UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SW, SUITE 23T85
ATLANTA, GEORGIA 30303-8931

August 23, 2007

Mr. Peter J. Miner, Director
Regulatory and Quality Assurance
USEC Inc.
6903 Rockledge Drive
Bethesda, MD 20817

SUBJECT: NRC INSPECTION REPORT NO. 70-7004/2007-001 AND NOTICE OF VIOLATION

Dear Mr. Miner:

During the week of July 16-19, 2007, the US Nuclear Regulatory Commission (NRC) completed a quality assurance inspection of the design and procurement activities associated with the pre-construction activities of the American Centrifuge Plant. The enclosed inspection report documents the inspection results, which were discussed on July 19, 2007, with members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, one violation of NRC requirements was identified regarding the authorization of the primary construction contractor as a Quality Level - 1 supplier with no limitations without having examined objective evidence that all elements of the contractor's Quality Assurance Program were being implemented.

In accordance with 10 CFR 2.390 of NRC's "Rules of Practice," a copy of this document and its enclosures may be accessed through the NRC's public electronic reading room, Agency-Wide Document Access and Management System (ADAMS) on the Internet at http://www.nrc.gov/reading-rm/adams.html.

Should you have any questions concerning this letter, please contact us.

Sincerely,

/RA/

Jay L. Henson, Chief
Fuel Facility Inspection Branch 2
Division of Fuel Facility Inspection

Docket No. 70-7004
License No. SNM-2011

Enclosures: 1. Notice of Violation
2. NRC Inspection Report 70-7004/2007-001

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ADAMS: X Yes ACCESSION NUMBER:_____

OFFICE	RII:DFFI	RII:DCI	RII:DCI	HQ:NMSS	RII:DFFI		
SIGNATURE	DH for 8/22	DH for 8/22	DH for 8/22	DH for 8/22	DH 8/22		
NAME	GWertz	S Lewis	J. Fuller	P. Bell	D. Hartland		
DATE	8/ /2007	8/ /2007	8/ /2007	8/ /2007	8/ /2007	8/ /2007	8/ /2007
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

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NOTICE OF VIOLATION

USEC Inc.
Piketon, Ohio

Docket No. 70-7004
License No. SNM-2011

During the NRC inspection conducted between July 16-19, 2007, one violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedures for NRC Enforcement Actions," NUREG-1600, the violation is listed below:

> Condition 10 of NRC License Number SNM-2011 states, in part, that the licensee shall conduct authorized activities at the American Centrifuge Plant in accordance with the statements, representations, and conditions, or as revised in accordance with Section 19 of the Quality Assurance Program Description (QAPD), 10 CFR 40.35(f), 10 CFR 51.22, 10 CFR 70.32, 10 CFR 70.72, or 10 CFR 95.19 in QAPD dated August 23, 2004, and supplements thereto.
>
> Section 18.2 of the QAPD, “External Audits,” requires, in part, that external audits are performed to verify acceptability of Quality Level (QL) -1 suppliers. Objective evidence is examined to determine if the QAPD elements are being implemented effectively.
>
> Contrary to the above, on May 3, 2007, the licensee authorized its primary construction contractor as a QL-1 supplier with no limitations without having examined objective evidence that all elements of the contractor’s QAPD were being implemented effectively.

This is a Severity Level IV violation (Supplement VI).

Pursuant to the provisions of 10 CFR 2.201, USEC Inc., is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555 with a copy to the Regional Administrator, Region II within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a “Reply to a Notice of Violation” and should include: (1) the reason for the violation, or, if contested, the basis for disputing the violation or severity level, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. Your response may reference or include previously docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, an order or a Demand for Information may be issued as to why the license not be modified, suspended, or revoked, or why such other action as may be proper should be taken. Where good cause is shown, consideration will be given to extending the response time.

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

Your response will be considered sensitive information and will not be made available for public inspection in the NRC Public Document Room or in the NRC’s document system (ADAMS).

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days.

Dated this 23rd day of August, 2007

U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.:	70-7004
License No.:	SNM-2011
Report No.:	70-7004/2007-001
Licensee:	USEC Inc.
Location:	Piketon, Ohio
Inspection Dates:	July 16 - 19, 2007
Inspectors:	D. Hartland, Team Leader, Region II P. Bell, Quality Assurance Analyst, NMSS J. Fuller, Construction Inspector, RII S. Lewis, Construction Inspector, RII G. Wertz, Senior Resident Inspector, BWXT
Approved:	Jay L. Henson, Chief Fuel Facility Inspection Branch 2 Division of Fuel Facility Inspection

Enclosure 2

EXECUTIVE SUMMARY

USEC Inc.
American Centrifuge Plant
NRC Inspection Report No. 70-7004/2007-001

This team inspection was conducted by regional inspectors and a quality assurance specialist during normal shifts and involved observation and evaluation of the licensee's implementation of its quality assurance program. The scope of this inspection included a review of design, document, and test control; procurement activities; training; audits and assessments; and, the corrective action program. The inspection identified the following aspects of the licensee's programs as outlined below:

Program Development and Implementation

- The organizational structure, functional responsibilities, delegations of authority, and interfaces for managing, performing, and assessing work were properly established and functioning. One inspector followup item was identified regarding licensee actions to prevent assessments from being performed by individuals directly responsible for the specific activities being assessed. (Section 2).

Design Control

- The documentation that identified the important steps in the design verification process, including sources of design inputs that support the final design, was being maintained, adequately controlled, and verified in accordance with the Quality Assurance Program Description (QAPD). (Section 3)

Control of Materials, Equipment, and Services

- The licensee had approved adequate procedures to implement QAPD requirements for the procurement control and commercial grade item dedication programs. (Section 4.a)

- The licensee had approved adequate procedures that implemented QAPD requirements for the proper handling, storage, and shipping of Quality Level (QL) -1 and QL-2 items to prevent damage or deterioration during shipping and storage. The inspectors also verified that the licensee's procedures required that identification was maintained on the QL-1 and QL-2 items or on documents traceable to the items. (Section 4.b)

- Two inspector followup items were identified regarding control of special processes. The first involved the licensee's revision to its liquid penetrant inspection procedure to properly incorporate the ASME code requirements. The other was related to documentation necessary to support the qualifications of the licensee's liquid penetrant Level III inspector. (Section 4.c)

- The licensee had properly implemented the QAPD requirements for nonconforming materials, parts, and components that provided a process for controlling items that did not conform to specified requirements. (Section 4.d)

Inspection, Test Control, and Control of Measuring and Test Equipment

- The licensee had properly implemented the QAPD requirements for procurement inspection activities and acceptance testing. (Section 5.a)

- Test control procedures appropriately implemented requirements of the QAPD. A review of completed work orders indicated effective planning, performance, and documentation of test results. (Section 5.b)

- The measuring and test equipment (M&TE) requirements of the QAPD were properly implemented by site procedures. M&TE was observed to be properly used, stored, and calibrated. M&TE discovered to be out-of-calibration was properly evaluated. A quality assurance (QA) audit of the M&TE program was comprehensive, and no significant deficiencies were identified. (Section 5.c)

Problem Identification, Resolution and Corrective Action

- The corrective action program was effectively implemented as required by the QAPD and site procedures. (Section 6)

10 CFR, Part 21, Inspection-Facility Construction

- The licensee had properly implemented the QAPD requirements related to 10 CFR Part 21, “Reporting of Defects and Noncompliance.” (Section 7)

Document Control/Electronic Management of Data

- Documents were prepared, reviewed, approved, and distributed and records were maintained and controlled in accordance with the QAPD requirements. Electronic document control was consistent with the QAPD and procedures. (Section 8)

Supplier/Vendor Inspection

- One violation was identified regarding the authorization of the primary construction contractor as a QL-1 supplier with no limitations without having examined objective evidence that all elements of the contractor’s Quality Assurance Program were being implemented. (Section 9)

Safety Function Interfaces

- Safety functional interfaces were defined with the level of detail necessary to assure that technical requirements specified in the integrated safety analysis and design engineering interface documents were sufficiently applied to ensure design integrity through compliance with technical, engineering, safety, and design requirements. (Section 10)

Strike Contingency

- The licensee's strike contingency plan ensured that staffing and other regulatory requirements would be met. (Section 11)

Attachment:
Persons Contacted
Inspection Procedures
List of Items Opened, Closed, and Discussed
List of Acronyms Used

REPORT DETAILS

1. Summary of Facility Status

The licensee's oversight of the preparation and implementation of site construction activities continued throughout this reporting cycle. During this reporting cycle, no safety-related construction activities had commenced.

2. Program Development and Implementation (Inspection Procedure (IP) 88106)

a. Scope and Observations

The inspectors reviewed selected elements of the licensee's functional organization and Quality Assurance (QA) Program structure to ensure they were in accordance with the approved American Centrifuge Plant (ACP) Quality Assurance Program Description (QAPD). Elements chosen for inspection included the organizational structure, QA training, and management assessments.

The roles, responsibilities, and interfaces of the various functional areas of the project were defined in plant procedures. The organizational structure, functional responsibilities, delegations of authority, and interfaces for managing, performing, and assessing work were properly established and functioning.

The inspectors reviewed the process for indoctrination, training, and qualification of personnel performing activities affecting quality to verify that it met the requirements of Section 2 of the QAPD. Procedure ACD2-TP-002, "Training Program," provided guidance for the development and implementation of the training program which applied to ACP employees and its subcontractors. The procedure also described responsibilities for defining and tracking job specific training. The inspectors reviewed personnel training records and specific training requirements for those individuals authorized to perform QA audits and verified the licensee had properly maintained and periodically reevaluated the records in accordance with the procedure.

The licensee's program for audits and assessments was intended to evaluate the effectiveness and implementation of QAPD. Audits were independently planned and documented evaluations performed by the QA organization. Assessments were performed by line management responsible for implementing portions of the QAPD to verify self-compliance.

The inspectors noted that some assessments (i.e., radiation protection) appeared to have been conducted by individuals directly responsible for the specific activity being assessed which could have represented a potential compromise in interest. In response, the licensee initiated Condition Notification (CN) No. 1120 and stressed with organization managers to be careful who they assign to future

assessments until specific controls were implemented that would preclude future problems. Licensee actions to prevent assessments from being performed by individuals directly responsible for the specific activities being assessed is Inspector Followup Item (IFI) 70-7004/2007-001.

Both assessments and audits were required to be conducted in accordance with approved procedures by qualified personnel. The audit and assessment schedules indicated that activities being assessed were commensurate with the safety significance of ongoing activities. Documentation and distribution of findings to appropriate management for review and response was required. Interface with the QAPD corrective action process to ensure timely and effective corrective action was an integral part of the overall program.

b. Conclusions

The organizational structure, functional responsibilities, delegations of authority, and interfaces for managing, performing, and assessing work were properly established and functioning. One IFI was identified regarding licensee actions to prevent assessments from being performed by individuals directly responsible for the specific activities being assessed.

3. Design Control (IP 88107)

a. Scope and Observations

The inspectors reviewed various project implementing procedures that specified engineering and design process activities required by the QAPD. The inspectors specifically reviewed Engineering Procedures ACD3-EG-205, “Engineering Evaluations,” ACD3-EG-401, “Design Reviews/Verifications,” and ACD2-EG-009, “Processing Modification and Project Changes.” These procedures provided specific instructions to personnel regarding the preparation, review and approval, and revision of design documents, as well as instructions pertaining to the development of system requirements documents, calculation preparation, specification development, drawing preparation, and other technical information.

Inspectors reviewed the system requirements document (SRD) for the Recirculating Heating Water System, SRD-3509-0001. The preliminary information presented in the SRD was determined to be consistent with the functional requirements described in technical basis information. The methodology used by the licensee for the engineering design process was uniform and the basis of information was consistent with design input information, design constraints, and intermediate output documents such as design studies, analyses, and calculations. Controlled documents were being used to convey system requirements resulting in the coordination of design input and output requirements. In addition, these methods were used to identify, correlate, and translate engineering design process information from preliminary design to the final design.

The engineering design process and document control elements used to establish and maintain facility design requirements, establish system and process boundaries, and

assign structures, systems and components and items relied on for safety based on the associated design requirements were found to be in accordance with procedural requirements. The inspectors observed that design information entered into the change control system included provisions for technical management, evaluation, and timely resolution of changes in accordance with QAPD commitments. The resolution process used to evaluate engineering changes was governed by management measures, and those applied to the original design were considered acceptable.

Inspectors reviewed the licensee's design verification process by examining Engineering Procedures ACD3-EG-401, "Design Reviews/Verifications," and ACD2-EG-002, "Configuration Management Program Description." The inspectors observed that design verifications and change control provisions were performed in a manner that included the necessary provisions to define and document design inputs; adhered to the appropriate design constraints; and, documented the technical analysis of changes and design assumptions that were required to verify that the design process proceeded logically from the design basis.

Engineering calculation controls used by the licensee were noted by the inspectors as providing a mechanism to perform, plan, and verify design analysis. The design calculation (DAC) cover sheets for the feed, product, shipping, and receiving areas (DAC-X-3346A) were reviewed by inspectors. DACs for Building X-3346, Sampling and Transfer Area, contained sufficiently detailed design information regarding the scope, purpose, method, design input, and logical assumptions used during design analysis.

The inspectors noted that the seismic software used to calculate Building X-3346 seismic loads required the building to be designed to withstand a 10,000 year design basis event. Inspectors reviewed the adequacy of the design-based assumptions used in structural steel calculations and whether the software results were appropriately tested to determine the accuracy of the calculation.

A subsequent review by inspectors of an internal audit conducted by the licensee's construction contractor of its compliance with Subpart 2.7 of ASME NQA -1-1994, "Quality Assurance Requirements of Computer Software for Nuclear Facility Applications," indicated that the qualification process for computer software used in Quality Level (QL) - 1 and QL-2 design applications lacked the appropriate documentation of in-use tests of software. In response, the licensee initiated CN No. 1119 and subsequently ensured that the contractor implemented procedural guidance that identified the important steps in the design verification process, including sources of design inputs that supported the final design were being maintained, adequately controlled, and verified.

b. Conclusions

The documentation that identified the important steps in the design verification process including sources of design inputs that support the final design were being maintained, adequately controlled, and verified in accordance with the QAPD.

4. Control of Materials, Equipment, and Services (IP 88108)

a. Procurement Control System (03.01)
Commercial-Grade Item Dedication (03.06)

(1) Scope and Observations

The inspectors reviewed the QAPD implementing procedures for the commercial grade item dedication program to be used at the ACP. The inspectors verified that the program definitions were established and described and were consistent with QAPD and other regulatory requirements. At the time of the inspection no commercial grade items had been procured.

In order to assess whether the procurement of QL-1 and QL-2 equipment and services were adequately controlled to assure conformance with QAPD requirements, the inspectors reviewed both the procurement programs of the licensee and the licensee's primary contractor including the applicable QAPD implementing procedures.

The inspectors reviewed the licensee's approved supplier's list (ASL) and the ASL of its primary contractor to evaluate the measures used for evaluating and selecting procurement sources. The inspectors reviewed the procurement packages for two QL-2 items and compared the packages to the appropriate QAPD implementing procedures. The inspectors reviewed a sample of QL-2 nonconformance reports and verified that the licensee had properly implemented its procedures for disposition of items and services that did not meet procurement documentation requirements.

(2) Conclusions

The licensee had approved adequate procedures to implement QAPD requirements for the procurement control and commercial grade item dedication programs.

b. Identification and Control of Material, Parts, and Components (03.02)
Handling, Storage, and Shipping (03.04)

(1) Scope and Observations

The inspectors reviewed the licensee's quality assurance procedures for the identification and control of material, parts, and components. The inspectors verified that the licensee's procedures required that identification was maintained on the QL-1 and QL-2 items or on documents traceable to the items. The inspectors also determined that the licensee had approved adequate procedures for implementing QAPD requirements for the proper handling, storage, and shipping of QL-1 and QL-2 items to prevent damage or deterioration during shipping and storage.

The inspectors were unable to verify the effectiveness of the procedures since the licensee has not received any QL-1 or QL-2 items onsite for the ACP. However, the inspectors did conduct a walkdown of an intended receiving and storage area and noted that the licensee was implementing procedures for the control and storage of QL-3 items.

(2) Conclusions

The licensee had approved adequate procedures that implemented QAPD requirements for the proper handling, storage, and shipping of QL-1 and QL-2 items to prevent damage or deterioration during shipping and storage. The inspectors also verified that the licensee's procedures required that identification was maintained on the QL-1 and QL-2 items or on documents traceable to the items.

c. Control of Special Processes (03.03)

(1) Scope and Observations

At the time of the inspection, the licensee had not performed any special processes; however, the inspectors did review the licensee's procedures for qualification and certification of nondestructive testing personnel and the procedure for conducting liquid penetrant testing (PT) inspections.

The inspectors noted that Procedure ACD3-QM-105, "Liquid Penetrant Inspection," did not properly incorporate the requirements contained within Section V, Article 6 of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code in that the procedure did not include the minimum information necessary to perform an adequate PT examination. Specifically, the procedure did not contain the correct minimum dwell time for the developer application nor did it include proper guidance for how to remove the excess penetrant prior to the application of the developer. The use of this procedure could have masked indications.

Procedure ACD3-QM-105 had been approved for use on QL-1 and QL-2 components but had never been used by the licensee. In response to the issue, the licensee placed the procedure on hold pending further review and issued CN No. 1111. The licensee's

revision to its liquid penetrant inspection procedure to incorporate the ASME code requirements is an inspector followup item (IFI 70-7004/2007-001-02).

The inspectors also reviewed Procedure ACD3-QM-102, "Written Practice for Nondestructive Testing Inspectors," to determine if personnel involved with special processes that verified quality, such as nondestructive testing, were properly qualified in accordance with specified requirements. The inspectors reviewed the qualification and certification documentation for both the licensee's and the primary contractor's site PT Level III inspectors.

The inspectors noted that adequate documentation was not available at the time of the inspection to verify the qualifications of the licensee's Level III inspector. As an immediate action, the licensee suspended the inspector's qualification pending further review and issued CN No. 1116. Documentation to verify the qualifications of the licensee's PT Level III inspector is IFI 70-7004/2007-001-03.

(2) Conclusions

Two inspector followup items were identified regarding control of special processes. The first involved the licensee's revision to its liquid PT inspection procedure to properly incorporate the ASME code requirements. The other was related to documentation necessary to support the qualifications of the licensee's liquid PT Level III inspector.

d. Nonconforming Materials, Parts, or Components (03.05)

(1) Scope and Observations

The inspectors reviewed the QAPD implementing procedures for nonconforming materials, parts, or components and verified that the procedures provided a process for controlling items that did not conform to specified requirements. At the time of the inspection, the licensee had not procured any QL-1 or QL-2 items specifically for the ACP but had identified several nonconformances with QL-3 items and a nonconformance related to a QL-2 component that had been in storage and was to be refurbished for use in the commercial plant. The inspectors reviewed a sample of these nonconformance reports and verified that the items were properly evaluated and dispositioned in accordance with the procedures such that any nonconforming item was controlled to prevent inadvertent installation or use.

(2) Conclusions

The inspectors determined that the licensee had properly implemented the QAPD requirements for nonconforming materials, parts, and components that provided a process for controlling items that did not conform to specified requirements.

5. Inspection, Test Control, and Control of Measuring and Test Equipment (IP 88109)

a. Inspection Requirements and Acceptance Testing (03.01)
Inspection and Test Activity Status Control (03.04)

(1) Scope and Observations

The inspectors reviewed a sample of receipt inspection records for QL-2 and QL-3 items received on site. The inspectors also reviewed a sample of test reports that were completed as part of QL-2 and QL-3 procurement packages. The inspectors verified that inspection requirements and acceptance criteria were contained in the applicable design documents and that those inspection activities were properly documented and controlled by instructions, procedures, drawings, and/or checklists.

(2) Conclusions

The licensee had properly implemented the QAPD requirements for procurement inspection activities and acceptance testing.

b. Test Control (03.02)

(1) Scope and Observations

The inspectors reviewed the requirements of Section 11 of the QAPD, “Test Control,” and implementing Procedures ACD2-MA-002, “Work Control Process;” ACD2-QM-003, “Acceptance Planning;” and ACD2-EG-018, “Post Maintenance Test Requirements for SSCs.” The inspectors also reviewed several work orders for QL - 2 items relied on for safety (IROFS).

Generally, test planning and performance, use of other documents, results, and documentation were appropriately described in the procedures and were performed and maintained in accordance with QAPD requirements. A minor post maintenance test discrepancy was identified in Work Order (WO) No. R0602100-01 by the inspectors and corrected by the licensee. CN No. 1114 was initiated to preclude recurrence.

(2) Conclusions

Test control procedures appropriately implemented requirements of the QAPD. A review of completed WOs indicated effective planning, performance, and documentation of test results.

c. Control of Measuring and Test Equipment (03.02)

(1) Scope and Observations

The inspectors reviewed the requirements of Section 12 of the QAPD, "Control of Measuring and Test Equipment," and implementing Procedures ACD2-MA-001, "Control of Measuring and Test Equipment," and ACD2-MA-003, "Calibration Program." The inspectors verified that the QAPD requirements for measuring and test equipment (M&TE) such as calibration controls and frequency, out-of-calibration response, records, and documentation were adequately described in the implementing procedures.

The inspectors reviewed the licensee's M&TE listing and noted that documentation related to equipment identification, description, serial number, range/accuracy and calibration frequency was maintained. The inspectors reviewed calibration records and out-of-calibration actions. Calibration records that were reviewed were accurate, and M&TE that was out-of calibration was properly evaluated and entered into the corrective action system.

The inspectors reviewed several CNs associated with M&TE that was out-of-calibration and noted effective engineering reviews had been performed to ensure that IROFS were not adversely impacted. The inspectors observed M&TE storage locations and observed work activities involving M&TE. The inspectors also reviewed the QA audit of the M&TE control and calibration program dated March 1, 2007. The audit was a comprehensive review of the M&TE program, and no significant deficiencies were identified.

(2) Conclusions

The M&TE requirements of the QAPD were properly implemented by site procedures. M&TE was observed to be properly used, stored, and calibrated. M&TE discovered to be out-of-calibration was properly evaluated. A QA audit of the M&TE program was comprehensive, and no significant deficiencies were identified.

6. Problem Identification, Resolution and Corrective Action (IP 88110)

a. Scope and Observations

The inspectors reviewed the corrective action program (CAP) requirements described in the QAPD and implementing Procedure ACD2-RG-004, "Corrective Action Process." The inspectors discussed CAP requirements with the Regulatory Manager and reviewed selected CNs.

As specified in the QAPD, CNs were identified, investigated, evaluated for significance, reported, tracked, and trended. In addition, Procedure ACD2-RG-004 provided guidance for safety significance determination, items requiring NRC reporting, root cause investigation, and actions to preclude recurrence. Safety significance criteria specifically delineated treatment of items which were identified as significant conditions adverse to quality and/or IROFS.

The inspectors reviewed several CNs noting they were appropriately evaluated for risk significance, entered into the CAP, investigated, and assigned actions to preclude recurrence. The inspectors interviewed several workers who indicated adequate understanding of the CAP.

The inspectors also reviewed the CAP for the licensee's primary construction contractor. Those requirements were delineated in Procedure FST-QST-ACP-002, "Corrective Action Process." Overall, those procedural requirements were consistent with the licensee's CAP. The inspectors reviewed several of the contractor's non-conforming reports that documented material deficiencies and noted appropriate review, evaluation, and corrective action of the items.

b. Conclusions

The CAP was effectively implemented as required by the QAPD and site procedures.

7. 10 CFR, Part 21, Inspection-Facility Construction (IP 88111)

a. Scope and Observations

Through review of the QAPD implementing procedures, the inspectors evaluated the licensee's program to determine compliance with 10 CFR Part 21. The inspectors observed one location where the licensee had posted information as required by 10CFR21.6, "Posting Requirements." The inspectors reviewed the only QL-1 procurement package available for review to ensure that the licensee had properly specified, where applicable, that the provisions of 10 CFR 21.31, "Procurement Documents," applied to the purchased material, equipment, and/or services.

There were no Part 21 evaluations available for review, but the inspectors did verify that the licensee procedure included the requirements of 10CFR21.21, "Notification of Failure to Comply or Existence of a Defect and Its Evaluation." Additionally, the inspectors verified that the licensee had appropriate controls to ensure the proper maintenance and storage of Part 21 records.

b. Conclusions

The licensee had properly implemented the QAPD requirements related to 10 CFR Part 21, "Reporting of Defects and Noncompliance."

8. Document Control and QA Records (IP 88107)
Control of the Electronic Management of Data (IP 88113)

a. Scope and Observations

The inspectors reviewed implementing procedures for document control and QA records to verify they were in accordance with Sections 6 and 17 of the QAPD. Procedure ACD2-PS-001, "Document Control Process," provided guidance for handling, distributing, and transmitting documents pertaining to all quality level activities, items, and services.

This procedure conformed with the QAPD in that it assured documents were reviewed for adequacy, approved for release by an authorized official, distributed, and adequately controlled. A variety of records such as drawings, calculations, audit reports, qualification records, specifications, and procurement documents were sampled to verify they were handled in accordance with the QAPD and procedure.

The inspectors evaluated the electronic data management system to verify electronic QA records were managed and maintained in accordance with Section 17 of the QAPD. Procedure ACD2-PS-002, "Records Management Process," outlined the administrative controls associated with the generation, identification, revision, control, and storage of records.

The inspectors verified that electronic records were being properly protected, stored, identified and were complete and accurate. The inspectors also observed how data was inputted into and retrieved from the electronic document control systems. The inspectors performed a visual inspection of the onsite storage facility and verified through a records review that backup tapes were sent to and stored at an offsite facility.

b. Conclusions

The inspectors determined that documents were prepared, reviewed, approved, and distributed and that QA records were maintained and controlled in accordance with the QAPD requirements. The inspectors also determined that electronic document control was consistent with the QAPD and procedures.

9. Supplier/Vendor Inspection (IP 88115)

a. Scope and Observations

The inspectors reviewed the audit requirements for suppliers and vendors as specified in QAPD Section 18.2, “External Audits.” Procedure ACD2-QM-005, “Supplier Control Program,” implemented the QAPD supplier quality control requirements. The inspectors reviewed the approved suppliers list (ASL) and the associated supplier evaluation form and licensee audit reports for the primary construction contractor.

The inspectors noted that licensee audits performed to date only assessed the contractor’s QAP elements related to corporate design. The inspectors also noted that the contractor approved a QL-1 supplier for structural steel before the licensee assessed the contractor’s QAP requirements related to supplier evaluations. Other elements related to site construction activities had not yet been reviewed as they had not yet been established including identification and control of items; control of special processes; inspection; test control; control of M&TE; handling, storage, and shipping; and, control of nonconforming items. Nevertheless, the inspectors noted the contractor had been approved as a QL-1 supplier with no restrictions despite the licensee not having reviewed all the QAP elements.

Condition 10 of NRC License Number SNM-2011 stated, in part, that the licensee shall conduct authorized activities at the ACP in accordance with the statements, representations, and conditions, or as revised in accordance with Section 19 of the QAPD, 10 CFR 40.35(f), 10 CFR 51.22, 10 CFR 70.32, 10 CFR 70.72, or 10 CFR 95.19 in QAPD dated August 23, 2004, and supplements thereto.

Section 18.2 of the QAPD, “External Audits,” required, in part, that external audits were performed to verify acceptability of QL-1 suppliers. Objective evidence was examined to determine if the QAPD elements were being implemented effectively. Contrary to the above, on May 3, 2007, the licensee authorized its primary construction contractor as a QL-1 supplier with no limitations without having examined objective evidence that all elements of the contractor’s QAP were being implemented effectively. This is violation (VIO) 70-7004/2007–001-04.

b. Conclusions

One VIO was identified regarding the authorization of the primary construction contractor as a QL-1 supplier with no limitations without having examined objective evidence that all elements of the contractor’s QAP were being implemented.

10. Safety Function Interfaces (IP 88116)

a. Scope and Observations

The scope of this inspection was to determine if major components and the safety function interfaces regarding the boundary of the system being described were adequately controlled, such that the principle structures, systems, and components and IROFS could be completed in accordance with the facility design bases and integrated safety analysis (ISA).

Inspectors reviewed the SRD for the Recirculating Heating Water System, SRD-3509-001 and the IROFS Boundary Determination Plan, CMP-3601-001, which included a comprehensive description of the system, safety features boundaries, and interfaces. The inspectors noted that system requirements documents were supported by details of the system being described with emphasis placed on the components' performance requirements.

Interfacing safety controls and the essential features of IROFS were fully described. Safety function interfaces were being applied during design through unambiguous quantitative standards through the selection of hazard analysis methods founded upon defense-in-depth and the preference for engineered controls over administrative controls. Management measures were applied as part of the inherent ISA description of IROFS which included safety-grading characteristics of each IROFS preventive, mitigative and other safety functions. Sufficient information was provided about engineering design and hardware by the licensee through ongoing documentary reviews of safety information, risk-informed reviews of IROFS, flow of design information, inter-disciplinary design reviews, and status updates of the design.

b. Conclusions

Safety functional interfaces were defined with the level of detail necessary to assure that technical requirements specified in the ISA and design engineering interface documents were sufficiently applied to ensure design integrity through compliance with technical, engineering, safety, and design requirements.

11. Strike Contingency (IP 92709)

a. Scope and Observations

The licensee's contract with the security force union was to expire on August 4, 2007. The inspectors reviewed the licensee's strike contingency plan and determined that it would ensure that staffing and other regulatory requirements would be met. The contract was extended until September 1 to allow more time for negotiation after the union voted to reject a contract offer on August 6.

b. Conclusions

The licensee's strike contingency plan ensured that staffing and other regulatory requirements would be met.

12. Exit Interview

The inspection scope and results were summarized on July 19, 2007. Although proprietary documents and processes may have been reviewed during this inspection, the proprietary nature of these documents or processes were deleted from this report. No dissenting comments were received from the licensee.

ATTACHMENT

1. PARTIAL LIST OF PERSONS CONTACTED

Licensee

S. Fout, Engineering Manager
P. Miner, Director, Regulatory and Quality Assurance
D. Rogers, Director, American Centrifuge Plant
T. Sensue, Acting Regulatory Manager
G. Smith, Quality Assurance Manager
B. Zeik, Plant Support Manager

Other individuals contacted included supervisors, engineers, and inspection, measurement, and testing technicians

2. INSPECTION PROCEDURES (IPs) USED

IP 88106	Quality Assurance: Program Development and Implementation
IP 88107	Quality Assurance: Design and Documentation Control
IP 88108	Quality Assurance: Control of Materials, Equipment, and Services
IP 88109	Quality Assurance: Inspection, Test Control, and Control of Measuring and Test Equipment (interim use-for reference only)
IP 88110	Quality Assurance: Problem Identification, Resolution and Corrective Action
IP 88111	10 CFR, Part 21, Inspection-Facility Construction
IP 88113	Control of the Electronic Management of Data
IP 88115	Supplier/Vendor Inspection
IP 88116	Inspection of Safety Function Interfaces for the Mixed Oxide Fuel Fabrication Facility
IP 92709	Licensee Strike Contingency Plans

3. LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Item	Status	Description
IFI 70-7004/2007-001-01	Open	Licensee actions to prevent assessments from being performed by individuals directly responsible for the specific activities being assessed (Section 2).
IFI 70-7004/2007-001-02	Open	The licensee's revision to its liquid PT inspection procedure to incorporate the ASME code requirements (Section 4.c).

IFI 70-7004/2007-001-03	Open	Documentation to verify the qualifications of the licensee's liquid PT Level III inspector (Section 4.c).
VIO 70-7004/2007-001-04	Open	The licensee authorized its primary construction contractor as a QL-1 supplier with no limitations without having examined objective evidence that all elements of the contractor's QAP were being implemented (Section 9).

4. LIST OF ACRONYMS USED

ACP	American Centrifuge Plant
ASME	American Society of Mechanical Engineers
ASL	Approved Suppliers List
CAP	Corrective Action Program
CN	Condition Notification
DAC	Design Calculation
IFI	Inspector Followup Item
IP	Inspection Procedure
IROFS	Item Relied on for Safety
ISA	Integrated Safety Analysis
M&TE	Measuring and Test Equipment
NRC	Nuclear Regulatory Commission
PT	Penetrant Testing
QA	Quality Assurance
QAP	Quality Assurance Program
QAPD	Quality Assurance Program Description
QL	Quality Level
SRD	System Requirements Document
VIO	Violation
WO	Work Order