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

November 2, 2007

Gregory Smith, Vice President of Operations
and Chief Nuclear Officer
National Enrichment Facility
P.O. Box 1789
Eunice, NM 88231

SUBJECT: NRC INSPECTION REPORT NO. 70-3103/2007-003

Dear Mr. Smith:

This refers to the inspections conducted on September 4-7, and 17-20, 2007, at the Louisiana Energy Services, L.P., National Enrichment Facility. The purpose of the inspections was to evaluate Quality Assurance Program Implementation and construction activities. The enclosed report presents the results of these inspections.

This routine, announced inspection was an examination of activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspection consisted of selected examinations of procedures and representative records, observations of activities, and interviews with personnel.

Based on the results of this inspection, no findings of significance or violations of regulatory requirements were identified.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," this document 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/web-based.html.

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

Sincerely,

/RA/

Deborah A. Seymour, Chief
Construction Projects Branch 1
Division of Construction Projects

Docket No. 70-3103
License No. SNM-2010

Enclosure: NRC Inspection Report 70-3103/2007-003
w/attachment

cc w/encl: (See next page)

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E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

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Letter to Gregory Smith from Deborah A. Seymour dated November 2, 2007

SUBJECT: NRC INSPECTION REPORT NO. 70-3103/2007-003

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U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.:	70-3103
License No.:	SNM-2010
Report No.:	70-3103/2007-003
Licensee:	Louisiana Energy Services, L.P.
Location:	National Enrichment Facility, Eunice, New Mexico
Inspection Dates:	September 4-9, 2007, and September 17-20, 2007
Inspectors:	William Gloersen, Senior Project Inspector, Construction Projects Branch 1, (CPB1), Region (RII) Joseph I. Tapia, P.E., Senior Reactor Inspector, Construction Inspection Branch 1 (CIB1), RII Cynthia Taylor, Senior Project Inspector, CPB1, RII Justin Fuller, Construction Inspector, CIB1, RII
Accompanying Personnel:	Loren Plisco, Deputy Regional Administrator Construction Inspection Program Anthony Gody, Branch Chief, Division of Reactor Safety, Operations Branch, Region IV Deborah A. Seymour, Branch Chief, CPB1 Paul Bell, Office of Nuclear Materials Safety Safeguards (NMSS) Damaris Arroyo, NMSS Rasheen Jackson, Construction Inspector, CIB1, RII (Trainee)
Approved:	Deborah A. Seymour, Branch Chief, Construction Projects Branch 1 Division of Construction Projects

Enclosure

EXECUTIVE SUMMARY

Louisiana Energy Services, L.P. National Enrichment Facility
NRC Inspection Report 70-3103/2007-003

An announced routine and team inspection were conducted on September 4-7 and 17-20, 2007. The inspections were routine inspections of the licensee's implementation of their Quality Assurance (QA) program and ongoing construction activities. Overall, the licensee was effectively and adequately implementing their QA program and performing construction activities as detailed in the following areas:

Structural Concrete Activities

The licensee satisfied the design specification technical requirements and properly implemented the Quality Assurance Program Description (QAPD) programmatic requirements for the placement of Quality Level 1 (QL- 1) concrete (Section 2.).

Program Development and Implementation

The organizational structure, functional responsibilities, and delegation of authority and lines of communication were properly established and adequately functioning. Assessments by management and other QA personnel were adequately implemented in accordance with the Nuclear Regulatory Commission (NRC) approved QAPD. Individuals conducting audits and surveillances were adequately trained and qualified in accordance with training program procedures (Section 3.).

Design Control

The design calculations contained sufficiently detailed design information regarding the purpose, method, design inputs and assumptions used during design analysis. The calculations sufficiently identified the engineering requirements defined in design documents and the design basis of the facility. Design inputs and design constraints were identified in the analysis and were reflected in output documents such as drawings and specifications that defined functions, capabilities, dimensions, limits, and set points (Section 4.).

Control of Materials, Equipment, and Services

The licensee had approved procedures that adequately implemented the QAPD requirements for procurement control and the commercial grade dedication program. Approved suppliers and commercial grade dedications were appropriately reviewed and approved (Section 5a.).

The licensee had approved adequate procedures that implemented QAPD requirements for the proper handling, storage, and shipping of QL-1 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 QL-1 items or on documents traceable to the items (Section 5b.).

The procedural requirements for personnel qualification and certification for inspection and test personnel, and nondestructive testing personnel, were in conformance with QAPD requirements (Section 5c.).

The licensee was properly implementing the QAPD requirements for nonconforming materials, parts, and components. The implementing procedures reviewed provided a process for controlling nonconforming items (Section 5d.).

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

The licensee was properly implementing the QAPD requirements for verifying conformance of items and activities to specified requirements through planned inspections and tests that included a process for identifying the status of inspection and test activities (Section 6a.).

Test planning and performance, documentation of results, and qualifications of testing personnel were appropriately described in the procedures and were performed and maintained in accordance with QAPD requirements. Test control procedures appropriately implemented requirements of the QAPD (Section 6b.).

Controls for measuring and test equipment used in quality-affecting activities were in accordance with QAPD requirements. Measuring and test equipment was properly used, stored, and calibrated (Section 6c.).

Problem Identification, Resolution and Corrective Action

The corrective action program was effectively implemented as required by the QAPD and site procedures (Section 7.).

10 CFR, Part 21, Inspection-Facility Construction

The licensee was properly implementing the QAPD requirements related to 10 Code of Federal Regulation Part 21, “Reporting of Defects and Noncompliance,” (Section 8.).

Document Control/Electronic Management of Data

The inspectors determined that documents were properly prepared, reviewed, approved, and distributed and that QA records were stored, maintained and controlled in accordance with the QAPD requirements. The inspectors also determined that electronic document control was consistent with the QAPD and that software used for QL-1 activities was properly verified and validated (Section 9.).

Supplier/Vendor Inspection

Quality assurance requirements for suppliers and vendors were implemented in accordance with the requirements of the QAPD and applicable project procedures. Controls for documenting and reporting deficiencies and maintaining adequate quality were included in procurement documents for material, equipment, and services. Nonconforming items and deficiencies noted during supplier evaluations were entered into the corrective action program and were evaluated for potential adverse effects and included a root cause analysis and an evaluation for required notifications (Section 10.).

Safety Function Interfaces

Major components and safety function interfaces were adequately controlled such that the principal structures, systems, and components and items relied on for safety (IROFS) were completed in accordance with the integrated safety analysis (ISA) and the facility design bases. The IROFS boundary determination planning was in development. The first safety function interface boundary system packages were projected for completion in early 2008 (Section 11.).

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

REPORT DETAILS

1.0 Summary of Site Activities

The licensee was implementing quality assurance (QA) requirements and performing concrete footer pours and soil backfill activities during the inspections.

2.0 Structural Concrete Activities (Inspection Procedure (IP) 88108 and 88109)

a. Scope and Observations

The inspectors reviewed activities associated with structural concrete construction and quality control in order to verify that they were adequately controlled and in accordance with specifications, drawings, and procedures. Through direct observation and independent evaluation of work and inspection performance, the inspectors verified that technical requirements were satisfied. Specifically, the inspectors reviewed activities related to concrete placement "1001-020-A5.8/A7.5 FTG," a footing along column line A in Building 1001, the Separations Building.

The inspectors conducted a pre-placement inspection to verify that concrete forms, reinforcing steel and splices, embedded items, joint preparation, cleanliness and inspections were in conformance with requirements. Reviews of material qualifications and of the concrete mix design were also conducted. During the placement of the concrete, the inspectors verified by direct observation of work activities that in-process testing and construction techniques were in accordance with applicable requirements. The certification of testing personnel and the adequacy of the concrete batch plant and laboratory testing facilities were also verified.

A review of the documentation generated for the structural concrete construction activities was conducted. The concrete placement report accurately reflected the actual conditions in the field and documented the testing activities performed. The records included corrective action documentation that was generated to clarify the requirements for the placement of construction joints and the details of reinforcing steel interferences.

b. Conclusions

The licensee satisfied the design specification technical requirements and properly implemented the Quality Assurance Program Description (QAPD) programmatic requirements for the placement of Quality Level 1 (QL-1) concrete.

3.0 Program Development and Implementation (IP 88106)

a. Scope and Observations

The inspectors reviewed selected elements of the licensee's Quality Assurance Program (QAP) to ensure specific elements of the program were in accordance with the Nuclear Regulatory Commission (NRC) approved QAPD. The inspectors evaluated the adequacy of the QAP organizational structure, training and indoctrination of personnel performing QL-1 activities, and management assessments to evaluate the effectiveness and implementation of the QAP.

The inspectors reviewed the licensee's organizational structure and management responsibilities contained in Louisiana Enrichment Services, L.P., National Enrichment Facility's (LES) and Washington Group International's (WGI) procedures. WGI's Project Specific Procedure (PSP) 01.01 "Organization and Responsibilities," outlined the interfaces, functional duties, responsibilities, and authorities of those required to perform activities affecting quality. LES did not have a specific procedure which provided the same information. However, the inspectors verified that the responsibilities and delegations of authority for LES' key personnel were contained in specific procedures which outlined the duties associated with specific tasks. The organizational structure, lines of communication, and the interface between both organizations (WGI and LES) were described in the QAPD and no significant issues were identified.

The QA indoctrination, training, and qualification process for both LES and WGI were divided into two parts. The first part which was common to both organizations, "General Employee Training and Qualification," was described in Procedure TQ-501, Revision (Rev.) 0. This procedure described the manner in which the LES personnel were trained to the principles, policies, and procedures related to general worker QA. The inspectors reviewed Procedure QA-202, Rev. 1, "Training, Qualification, and Certification of Personnel to Perform QA Audits and Surveillances," which provided guidance to establish the qualification program requirements for personnel to perform QA audits and surveillances. Since WGI has a broad range of personnel, the inspectors reviewed the Project Training Matrix which defined required training for specific personnel, and PSP 04.01, "Indoctrination and Training Requirements." This procedure, coupled with the matrix, described responsibilities for defining and administering job specific training for personnel who independently perform quality related work in accordance with Section 2 of the QAPD. The inspectors also evaluated personnel training records for WGI and LES individuals authorized to perform QA audits (specifically team leaders), surveillances, relevant laboratory testings and nondestructive evaluations. No significant issues were identified.

The effectiveness and implementation of the QA program required periodic evaluations by management through assessments and audits. The inspectors reviewed the adequacy of the process contained in LES Procedure QA-203, Rev. 2, "Quality Assurance Internal Assessment," and QA-201, "Supplier Audits and Qualification Program." Both procedures described the methods for preparing, scheduling, and performing internal and external assessment to verify compliance with the QAPD. WGI's Procedure PSP 18.01, "Quality Assurance Audits," combined the same information into one procedure. An internal and external audit for both WGI and LES were reviewed to verify proper implementation of approved procedures and timely corrective action for audit findings. The inspectors also reviewed both audit and surveillance schedules through fiscal year 2008 to determine the overall program audit frequency. No significant issues were identified.

b. Conclusion

The organizational structure, functional responsibilities, and delegation of authority and lines of communication were properly established and adequately functioning. Assessments by management and other QA personnel were adequately implemented in accordance with the NRC approved QAPD. Individuals conducting audits and surveillances were adequately trained and qualified in accordance with training program procedures.

4.0 Design and Documentation Control (IP 88107)

a. Scope and Observations

The inspectors noted that the design control program was implemented by procedures contained in LES QAPD Section 3.0, "Design Control." Inspectors reviewed various project documents and implementing procedures specifying engineering and design process activities. LES was the design agency responsible for administrative Items Relied on For Safety (IROFS) and AREVA maintained responsibility for draft boundary documents. Inspectors reviewed the IROFS Boundary Document Matrix Preliminary Schedule and the dates for completing the activities. At the time of the inspection, IROFS boundary documentation was incomplete and in draft form.

The inspectors specifically reviewed design control implementing Procedures, EG-101, "Configuration Change," EG-101-101, "Owner Acceptance Review Of Design Deliverables," and EG-102, "Design Change Request." The inspectors determined that these procedures provided the specific steps for performing design document preparation, controlling design input data, confirming output for the performance of design reviews, and design verifications. In addition, the inspectors reviewed design documents and determined that engineering change requests received proper approvals and were controlled and recorded in accordance with record keeping requirements. The inspectors determined that the procedures used to implement design control were based on the detailed guidance provided in the procedures. The inspectors reviewed several items entered into the change control system to ensure the timeliness of resolution. The resolution process used to evaluate engineering changes was considered adequate.

The inspectors also determined that engineering calculations were controlled and implemented in accordance with Section 3. of the LES QAPD and EG-206, "Preparation and Control of Engineering Calculations." Calculation controls used by the licensee were noted by the inspectors as providing a mechanism to perform, plan, and document design analysis.

The following calculations were reviewed:

- Calculation Number (No.) 114489-G-0010-01, "Stability of Perimeter Drainage Swale Slopes During 100,000-Year Earthquake and Probable Maximum Flood"
- Calculation No. 114489-C-0025-00, "Design of the Flood Protection Berm Along the Perimeter Drainage Swale Associated with the Probable Maximum Precipitation (PMP) Event"
- Calculation No. 114489-C-010-00, "Drainage Calculation to Determine the Maximum Roof Load Associated with Storm water Runoff Associated with the PMP Event"
- Calculation No. 114489-C-0009-01, "Determine the Maximum Ponding Depth Adjacent to Building Exteriors from a Storm Frequency Associated with the PMP Event"

b. Conclusions

The design calculations contained sufficiently detailed design information regarding the purpose, method, design inputs and assumptions used during design analysis. The calculations sufficiently identified the engineering requirements defined in design documents and the design basis of the facility. Design inputs and design constraints were identified in the analysis and were reflected in output documents such as drawings and specifications that defined functions, capabilities, dimensions, limits, and set points.

5.0 Control of Materials, Equipment, and Services (IP 88108)

a. Inspection Requirements and Acceptance Testing
Inspection and Test Activity Status Control

(1) Scope and Observations

The inspectors reviewed the QAPD implementing procedures for procurement and the commercial grade item dedication program. The inspectors verified that the program requirements were consistent with the QAPD and regulatory requirements. Procedure PSP 09.01, Rev. 2, "Procurement," adequately controlled the procurement of QL-1 material, equipment, and services.

At the time of the inspection, only commercial grade items related to soils and concrete had been procured. Ten Commercial Grade Dedication Plans (CGDPs) were reviewed and found to be in conformance with the requirements of Procedure PSP 09.04, Rev. 3, "Commercial Grade Dedication."

The inspectors reviewed the approved supplier's list (ASL) and the procedural requirements for evaluating and selecting procurement sources. The inspectors reviewed the procurement package for the on-site testing laboratory and compared the package to the appropriate QAPD implementing procedures. The inspectors reviewed a sample of nonconformance reports and verified that the licensee was properly implementing procedural requirements for the disposition of items and services that did not meet procurement documentation requirements.

(2) Conclusions

The licensee had approved procedures that adequately implemented the QAPD requirements for procurement control and the commercial grade dedication program. Approved suppliers and commercial grade dedications were appropriately reviewed and approved.

b. Identification and Control of Material, Parts, and Components
Handling, Storage, and Shipping

(1) Scope and Observations

The inspectors reviewed the licensee's quality assurance procedures for the identification and control of material, parts, and components. Procedure PSP 10.02,

Rev. 0, "Material Identification and Control," identified the applicable procedural requirements. The inspectors verified that the procedure required identification be maintained on QL-1 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 items to prevent damage or deterioration during shipping and storage. Procedure PSP 09.01-1, Rev. 1, "Receipt Inspection, Documentation, and Storage Requirements," provided the applicable procedural requirements. The inspectors verified the effectiveness of the procedures for QL-1 items received onsite. The inspectors conducted a walkdown of the receiving and storage areas and noted that the licensee was adequately implementing procedures for the control and storage of QL-1 items. At the time of the inspection, soil backfill, concrete constituents and concrete reinforcing steel had been received at the site.

(2) Conclusions

The licensee had approved adequate procedures that implemented QAPD requirements for the proper handling, storage, and shipping of QL-1 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 QL-1 items or on documents traceable to the items.

c. Control of Special Processes

(1) Scope and Observations

At the time of the inspection, the licensee had not performed any special processes such as heat treating or chemical cleaning. However, the inspectors reviewed the available procedures for qualification and certification of inspection and test personnel, and nondestructive testing personnel. The following procedures were reviewed: SP 2.3, Rev. 4, "Qualification/Certification of Inspection and Test Personnel," and NDE-1, Rev. 19, "Qualification and Certification of NDE Personnel."

(2) Conclusions

The inspectors noted that while the implementing procedures that establish the necessary requirements for the control of special processes such as welding, heat treating, chemical cleaning and nondestructive examination had not been developed, the procedural requirements for personnel qualification and certification for inspection and test personnel, and nondestructive testing personnel, were in conformance with QAPD requirements.

d. Nonconforming Materials, Parts, or Components

(1) Scope and Observations

The inspectors reviewed the QAPD implementing procedures for nonconforming materials, parts, or components and verified that the procedures provided an adequate process for controlling items that did not conform to specified requirements. Procedures PSP 15.01, Rev. 1, "Identification and Control of Deviations," and PSP 15.01-1, Rev. 0,

"Nonconformance Report," provided the applicable procedural requirements. The inspectors reviewed a sample of nonconformance reports and verified that the items were properly evaluated and dispositioned in accordance with the procedures. Nonconforming items were controlled to prevent inadvertent installation or use.

(2) Conclusions

The inspectors determined that the licensee was properly implementing the QAPD requirements for nonconforming materials, parts, and components. The implementing procedures reviewed provided a process for controlling nonconforming items.

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

a. Inspection Requirements and Acceptance Testing
Inspection and Test Activity Status Control

(1) Scope and Observations

The inspectors reviewed QAPD implementing procedures for inspection and test requirements and status control. Procedures PSP 12.01, Rev. 0, "Inspection and Surveillance Planning," and PSP 12.02, Rev. 1, "Conduct and Control of Inspection and Surveillance Activities," provided the applicable procedural requirements. Selected surveillance reports were reviewed and found to provide evidence that tests and inspections required to verify conformance to specified requirements were planned, executed and documented. The inspectors also reviewed a sample of receipt inspection records for QL-1 backfill and concrete constituents received on site. The review included a sample of test reports that were part of the procurement packages. The inspectors verified that inspection requirements and acceptance criteria contained in the applicable design documents were incorporated in required inspection activities which were properly documented and controlled by instructions, procedures, drawings, and/or checklists.

(2) Conclusions

The licensee was properly implementing the QAPD requirements for verifying conformance of items and activities to specified requirements through planned inspections and tests that included a process for identifying the status of inspection and test activities.

b. Test Control

(1) Scope and Observations

The inspectors reviewed selected test procedures to verify that characteristics to be tested and test methods to be employed were specified, test results were documented, and conformance with acceptance criteria was evaluated. During this inspection, only backfill and concrete placement activities were conducted. Accordingly, Procedures PSP 11.05, Rev. 1, "Soil Inspection and Testing," and PSP 11.08, Rev. 1, "Concrete Batch Plant Inspection and Testing," were reviewed by the inspectors. The certifications of testing personnel performing testing were also reviewed.

(2) Conclusions

Test planning and performance, documentation of results, and qualifications of testing personnel were appropriately described in the procedures and were performed and maintained in accordance with QAPD requirements. Test control procedures appropriately implemented requirements of the QAPD.

c. Control of Measuring and Test Equipment (M&TE)

(1) Scope and Observations

The inspectors reviewed the QAPD implementing procedures for the control of measuring and test equipment used at LES. Procedure PSP 14.01, Rev. 1, "Control and Use of Measuring and Test Equipment," provided the applicable procedural requirements. The documentation related to equipment identification, description, serial number, and calibration frequency was accurate and properly maintained.

(2) Conclusions

Controls for measuring and test equipment used in quality-affecting activities were in accordance with QAPD requirements. M&TE was properly used, stored, and calibrated.

7.0 Quality Assurance: Problem Identification, Resolution, and Corrective Action (IP 88110)

a. Scope and Observations

The inspectors reviewed the licensee's corrective action program (CAP) to verify it was in accordance with Section 16 of the licensee's approved QAPD. The inspectors discussed the adequacy of the organizational structure with the Performance Assessment and Feedback Manager and reviewed selected condition reports (CR) generated by LES and corrective action requests (CAR) generated by WGI (a primary contractor of LES). The inspectors also reviewed implementing procedures and management assessments that evaluated the effectiveness and implementation of the corrective action program.

Through discussions with the Performance Assessment and Feedback Manager and the CAP coordinator, the inspectors determined that the CAP organization had a staffing level of two individuals, and had recently hired two additional permanent individuals slated to start October 1, 2007. The two individuals would replace the CAP coordinator, who was a contractor, and the current Performance Assessment and Feedback Manager, who also served as the Support Services/Administration Director. Given the complexity of the LES project and the large volume of work, ongoing and planned, the licensee recognized that this small number of individuals posed a challenge to the effective operation of the CAP. The licensee planned to increase the size of the staff in the near future.

The inspectors reviewed the "2007 Annual Management Assessment of the LES QA Program," dated September 11, 2007. The assessment was conducted by an independent consultant group and included all twenty sections of the QAPD including

internal audits and surveillances of the LES and WGI corrective action programs. The inspectors determined that the assessment was comprehensive and thorough and provided several recommendations including increasing the staffing size of the LES CAP organization.

Through discussions and a document review, the inspectors determined that CA-101, Rev. 4, "Corrective Action Program," effective May 24, 2007 was the primary procedure used to implement the CAP. The procedure described the responsibility of individuals to report conditions adverse to quality. Conditions adverse to quality could be identified by any plant personnel, submitted to an immediate supervisor, and screened and evaluated by the corrective action screening committee for further classification and tracking per the procedure. The procedure also provided guidance on identifying conditions adverse to quality, and classifying the conditions as significant, sufficient significance, or low significance. The licensee's CRs had unique tracking identification numbers to identify, investigate, evaluate, and disposition adverse conditions to quality. Other implementing procedures included: QA-501, "Nonconformance Control," CA 101-1004, "Root Cause Evaluation Guidelines," and CA 101-1003, "Apparent Cause Evaluation Guidelines."

The inspectors reviewed several CRs, and noted that they were tracked by the CAP coordinator, appropriately evaluated for risk significance, investigated, and dispositioned. The inspectors interviewed several workers and supervisors whom indicated an adequate understanding of the CAP requirements. The inspectors also observed a corrective action program screening committee meeting (CAPSC) and found no problems. The committee met daily to evaluate and track CRs.

The inspectors also reviewed WGI's CAP. WGI's CAP requirements were delineated in Procedure PSP 15.01, Rev. 1, "Identification and Control of Deviations," effective March 15, 2007. Overall, those procedural requirements were consistent with the licensee's CAP. The inspectors determined that WGI issued CAR-006 that identified improper implementation of CGDP for concrete constituents and resulted in a stop work order for concrete activities. The inspectors determined that the licensee had performed a thorough review of the contractor's report and initiated their own internal review of the CGDP process for concrete constituents. The inspectors concluded that the corrective actions identified in the investigations appeared adequate to correct the problems. In addition, the inspectors reviewed several of the contractor's non-conforming reports, deficiency reports, and daily inspection logs that documented material deficiencies, and noted appropriate reviews, evaluations, and corrective actions of the items.

The inspectors reviewed other mechanism available to employees to address concerns anonymously or outside the CAP process. The inspectors determined that LES and WGI had employee concern programs. Employees could use the programs to make anonymous concerns. LES and WGI tracked and investigated the concerns outside the normal CAP process.

b. Conclusions

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

8.0 10 CFR Part 21 Inspection (IP 88111)

a. Scope and Observations

The inspectors reviewed Section 4, "Procurement Document Control," and Section 16, "Corrective Action," of the licensee's QAPD. The inspectors also reviewed Section 15, "Control of Nonconforming Items," and Section 4, "Procurement Document Control," of the WGI's QAPD. The associated implementing procedures for each section of LES' and WGI's QAPD were reviewed to verify that the requirements of 10 CFR Part 21 were properly implemented. The inspectors observed one location where the licensee had posted information as required by 10 CFR Part 21.6, "Posting Requirements." The inspectors reviewed four QL-1 procurement packages to ensure that the licensee had properly specified, where applicable, that the provisions of 10 CFR Part 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's procedure included the requirements of 10 CFR Part 21.21, "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 was properly implementing the QAPD requirements related to 10 CFR Part 21, "Reporting of Defects and Noncompliance."

9.0 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 licensee's QAPD.

The inspectors also reviewed the record management program of WGI, which was described Section 17 of the WGI QAPD. The inspectors reviewed the applicable QA implementing procedures for LES and WGI. Additionally, 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 procedures.

The inspectors conducted a walk down of several record storage areas and the electronic data management system computer servers to ensure that records were properly stored and protected. The inspectors also reviewed surveillance and audit reports completed by LES and WGI regarding the evaluation of their record management programs.

The licensee's program for software verification and validation was reviewed to verify

conformance to the QAPD. The inspectors reviewed Section 3, "Design Control," of the licensee's QAPD. The inspectors reviewed licensee procedures for the control of qualified software, the qualification of software, and software configuration management. Additionally, the inspectors reviewed three audit reports that were completed by the licensee, which documented how the three software programs met aspects of the QAPD and applicable codes and standards such as American Society Mechanical Engineers NQA-1-1994, "Quality Assurance Program Requirements for Nuclear Facilities."

b. Conclusions

The inspectors determined that documents were properly prepared, reviewed, approved, and distributed and that QA records were stored, maintained and controlled in accordance with the QAPD requirements. The inspectors also determined that electronic document control was consistent with the QAPD and that software used for QL-1 activities was properly verified and validated.

10. Supplier/Vendor Inspection (IP 88115)

Vendor/Supplier Inspection
Procurement Document Control
Corrective Actions

a. Scope and Observations

The inspectors reviewed the procedural requirements implemented for suppliers and vendors and determined that suppliers of QL-1 material, items and services were evaluated and controlled in accordance with Procedure SQP 7-1, Rev. 8, "Evaluation of Nuclear Suppliers." Source inspections were performed and controlled in accordance with Procedure PSP 09.02, Rev. 1, "Supplier Surveillance." Receipt inspections were performed and controlled in accordance with Procedure PSP 10.01, Rev. 0, "Receipt Inspection."

Deficiencies identified during supplier evaluations and audits were required to be identified, documented, evaluated, and reported in accordance with QAPD requirements. Procedure PSP 15.01, Rev. 1, "Identification and Control of Deviations," provided guidance for significance determination, reporting requirements, root cause determination, and actions to preclude recurrence. The inspectors reviewed several nonconformances and noted they were appropriately reviewed, evaluated, and assigned actions to preclude recurrence. The inspectors interviewed several workers who indicated adequate understanding of the corrective action program requirements.

The inspectors noted that supplier audits performed to date were comprehensive and when applicable, restrictions were appropriately applied limiting the scope of service. The procurement quality requirements were specified in LES QAPD, Section 7.0, "Control of Purchased Material, Equipment & Services," PR-101, Rev. 2, "LES Control of Procurement," QA-204, "QA Review of Documents," and EG-101-104, Rev. 0, "Commercial Grade Dedication Procedure."

b. Conclusions

Quality assurance requirements for suppliers and vendors were implemented in accordance with the requirements of the QAPD and applicable project procedures. Approved suppliers and commercial grade dedications were appropriately reviewed and approved. Controls for documenting and reporting deficiencies and maintaining adequate quality were included in procurement documents for material, equipment, and services. Nonconforming items and deficiencies noted during supplier evaluations were entered into the corrective action program and were evaluated for potential adverse effects and included a root cause analysis and an evaluation for required notifications.

11. Safety Function Interfaces (IP 88116)

a. Scope and Observations

The inspectors reviewed implementing procedures for major components and safety function interfaces to verify they were in accordance with Sections 3 and 7 of the licensee's QAPD.

The inspectors determined that major components and safety function interfaces were adequately controlled such that the principal structures, systems, and components and IROFS were completed in accordance with the integrated safety analysis (ISA) and facility design bases. The safety functional interfaces were defined in conjunction with design basis information and the IROFS boundary definition documents. Safety basis information related to IROFS and structures, systems and components included incorporation of design requirements and design bases information which was supported by the appropriate engineering analyses.

The inspectors reviewed system requirement documents for the boundary definition of IROFS 26, "Seismic Trip System for Cascade Halls and Blending & Liquid Sampling Area." The boundary definition included a comprehensive description of the system and system requirements for both safety and non-safety features. However, the safety function interfaces for the boundary of the system were not complete. Therefore, no conclusion could be determined.

b. Conclusions

The inspectors determined that major components and safety function interfaces were adequately controlled such that the principal structures, systems, and components and IROFS were completed in accordance with the integrated safety analysis (ISA) and facility design bases. The inspectors noted that the IROFS boundary determinations were still in development. The first safety function interface boundary system packages were projected for completion in early 2008.

12. Follow-up Items

Geotechnical/Foundation Activities

(Closed) Inspector Followup Item (IFI) 70-3103/2007-002-001, Review Backfill and Backfill Compaction for QL-1 Structures: During an NRC inspection the week of July 9-17, 2007, the licensee decided to remove 600 cubic-yards of compacted backfill due to inadequate density and moisture results. This IFI was identified to verify the adequacy of the replacement of the QL-1 backfill and compaction activities for the replacement backfill.

The inspectors determined that the removed fill was replaced with engineered fill material of the same soil classification and superior gradation distribution for this application. The inspectors directly observed the placement of some of the new material. The work plan (#1100-1/39-CI-006) and the relevant testing results associated with this activity were also evaluated for adequacy and determined to be in compliance with the Specification No. 114489-S-S-02300. No problems were identified. Based on this review, this item is closed.

13. Exit Meeting

The inspection scope and results were summarized with the licensee on September 7 and 20, 2007. The inspectors described the areas inspected and discussed the inspection results in detail. Although proprietary documents and processes were reviewed during this inspection, the proprietary nature of these documents or processes was not included in this report. No dissenting comments were received from the licensee.

1. LIST OF PERSONS CONTACTED

LES:

R. Cogar, Information Management Manager
D. Copeland, Construction Manager
S. Cowne, Licensing Manager
J. Gearhart, Director Quality Assurance
R. Hinterreither, Chief Executive Officer
P. McCasland, Licensing Engineer
W. Padgett, Licensing Engineer
E. Parker, Field Engineer
B. Robinson, Field Engineer
G. Sanford, Vice President of Project Management
G. Sergent, Quality Assurance Engineer
D. Sexton, Director Technical Services
G. Smith, Chief Operating Officier
J. Swailes, Vice President Operations
D. Vandewalle, Support Services Director
N. Wetherell, Maintenance Manager

Other Personnel:

M. Blackwood, WGI Records Manager
M. Busen, Assistant Project Manager, Washington Group International (WGI)
B. Ebbeson, Chief Civil/Structural Engineer, Nuclear Testing Services (NTS)
G. Hansrote, Project Director, WGI
N. Karanjia, Senior Civil/Structural Engineer, NTS
W. Melvins, Project Construction Manager, WGI
L. Shea, Lead Civil/Structural Engineer, NTS
T. Snyder, Structural Engineer, NTS
K. Wolfcale, WGI Project Quality Manager

2. INSPECTION PROCEDURES USED

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

3. LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Item Number	Status	Description
70-3103/2007-002-01	Closed	IFI: Review Backfill and Backfill Compaction for QL-1 Structures (Section 12)

4. LIST OF ACRONYMS USED

ADAMS	Agency-Wide Document Access and Management System
ASL	Approved Supplier's List
ASME	American Society of Mechanical Engineers
ASTM	American Society of Testing and Materials
CAP	Corrective Action Program
CAPSC	Corrective Action Program Screening Committee
CAR	Corrective Action Reports
CGDPs	Commercial Grade Dedication Plans
CFR	Code of Federal Regulations
CR	Condition Report
DCI	Division of Construction Inspection
DCP	Division of Construction Projects
DR	Deficiency Reports
FCSS	Fuel Cycle Safety and Safeguards
IFI	Inspector Followup Item
IP	Inspection Procedure
IROFS	Items Relied on For Safety
LES	Louisiana Energy Services, L. P.
MB	Mixed Oxide Branch
M&TE	Measuring and Test Equipment
NCR	Nonconformance Report
NDE	Nondestructive Evaluation
NEF	National Enrichment Facility
NM	New Mexico
NQA-1	1994 Quality Assurance Program Requirements for Nuclear Facilities
NRC	Nuclear Regulatory Commission
NTS	Nuclear Technology Solutions, LLP
No.	Number
PMP	Probable Maximum Precipitation
PSP	Project Specific Procedure
QA	Quality Assurance
QAP	Quality Assurance Program
QAPD	Quality Assurance Program Description
QL-1	Quality Level 1
Rev.	Revision
RII	Region II
SPTSD	Special Projects and Technical Support Directorate
WGI	Washington Group International

5. DOCUMENTS REVIEWED

AP-LS-1.1, "Written Communications"

"Approved Suppliers List," on September 11, 2007

CA-101, Rev. 4, "Corrective Action Program"

CA 101-1003, Rev. 0, "Apparent Cause Evaluation Guidelines"

CA 101-1004, Rev. 0, "Root Cause Evaluation Guidelines"

Calculation No. 114489-G-0010-01, "Stability of Perimeter Drainage Swale Slopes During 100,000-Year Earthquake and Probable Maximum Flood"

Calculation No. 114489-C-0025-00, "Design of the Flood Protection Berm Along the Perimeter Drainage Swale Associated with the Probable Maximum Precipitation (PMP) Event"

Calculation No. 114489-C-010-00, "Drainage Calculation to Determine the Maximum Roof: Load Associated with Storm water Runoff Associated with the PMP Event"

Calculation No. 114489-C-0009-01, "Determine the Maximum Ponding Depth Adjacent to Building Exteriors from a Storm Frequency Associated with the PMP Event"

Commercial Grade Dedication Plans:

28683-CGDP-007, Rev. 0, "Grace Construction Products"
28683-CGDP-012, Rev. 0, "Pettigrew & Association"
28683-CGDP-015, Rev. 0, "Constructors Inc."
28683-CGDP-016, Rev. 0, "Grace Construction Products"
28683-CGDP-024, Rev. 0, "Grace Construction Products"
28683-CGDP-025, Rev. 0, "Grace Construction Products"
28683-CGDP-026, Rev. 0, "Constructors Inc."
28683-CGDP-027, Rev. 0, "Construction Technology Laboratories"
28683-CGDP-028, Rev. 1, "Wallach Concrete LLC "
28683-CGDP-029, Rev. 0, "Civil Laboratory Testing Services"

Condition Reports: CR 07-0238, CR 07-0244, CR 07-0258, CR-07-0059, CR-07-0060, CR-07-0066, CR-07-0272, CR-07-0273, CR-07-0274

Corrective Action Request 006, dated August 14, 2007

Drawings: No. 114489-1001-C-CON-001-01-2, No. 114489-1001-C-CON-001-01-3, No. 114489-0000-C-CON-002-01-5

EG-101, "Configuration Change"

EG-101-101, "Owner Acceptance Review of Design Deliverables"

EG-101-104, Rev. 0, "Commercial Grade Dedication Process"

EG-102, “Design Change Request”

EG-206, “Preparation and Control of Engineering Calculations”

IT-120, Rev.1, “Qualified Software Control”

IT-121, Rev.0, “Software Qualification”

LES Annual Management Assessment of QA Program Effectiveness, dated September 11, 2007

LES Audit Report, AFR–04

LES Audit Report, “LES-ORNL-SCALE-2007-001"

LES Audit Report, “LES-NRC-RASCAL-2007-001"

LES Audit Report, “LES-LANL-MCNP5-2007-001"

LES Audit of WGI, “LES-WGI-2006-001," dated February 7-9, 2007

LES Audit Report, “2007-01 LES Training”

LES Audit Report, “2007-08 WGI Training”

LES Quality Assurance Program Description dated December 2003

LES Surveillance Report, “2007-001d”

LES Surveillance Report, “LES-RM-2007-003"

LES Surveillance Report, “2007-006"

LES Surveillance Report 2007-027, “Review of QISI Field Laboratory Testing Demonstrations”

LES Surveillance Report, “LES-RM-2007-036"

LES Surveillance Report 2007-038, “Surveillance of Quality Inspection Services, Inc. (QISI) Proficiency Testing,” dated June 23-24, 2007

LES Surveillance Report 2007-041, “Mock-up Excavation/Backfill and Testing Activities at the Future Expansion UBC Pad”

LES Surveillance Report 2007-044, “LES Quality Assurance Surveillance of Duct Bank Concrete Placements at Duct Bank 950 and 951," dated July 25 -26, 2007

LES Surveillance Report No. 2007-045, “Review of the Decision to Move From 100 Percent Surveillance of Geotechnical Testing to Routine Surveillance”

LS-101, Rev. 1, “Implementation of 10 CFR 21"

NDE-1, Rev. 19, “Qualification and Certification of NDE Personnel”

Personnel Examination Records for Certification of 3 Level II and 1 Level III Civil Testing Technicians

PR-101, Rev. 2, “LES Control of Procurement”

Procurement Package for Quality Inspection Services, Inc.

“Project Quality Assurance Plan,” Rev. 2

QA-201, Rev.1, “Supplier Audit and Qualification Program”

QA-202, Rev.1, “Training, Qualification, and Certification of Personnel to Perform QA Audits and Surveillances”

QA-203, Rev.2, “Quality Assurance Internal Assessment”

QA-204, “Quality Assurance Review of documents”

QA-501, “Nonconformance Control”

RM-101, Rev.4, “Records Management Program”

RM-101, Rev.3, “Records Management Program”

RM-102, Rev. 4, “Control of Documents”

RM-102, Rev. 2, “Control of Documents”

RM-10, Rev. 1, “Records Management / Document Control Program Description”

RM-1, Rev. 1, “Records Management and Document Control”

SQP 7-1, Rev. 8, “Evaluation of Nuclear Suppliers”

SQP 7-2, Rev. 2, “Evaluation of Non-Nuclear Suppliers”

SP 2.3, Rev. 4, “Qualification/Certification of Inspection and Test Personnel”

Specification No. 114489-S-S-02300 “Project Spec Clearing, Grading, and Earthwork Material, Construction, and Testing”

Specifications No. 114489-S-S-03312, Rev. 4

TQ-501, Rev. 0, “General Employee Training and Qualification”

WGI Audit Report, 28683-S-07-08, “Hirschfeld Steel Group”

WGI Audit Report, 28683-P-07-01, “Document Control”

WGI NAP-13, Rev. 2, “10 CFR 21 Evaluations”

WGI’s Project Specific Procedures:

- PSP 01.01, Rev. 1, “Organization and Responsibilities”
- PSP 04.01 “Indoctrination and Training Requirements”
- PSP 08.01, Rev. 1, “Document Control”
- PSP 09.01, Rev. 2, “Procurement”
- PSP 09.01-1, Rev. 1, “Receipt Inspection, Documentation, and Storage Requirements”
- PSP 09.02, Rev. 1, “Supplier Surveillance”
- PSP 09.02-1, Rev.0, “Supplier Surveillance Report”
- PSP 09.04, Rev. 3, “Commercial Grade Dedication”
- PSP 10.01, Rev. 0, “Receipt Inspection”
- PSP 10.02, Rev. 0, “Material Identification and Control”
- PSP 11.03, Rev. 0, “Concrete and Grout Placement”
- PSP 11.05, Rev. 1, “Soil Inspection and Testing”
- PSP 11.08, Rev. 1, “Concrete Batch Plant Inspection and Testing”
- PSP 11.21, Rev. 0, “Reinforcing Steel Bending”
- PSP 12.01, Rev. 0, “Inspection and Surveillance Planning”
- PSP 12.02, Rev. 1, “Conduct and Control of Inspection and Surveillance Activities”
- PSP 14.01, Rev. 1, “Control and Use of Measuring and Test Equipment”
- PSP 15.01, Rev. 1, “Identification and Control of Deviations”
- PSP 15.01-1, Rev. 0, “Nonconformance Report”
- PSP 17.01, Rev. 0, “Quality Assurance Records”
- PSP 18.01, Rev. 1, “Quality Assurance Audits”

WGI Purchase Order; PO Subcontract No. 28683-SC-9002, “Quality Inspection Services INC.”

WGI Purchase Order; PO Subcontract No. 28683-SC-9009, “Hirschfeld Steel Group L.P.”

WGI Purchase Order; PO Subcontract No. 28683-SC-6085, “Pettigrew & Associates”

WGI Purchase Order; PO Subcontract No. 28683-SC-6188, “Lehigh Testing Labs”

WGI Quality Audit Report, Rev. 0, 28683-P-07-01

Work Plan 1100-1/39-CI-006