

# APR 1 0 2012

LES-12-00054-NRC

ATTN: Document Control Director, Office of Nuclear Material Safety and Safeguards U.S Nuclear Regulatory Commission Washington, D.C. 20555-0001

> Louisiana Energy Services, LLC NRC Docket No. 70-3103

Subject: LAR-12-04, Revision to License Condition 30 of Louisiana Energy Services, L.L.C (LES)" Materials License SNM-2010

Reference:

1. Regulatory Guide 3.74, "Guidance for Fuel Cycle Change Process," dated December 2011

- Letter from Brian W. Smith (NRC) to Zackary W. Rad (LES), "Issuance of Regulatory Guide 3.74 Guidance for Fuel Cycle Facility Change Processes," dated January 31, 2012
- 3. Regulatory Guide 1.187, "Guidance for Implementation of 10 CFR 50.59, Changes, Tests, and Experiments," dated November 2000
- 4. NEI-96-07, "Guidelines for 10 CFR 50.59 Implementation," dated November 2000
- Letter from UUSA to NRC, "LAR-12-04, Revision to License Condition 30 of Louisiana Energy Services, L.L.C (LES) Materials License SNM-2010 (LES-12-00043), Dated March 20, 2012

On December 29, 2011, the NRC published Regulatory Guide 3.74, "Guidance for Fuel Cycle Change Process" which provides guidance on the types of changes for which licensees are to seek prior approval from the U.S. Nuclear Regulatory Commission (NRC) before their implementation. In a letter from Brian W. Smith (NRC) to Zackary W. Rad (LES), "Issuance of Regulatory Guide 3.74 Guidance for Fuel Cycle Facility Change Processes," dated January 31, 2012, the NRC provided further clarification of the proposed process for implementation of certain provisions of Regulatory Guide 3.74 (RG-3.74).

The purpose of this letter is to acknowledge receipt of Reference 1, and provide UUSA's plans to address the provisions of RG-3.74 Section C.5. As indicated in the NRC's letter to UUSA (Reference 2) and in RG-3.74 itself, conformance with RG-3.74 is voluntary and is only one way of demonstrating compliance with applicable regulations. UUSA is proposing an update to our current facility Configuration Change process and License Basis Document Change process, implemented by Procedures EG-3-2100-01, "Configuration Change" and LS-3-1000-06, "Maintenance of License Basis Documents," respectively, to address the evaluation criterion in RG-3.74, C.5.c. As described in the Enclosure, this updated procedure represents an enhancement over our existing

procedure through incorporation of Item C.5.c. Our existing procedures implement the requirements of License Conditions 10 and 30 of Louisiana Energy Services, L.L.C (LES) Materials License SNM-2010 for processing of changes to UUSA license basis documents. Enclosed in this transmittal, UUSA is requesting a License Amendment to revise License Condition 30 to address the provisions of RG-3.74, C.5.b. This letter supersedes, in it's entirety, letter from UUSA to NRC, "LAR-12-04, Revision to License Condition 30 of Louisiana Energy Services, L.L.C (LES) Materials License SNM-2010 (LES-12-00043)", Dated March 20, 2012 (Ref 5)

In order to continue supporting critical ongoing construction and operating schedules, near-term implementation of the requested changes is required. In addition, through this formal request, UUSA seeks NRC's endorsement that this enhanced process may be incorporated into our license.

The Enclosure describes UUSA's requested amendment to the subject license condition and outlines the process UUSA will use to evaluate changes to the portions of the UUSA License Basis document included within the scope of RG-3.74, Section C.5.

Should there be any questions concerning this submittal, please contact Zackary Rad, UUSA Licensing Manager, at 575.394.6689.

Respectfully

Jay Laughlin Chief Nuclear Officer and Head of Technical Services

Enclosure:

Requested amendment to the subject license condition and process to evaluate changes to the portions of the UUSA License Basis document included within the scope of RG-3.74 Section C.5. Mike Raddatz, Project Manager U.S. Nuclear Regulatory Commission Executive Blvd Bldg Mail Stop EBB2-C40M Rockville, MD 20852-2738

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CC:

# **ENCLOSURE 1**

## Purpose

The purpose of this enclosure is to provide UUSA's plans to address the provisions of RG-3.74, Section C.5. UUSA is updating the facility Configuration Change process, implemented by Procedure EG-3-2100-01, "Configuration Change" and LS-3-1000-06, "Maintenance of License Basis Documents," EG- EG-3-2100-01, to address the evaluation criteria in RG-3.74, C.5.c. as described below. Additionally, UUSA is requesting a License Amendment to revise License Condition 30 to address the provisions of RG-3.74, C.5.b.

### Scope

As required by 10 CFR 70.72(a), UUSA has established a configuration management system to evaluate, implement, and track changes to its facility. In addition, this program is used to evaluate and make some changes without prior NRC approval in accordance with 10 CFR 70.72(c) License Condition 10 of the LES Material License provides requirements for making changes to other License Basis Documents. Examples of activities that are evaluated for the need for prior approval under this program, the requirements of 10 CFR 70.72, and the provisions of RG-3.74 (Ref. 1, C.1.a-b.) include the following: (1) facility, design, and process changes; (2) all changes to the facility safety program, including the ISA, process safety information, and management measures; and (3) proposed activities that involve changes to procedures or new procedures not previously evaluated as part of a facility, design, or process change. Additionally, as described in RG-3.74, Section B, Paragraph 4, several of the criteria in 10 CFR 70.72(c) focus on changes to the ISA summary. At UUSA, evaluation of impacts and modifications to the UUSA Integrated Safety Analysis Summary (ISA Summary), as well as the need for prior approval for changes are performed in accordance with the requirements of 10 CFR 70.72(c).

License condition 10 of the LES Material License provides requirements for making changes to other License Basis Documents. Additionally, as described in RG-3.74, licensees may make changes to their licensing basis without prior NRC approval, as specified in the following regulations (Ref. 1, C.5.a):

- 1. Emergency plans—10 CFR 70.32(i),
- 2. Safeguards contingency plans—10 CFR 70.32(g),
- 3. Physical security plans—10 CFR 70.32(e),
- 4. Plans for the physical protection of special nuclear material in transit—10 CFR 70.32(d),
- 5. Security practices and procedures—10 CFR 95.19, "Changes to Facility Practices and Procedures" (Ref. 2), and
- 6. Other material control procedures—10 CFR 70.32(c)(1)(iii).

The scope of the requested amendment to License Condition 30 to Louisiana Energy Services, L.L.C (LES) Materials License SNM-2010 includes the evaluation changes to the remaining licensing documents (*e.g.*, to the license application, or to supporting documents referenced in the license) for the need for prior NRC approval (Ref 1, C.5.b.). Specifically for UUSA, this scope is limited to the UUSA Safety Analysis Report (SAR).

As described in RG-3.74, the code of federal regulations, and specifically 10 CFR 70.72 does not describe restrictions and allowances for changes to the scope of the SAR. The development of this SAR Impact Evaluation process was informed by several sources that provide criteria and guidance for the review of License Basis Documents. These include: the provisions of 10 CFR 70.72 and the related RG-3.74, 10 CFR 50.59, "Changes, Tests and Experiments," RG-1.187, "Guidance for Implementation of 10 CFR 50.59, Changes, Tests, and Experiments" (Ref 3) which endorses NEI-96-07, "Guidelines for 10 CFR 50.59 Implementation" (Ref 4). NEI-96-07 provides detailed guidance and has been instrumental in the development of well established programs for the evaluation of changes to License Basis Documents, in particular the Final Safety Analysis Report (FSAR) at nuclear power reactors. The endorsement of this document in RG-1.187 by the NRC and it's successful implementation at US nuclear power generating stations demonstrate that this guidance is thorough and conservative in nature. Based on the substantial difference in risk profiles between nuclear power reactors and the UUSA facility, the application of the principles in NEI-96-07 for the evaluation of changes to the SAR is conservative and appropriate.

# **Requested Amendment to License Condition**

License Condition 30 in LES Materials License SNM-2010 currently addresses, in a similar fashion, changes to the UUSA SAR which require prior NRC approval but is limited to Specific Sections of Chapters 3 and 5. In order to voluntarily address the provisions of RG-3.74 UUSA requests that License Condition 30 be replaced with the following:

- 30. The licensee is granted the special authorization as requested in correspondence dated April 10, 2012 (LES-12-00054-NRC). Specifically:
  - a) The licensee shall not make changes to the Safety Analysis Report, without prior U.S. Nuclear Regulatory Commission (NRC) approval unless the criteria in paragraph b are satisfied. For changes requiring prior NRC approval, the licensee shall submit to the NRC, for review and approval, an application to amend the license. Such changes shall not be implemented until approval is granted unless prior written authorization is provided by the NRC.
  - b) Upon documented completion of a change request for a facility or process, the licensee may make changes in the facility or process as presented in the Safety Analysis Report, or conduct tests or activities not presented in the Safety Analysis Report that would normally be described therein, without prior NRC approval, subject to the following conditions:
    - 1. There is no decrease in the level of effectiveness of the design basis for safety functions as described in the SAR, and
    - 2. The change does not result in a departure from a method of evaluation described in the SAR used in establishing the design bases for safety functions, and
    - 3. The change does not result in a decrease in effectiveness of safety commitments as described in the SAR, and
    - 4. The change does not affect compliance with applicable regulatory safety requirements, and
    - 5. The change does not conflict with any condition specifically stated in LES Materials License SNM-2010.

Changes to the Safety Analysis Report shall be evaluated, documented and reported in accordance with the commitments in Enclosure 1 of correspondence dated April 10, 2012 (LES-12-00054-NRC). Records of such changes shall be maintained, including technical justification and management approval, in dedicated records to enable NRC inspection upon request at the facility. A periodic report containing a description of each such change, and appropriate revised sections to the license application, shall be submitted to the NRC every six months.

The requested amendment is consistent with language to address the scope of the proposed license condition as described in this enclosure.

#### Safety Analysis Report Change Evaluation Description

The scope of this program is limited to the UUSA Safety Analysis Report (SAR). Evaluation, documentation and reporting of changes to the Safety Analysis Report, as required by License Condition 30 in LES Materials License SNM-2010 shall be performed in accordance with the commitments in this enclosure.

#### Criteria for determining whether prior NRC approval is required (Ref. 1, C.5.b(1))

The scope of the evaluation criteria contained herein are those changes to the information presented in the SAR to satisfy the requirements of 10 CFR 70.22, 10 CFR 70.61 and 10 CFR 70.64.

Change means a modification or addition to, or removal from, the facility or program as described in the SAR that affects: (1) a design safety function, (2) method of performing or controlling the safety function, or (3) an evaluation that demonstrates that intended safety functions will be accomplished (4) safety commitments.

Facility as described in the SAR means: The structures, systems and components (SSC) that are described in the safety analysis report (SAR), the design and performance requirements for such SSCs described in the SAR, and the evaluations or methods of evaluation included in the SAR for such SSCs, which demonstrate that their intended function(s) will be accomplished.

No changes shall be made, without prior NRC approval, to the ISA methodology as described in SAR Section 3.2 or to specific sections of the SAR Chapters 3 and 5 that would result in modifying the current values for criticality-based analysis in a less conservative direction. Specific Chapter 3 sections include 3.2.5.2 related to Safe-By Design and Table 3.1-9, "Failure Frequency Index Numbers." Specific Chapter 5 sections include 5.0, 5.1.1 through 5.1.5, 5.2.1.2 through 5.2.1.7, and Tables 5.1.1 and 5.1-2. The above sections contain data and discussions related to safe-by-design, nuclear criticality safety analysis, nuclear criticality safety parameters, commitments, and the margin of safety for subcriticality. Any additional analysis that credits the use of absorbers in structural material without strictly adhering to ANSI/ANS-8.21 will require an amendment to the SAR and prior review and approval by the NRC.

UUSA will incorporate a SAR Impact Evaluation into the current Configuration Change Program and License Basis Document Change Request process in place at the UUSA facility. This program is implemented through UUSA Procedures EG-3-2100-01and LS-3-1000-06. The impact review will evaluate proposed changes for impacts or modifications to the SAR. Identified impacts or modifications (changes) to the SAR will be evaluated against the following criteria for prior NRC approval:

Prior NRC approval is not required if:

1) There is no decrease in the level of effectiveness of the design basis for safety functions as described in the SAR.

Evaluation Guidance:

Safety functions are those functions performed by systems, structures and components (SSCs) that are (1) required by or otherwise necessary to comply with, safety regulations, license conditions, or orders, and (2) credited in the Integrated Safety Analysis for the prevention or mitigation of postulated accidents.

The SAR description of safety functions identify what SSCs are intended to do, when and how functions are to be performed, and under what conditions. Safety functions may be performed by safety related SSCs or nonsafety-related SSCs and include those functions that, if not performed, would initiate a transient or accident that the plant is required to withstand or adversely impact the plant's ability to prevent or mitigate accidents as described in the ISA.

As used above, "credited in the Integrated Safety Analysis" means that, if the SSC were not to perform its safety function in the manner described, the assumed initial conditions, mitigative actions or other information in the analyses would no longer be within the acceptable range evaluated (i.e., the analysis results would be called into question).

Prior NRC approval is not required if changing from guidance, codes or standards to alternate guidance, codes or standards which have been previously approved by the NRC for the intended application (i.e., in a SER). Determination of whether guidance, codes or standards may be considered "approved by the NRC for the intended application" will be performed in accordance with the guidance in NEI-96-07 (Ref 4 Section 4.3.8.2) and documented in accordance with the commitments in this enclosure.

Prior NRC approval is required if a change results a decrease in the level of effectiveness of the safety function as described in the SAR. A change is considered to result in a decrease in the level of effectiveness if the change:

a) Results in an increase in the frequency of occurrence of an accident previously evaluated in the ISA.

A negligible effect on the frequency of occurrence of an accident exists when the change in frequency is so small or the uncertainties in determining whether a change in frequency has occurred are such that it cannot be reasonably concluded that the frequency has actually changed (i.e., there is no clear trend toward increasing the frequency). A proposed change that has a negligible effect is not considered an increase in the frequency of occurrence.

Changes where the resultant frequency of occurrence remains below 1E-6 per year or applicable plant-specific threshold are also not considered an increase in the frequency of occurrence.

If the proposed change would not meet either of the above criteria, the change is considered to be an increase in the frequency of occurrence of an accident, and prior NRC approval is required.

b) Results in an increase in the likelihood of occurrence of a malfunction of an IROFS previously evaluated in the ISA.

A proposed change is considered to have a negligible effect on the likelihood of a malfunction when a change in likelihood is so small or the uncertainties in determining whether a change in likelihood has occurred are such that it cannot be reasonably concluded that the likelihood has actually changed (i.e., there is no clear trend toward increasing the likelihood). A proposed change that has a negligible effect is not considered an increase in the likelihood of malfunction (Ref. 4, Section 4.3.2).

If the change involves installing additional equipment or devices (e.g., cabling, manual valves, protective features) provided all applicable design and functional requirements (including applicable codes, standards, etc.) continue to be met. For example, adding protective devices to breakers or installing an additional drain line (with appropriate isolation capability) would not cause an increase in the likelihood of malfunction. (Ref. 4, Section 4.3.2)

If the change involves substitution of one type of component for another of similar function, provided all applicable design and functional requirements (including applicable codes, standards, etc.) continue to be met and any new failure modes are bounded by the existing analysis, the change would not be considered an increase in the likelihood of malfunction. (Ref. 4, Section 4.3.2)

c) Results in an increase in the consequences of an IROFS malfunction or an accident or previously evaluated in the ISA.

Where a change in consequences is so small or the uncertainties determining whether a change in consequences has occurred are such that it cannot be reasonably concluded that the consequences have actually changed (i.e., there is no clear trend toward increasing the consequences), the change is not considered an increase in consequences (Ref. 4, Section 4.3.3)

Changes where the increased dose does not exceed the current SRP guideline value for the particular design basis event are not considered an increase in consequence.

d) Create a possibility for an accident of a different type than any previously evaluated in the ISA.

These criteria for determining the potential for a decrease in the level of effectiveness of the safety function resulting from a change to the SAR are consistent with evaluation criteria in 10 CFR 50.59(c)(2) that address the evaluation of changes to the Final Safety Analysis Report at nuclear power stations.

2) The change does not result in a departure from a method of evaluation described in the SAR used in establishing the design bases for safety functions.

**Evaluation Guidance:** 

Prior approval is required for changes to the ISA methodology as described in SAR Section 3.2, "Integrated Safety Analysis Methods."

Methods of evaluation are the calculational framework used for evaluating behavior or response of the facility or an IROFS. Changes to such methods of evaluation will require review under this process only for evaluations used either in the ISA or in establishing the design bases for safety functions, and only if the methods are described, outlined or summarized in the SAR. Methodology changes that are subject to evaluation include changes to elements of existing methods described in the SAR and to changes that involve replacement of existing methods of evaluation with alternative methodologies. Elements of methods are: data correlations, means of data reduction, physical constants or coefficients, mathematical models, specific limitations of a computer program, specified factors to account for uncertainty in measurements or data, statistical treatment of results, dose conversion factors and assumed source terms (Ref. 4, Section 3.10)

A departure from a method of evaluation described in the SAR includes: (i) changing any of the elements of the method described in the SAR unless the results of the analysis are conservative or essentially the same; or (ii) changing from a method described in the SAR to another method unless that method has been approved by NRC for the intended application (Ref. 4, Section 3.4).

A LAR is required if changing any of the elements of the method described in the SAR unless the results of the analysis are essentially the same (Ref. 4, Section 4.3.8). Results are considered essentially the same if they are within the margin of error for the type of analysis being performed. Variation in results due to routine analysis sensitivities or calculational differences (e.g., rounding errors and use of different computational platforms) would typically be within the analysis margin of error and thus considered "essentially the same" (Ref. 4, Section 4.3.8).

A LAR is required if changing any of the elements of the method described in the SAR unless the results of the analysis are conservative. A change is considered "conservative" if the results of the analysis are closer to limiting values in that the new analysis results provide less margin to applicable limits for making future physical or procedure changes without a license amendment. Gaining margin by revising an element of a method of evaluation is considered to be a non-conservative change and thus a departure from a method of evaluation unless such changes are allowed within the codes and standards used to establish the design bases for the safety functions as described in the SAR or ISA. (Ref. 4, Section 3.4)

A LAR is required if changing from a method described in the SAR to another method unless that method has been approved by NRC for the intended application (i.e., in a SER) (Ref. 4, Section 4.3.8). A LAR is not required for use of a new NRC-approved methodology (e.g., new or upgraded computer code) to reduce uncertainty, provide more precise results or other reason, provided such use is (a) based on sound engineering practice, (b) appropriate for the intended application and (c) within the limitations of the applicable SER (Ref 4, Section 4.3.8). Determination of whether a method may be considered "approved by the NRC for the intended

application" will be performed in accordance with the guidance in NEI-96-07 (Ref 4 Section 4.3.8.2) and documented in accordance with the commitments in this enclosure.

3) The change does not result in decrease in effectiveness of safety commitments as described in the SAR.

**Evaluation Guidance:** 

Each change will be evaluated to determine if there is a reduction in effectiveness of safety commitments within the SAR.

A Safety Commitment is defined as an explicit statement in the SAR to take a specific action agreed to, or volunteered by, the licensee that defines a certain method of meeting a regulatory obligation.

Prior NRC approval is required if a Safety commitment, as described in the SAR is removed, replaced or altered and a reduction in effectiveness of the safety commitment occurs or unless resulting change results in a commitment previously approved by the NRC as a method of meeting the same regulatory obligation (i.e., in a SER). Determination of whether a safety commitment may be considered "approved by the NRC for the Intended Application" will be performed in accordance with the guidance in NEI-96-07 (Ref 4 Section 4.3.8.2) and documented in accordance with the commitments in this enclosure.

4) The change does not affect compliance with applicable NRC safety requirements.

Each change will be evaluated to determine compliance with applicable NRC requirements as referenced in the SAR.

5) The change does not conflict with any condition specifically stated in the license.

Each change will be evaluated to ensure it does not conflict with any condition specifically stated in Louisiana Energy Services, L.L.C (LES) Materials License SNM-2010.

Items excluded from the evaluation:

Certain changes that are considered to be administrative in nature do not require NRC approval and will be categorically excluded from the evaluation requirements of the SAR Impact Evaluation. Changes to licensing documents that would not require prior NRC approval would generally be administrative changes such as the following (Ref. 1, C.5.d):

- 1) Modifications to facility and process descriptions,
- 2) Enhancements or clarifications of text,
- 3) Grammatical corrections, or
- 4) Reformatting of text, or
- 5) Changes for which prior NRC approval is expressly not required as stated in the SAR.

### Documentation requirements for SAR Impact Evaluations (Ref. 1, C.5.b(2))

Evaluations of proposed SAR changes in accordance with the commitments in this enclosure will be documented on the SAR Impact Evaluation Form contained in UUSA procedure LS-3-1000-06, "Maintenance of License Basis Documents." Records of such changes shall be maintained, including technical justification and management approval, in dedicated records to enable NRC inspection upon request at the facility.

# Reporting frequency for providing changes to the NRC after implementing changes

A periodic report containing a description of each such change, and appropriate revised sections to the license application, shall be submitted to the NRC every six months.