UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
MARQUIS ONE TOWER
245 PEACHTREE CENTER AVENUE, NE, SUITE 1200
ATLANTA, GEORGIA 30303-1257

August 20, 2010

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

SUBJECT: NRC INSPECTION REPORT NO. 70-3103/2010-013 AND NOTICE OF VIOLATION

Dear Mr. Sexton:

The U.S. Nuclear Regulatory Commission (NRC) conducted an inspection associated with the construction activities of the Louisiana Energy Services, L. L. C., National Enrichment Facility (LES NEF). The inspection was conducted in the Region II office on August 2 – 6, 2010. The purpose of the inspection was to verify compliance to Quality Level – 1 (QL-1) criteria for Commercial Grade Dedication (CGD) of the Cascade 3 mechanical components that are part of Items Relied on for Safety (IROFS) 41 described in the LES CGD Plan D-2010-012, Revision 0.

Emphasis was placed on adequate completion of CGD activities associated with the Cascade 3 critical characteristics for the centrifuges, uranium hexafluoride (UF_6) pipework, and upper steelworks located in cascade Minihall 1A of the Separations Building Module (SBM) 1001. The enclosed inspection report, which documents the inspection results, was discussed with you and other members of your staff on August 6, and again on August 9, 2010.

Based on the results of this inspection, the NRC has determined that a Severity Level IV violation of NRC requirements occurred. This violation was evaluated in accordance with the NRC Enforcement Policy. The current Enforcement Policy is available on the NRC's Web site at www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html. The violation is cited in the enclosed Notice of Violation (Notice), and the circumstances surrounding it are described in the subject inspection report. The violation is being cited in the Notice because it was identified by the NRC.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. For your consideration, NRC Information Notice 96-28, "SUGGESTED GUIDANCE RELATING TO DEVELOPMENT AND IMPLEMENTATION OF CORRECTIVE ACTION," is available on the NRC's Web site. The NRC will use your response, in part, to determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

If you contest this violation or its significance, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001, with copies to: (1) the Regional Administrator, Region II; and (2) the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure(s), and your response, if you choose to provide one, will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html. To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction.

Should you have any questions concerning this letter, please contact me at (404) 997-4647.

Sincerely,

/RA/

James H. Moorman III, Chief
Construction Inspection Branch 3
Division of Construction Inspection

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

Enclosures:

1. Notice of Violation
2. NRC Inspection Report 70-3103/2010-013 w/attachments

cc w/encls: (See next page)

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cc w/encls: (See next page)

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ADAMS: ■ Yes ACCESSION NUMBER: ML102320298 ■ SUNSI REVIEW COMPLETE

OFFICE	RII:DCI	RII: DCI	RII:DCI	RII:DCI	RII:DCP	
SIGNATURE	JOC	Via e-mail	Via e-mail	Via e-mail	Via e-mail	
NAME	J. Calle	J. Heisserer	D. Harmon	E. Sanchez-Santiago	A. Masters	
DATE	8 / 20 / 10	8 / 19 / 10	8 / 19 / 10	8 / 20 / 10	8 / 19 / 10	
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

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cc w/encl:
Gary Sanford, Quality and Regulatory
Affairs Director
National Enrichment Facility
P.O. Box 1789
Eunice, NM 88231

Carlos Romero, Chief
Radiation Control Bureau
Field Operations Division
Environment Department
Harold S. Runnels Building
1190 St. Francis Drive, Room S 2100
P. O. Box 26110
Santa Fe, NM 87502

Richard A. Ratliff, PE, LMP
Radiation Program Officer
Bureau of Radiation Control
Department of State Health Services
Division for Regulatory Services
1100 West 49th Street
Austin, TX 78756-3189

John Goldstein, Deputy Secretary
New Mexico Department of Environment
Office of the Secretary
1190 St. Francis Drive
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Eunice, NM 88231

Gary Don Reagan, Mayor
City of Hobbs
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Gary Schubert, Chairman
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Alton Dunn, Mayor of Jal
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Jal, NM 88252

cc email distribution w/encls:
Gregory Smith, President
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Gary Sanford, Quality & Regulatory
Affairs Director
National Enrichment Facility
Electronic Mail Distribution

Perry Robinson, LES General Counsel
Louisiana Energy Services, L.L.C.
National Enrichment Facility
Electronic Mail Distribution

Letter to David Sexton from James Moorman, dated August 20, 2010

SUBJECT: NRC INSPECTION REPORT NO. 70-3103/2010-013 AND NOTICE OF VIOLATION

DISTRIBUTION w/encl:
B. Smith, NMSS
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PUBLIC

NOTICE OF VIOLATION

Louisiana Energy Services, L.L.C. Docket No. 70-3103
Eunice, N.M. License No. SNM-2010

During a Nuclear Regulatory Commission (NRC) inspection conducted on August 2 - 6, 2010, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

Special Nuclear Material (SNM) License No. 2010 requires, in part, that the licensee shall conduct authorized activities at the Louisiana Energy Services, L.L.C., National Enrichment Facility (LES NEF) in accordance with statements, representations, and conditions in the approved Quality Assurance Program Description (QAPD), dated April 9, 2004, and supplements thereto.

Section 2, "Quality Assurance Program", of the LES NEF QAPD states, in part, that the Quality Assurance (QA) organization is responsible for selected reviews and oversight of Quality Level-1 (QL-1) processes and programs. In particular, the LES NEF QA organization reviews and concurs with the selection of the Items Relied on for Safety (IROFS) and the application of QA requirements to the IROFS, any items which are determined to be essential to the functions of the IROFS, and items required to satisfy regulatory requirements for which QL-1 requirements are applied.

LES NEF Procedure EG-3-2100-05, Revision 7, "Commercial Grade Dedication Process," states that the QA organization shall review and concur with the Commercial Grade Dedication (CGD) Plan, conduct the required inspections of critical characteristics, and review the verification results for completeness and acceptability.

Contrary to the above, prior to August 2, 2010, the licensee's QA organization failed to adequately review the Cascade 3 CGD Plan, D-2010-012, Revision 0, conduct the required inspections of several critical characteristics included in the Cascade 3 CGD Plan, D-2010-012, Revision 0, and review the verification results for completeness and acceptability as evidenced by the following examples:

1. The tightening torque for header piping fixed clamps listed as critical characteristic 1a were not adequately verified.
2. The tightening torque for bolts in the upper steelwork bolted connections listed as critical characteristic 7b were not adequately verified.
3. The tightening torque for bolts in the upper steelwork bolted connections listed as critical characteristic 8a were not adequately verified.
4. The material strengths of bolts and nuts in the pipeworks/upper steelworks listed as critical characteristic 7a were not adequately verified.
5. The size of fillet welds in the upper steelworks listed as critical characteristic 10b were not adequately verified.
6. The dimensions of subunit steel frames in the upper steelworks listed as critical characteristic 11 were not adequately verified.

This is a Severity Level (SL) IV violation (Supplement II).

Pursuant to the provisions of 10 CFR 2.201, Louisiana Energy Services, LLC 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 copies to the Chief, Technical Support Branch, Division of Fuel Cycle Safety and Safeguards, NMSS, and 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 for each violation: (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.

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 may reference or include previous 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 should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

Because your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web Site at http://www.nrc.gov/reading-rm/adams/html to the extent possible, it should not include any personal privacy, proprietary, classified, or safeguards information so that it can be made available to the public without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withhold and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days. Dated at Atlanta, Georgia this 20th day of August 2010.

NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.:	70-3103
License No.:	SNM-2010
Report No.:	70-3103/2010-013
Licensee:	Louisiana Energy Services, L.L.C. (LES)
Location:	National Enrichment Facility (NEF) Eunice, New Mexico
Inspection Dates:	August 2 - 6, 2010 in Region II office
Inspectors:	J. Calle, Senior Construction Inspector, Construction Inspection Branch 3 (CIB3), Division of Construction Inspection (DCI), Region II (RII) J. Heisserer, Construction Inspector, CIB3, DCI, RII D. Harmon, Construction Inspector, CIB3, DCI, RII E. Sanchez-Santiago, Construction Inspector, CIB3, DCI, RII
Accompanying Personnel:	D. Wright, Construction Project Inspector, Construction Projects Branch 2 (CPB2), Division of Construction Projects (DCP), RII (Trainee)
Approved:	James H. Moorman III, Chief, CIB3, DCI, RII

EXECUTIVE SUMMARY

Louisiana Energy Services, L.L.C., National Enrichment Facility (LES NEF)
Nuclear Regulatory Commission (NRC) Inspection Report No. 70-3103/2010-013

Quality Assurance: Control of Materials, Equipment, and Services (Pre-licensing and Construction) (Inspection Procedure (IP) 88108)

The U.S. Nuclear Regulatory Commission (NRC) conducted an in-office inspection to evaluate the procurement and installation of Items Relied on for Safety (IROFS 41) mechanical components by verifying Quality Level-1 (QL-1) criteria. Emphasis was placed on the applicable commercial grade dedication (CGD) activities for critical characteristics of Cascade 3 centrifuges and header pipework and upper steelworks located in cascade Minihall 1A of the Separations Building Module (SBM) 1001.

The inspectors reviewed the CGD Plan, D-2010-012, Revision 0 (including applicable procedures and various documents) and the applicable acceptance method. Acceptance Method 1, "Special Test/Inspection and Standard Receipt Practices," Acceptance Method 2, "Commercial Grade Survey" (for mostly European suppliers and sub-suppliers), and Acceptance Method 3, "Source Verification," were selected by LES NEF for verification of 21 and 38 critical characteristics for the centrifuges and pipeworks/upper steelworks, respectively.

Based on earlier inspections performed at the licensee's facility, the inspectors verified that the licensee maintained adequate control of materials, equipment and services related to the QL-1 mechanical components installed for CGD of the centrifuges and pipeworks/upper steelworks associated with Cascade 3 of IROFS 41 mechanical components for SBM-1001.

One Severity Level (SL) IV violation (VIO) of Section 2, "Quality Assurance Program", of the LES NEF Quality Assurance Program Description (QAPD) was identified for failure to conduct the required selected reviews and oversight of the acceptability of several critical characteristics specified for pipeworks/upper steelworks commercial grade dedication of Cascade 3 components designated as Items Relied on for Safety (IROFS) 41. This was identified as VIO 70-3103/2010-013-001 (Section 2).

Attachments:

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

REPORT DETAILS

1. Summary of Facility Status

The licensee continued to perform on-going construction activities for Separations Building Module (SBM) 1001 and the Cylinder Receipt and Dispatch Building (CRDB), at the Louisiana Energy Services, L.L.C., National Enrichment Facility (LES NEF).

2. Quality Assurance: Control of Materials, Equipment, and Services (Pre-licensing and Construction) (Inspection Procedure (IP) 88108)

a. Scope and Observations

The inspectors evaluated the procurement and installation of Items Relied on for Safety (IROFS) 41 mechanical components by verifying Quality Level-1 (QL-1) criteria. Emphasis was placed on the applicable commercial grade dedication (CGD) activities for critical characteristics associated with the key attributes of Cascade 3 centrifuges and header pipeworks and upper steelworks located in cascade Minihall 1A of SBM-1001. This inspection followed the inspections conducted in December 2009 and March 2010 (Inspection Reports 70-3103/2009-007 (ML101170813) and 70-3103/2010-008 (ML100271177)) that assessed the CGD of the centrifuge, header pipeworks and upper steelworks for Cascade 1. Many of the critical characteristics verified by Nuclear Regulatory Commission (NRC) inspectors for Cascade 1 were also applicable to Cascade 3. Where appropriate, credit was taken for the inspections performed for Cascade 1.

The inspectors reviewed the Cascade 3 CGD Plan, D-2010-012, Revision 0, as well as other implementing procedures to determine if they met the requirements of the LES NEF Quality Assurance Program Description (QAPD). The inspectors reviewed CGD Plan D-2010-012, Revision 0, and applicable procedures and various supporting documents to determine if the plan adequately identified the critical characteristics necessary to ensure that centrifuges and pipeworks/upper steelworks were capable of performing their intended IROFS function. Further, the inspectors reviewed the applicable acceptance methods used. Acceptance Method 1, “Special Test/Inspection and Standard Receipt Practices,” Acceptance Method 2, “Commercial Grade Survey” (for mostly European suppliers and sub-suppliers), and Acceptance Method 3, “Source Verification,” were selected by LES NEF for verification of 21 and 38 critical characteristics for the centrifuges and pipeworks/upper steelworks, respectively.

(1) Centrifuges (Methods 1 and 2 Verification, Note: Method 3 was not used)

The Cascade CGD Plan listed a total of 21 critical characteristics for centrifuges that included materials, wall thicknesses, tightening torque, weld filler materials, welding and nondestructive examination (NDE) process controls, leak tightness integrity, and correct installation of various parts. The Inspectors reviewed the critical characteristics identified by LES NEF for the CGD of centrifuges for applicability.

Regarding acceptance Method 1, the inspectors reviewed inspection and test data to confirm verification of critical characteristics. During previous NRC inspections (Inspection Reports 70-3103/2009-007 and 70-3103/2010-008), inspectors reviewed chemical analysis test results to verify that actual materials used in key centrifuge parts

met specified design requirements and were traceable to unique heat numbers. In addition, ultrasonic thickness measurement data was reviewed to ensure that key centrifuge parts met or exceeded specified minimum thickness values to ensure the parts could withstand postulated accidents, such as a centrifuge crash.

The inspectors reviewed chemical test data taken from weld wire heats and weld test samples removed from the top and bottom weld joints to ensure the weld material met design specifications. Rockwell hardness C (HRC) data was reviewed to confirm that centrifuge mounting bolts met physical property specifications including tensile strength. Chemical composition data from destructive testing of centrifuge mounting bolts was reviewed to verify that the bolt material met the required specifications.

Receipt inspection records were reviewed, including the certificate of conformance, which stated that critical characteristics were verified and that any deviation related to a critical characteristic was addressed appropriately.

Regarding acceptance Method 2, the inspectors reviewed the commercial grade surveys performed by LES NEF verifying the capability of suppliers and sub-suppliers to adequately control the critical characteristics associated with their specific scope of supply. A majority of the surveys reviewed were the same surveys credited in the CGD package for Cascade 1 subject to previous NRC inspections and documented in Inspection Reports 70-3103/2009-007 and 70-3103/2010-008. The inspectors reviewed the documents to verify that the LES NEF surveys adequately evaluated the applicable aspects of the suppliers that pertained to their scope of supply including organization, quality assurance, design control, document control, personnel training and qualifications, procurement controls and purchasing, materials controls, measuring, inspection and testing, chemistry controls, control of physical parameters such as dimensions, calibration controls, shipping, and control of non-conforming items.

(2) Pipeworks/Upper Steelworks (Methods 1, 2 and 3 Verification, as applicable)

The Cascade CGD Plan listed a total of 38 critical characteristics for the uranium hexafluoride (UF_6) pipework and upper steelworks that included materials, wall thicknesses, tightening torque, weld filler materials, welding and NDE process controls, leak tightness integrity, and correct installation of various parts. The inspectors reviewed the critical characteristics selected by LES NEF for the CGD of UF_6 pipeworks and upper steelworks for applicability.

The inspectors reviewed the licensee's Method 1 and Method 3 verification of critical characteristics for the header piping and upper steelworks in Cascade 3. Positive material identification (PMI), magnetic inspection and hardness testing results were reviewed to verify that materials used in pipework and upper steelworks met specified design requirements. Ultrasonic thickness measurement data was reviewed to ensure that key parts of pipework and upper steelworks met or exceeded specified minimum thickness values and to ensure the parts could withstand postulated design basis events (DBE), such as seismic loads. Hardness testing data was reviewed to verify that mounting bolts met physical property specifications including tensile strength. Chemical composition data from destructive testing of pipework and upper steelworks mounting bolts were reviewed to ensure bolting material met the required specifications. Installation records of turnbuckles and fasteners for steelworks were reviewed to verify compliance to specification requirements. The inspectors reviewed work plans and receipt inspection records, including certificates of conformance. The certificates of

conformance stated that critical characteristics were verified and that any deviation related to critical characteristics were addressed appropriately. The inspectors reviewed inspection data contained in work plans to confirm that dimensional and installation measurements for support components, pipework configuration, and component types met specified requirements.

Regarding acceptance Method 2, the inspectors reviewed the commercial grade surveys performed by LES NEF verifying the capability of suppliers and sub-suppliers to adequately control the critical characteristics associated with their specific scope of supply. A majority of the surveys reviewed were the same surveys credited in the CGD package for Cascade 1 subject to previous NRC inspections and documented in Inspection Reports 70-3103/2009-007 and 70-3103/2010-008. The inspectors reviewed the documents to verify that the LES NEF surveys adequately evaluated the applicable aspects of the suppliers that pertained to their scope of supply, including organization, quality assurance, design control, document control, personnel training and qualifications, procurement controls and purchasing, materials controls, measuring, inspection and testing, chemistry controls, controls of physical parameters such as dimensions and physical strengths, calibration controls, shipping, and control of non-conforming items.

As part of previous NRC inspections (Inspection Reports 70-3103/2009-007 and 70-3103/2010-008), several supplier welding procedures and welder qualification records for various welding techniques were reviewed for compliance to the code requirements of American Society of Mechanical Engineers (ASME) Section IX, "Welding and Brazing Qualifications," for the UF_6 pipework. These procedures and qualification records were credited in the CGD of Cascade 1 and were applicable to the CGD of Cascade 2 as well.

During a previous NRC inspection (Inspection Report 70-3103/2010-008), MPR-3389, Revision 0, generated in response to example 3 of VIO 2009-007-001, was reviewed. MPR-3389 was reviewed to verify that commercial grade dedicated cascade hall components, related to IROFS 41 manufactured in Europe and installed using Enrichment Technology Corporation (ETC) specifications, complied with the applicable American codes and standards invoked in the Licensing Basis Documents (LBD).

Findings Identified

Critical characteristics 1a, 7b, and 8a of the pipeworks and steelworks section of the Cascade 3 CGD package required the verification of pipeworks/upper steelworks clamps and bolts for proper tightening torque utilizing the Method 3 verification process. When asked by the inspectors to provide documentation of this specific activity, the licensee determined that the documented evidence of the Method 3 verification for all of the required clamps and bolts did not exist. In response, the licensee issued Condition Report, CR-2010-2445 and conducted the required Method 3 verification.

Critical characteristic 7a of the pipeworks and upper steelworks section of the Cascade 3 CGD package required the verification of the bolt and nut material for adequate strength utilizing the Method 1 verification process. Destructive testing of specific samples for the bolts and nuts installed on Cascade 3 was required. During the review of the verification data submitted by the licensee, the inspectors determined that not all of the required destructive tests were performed. In response, the licensee issued CR-2010-2514, CR-2010-2515, and CR-2010-2516 and had additional destructive tests performed.

Critical characteristic 10b of the pipeworks and upper steelworks section of the Cascade 3 CGD package required the verification of the fillet weld throat lengths for proper size utilizing the Method 1 verification process. During the review of the verification data submitted by the licensee, the inspectors determined that not all of the required individual inspection results were documented. In response, the licensee issued CR-2010-2527 and conducted the required inspection of the remaining fillet welds.

Critical characteristic 11 of the pipeworks and upper steelworks section of the Cascade 3 CGD package required, in part, the verification of the vertical dimension of subunit steel frames for proper length utilizing the Method 1 verification process. During the review of the verification data submitted by the licensee, the inspectors determined that the dimensions recorded were not in compliance with the acceptance criteria specified in the CGD Plan D-2010-012, Revision 0. The acceptance criteria, in part, required the dimensional measurement of "height of center of hole to bottom face of base plates." Instead, the measurements taken were from the center of the holes to the top of the base plates. This resulted in inadequate verification of the critical characteristic because the base plate thickness was not measured. In response, the licensee issued CR-2010-2526 and conducted additional dimensional measurements for verification of the critical characteristic.

The CGD package for Cascade 3 had been submitted for NRC review by LES NEF on the basis that all required verification activities had been performed and documented and that Cascade 3 was fully certified as QL-1. The inadequate verification of the critical characteristics identified by the NRC rendered the commercial grade dedication of Cascade 3 incomplete and the QL-1 qualification indeterminate.

The inspectors identified the following violation related to the findings identified:

Special Nuclear Material (SNM) License No. 2010 requires, in part, that the licensee shall conduct authorized activities at the Louisiana Energy Services, L.L C., National Enrichment Facility (LES NEF) in accordance with statements, representations, and conditions in the approved Quality Assurance Program Description (QAPD), dated April 9, 2004, and supplements thereto.

Section 2, Quality Assurance Program, of the LES NEF QAPD states, in part, that the QA organization is responsible for selected reviews and oversight of QL-1 processes and programs. In particular, the LES NEF QA organization reviews and concurs with the selection of the IROFS and the application of QA requirements to the IROFS, any items which are determined to be essential to the functions of the IROFS, and items required to satisfy regulatory requirements for which QL-1 requirements are applied.

LES NEF Procedure EG-3-2100-05, Revision 7, “Commercial Grade Dedication Process,” states that the QA organization shall review and concur with the Commercial Grade Dedication (CGD) Plan, conduct the required inspections of critical characteristics, and review the verification results for completeness and acceptability.

Contrary to the above, prior to August 2, 2010, the licensee’s QA organization failed to adequately review the Cascade 3 CGD Plan, D-2010-012, Revision 0, conduct the required inspections of several critical characteristics included in the Cascade 3 CGD Plan, D-2010-012, Revision 0, and review the verification results for completeness and acceptability as evidenced by the following examples:

1. The tightening torque for header piping fixed clamps listed as critical characteristic 1a were not adequately verified.

2. The tightening torque for bolts in the upper steelworks bolted connections listed as critical characteristic 7b were not adequately verified.

3. The tightening torque for bolts in the upper steelworks bolted connections listed as critical characteristic 8a were not adequately verified.

4. The material strengths of bolts and nuts in the pipeworks/upper steelworks listed as critical characteristic 7a were not adequately verified.

5. The size of fillet welds in the upper steelworks listed as critical characteristic 10b were not adequately verified.

6. The dimensions of subunit steel frames in the upper steelworks listed as critical characteristic 11 were not adequately verified.

b. Conclusions

The inspectors determined that critical characteristics listed in CGD Plan D-2010-012, Revision 0 were applicable. One Severity Level (SL) IV violation of the LES NEF QAPD, Section 2, was identified for failure to conduct the required selected reviews and oversight of the acceptability of several critical characteristics specified for pipeworks/upper steelworks commercial grade dedication of Cascade 3 components designated as Items Relied on for Safety (IROFS) 41. This was identified as VIO 70-3103/2010-013-001, Failure to Verify Acceptability of Critical Characteristics.

3. Exit Meeting / Interviews

Issues identified during the inspection were summarized daily during the inspection period of August 2 through 6, 2010, by the inspection team leader. A formal exit meeting was held on August 6, 2010 and a re-exit meeting on August 19, 2010, with the licensee's management team. The inspectors described the areas inspected and discussed the inspection results in detail with the licensee staff. Although proprietary documents were reviewed during this inspection, the proprietary nature of these documents was not included in this report.

SUPPLEMENTAL INFORMATION

1. List of Personnel Contacted

Louisiana Energy Services, L. L.C., National Enrichment Facility (LES NEF):

Pete Berry, Configuration Management- Engineering
Steve Cowne, Ops Director
John Davoren, Configuration Management
Gerald Foster, QC
Jay Laughlin, Tech Services Director
Pat McCasland, Licensing
James Marchi, QA
Bruce Norton, Configuration Management
Wyatt Padgett, Licensing
Rickey Page, Projects/Eng. Director
Jerome Reed, VP – Projects
Brian Robinson, Chief of Staff
Jack Rollins, Licensing
Gary Sanford, Compliance
Tom Taylor, Licensing
Olimpio Torres, QA

2. Inspection Procedure (IP) Used

IP 88108 Quality Assurance Control of Materials, Equipment, and Services (Pre-licensing and Construction)

3. List of Items Opened, Closed and Discussed

VIO 70-3103/2010-013-001	Opened	Failure to Verify the Acceptability of Critical Characteristics (Section 2)

4. List of Acronyms Used

ASME	American Society of Mechanical Engineers
CGD	Commercial Grade Dedication
CR	Condition Report
CRDB	Cylinder Receipt and Dispatch Building
DBE	Design Basis Events
ETC	Enrichment Technology Company Limited
HRC	Rockwell Hardness C
IP	Inspection Procedure
IR	NRC Inspection Report
IROFS	Items Relied on For Safety
LBD	Licensing Basis Documents
LES NEF	Louisiana Energy Services Nuclear Enrichment Facility
MPR	MPR Associates Inc.
NDE	Non-Destructive Examination

NOV	Notice of Violation
NRC	Nuclear Regulatory Commission
PMI	Positive Material Identification
QA	Quality Assurance
QAPD	Quality Assurance Program Description
QC	Quality Control
QL-1	Quality Level 1
RII	Region 2
SBM	Separations Building Module
SNM	Source and/or Special Nuclear Materials
UF_6	Uranium Hexaflouride
VIO	Violation

5. List of Documents Reviewed

ETC Design Documents

QSC/Kar/10/009, Issue 2, dated 3/24/2010
QSC/Kar/10/019, Issue 1, dated 5/5/2010
QSC/Kar/10/019, Issue 2, dated 7/13/2010

LES Surveys, Audits and Surveillance Reports

2010-S-07-452R1
2010-S-07-503
2010-S-08-509

LES Work Plans

1001-MECH-453-008
1001-MECH-453-011
1001-MECH-453-020
1001-MECH-453-021
1001-MECH-453-028
1001-MECH-453-058
1001-MECH-457-002
1001-CIVIL-823-018

Condition Reports (CR)

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