The Engineering Manager is responsible for site characterization; facility design and the design control process; configuration management; engineering; and acceptance test coordination, including test control of facility modifications and expansion. The Engineering Manager is also responsible for records management and document control, and approving disposition of nonconforming items when dispositioned as "repair" or "use-as-is" during operations.	Deleted: 16
1.2 <u>,18</u>	The Procurement Manager reports to the Project Manager. The Procurement Manager is responsible for procurement; providing procurement material control services (including supplier qualification coordination, purchasing, contracting, receiving and control of nonconforming items); and material control (including handling, storage and shipping). The Procurement Manager is also responsible for supply strategy and development of qualified long-lead-time and complex-system suppliers.	<b>Deleted:</b> 17
1.2 <u>,19</u>	The Construction Manager reports to the Project Manager. The Construction Manager is responsible for managing the construction of facility modifications and expansion to the Eagle Rock Enrichment Facility. This responsibility includes managing the activities of qualified contractors who are tasked with the preparation of construction documents and the construction of facility modifications and expansion.	<b>Deleted:</b> 18
1.2 <u>.20</u>	The Startup Manager reports to the Project Manager. The Startup Manager is responsible for the overall preoperational and startup test program of facility modifications and expansion. This individual is responsible for the development of preoperational and startup test procedures, providing technical advice to personnel conducting the tests, briefing personnel responsible for operation of the plant during the tests, ensuring that the tests are performed in accordance with the applicable procedures, and generating test reports.	<b>Deleted:</b> 19
1.2 <u>21</u>	The Environmental, Health, Safety, and Licensing Manager reports to the Plant Manager. The Environmental, Health, Safety, and Licensing Manager has the overall responsibility for the development and implementation of programs addressing worker health and safety; environmental protection; and licensing/permitting, including monitoring compliance with those licenses and permits. The Environmental, Health, Safety, and Licensing Manager is responsible for the following areas: nuclear criticality safety, radiation protection/chemistry, environmental protection, integrated safety analysis, industrial hygiene and safety, chemical safety, fire protection, security, emergency preparedness, licensing and compliance, and nuclear material safeguards. The responsibility of the Environmental, Health, Safety, and Licensing Manager, with respect to operations, is only to confirm the safety of these operations. However, the Environmental, Health, Safety, and Licensing	<b>Deleted:</b> 20

Eagle Rock Enrichment Facility QAPD

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Manager has the authority to order shutdown and approve re-start of operations that are judged to be unsafe for continued operation or non-compliant with applicable regulatory requirements.

- 1.2.22 The Nuclear Criticality Safety Manager reports to the Environmental, Health, Safety, and Licensing Manager. The Nuclear Criticality Safety Manager is responsible for the development and implementation of the nuclear criticality safety program. Key responsibilities include the performance of nuclear criticality safety analyses and evaluations of applicable operations involving special nuclear material and changes to those operations; establishing limits and controls based on those analyses and evaluations; assuring the proper incorporation of limits and controls into applicable procedures and instructions; and monitoring plant compliance with nuclear criticality safety requirements.
- 1.2.23 The Radiation Protection/Chemistry Manager reports to the Environmental, Health, Safety, and Licensing Manager. The Radiation Protection/Chemistry Manager is responsible for the development and implementation of the programs to limit personnel radiological exposures and environmental impacts associated with facility operations, including the As Low As Reasonably Achievable (ALARA) program. The Radiation Protection/Chemistry Manager is also responsible for the implementation of chemistry analysis programs and procedures for the facility. In matters involving radiological protection, the Radiation Protection/Chemistry Manager has direct access to the Plant Manager.
- 1.2.24 The Safety, Security, and Emergency Preparedness Manager reports to the Environmental, Health, Safety, and Licensing Manager. The Safety, Security, and Emergency Preparedness Manager is responsible for implementation and maintenance of the integrated safety analysis, industrial hygiene and safety, chemical safety, fire protection, security, and emergency preparedness.
- 1.2,25 The Licensing and Compliance Manager reports to the Environmental, Health, Safety, and Licensing Manager. The Licensing and Compliance Manager is responsible for regulatory oversight functions, regulatory and environmental compliance, facility change process, and commitment management.
- 1.2.26 The Safeguards Manager reports to the Environmental, Health, Safety, and Licensing Manager. The Safeguards Manager is responsible for ensuring the proper implementation of the Fundamental Nuclear Material Control Plan. This position is separate from and independent of other departments to ensure a definite division between the safeguards group and the other departments. In matters involving safeguards, the Safeguards Manager has direct access to the Plant Manager.
- 1.2.27 The Information Technology (IT) Manager reports to the Project Manager and is responsible for maintaining all computer software programs related to the nuclear material accounting at EREF. This individual is also responsible for EREF computer database for generation of nuclear material control charts.

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1.2.28 A Safety Review Committee (SRC) is established to assist with the safe operation of the facility. The SRC reports to the President and provides technical and administrative review and evaluation of operations that could impact plant worker safety, public safety, or the environment.

### 1.3 QA RESPONSIBILITIES

The QA Manager is responsible for independent oversight of Eagle Rock Enrichment Plant activities covered by this QAPD. This includes maintenance of the QAPD and assessing its effective implementation. This includes the responsibility and authority for:

- 1.3.1 Maintaining the QAPD for the Eagle Rock Enrichment Facility;
- 1.3.2 Reviewing and approving implementing procedures;
- 1.3.3 Reviewing and approving supplier QA programs;
- 1.3.4 Providing oversight of supplier QA program implementation;
- 1.3.5 Performing QA technical reviews of procurement documents;
- 1.3.6 Maintaining the Approved Suppliers List (ASL);
- 1.3.7 Administering the corrective action and nonconformance process;
- 1.3.8 Administering the Auditor and Lead Auditor certification process;
- 1.3.9 Monitoring the implementation of the QAPD and assessing the effectiveness of the QAPD through audit and surveillance;
- 1.3.10 Investigating any aspect of the QAPD to identify problems with execution and to verify that corrective action is taken in a timely manner;
- 1.3.11 Stopping unsatisfactory work or controlling further processing when warranted for safety considerations;
- 1.3.12 Attending status meetings, and staying abreast of day-to-day activities to ensure adequate oversight;
- 1.3.13 Providing quality control activities for purchased and in-house manufactured items.

### 1.4 QUALITY PHILOSOPHY

The organizational philosophy regarding Quality is based on the following principles:

1.4.1 Quality is achieved by those responsible for performing work. This includes identifying, correcting, or recommending solutions for quality problems.

Eagle Rock Enrichment Facility QAPD

