

September 2, 2010

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

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR LICENSE AMENDMENT
REQUEST FOR IMPLEMENTATION OF FIRE PROTECTION ITEMS RELIED ON
FOR SAFETY (LAR10-08) (TAC NO. L33006)

Dear Mr. Sanford:

The U.S. Nuclear Regulatory Commission (NRC) has completed its review of the License Amendment Request (LAR 10-08) for proposed changes to the Materials License SNM-2010 to authorize changes to the Quality Assurance Program Description, and related changes in the safety analysis report, to add a new QL-1 F (Fire Protection) graded quality assurance level for fire protection features designated as items relied on for safety for fire prevention and mitigation. This amendment also requests a modification to Materials License Condition 28, *Basic Component*, to define the applicable requirements for the procurement of a fire protection basic component, and align the Materials License with the nuclear power philosophy for fire protection. As a result of our review, we request that Louisiana Energy Services provide additional information supporting the proposed amendment. Please provide this information for our review within thirty (30) days from receipt of this letter. Also, notify us if additional time will be needed to respond to any portion of the information requested in the attachment together with a proposed schedule for its submittal.

In accordance with Title 10 of the *Code of Federal Regulations* 2.390 of the NRC's "Rule of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of the 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 regarding this request, please contact Ty Naquin at 301-492-3187 or by e-mail at Tyrone.Naquin@nrc.gov.

Sincerely,

/RA/

Brian W. Smith, Chief
Uranium Enrichment Branch
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

Enclosure:
Request for Additional Information

cc:

William Szymanski/DOE
Gary Don Reagan/Hobbs
Cindy Padilla/NMED
Glen Hackler/Andrews
Gary Schubert/Lea County
Michael Marriotte/NIRS
Jon Goldstein/NMED
Tannis Fox/NMED
Lindsay Lovejoy/NIRS

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Daniel Stenger/H&H
Betty Rickman/Tatum
Matt White/Eunice
Richard Ratliff/Texas
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Joseph Malherek/PC
Gary King/NMAG
Clint Williamson/LES

Gregory Smith/LES
David Trujillo/Lovington
David Sexton/LES
John Parker/NMED
Lee Cheney/CNIC
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**REQUEST FOR ADDITIONAL INFORMATION FOR LICENSE
AMENDMENT REQUEST FOR IMPLEMENTATION OF FIRE
PROTECTION ITEMS RELIED ON FOR SAFETY
(LAR10-08) (TAC NO. L33006)**

1. Please describe the planned implementation of the QL-1F program, specifically:
 - a. To which fire protection items will the QL-1F program be applied (i.e., only new procurements)?
 - b. Please identify the items that have already undergone commercial grade dedication and clarify if the QL-1F program will modify the treatment of these items.
2. Please identify if sampling will be used as part of the QL-1F program. If it will, please identify the areas in which sampling will be used (e.g., inspection) and provide a description of how sampling will be applied in a graded manner.
3. LAR 10-08 states that, "The objective of this License Amendment Request (LAR) is to change the Quality Assurance Program Description (QAPD) to add a new graded quality assurance program designated QL-1F applicable to fire protection features designated as items relied on for safety (IROFS) that would ensure that the systems utilized at Louisiana Energy Services (LES) are commensurate with the nuclear power industry. This level of quality has been accepted in the industry and demonstrated to provide an acceptable level of reliability." Section 3.1.3, "Conclusions," of the LAR states that, "The QL-1F quality assurance program is commensurate with the establishment of fire protection programs as detailed in Regulatory Guide (RG) 1.189 (Fire Protection for Operating Nuclear Power Plants)."

The staff notes that RG 1.189, "Fire Protection for Nuclear Power Plants," Revision 2, dated October 2009, is over 130 pages long, and contains many provisions in addition to quality assurance provisions. RG 1.189 was developed to provide a comprehensive fire protection program guidance document and to identify the scope and depth of fire protection that the staff would consider acceptable for nuclear power plants. Additionally, RG 1.189 contains provisions that implement Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50 requirements such as Appendix R to 10 CFR Part 50, and General Design Criteria 3, "Fire Protection." Further, the quality assurance (QA) provisions contained in RG 1.189 need to be used in conjunction with other provisions contained in the RG. Staff notes that the provisions contained in RG 1.189 are not intended to satisfy the QA requirements contained in Appendix B to 10 CFR Part 50. RG 1.189 describes a method that the U.S. Nuclear Regulatory Commission considers acceptable for use in implementing specific parts of the agency's regulations for fire protection for nuclear power plants.

Please provide a technical analysis or reference material to show that the proposed QL-1F program contains requirements commensurate with those implemented in the nuclear power industry. This may be accomplished by providing (1) a comparison of fire protection requirements identified for the LES QL-1F program against measures established for the nuclear power industry (such as those identified in RG 1.189) or (2) reference to an accepted fire protection QA program from which the LES program was modeled or closely resembles to demonstrate how LES will achieve the same level of

quality. Further, the LES QA-1F program needs to demonstrate that it continues to satisfy the requirements of Appendix B to 10 CFR Part 50 (as detailed in the below Item No. 4).

4. Please provide further justification with respect to the graded approach used to establish the QL-1F QA Program requirements. The LES QAPD states that:

The LES Quality Assurance Program conforms to the criteria established in Title 10 of the Code of Federal Regulations 10 CFR 50, Appendix B, Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants. The criteria in 10 CFR 50, Appendix B and 10 CFR 71 Subpart H, are met by LES's commitment to follow the guidelines of the American Society of Mechanical Engineers (ASME) Quality Assurance (QA) standard NQA-1-1994, Quality Assurance Program Requirements for Nuclear Facilities, including supplements as revised by the ASME NQA-1a-1995 Addenda.

In order to fully describe the graded QA program, please (1) identify the criteria in which the QL-1F program differs from that of the Q-1 program (which meets the requirements of Appendix B and NQA-1) and, (2) provide technical justification for why the divergences are acceptable to maintain the reliability and availability of QL-1F IROFS. The topics identified below may serve as a guide to answering these questions:

A. Organization

- 1) Please describe why the Organization described in Section 23.1 of the QAPD for QL-1F differs from that of the QL-1 program. For instance, no specific organizational structure, roles, and responsibilities are defined for the QL-1F program, whereas the QL-1 program identifies the QA Organization and Functions and makes reference to where a flowchart of the operating organization can be found in the safety analysis report.
- 2) Please identify why the Organization described in Section 23.1 of the QAPD for QL-1F does not address the requirements of Supplement 1S-1, "Supplementary Requirements for Organization," of NQA-1.

B. QA Program

- 1) Please identify why the QA program described in Section 23.2 of the QAPD for QL-1F does not address the requirements of Supplement 2S-1, "Supplementary Requirements for the Qualification of Inspection and Test Personnel;" Supplement 2S-2, "Supplementary Requirements for the Qualification of Nondestructive Examination Personnel;" Supplement 2S-3, "Supplementary Requirements for the Qualification of Quality Assurance Program Audit Personnel;" and Supplement 2S-4, "Supplementary Requirements for Personnel Indoctrination and Training," of NQA-1.
- 2) Also, please identify where the following commitments, as specified in Basic Requirement 2 of NQA-1, may be found in the QAPD for QL-1F or justify their exclusion:
 - The QA program shall provide for any special controls, processes, test

equipment, tools, and skills to attain the required quality and for verification of quality.

- Management of those organizations implementing the QA program, or portions thereof, shall regularly assess the adequacy of that part of the program for which they are responsible and shall assure its effective implementation.

C. Design Control

- 1) Please describe why the QL-1F Design Control program, as described in Section 23.3 of the QAPD, does not include all the provisions identified in Basic Requirement 3 and Supplement 3S-1 of NQA-1. To support this discussion, please describe the design activities that have been and will be performed in relation to fire protection equipment.
- 2) Please describe the use of design inputs, processes, and analyses for LES. In addition, please describe the extent that qualification testing will be performed for QL-1F items.
- 3) Please describe how change control measures identified in Section 23.3 will ensure that proper justification is documented for design changes and that design interfaces are identified and controlled.
- 4) Please identify (or describe where in the QAPD this information can be found) the provisions that control the collection, storage, and maintenance of QL-1F design-related documents. Also, please describe the criteria for selection of QL-1F design documents that will be retained as records.

D. Procurement Document Control

- 1) Please describe why the QL-1F Procurement Document Control program, as described in Section 23.4 of the QAPD, does not include all the provisions identified in Basic Requirement 4 and Supplement 4S-1 of NQA-1. Please provide justification of why the excluded provisions are not necessary to ensure that the technical and quality requirements of QL-1F items will be properly invoked in procurement documents.
- 2) For QL-1F procurements that are not purchased as commercial grade items, please describe the requirements that will be imposed on suppliers via procurement documents (i.e., they must have a QA program or certification that meets the requirements of the National Fire Protection Association, Underwriters Laboratories, etc.).

E. Instructions, Procedures, and Drawings

- 1) Please describe the review that will be conducted of fire protection procedures as identified in Section 23.5 of the QAPD. Please include in the description a discussion of who will perform the review; what criteria will be used to perform the reviews; and how frequently the reviews will take place. Also, please describe the information that will be contained in these documents, as appropriate to the circumstances, such as acceptance criteria, prerequisites,

quality/regulatory/technical requirements, and personnel responsibilities.

- 2) Please describe the measures that will be taken to ensure that instructions, procedures, and drawings that govern the fire protection program include or reference appropriate quantitative or qualitative acceptance criteria for determining that prescribed activities have been satisfactorily accomplished (See Basic requirement 5, "Instructions, Procedures, and Drawings," of NQA-1).
- 3) Please clarify if any fire protection instructions, procedures, and drawings will be controlled in accordance with the Document Control program.

F. Document Control

- 1) Please describe why the QL-1F Document Control program, as described in Section 23.6 of the QAPD, does not include all the provisions identified in Basic Requirement 6 and Supplement 6S-1 of NQA-1.
- 2) Please provide further details regarding how documents that furnish evidence of the quality of critical elements of QL-1F components will be specified, prepared, and maintained. Please include a description of how such documents, including changes thereto, will be controlled, reviewed, and approved.

G. Control of Purchased Material, Equipment, and Services

- 1) Please describe the measures that will be taken (i.e., evaluation of objective evidence of quality furnished by the supplier, source inspection, audit, and examination of items or services upon delivery or completion) to ensure that the suppliers of material, equipment, or services related to the fire protection program are capable of supplying such items or services in accordance with specified requirements.

For the use of national codes or standards as part of establishing supplier capability, please consider the following and describe measures that will be implemented to meet these criteria:

- When a QL-1F item is to be manufactured to a national code or standard, the national code or standard must include some independent product endorsements based on qualification testing or periodic testing of selected critical characteristics in order to be able to take credit for those design features (i.e., critical characteristics) that are required of the item.
- When a QL-1F item is to be manufactured to a national code or standard and the national code or standard does not include any independent product endorsements based on qualification testing or periodic testing and instead only establishes certain process controls and end product acceptance requirements, the accepting party must still verify the selected design features (i.e., critical characteristics) that are required of the item.

Please see Appendix E of Electric Power Research Institute's NP-5652 for further guidance on accepting items or services through the use of national codes or standards.

- 2) Please identify if commercial grade dedication will be used for items and services which are not available for purchase from suppliers that manufacture to a national code or standard.
- 3) Please clarify the process identified in Section 23.7 of the QAPD that LES Engineering will implement to define the design requirements for QL-1F components and material.

H. Identification and Control of Materials, Parts, and Components

- 1) Please describe how identification will be maintained for QL-1F items in instances in which identification cannot be physically maintained on the items.
- 2) Please identify controls for items having a limited shelf life or life cycle, if applicable.
- 3) Please describe QL-1F program measures for maintaining the identification and traceability of items when specified by applicable codes, standards, or specifications. Please also include a description of identification and control measures to be applied to items in storage, including any requisite updates to existing records.

I. Inspection

- 1) Please describe how the periodicity of (1) inspections of fire protection systems and associated equipment and (2) materials subject to deterioration will be selected.
- 2) Please identify the characteristics of the fire protection systems, equipment, and materials that will be subject to periodic inspection and identify the inspection methods that will be used.
- 3) Please clarify the qualification requirements for personnel performing inspections and identify whether acceptance inspections will be performed by persons other than those who performed or directly supervised the work being inspected.
- 4) Section 23.10, "Inspection," of the QL-1F QAPD states that, "A program for independent inspection of activities affecting fire protection will be established and executed by, or for, the organization performing the activity to verify conformance to documented installation drawings and test procedures for accomplishing activities." Please describe how Section 23.7, "Control of Material, Equipment, and Services," of the QAPD will ensure that suppliers of inspection services are appropriately qualified should LES choose to use contract personnel to perform inspection services.
- 5) Please describe the controls associated with in-process, in-service, and final inspections performed for QL-1F systems and components, if applicable.
- 6) Please describe any measures that will be implemented for the use of inspection

hold points. Also, please describe inspection planning methods and sampling criteria, if applicable.

- 7) Please describe the record requirements associated with inspection activities that will be performed for QL-1F activities.

J. Test Control

- 1) Please specify or describe what documents will specify which characteristics of QL-1F material, equipment, and services that will be tested and what test methods will be used.
- 2) Please describe measures that will be implemented to document and evaluate test results.
- 3) Please describe why the QL-1F Test Control program, as described in Section 23.11 of the QAPD, does not include provisions for test requirements, test procedures, test results, and test records, as specified in Supplement 11S-1 of NQA-1.

K. Handling, Storage, and Shipping

- 1) Please describe measures that will be implemented to control the handling, storage, cleaning, packaging, shipping, and preservation of QL-1F items to prevent damage or loss and to minimize deterioration.
- 2) Please describe why the QL-1F Handling, Storage, and Shipping program, as described in Section 23.13 of the QAPD, does not include provisions for handling, storage, and shipping that are commensurate with the requirements specified in Supplement 13S-1 of NQA-1 to prevent damage or loss and to minimize deterioration of QL-1F items.

L. Inspection, Test, and Operating Status

- 1) Please describe controls that will be implemented to identify the inspection, test, and operating status of QL-1F items. Please include controls for (1) indicating the status of inspection and test activities either on the items or in documents traceable to the items to assure that required inspections and tests are performed and to assure that items which have not passed the required inspections and tests are not inadvertently installed, used, or operated; (2) maintaining status of items through indicators, such as physical location and tags, markings, shop travelers, stamps, inspection records, or other suitable means; (3) ensuring that the application and removal of tags, markings, labels, and stamps is performed only by individuals who are qualified to do so; and (4) providing for indicating the operating status of systems and components, such as by tagging valves and switches, to prevent inadvertent operation.
- 2) Please provide an explanation of the intent of providing requirements for testing and test procedures in Section 23.14 of the QAPD rather than controls for indicating inspection, test, and operating status.