December 23, 2010

Mr. Gary Sanford, Director
Quality and Regulatory Affairs
Louisiana Energy Services, L.L.C.
P.O. Box 1789
Eunice, NM 88231

SUBJECT: SUBMITTAL OF LICENSE AMENDMENT REQUEST (LAR-10-08) FOR IMPLEMENTATION OF FIRE PROTECTION ITEMS RELIED ON FOR SAFETY (TAC NO. L33006)

Dear Mr. Sanford:

On July 16, 2010, you transmitted License Amendment Request (LAR-10-08), which requested approval of an amendment to Special Nuclear Materials License SNM-2010 to authorize a new Quality Level (QL-1F) graded quality assurance program for fire protection features designated as Items Relied on for Safety (IROFS). On October 1, 2010, you submitted a response to a U.S. Nuclear Regulatory Commission's (NRC) Request for Additional Information (RAI) dated September 2, 2010. On December 10, 2010, you transmitted a revised response to the RAI request and on December 16, 2010, transmitted a follow-up to additional questions from the initial RAI.

The NRC reviewed LAR 10-08 and the responses to the RAI and found it acceptable. Based on this review, the amendment is approved. Enclosed are a Safety Evaluation Report and Amendment 44 to the license. License Condition 28 has been modified to reflect the definition of a basic component as it applies to fire protection IROFS by adding the following statement to the existing definition:

> "When applied to fire protection systems procured for facilities and other activities licensed under 10 CFR Part 70 of the chapter, basic component means a structure, system, or component, or part thereof, that affects their safety function, in which a defect or failure to comply with any applicable regulation in this chapter, order, or license issued by the Commission could create a substantial safety hazard. For fire protection systems designated as items relied on for safety, a basic component may be directly procured from a commercial entity by a Part 70 licensee if: (1) the system, structure or component is manufactured to an established, acceptable national code or standard that includes some independent product endorsements based on qualification testing or periodic testing of selected characteristics of the component; and (2) the acceptability of the item's manufacture, testing, and/or certification has been reviewed and verified by the licensee prior to use as a basic component. Once the acceptability of the item has been verified by LES and the item has been designated for use as a basic component, the licensee accepts responsibility for Part 21 reporting."

An environmental assessment for this action is not required since this action is categorically excluded under Title 10 of the *Code of Federal Regulations* (10 CFR) 51.22(c)(11).

Work performed under TAC NO L33006 is complete and it has been closed. In addition, Louisiana Energy Services transmitted page changes to the Standard Practice Procedures Plan for the Protection of Classified Matter in correspondence dated October 22, 2010. Condition 10 of the license has been modified to reflect these changes.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosures will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records System component of NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

If you have any questions, please contact Mr. Ty Naquin at (301) 492-3187 or via e-mail at Tyrone.Naquin@nrc.gov.

Sincerely,

/RA/

Brian W. Smith, Acting Deputy Director
Fuel Facility Licensing Directorate
Division of Fuel Cycle Safety
and Safeguards
Office of Nuclear Material Safety
and Safeguards

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

Enclosures:
1. Safety Evaluation Report
2. Amendment 44 to SNM-2010

cc:

William Szymanski/DOE	Cheryl Chance/Jal	Gregory Smith/LES
Gary Don Reagan/Hobbs	Daniel Stenger/H&H	Dixie Drummond/Lovington
Sarah Cottrell/NMED	Marilyn Burns/Tatum	David Sexton/LES
Glen Hackler/Andrews	Matt White/Eunice	Carlos Romero/NMED
Gary Schubert/Lea County	Richard Ratliff/Texas	Lee Cheney/CNIC
Michael Marriotte/NIRS	CO'Claire/Ohio	Roger Mulder/Texas
Jon Goldstein/NMED	Joseph Malherek/PC	Ron Curry/NMED
Tannis Fox/NMED	Gary King/NMAG	Glenn Smith/NMAG
Lindsay Lovejoy/NIRS	Clint Williamson/LES	

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DOCKET NUMBER: 70-3103

LICENSE NUMBER: SNM-2010

LICENSEE: Louisiana Energy Services
National Enrichment Facility
Lea County, New Mexico

SUBJECT: SUBMITTAL OF LICENSE AMENDMENT REQUEST (LAR-10-08) FOR IMPLEMENTATION OF FIRE PROTECTION ITEMS RELIED ON FOR SAFETY (TAC NO. L33006)

BACKGROUND

By letter dated July 16, 2010, Louisiana Energy Services (LES) submitted License Amendment Request (LAR) 10-08, which requested approval of an amendment to Special Nuclear Materials License SNM-2010 to authorize a new QL-1F graded quality assurance program for fire protection features designated as Items Relied On For Safety (IROFS). The July 16, 2010, amendment request was supplemented by the LES response, dated October 1, 2010, to the U.S. Nuclear Regulatory Commission's (NRC) Requests for Additional Information, dated September 2, 2010. On December 10, 2010, you transmitted a revised response to the RAI request and on December 16, 2010, transmitted a follow-up to additional questions from the initial RAI.

REGULATORY REQUIREMENTS

Under Title 10 of the *Code of Federal Regulations* (10 CFR) 70.62, a licensee is required to establish and maintain a safety program, including management measures, that demonstrates compliance with the performance requirements of 10 CFR 70.61. The licensee's management measures are required to ensure that engineered and administrative controls and control systems that are identified as IROFS are designed, implemented, and maintained, as necessary, to ensure that they are available and reliable to perform their function when needed to comply with the performance requirements of 10 CFR 70.61.

In its application, LES committed to comply with the requirements of Appendix B to 10 CFR Part 50, and, as such, is required to establish a Quality Assurance (QA) program to be applied to the design, fabrication, construction, and testing of structures, systems, and components (SSCs) of a facility. 10 CFR Part 70, Section 70.72(c), identifies changes that may be made without prior NRC review and approval. Changes that do not meet the criteria established in Section 70.72(c) require a license amendment request in accordance with Section 70.34.

PROPOSED CHANGES

The amendment requested authorization to: (1) Modify the Quality Assurance Program Description (QAPD) and the Safety Analysis Report (SAR) to add a new QL-1F (Fire Protection) graded QA level for fire protection features designated as IROFS; and (2) Modify Materials License Condition (LC) 28, *Basic Component*, to align the Materials License with the revised, graded QA controls associated with fire protection IROFS.

ENCLOSURE

The proposed changes to the LES's SAR included the addition of the QA Level 1-Fire Protection (QL-1F) for the design, procurement, construction, testing, and maintenance of fire protection features designated as IROFS. The changes included identification and/or description of the new QL in Section 3.4, "Compliance Item Commitments;" Section 11.2, "Maintenance;" Section 11.3, "Training and Qualifications;" Section 11.5, "Audits and Assessments;" and Section 11.8, "Other QA Elements."

The proposed revision to the QAPD included the addition of a new part: Section 23, "Quality Assurance Program for Quality Assurance Level 1- Fire Protection (QL-1F)." Section 23 detailed the QA requirements for fire protection IROFS. Where appropriate, the QL-1F QAPD section referred to the QL-1 QAPD section in areas in which the QA requirements for QL-1 and QL-1F were identical.

The modification proposed to the definition of a basic component maintained the existing definition but added guidance specific to fire protection IROFS. The additional definition content identified the procurement requirements for IROFS procured for use in fire protection applications.

DISCUSSION

LAR 10-08 proposed to revise the QAPD to add a new graded QA Program for fire protection that will be applied to any fire protection design feature designated as IROFS. Examples of fire protection IROFS established to prevent or mitigate chemical releases at the LES Facility include structural fire barriers (fire penetration seals and fire walls), fire-barrier protective systems that will be closed or self-closing (fire doors and dampers), isolation systems that will be closed or self-closing (isolation valves and dampers), and fire detection and suppression systems. The LAR included: (1) a modification to the definition of basic component, as currently present in License Condition 28; (2) changes to the QAPD to identify and describe the QL-1F QA Program; and (3) administrative changes to the SAR to identify and incorporate the new quality level, maintenance requirements, and fire protection codes and standards.

Definition of Basic Component

As defined by LC 28, "A basic component means a structure, system, or component, or part thereof that affects their IROFS function, that is directly procured by the licensee or activity subject to the regulations in part 70 and in which a defect or failure to comply with any applicable regulation in this chapter, order, or license issued by the Commission would create a substantial safety hazard (i.e., exceed performance requirements of 10 CFR 70.61). In all cases, basic components include IROFS-related design, analysis, inspection, testing, fabrication, replacement parts, or consulting services that are associated with the component hardware whether these services are performed by the component supplier or others."

Consistent with the definition of basic component in the LC, items designated as IROFS are treated as basic components; as such, fire protection systems designated as IROFS are required to be procured, inspected, tested, and maintained as basic components. In order to make the definition of basic component in LC 28 consistent with LES's proposed graded approach to QA for fire protection systems, LES proposed the addition of text specific to fire protection IROFS in the definition. This text would identify provisions to allow basic components procured for fire protection applications to be purchased from commercial suppliers that meet national codes and standards and perform testing to verify selected critical characteristics of the component. These provisions are supported by review and verification activities performed by

LES. Specifically, LES proposed to modify the definition of basic component to add the following statements after the currently existing text:

"When applied to fire protection systems procured for, facilities and other activities licensed under 10 CFR Part 70 of the chapter, basic component means a structure, system, or component, or part thereof, that affects their safety function, in which a defect or failure to comply with any applicable regulation in this chapter, order, or license issued by the Commission could create a substantial safety hazard. For fire protection systems designated as items relied on for safety, a basic component may be directly procured from a commercial entity by a Part 70 licensee if: (1) the system, structure or component is manufactured to an established, acceptable national code or standard that includes some independent product endorsements based on qualification testing or periodic testing of selected characteristics of the component; and (2) the acceptability of the item's manufacture, testing, and/or certification has been reviewed and verified by the licensee prior to use as a basic component. Once the acceptability of the item has been verified by LES and the item has been designated for use as a basic component, the licensee accepts responsibility for Part 21 reporting."

As modified, the definition provides suitable guidance for the procurement of fire protection IROFS and the supporting quality verification activities that will be performed by LES. The revised definition will allow LES to credit a supplier's certification (e.g., Underwriters Laboratory [UL] or Factory Mutual [FM]) as a means of establishing the supplier's performance history and capability to supply basic components. It is recognized, however, that a supplier's certification alone is not suitable to establish the supplier's capability to supply basic components; LES will still perform a review and/or verification of the item's acceptability through independent measures, such as through receipt inspection activities, independent technical reviews, or other suitable measures. Therefore, the revised definition of basic component is acceptable for incorporation into LC 28 because the definition presents a suitable approach for establishing the requisite quality of fire protection basic components through: (1) procurement from certified suppliers and the use of licensed, qualified contractors who commit to meet accepted fire protection Codes and Standards, and (2) verification of the item's acceptability by LES. Furthermore, the definition delineates the licensee's responsibilities under 10 CFR Part 21 by stating that once items have been procured and their acceptability has been verified by LES, LES will be responsible for any evaluations or reporting required under 10 CFR Part 21.

QAPD

Section 23, "Quality Assurance Program for Quality Assurance Level 1- Fire Protection (QL-1F)," of the QAPD proposed graded QA requirements for fire protection IROFS.

LES committed to procure, construct, and install fire protection features with appropriate UL/FM fire ratings and/or American Society of Testing and Materials (ASTM) tested designs, as applicable, and to ensure that fire protection systems meet the applicable requirements of the International Fire Code, the International Building Code, and the National Fire Protection Association (NFPA). Fire rated features that are not specifically tested as identified in UL, ASTM, or NFPA will be evaluated to be equivalent in performance to a nationally recognized fire standard. For engineered fire protection IROFS, LES commits to ensure the availability and reliability of engineered fire protection IROFS by manufacturing, procuring, and installing fire protection SSCs in accordance with industry standards (e.g., NFPA, UL) that include independent product assessments by a nationally recognized testing laboratory and certification by state authorities.

Compliance with established and accepted industry codes and standards for the design, manufacture, installation, repair, replacement, and maintenance of fire protection systems can be credited to satisfy certain QA requirements due to provisions required by codes and standards. Specifically, codes require fire protection components to be classified and/or approved by a nationally recognized testing laboratory which is certified by the State authorities to assure component performance. Organizations such as the UL's classification (listing) service and FM's approval service have established certification programs for manufacturers in order to provide assurance that, if certified, a supplier is capable of supplying products that meet UL- or FM-established testing criteria for attributes that are important to component functionality (i.e., material of manufacture, service life, durability for service, fire and smoke resistance and sensitivity, installation parameters, and other characteristics necessary to assure component performance).

Suppliers that manufacture and supply UL listed components are subject to UL surveillance to establish their continued commitment to quality and consistency of supply. Subsequent to initial evaluation and certification, UL certified manufacturers submit their factories to periodic, unannounced inspections by representatives of UL who audit production to determine the manufacturer's continued compliance with UL's requirements. Furthermore, components manufactured by these suppliers are periodically tested to verify their design features and ensure their capability to meet their performance requirements. The UL Mark on a product means that UL has tested and evaluated representative samples of that product and determined that it meets UL requirements. The UL process for supplier evaluation, certification, and oversight can be credited as the basis for supplier qualification to provide fire protection components provided that the purchaser (LES): (1) applies its QL-1F QA Program and Fire Safety Management Program in conjunction with procurement from certified suppliers, (2) independently verifies the product's acceptability; and (3) periodically monitors information resources to ensure that supplier performance is maintained and there have been no product recalls associated with procured fire protection SSCs.

The elements of the QA Program invoked for fire protection features designated as IROFS are described in Sections 23.1 through 23.19 of the QAPD. These subsections mirror the QAPD Sections 1-19, which present the QA criteria that apply to quality level 1 (QL-1) SSCs (QL-1 includes IROFS and items that are essential to the function of IROFS or regulatory compliance). In its description of the QL-1F QA Program in Section 23 of the QAPD, LES identified that the following criteria will be applied to fire protection systems consistent with the requirements established in the QAPD for QL-1 IROFS: (1) The Organization requirements for the QL-1F Program will be in accordance with Section 1 of the QAPD; (2) The Quality Assurance Program for the QL-1F Program will be in accordance with Section 2 of the QAPD; (3) Design Control for the QL-1F Program will be in accordance with Section 3 of the QAPD; (4) The Instructions, Procedures, and Drawings for the QL-1F Program will be in accordance with Section 5 of the QAPD; (5) Document Control for the QL-1F Program will be in accordance with Section 6 of the QAPD; (6) Control of Special Processes for the QL-1F Program will be in accordance with Section 9 of the QAPD; (7) Inspection requirements for the QL-1F Program will be in accordance with Section 10 of the QAPD; (8) Control of Measuring and Test Equipment for the QL-1F Program will be in accordance with Section 12 of the QAPD; (9) Handling, Storage, and Shipping requirements for the QL-1F Program will be in accordance with Section 13 of the QAPD; (10) Inspection, Test, and Operating Status requirements for the QL-1F Program will be in accordance with Section 14 of the QAPD; (11) Controls for Nonconforming Items for the QL-1F Program will be in accordance with Section 15 of the QAPD; (12) Corrective Action requirements for the QL-1F Program will be in accordance with Section 16 of the QAPD;

(13) Quality Assurance Records requirements for the QL-1F Program will be in accordance with Section 17 of the QAPD; and (14) Changes to the QL-1F program will be performed in accordance with Section 19 of the QAPD.

Testing will be performed after the installation, modification, repair, or replacement of fire protection equipment, material, or components to demonstrate satisfactory in-service performance. These tests will be performed in accordance with Section 11 of the QAPD and will implement written test procedures that are prepared by the responsible engineering group and incorporate the requirements and acceptance limits referenced in the applicable design documents. Should any third-party testing be required, it will also be performed in accordance with the requirements of Section 11 of the QAPD.

Audit requirements for the QL-1F Program will be in accordance with Section 18 of the QAPD with the following additional control: the audit team will include a fire protection engineer. This engineer may be a licensee employee, but every third year the audit must include a fire protection engineer who is external to LES.

The following three QA criteria will implement controls that replace those identified in the QAPD for QL-1 IROFS: (1) Procurement Document Control; (2) Control of Purchased Material, Equipment, and Services; and (3) Identification and Control of Materials, Parts, and Components. A summary of the controls proposed by LES for these QA elements and the staff's assessment of their capability to ensure the availability and reliability of fire protection IROFS follow.

Procurement Document Control

In its description of the controls that will be applied to procurement documents related to fire protection, LES committed to include or make reference to applicable design bases and other requirements necessary to assure adequate quality in procurement documents for items and services. LES will procure basic components for use in QL-1F applications as QL-3 (commercially available products) with the procurement document stipulating the requirement for the material to meet one or more applicable fire protection industry standards. LES incorporated a listing of applicable fire protection industry standards in Section 7.6 of the SAR. This list is detailed later in this report.

LES's procurement documents will be developed and maintained in accordance with procedures that are controlled under the QAPD. Procurement documents issued for QL-1F items or services will include the following, as applicable to the procured material, equipment or service: (1) statement of the scope of work to be performed by the supplier; (2) technical requirements including design bases and reference documents that describe technical requirements for the procurement; (3) identification of tests, inspections or acceptance requirements that LES will use to monitor and evaluate supplier performance; and (4) Quality Assurance Program requirements. Procurement documents for QL-1F material will be issued to suppliers that are authorized and/or certified in accordance with the standard used to certify the material procured, such as UL or FM. Procurement documents for QL-1F services will be issued to contractors that are either listed on the LES's Approved Supplier List (ASL) or who will work under the direct control and oversight of the LES's QA Program. Quality Assurance Program requirements for suppliers of material and services will include requirements for LES to have right of access to supplier, including subtier, facilities and records for inspection or audit; provisions for establishing witness/inspection hold points; provisions for documentation required to be submitted to LES and any applicable record retention and maintenance requirements; and

provisions for identifying spare and replacement parts or assemblies and the appropriate delineation of technical and QA data required for ordering these parts or assemblies.

In the QAPD, LES committed to ensure that procurement documents are reviewed before issuance to verify that the documents include all applicable requirements and contain appropriate provisions to ensure that material, equipment or services will meet the governing requirements. Procurement document reviews will be performed by representatives of the Procurement and QA organizations. QA review of procurement documents will ensure that procurement documents comply with all requisite QA requirements.

LES committed to apply the same level of control as used in the preparation of the original procurement document to any changes to the scope of work, technical requirements, QA Program requirements, right of access, and lists of spare and replacement parts.

These requirements are comparable to those established in Section 4 of the QAPD for QL-1 IROFS and are consistent with the requirements of Appendix B to 10 CFR Part 50 for procurement document control. The requirements satisfy the guidance established in Section 11.3.8 of NUREG-1520 for procurement document control in that provisions have been established to ensure that applicable regulatory requirements, design bases, and other requirements necessary to assure the quality of fire protection IROFS are suitably included or referenced in the documents for the procurement of material, equipment, and services, whether purchased by the applicant or by its contractors or subcontractors. The purchase of fire protection IROFS from certified suppliers (UL or FM) or licensed contractors who comply with applicable fire protection codes and standards, as supplemented by QA Program controls identified in the QL-1F QAPD, eliminates the need for LES to require contractors or subcontractors to implement an Appendix B QA Program.

Control of Purchased Material, Equipment, and Services

LES committed to control the procurement of fire protection material, equipment and services for use at the LES facility in order to ensure conformance with specified requirements. Measures to control purchased material, equipment, and services will include requirements for pre-award evaluations of suppliers, annual evaluations, periodic audits/source inspections, and surveillances. Suppliers with an LES approved QA Program will be placed on the LES's ASL prior to the item or service being accepted. Source inspections and surveillances, evaluation of objective evidence of quality furnished by the supplier, maintaining the ASL, as well as, examining received items and services are the responsibility of LES's QA organization and will be performed, as necessary, upon delivery or completion to ensure requirements specified in procurement documents are met. Supplier evaluations, annual evaluations, audits, surveillances, source inspections, and receipt inspections will be documented.

Procurement activities will be planned, documented, and will include the involvement of the LES's QA organization to ensure that QA requirements have been properly identified in procurement documents. Procurement planning will be accomplished as early as possible, but no later than at the start of those procurement activities that are required to be controlled Procurement activities will be performed relative to the level of importance, complexity and quantity of the item or service being procured and the supplier's quality performance. Procurement planning will be conducted in accordance with Section 2 of Supplement 7S-1 to NQA-1-1994, as defined in approved procedures that will be controlled in accordance with the QAPD.

Supplier selection will be based on an evaluation, performed before the award of the contract and/or purchase order, of the supplier's capability to provide items or services in accordance with procurement document (technical and quality) requirements. The evaluation of QL-1F suppliers will be documented in the purchase order file and will include the following, as applicable: (1) an evaluation of the supplier's history for proving an identical or similar product; (2) a review of the supplier's financial rating; and (3) verification that the vendor is licensed to do business in the state of New Mexico. LES specified that material will be procured from suppliers that are authorized and/or certified in accordance with the standard used to certify the material procured, such as UL or FM. LES also specified that contractors selected to provide services will be on the LES's ASL or will work under the direct control and oversight of the LES's QA Program.

For proposals and bids, technically qualified personnel from the Procurement or other affected/involved organizations will perform an evaluation to determine if the proposal/bid meets procurement document requirements. As a minimum, the following topics will be addressed during the evaluation, consistent with the importance, complexity and quantity of items or services being procured: (1) technical considerations; (2) QA program requirements; (3) supplier personnel qualifications; and (4) supplier production capability and past performance. Before the contract is awarded, the Procurement Director, or other affected/involved organization manager shall resolve, or obtain commitments to resolve, unacceptable quality conditions identified during the proposal/bid evaluation.

The LES Procurement Director will establish measures to routinely interface with the supplier and to verify supplier performance as follows: (1) LES will ensure that the supplier understands the requirements and specifications identified in procurement documents; (2) suppliers will be required to identify planning techniques and processes that will be used in fulfilling procurement document requirements; (3) LES will review supplier documentation; (4) measures will be established to identify and process any necessary changes to procurement documents; and (5) information exchanges between LES and supplier will be documented. LES will maintain records, receiving inspections, nonconformances, dispositions, waivers, and corrective actions in accordance with the requirements of Section 17, Quality Assurance Records, of the QAPD. LES will establish contractual controls with suppliers to ensure that.

Measures will be implemented to ensure that supplier-generated documents are submitted to LES in accordance with procurement document requirements. Supplier-generated documents will be controlled, processed, and accepted by LES in accordance with the requirements established in the applicable procedures. Data from inspections, tests, and technical evaluation will be reviewed for conformance to acceptance criteria, and the results of such reviews will be recorded.

LES will use one or more of the following methods for accepting supplier-furnished material, equipment or services for fire protection applications at the LES facility: (1) evaluation of the supplier certificate of conformance, (2) receiving inspection and/or post-installation testing; (3) technical verification of the data produced (services only); and (4) review of objective evidence for conformance to procurement requirements (services only).

LES will require suppliers to verify that furnished material, equipment or services comply with LES's procurement requirements before offering the material, equipment or services for acceptance and to provide LES with objective evidence that material, equipment or services conform to procurement documents. Where required by code, regulations, or contract

provisions, LES commits to ensure that documentary evidence demonstrating that items conform to procurement documents is available at the site prior to installation or use.

When receiving inspection is used to accept an item, LES committed to plan and execute the inspection in accordance with Section 10 of the QAPD and to perform the inspection in accordance with established inspection procedures. Receiving inspections will: (1) be coordinated with a review for adequacy and completeness of any required supplier documentation submittals; (2) consider any source verifications/audits and the demonstrated quality performance of the supplier; (3) confirm that procured items are properly identified and free of shipping damage; and (4) verify the configuration, cleanliness, and dimensional and physical characteristics of received items.

Post-installation testing will also be performed by LES to accept purchased items. When post-installation testing is used as a method of acceptance, the LES Design Authority will ensure that appropriate test requirements and acceptance documentation are established. To the extent possible, the affected/involved LES Organization Manager and the supplier will work together to establish appropriate test requirements and acceptance documentation for post-installation testing activities.

These requirements are comparable to those established in Section 7 of the QAPD for QL-1 IROFS and are consistent with a graded approach to the requirements of Appendix B to 10 CFR Part 50 for control of purchased material, equipment, and services. These requirements satisfy the guidance established in Section 11.3.8 of NUREG-1520 for the control of purchased material, equipment, and services in that provisions have been established to control fire protection IROFS to provide reasonable assurance of conformance with specified requirements. Specifically, the QAPD controls established by LES for the control of purchased material, equipment, and services related to fire protection at the LES facility include measures for procurement planning, source evaluation and selection, proposal/bid evaluation, supplier performance evaluation, control of supplier-generated documents, control of changes in items or services, and measures for the acceptance of purchased items and services. The following controls that apply to QL-1 items and services are not applicable to QL-1F procurements: (1) procurement planning will not entail the requirement to evaluate supplier QA programs since QL-1F items will be procured from certified suppliers and purchased as commercially available items (QL-3) with procurement documents stipulating the applicable code requirements; (2) source verifications will not be performed to assess the capability of suppliers to provide IROFS that meet procurement specifications, and verification of supplier certification will be used as the basis for demonstrating a supplier's capability to provide IROFS in lieu of an LES-led evaluation of supplier quality assurance and process controls; (3) Certificates of Conformance will not be used as a method of item acceptance because suppliers will not be required to have an LES-approved QA program; (4) measures for the control of supplier nonconformances are not identified because suppliers will be providing commercial items, the validity of which LES will verify upon receipt; and (5) LES will designate fire protection items as basic components using the controls in the QL-1F program, which will serve the purpose of verifying that procured items will be available and reliable to perform their IROFS function. LES will not perform commercial grade surveys of suppliers of fire protection items because the measures identified in the QL-1F QA program will serve the function of verifying that suppliers are capable of providing items and services that meet procurement requirements (as dictated by regulatory requirements and applicable UL, NFPA, and accepted industry codes and standards identified in Section 7.6 of the SAR.)

The QAPD controls established by LES for the control of purchased material, equipment, and services related to fire protection at the LES facility also include the commitment to maintain records related to the control of purchased material, equipment and services in accordance with Section 17 of the QAPD. LES has also committed to implement measures to evaluate the performance of suppliers at intervals consistent with the importance, complexity, and quantity of the product or services. These controls will ensure that purchased IROFS conform to the procurement document requirements and as such will be designed, manufactured, installed, and maintained in a manner that will ensure their availability and reliability to perform their safety-related function in service.

Identification and Control of Materials, Parts, and Components

In its description of the controls that will be applied for the identification and control of fire protection materials, parts, and components, LES committed to implement QA procedures with sufficient requirements to ensure that only correct QL-1 F items are used or installed.

Measures for material control will include: (1) receipt inspection to ensure that materials, parts or components are properly identified and are accompanied by requisite supporting documentation; (2) maintenance of markings and identification records; (3) verification of correct identification of materials (including consumable materials or items with a limited shelf life), parts, and components to prevent the use of incorrect or defective items; and (4) identification of nonconforming or rejected materials, parts, or components to prevent inadvertent use.

Identification requirements for materials, parts and components will be stated in design specifications, drawings, and procurement documents. These requirements will include the use of identification materials and methods that provide a clear and legible identification and do not detrimentally affect the function or service life of the item. Markings will not be obliterated or hidden by surface treatments or coatings without the implementation of alternate means of identification, and precautions will be taken to preclude identifying materials in a manner that degrades the function or quality of the item being identified. In addition, documentation will be maintained throughout fabrication, erection, installation, or use, as appropriate to ensure the identification and control of QL-1F IROFS.

These requirements are comparable to those established in Section 8 of the QAPD for QL-1 IROFS and are consistent with the requirements of Appendix B to 10 CFR Part 50 for the identification and control of material, parts, and components. The requirements satisfy the guidance established in Section 11.3.8 of NUREG-1520 for the identification and control of material, parts, and components in that provisions have been established to identify and control IROFS and to provide reasonable assurance that incorrect or defective items are not used. The controls established by LES for material identification and control will ensure that the identification of items is maintained either on the item or on records traceable to the item, as required throughout fabrication, erection, installation, and use. LES has also established controls to prevent the inadvertent use of incorrect or defective material, parts, and components.

SAR Revisions

To support the incorporation of the new graded fire protection QA Program (QL-1F), some sections of the SAR underwent revision to identify the addition of the new quality level QL-1F. These sections included Sections 3.4.37, 11.2.2, 11.3, and 11.5. Section 11.8 of the SAR was revised to incorporate a description of the QL-1 graded and QL-1F QA Programs. As described in Section 11.8, the QL-1F Program will be applied to fire protection features designated as

IROFS. Section 11.8 of the SAR defined fire protection IROFS as items whose failure has been analyzed to result in consequences that exceed the 10 CFR 70.61 performance requirements. QL-1F IROFS will be designed, procured, and maintained in accordance with Section 23 of the QAPD.

These revisions are not substantive in nature; they support the technical revisions to LC 28 and the QAPD and are necessary to ensure consistency throughout the LES's license basis documents.

As part of the LAR, LES incorporated a list of codes and standards that will be applied to the design, manufacture, procurement, installation, and maintenance of fire protection features designated as IROFS. The list is included in Section 7.6, "References," of the SAR and includes:

- ASTM E84, Test Method for Surface Burning Characteristics of Building Material, 2001
- ASTM E119, Standard Test Methods for Fire Tests of Building Construction and Materials, 2000
- ASTM E814, Standard Test Method for Fire Tests of Through-Penetration Fire Stops, 2002
- NFPA 80, Standard for Fire Doors and Fire Windows, 1999
- NFPA 80A, Exterior Fire Exposures, 1993
- NFPA 90A, Standard for the Installation of Air Conditioning and Ventilating Systems, 2002
- NFPA 221, Standard for Fire Walls and Fire Barrier Walls, 1997
- NFPA 251, Standard Methods of Tests of Fire Endurance of Building Construction and Materials, 1995
- NFPA 252, Standard Methods of Fire Tests of Door Assemblies, 1999
- NFPA 801, Standard for Fire Protection for Facilities Handling Radioactive Materials, 2003
- UL Fire Resistance Directory, 2000 or later
- UL 10B, Standard for Safety Fire Tests of Door Assemblies, 1997
- UL 555, Standard for Safety Fire Dampers,1999
- NFPA 220, Standard on Types of Building Construction, 1999
- International Building Code (as amended by the New Mexico Commercial Building Code), 2003

The inclusion of the list of codes and standards in Section 7.6 of the LAR identifies the codes and standards that will be implemented for QL-1F items and services. The NRC staff reviewed the references and found that the codes and standards identified therein, when applied to fire protection systems, will ensure the availability and reliability of IROFS needed to ensure the safety of the facility and compliance with performance requirements.

As part of the LAR, LES incorporated a commitment to perform an annual review of UL and FM recall data to ensure that LES is aware of any product recalls that may apply to fire protection basic components. The commitment was added to Section 3.4, "Compliance Item Commitments," of the SAR. This action is acceptable, as it enhances the ability of LES to detect and prevent the use of nonconforming items.

ENVIRONMENTAL REVIEW

The staff has determined that the exemption request meets the criteria for a categorical exclusion identified in 10 CFR 51.22(c)(11), in that:

i. There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite.

ii. There is no significant increase in the individual or cumulative occupational radiation exposure.

iii. There is no significant construction impact.

iv. There is no significant increase in the potential for or no consequences from radiological accidents.

CONCLUSION

Upon review of the revisions, the staff found that the changes are consistent with the regulatory requirements in 10 CFR Part 70 for management measures, as well as a graded approach to the licensee's commitment to Appendix B to 10 CFR Part 50. The QL-1F QA Program, as described in the revised portions of the SAR, Section 23 of the QAPD, and LC 28, establishes sufficient measures to ensure the availability and reliability of fire protection IROFS. Under the LAR provisions, the design of QL-1 F designated IROFS will remain unaltered, and the IROFS will be used to prevent the same accident sequences identified in the current Integrated Safety Analysis Summary. The approval of LAR 10-08 will allow LES to procure basic components for use in the LES's facility (as defined by LC 28) from commercial suppliers as long as the following provisions are met: (1) the SSC is manufactured to an established, acceptable national code or standard that includes some independent product endorsements based on qualification testing or periodic testing of selected characteristics of the component; and (2) the acceptability of the item's manufacture, testing, and/or certification has been reviewed and verified by LES prior to use as a basic component. These controls will be augmented by provisions identified in the QL-1F QAPD and the LES's Fire Safety Management Program. QA controls identified in the QL-1F Program (Section 23 of the QAPD) satisfy the guidance contained in NUREG-1520 for the description of management measures, specifically *other QA elements*, which will be applied to IROFS. Fire protection features designated as IROFS in the QL-1F Program will still be subject to all applicable reviews and approvals by the NRC, and any changes to the QL-1F QA Program will be managed in the same manner as other QAPD revisions. Accordingly, approval of the amendment request is recommended. Region II reviewed this amendment request and has no objections.

Based on its review and evaluation provided by LES in its LAR dated July 16, 2010, and additional submittals date October 1, 2010, December 10, 2010, and December 16, 2010, the NRC staff finds that the proposed revisions to the LES license to be acceptable, consistent with the requirements of 10 CFR Parts 20, 30, 40, and 70, and should be approved. License Condition 28 is modified by the addition of the following text:

> When applied to fire protection systems procured for facilities and other activities licensed under 10 CFR Part 70 of the chapter, basic component means a structure,

system, or component, or part thereof, that affects their safety function, in which a defect or failure to comply with any applicable regulation in this chapter, order, or license issued by the Commission could create a substantial safety hazard. For fire protection systems designated as items relied on for safety, a basic component may be directly procured from a commercial entity by a Part 70 licensee if: (1) the system, structure or component is manufactured to an established, acceptable national code or standard that includes some independent product endorsements based on qualification testing or periodic testing of selected characteristics of the component; and (2) the acceptability of the item's manufacture, testing, and/or certification has been reviewed and verified by the licensee prior to use as a basic component. Once the acceptability of the item has been verified by LES and the item has been designated for use as a basic component, the licensee accepts responsibility for Part 21 reporting.

PRINCIPAL CONTRIBUTOR

Sabrina Atack

REFERENCES

1. *Code of Federal Regulations*, Title 10 Part 70, "Domestic Licensing of Special Nuclear Material."

2. *NUREG 1520, "*Standard Review Plan for the Review of a License Application for a Fuel Cycle Facility," dated March, 2002.

3. NEF-09-00216-NRC, "License Amendment Request for the National Enrichment Facility to incorporate a new (QL- 1 F) graded quality assurance program for fire protection features designated as IROFS (LAR-09-33)," dated November 25, 2009, Adams Accession Number ML0933400670.

4. LES-10-00099-NRC, "Withdraw of LAR 09-33," dated May, 14, 2010, Adams Accession Number ML1013900300.

5. LES-10-00127-NRC, "Submittal of License Amendment Request for Implementation of Fire Protection IROFS (LAR 10-08)," dated July 16, 2010, Adams Accession Number ML102010057.

6. LES 10-00212, "Response to Request for Additional Information for LAR 10-08," dated October 1, 2010, Adams Accession Number ML1027900640.

7. LES 10-00257, "Revised Response to Request for Additional Information for LAR 10-08," dated December 10, 2010, Adams Accession Number ML103490394.

8. LES 10-00261, "Response to NRC Follow-up Questions for NRC Request for Additional Information for LAR 10-08," dated December 16, 2010, Adams Accession Number ML 103550229.