



May 20, 2003

Mr. Mario Robles, Manager  
Advanced Technology Licensing  
U. S. Enrichment Corporation Inc.  
6903 Rockledge Drive  
Bethesda, MD 20817-1818

**SUBJECT: REQUEST FOR ADDITIONAL INFORMATION ON THE UNITED STATES  
ENRICHMENT CORPORATION INC.'S GAS CENTRIFUGE QUALITY  
ASSURANCE PROGRAM DESCRIPTION**

Dear Mr. Robles:

We have completed the initial technical review of the United States Enrichment Corporation Inc.'s (USEC's) Gas Centrifuge Quality Assurance Program Description (QAPD), Revision 0, transmitted by letter dated February 3, 2003. The review was begun on the original QAPD version transmitted by letter dated July 19, 2002. We note that the QAPD is in support of your License Application for the Gas Centrifuge Lead Cascade Facility (Lead Cascade), dated February 11, 2003, and addresses all design, procurement, fabrication, refurbishment, startup testing, operations and modification activities associated with the Lead Cascade facility.

Our technical review of the QAPD has identified the need for additional information or clarifications as indicated in the attachment. Please submit responses to the comments and any QAPD changes within 30 days of this letter. If you have any questions regarding these actions, I can be reached at (301) 415-8113.

Sincerely,  
**/RA/**

Yawar H. Faraz, Project Manager  
Special Projects Section  
Special Projects and Inspection Branch  
Division of Fuel Cycle Safety  
and Safeguards, NMSS

Docket: 70-7003

Enclosure: Request for Additional Information  
USEC Inc. Gas Centrifuge (QAPD) Revision 0

cc: William Szymanski,DOE Headquarters      Dan Minter,SODI  
James Curtiss,W&S                                      Randall DeVault,DOE Oak Ridge  
Rod Krich,LES    Michael Marriotte,NIRS

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**Request for Additional Information on U.S. Enrichment Corporation Inc.'s  
Gas Centrifuge Quality Assurance Program Description, Revision 0**

- 1(a) Please clarify in Quality Assurance Program Description (QAPD) Section 1.0, "Organization," and Section 2, Quality Assurance "(QA) Program," the functions and responsibilities of the Nuclear Safety and Quality Manager for oversight and verification of the design, procurement and refurbishment process. This should include the activities of all project organizations, internal and external interfaces, and major subcontracted functions.
- 1(b) Please describe those QA measures planned to assure that the assumptions, conclusions and recommendations related to the consequences and likelihood of identified accident sequences described in the Integrated Safety Analysis, remain valid over the operational life of the facility.
- 2(a) QAPD Section 2, "QA Program," presents graded QA categories for structure, system, and components (SSCs) and items relied on for safety (IROFS) for a graded application of QA controls, and defines criteria for Quality Levels (QL), QL-1 through QL-3. Please clarify the process, criteria and methods for categorizing and designating quality levels and for applying the appropriate QA controls to IROFS. A description of the overall "design/QL decision/control application process may adequately provide this clarification. This clarification should also address the QA oversight of this process and verification of its implementation during design, procurement, refurbishment, testing and operation. Describe how the grading process and assignment of QA controls are implemented to provide adequate assurance that the IROFS functions will be available when needed and reliable.
- 2(b) Please explain the phrase "a control or IROFS" contained in QAPD Section 2, paragraph 1. Is a control an IROFS? Also clarify whether QL-2 and -3 SSCs are IROFS or not.
- 2(c) Please clarify the Quality Level classification criteria as they would be applied to sole IROFS for events in which more than one IROFS is applied. For example, if IROFS A is a sole preventive IROFS and IROFS B and C are additional mitigative IROFS, clarify whether IROFS A would be QL-1 or QL-2. In addition, for this example, clarify the QL level for IROFS B and C.
- 3 Please clarify QAPD Section 2, "Quality Assurance Program," Item 12, which states that QA training is provided to all personnel performing quality affecting activities "as determined by supervision" by addressing the QA department's role in defining what activities affect quality and require training, what the training will cover, and confirm that these requirements will be addressed by appropriate QA procedures.
- 4(a) QAPD Section 3, Design Control, Paragraph 10, states that design information that is incomplete, preliminary, or unverified, is not required to be collected, stored and maintained. Please clarify how "design information" that is not required to be collected, stored and maintained is controlled in the design process. This clarification should include the procedural requirements to assure and verify that incomplete, preliminary, or

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unverified design information has not been utilized within design organizations and has not been transmitted across interfaces or otherwise utilized.

- 4(b) In QAPD Section 3, Design Control, Paragraph 5, please commit to NQA-1, Part II, Subpart 2.7, "QA Requirements for Computer Software For Nuclear Facility Applications" for computer software which is used to produce or manipulate data used in the design, analysis and operation of IROFS.
- 5(a) QAPD Section 5, Instructions, Procedures, and Drawings, Subsection 2 states that "the QA organization reviews and approves selected QA implementing procedures for compliance and consistency with this QAPD." Please describe the full or partial scope and function of the QA organization in this area. Clarify why the QA organization does not approve all "QA implementing procedures," and identify the basis and process for selecting the procedures to review. If lower tier procedures or implementing organization procedures implement QA requirements, they may not necessarily have to be "QA procedures." The review, approval, verification, and oversight requirements should be identified.
- 5(b) In QAPD Section 5, please specify that the QA organization reviews and approves instructions, procedures and drawings for compliance with all applicable regulatory, licensing, and technical requirements, such as the regulations contained in Subpart H of 10 CFR Part 70, as well as compliance and consistency with the QAPD.
- 6 In QAPD Section 6, please describe the document control applicability, methods, and system, including features such as a master list or equivalent. Identify the types of documents that are controlled. Clarify whether a master list or equivalent, that is updated and distributed to predetermined personnel in a timely manner, will be established to identify the current revision of instructions, procedures, specifications, drawings, and procurement documents.
- 7(a) Please clarify the organizational responsibilities for the various procurement activities covered by QAPD 4.0, "Procurement Document Control," and 7.0, "Control of Purchased Material, Equipment, and Services." Specifically describe the interfaces and interactions for controlling these activities between the QA, design engineering, and procurement organizations.
- 7(b) Please clarify the project and QA management responsibilities for preparing and controlling an approved suppliers list, supplier selection, procurement document preparation and approval, bid evaluation, review of supplier-generated documents, acceptability of items in-work, delivered items and services (activities), resolution of supplier nonconformances and procurement and supplier records.
- 7(c) Please describe how the commitments and process described in QAPD Section 7 "Control of Purchased Items and Services" interface and function with the QA categorization process described in QAPD Section 2 "Quality Assurance Program."
- 7(d) Please clarify how the requirements for dedication and acceptance of commercial grade

items and services in QAPD Section 7, pages 17 and 18, will provide reasonable assurance that the IROFS will be reliable and available to perform their functions, when needed, consistent with the performance requirements of 10 CFR 70.61.

- 8(a) QAPD Section 7.0, "Control of Purchased Items and Services," contains statements that an IROFS supplier's QA program is acceptable if it meets various consensus standards, including International Standardization Organization 9000 series, American National Standards Institute Z540-1 and 10 CFR 830.120. These consensus standards may be appropriate for a particular procurement, however this should be based on an appropriate evaluation of the supplier's programs for the procurement scope and the product or service being procured. As such, in the QAPD, please indicate that the acceptability of the QA program would also depend on U.S. Enrichment Corporations' (USEC's) review of the IROFS supplier's QA program conducted during the initial supplier selection process and as part of periodic audits or evaluations of the QA program.
- 8(b) Section 7, Control of Purchase Items and Services, Paragraph 1.d under Noncommercial Grade Items and Services states that a USEC review of third party Nuclear Industry Assessment Committee (NIAC) audits ensures that the QA program requirements "have been met." It is not clear how USEC's review of NIAC provides adequate assurance that a supplier's QA program and its implementation is adequate for all USEC procurements. As such, the wording of this paragraph should state a requirement that the review must verify that the USEC requirements have been met.
- 9 Please include commitments and requirements for retention, receipt, storage, retrieval and disposition of nonpermanent records. QAPD Section 17, "Quality Records," addresses requirements for lifetime records, but does not include requirements for nonpermanent records.
- 10(a) Please identify in QAPD Section 18, "Audits," the basis and criteria for determining the audit scope and frequency. Specify minimum frequencies for internal audits of project activities. Also, provide the basis for not auditing QL-2 suppliers.
- 10(b) In Section 18 of the QAPD, please commit to verifying that operations are being conducted in accordance with regulatory requirements and commitments in the license application.
- 11 QAPD Section 19, "Provisions for Changes," please identify the provisions for continuing QA, including notifying the U.S. Nuclear Regulatory Commission (NRC) of changes in the implementation of the QA program. QAPD change pages should be submitted to the NRC if the changes involve QAPD commitments that address or implement requirements of 10 CFR Part 70.61 through 70.64, including QL definitions, SSC/IROFS categorization, and application of graded QA.