

August 16, 2012

Mr. Perry Robinson
Licensing Manager
Louisiana Energy Services, LLC
PO Box 1789
Eunice, New Mexico 88231

SUBJECT: REVIEW OF TITLE 10 OF THE CODE OF FEDERAL REGULATIONS,
SECTION 70.72, SUMMARY OF CHANGES (TAC NO. L34134)

Dear Mr. Robinson:

In a letter submitted in January 2012, Louisiana Energy Services, LLC (LES) submitted a brief summary of changes to the records made without prior U.S. Nuclear Regulatory Commission (NRC) approval, in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR), Section 70.72(c). The NRC staff selected a sampling of changes from your summary for detailed review to determine whether any of those changes were potentially safety significant. As a result of our review, we requested, in a letter dated June 6, 2012, that LES provide the facility change packages for each of those changes.

In your correspondence dated July 10, 2012, you provided us with facility changes packages as requested. Our review of facility change packages submitted determined that all but two of the change packages received were appropriately made in accordance with the requirements of 10 CFR 70.72 based on the reasoning documented in the change packages. The two packages for which staff could not make this determination, 2011-0296 and 2011-0440, are being referred to Region II for review during a future inspection. The results from our review of the facility change packages are documented in the Enclosure. We have no further questions at this time and Technical Assignment Control Number L34134 is being closed. An inspection may be performed at a future date, in accordance with our inspection schedule.

In accordance with 10 CFR 2.390 of the NRCs Rules of Practice, a copy of this letter will be available electronically from the Publicly Available Records component of NRC Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Website at <http://www.nrc.gov/reading-rm/adams.html>.

Sincerely,

/RA/ B. Smith for

Mike Raddatz, Project Manager
Uranium Enrichment Branch
Division of Fuel Cycle Safety
and Safeguards
Office of Nuclear Material Safety
and Safeguards

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

Enclosure:
LES Facility Change Evaluations

cc:
Gregory Smith/LES
Clint Williamson/LES
Dave Sexton/LES

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Mike Raddatz, Project Manager
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OFFICE	FCSS/UEB	FCSS/UEB	FCSS/TSB	FCSS/MODB	FCSS/UEB
NAME	MRaddatz	TRichmond	TSippel	SSoto	JDowns
DATE	08/06/12	08/08/12	08/08/12	08/08/12	08/09/12
OFFICE	FCSS/MODB	FCSS/MODB	FCSS/TSB	FCSS/UEB	
NAME	JHammelman	LCampbell /K. Morrissey for/	THiltz /J. Marciano for/	BSmith	
DATE	08/10/12	08/10/12	08/10/12	08/16/12	

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REVIEW OF LES FACILITY CHANGE EVALUATIONS

Facility Change Package: 2011-0042

Short Description: The proposed change is the acceptance of a Quality Level (QL) 1 calculation that evaluates the roof transition details between Separation Building Module (SBM) 1001X and the cylinder receipt and dispatch building (CRDB). The roof transition is part of the 2-hour fire barrier between these two buildings. This fire barrier is part of items relied on for safety (IROFS) 35; therefore, the transition design must meet QL1 design requirements for tornado wind and seismic loading. CACL-C-00162 evaluates this roof transition to these requirements.

Findings

Does the change create a new type of accident sequence that, unless mitigated or prevented, would exceed the performance requirements of § 70.61?

YES **NO** To be determined (TBD)

Does the change use new processes, technologies, or control systems for which the licensee has no prior experience?

YES **NO**

Does the change remove an IROFS without equivalent replacement of the safety function?

YES **NO**

Does the change alter any sole IROFS?

YES **NO**

Is the change prohibited by other regulations?

YES **NO**

Conclusion

This proposed change verifies that the roof transition design meets the QL1 requirements of IROFS 35. The calculation demonstrates that the design is robust enough to withstand design basis tornado wind and seismic loading.

Facility Change Package: 2011-0048, Rev 1

Short Description: Procedure OP-3-1000-19, "IROFS 50f Construction Crane Permit and Barrier Control", was revised to incorporate multiple editorial and procedural step enhancements to improve and clarify the procedure.

Findings

Does the change create a new type of accident sequence that, unless mitigated or prevented, would exceed the performance requirements of § 70.61?

YES ☒ NO TBD

Does the change use new processes, technologies, or control systems for which the licensee has no prior experience?

YES ☒ NO

Does the change remove an IROFS without equivalent replacement of the safety function?

YES ☒ NO

Does the change alter any sole IROFS?

YES ☒ NO

Is the change prohibited by other regulations?

YES ☒ NO

Conclusion

The change is to a procedure for applying an existing control (IROFS) to prevent construction cranes from impacting licensed operations. The changes are to improve the clarity of the instructions in the procedure which should reduce the likelihood of error and therefore improve safety.

The licensee's evaluation of the change to procedure OP-3-1000-19 was performed on Form LS-3-1000-04-F-1 dated 1/26/2011. The proposed change was evaluated and reviewed by separate operations personnel. The form was reviewed by the U.S. Nuclear Regulatory Commission (NRC) staff and considered to be complete.

The staff agrees with the licensee's assessment that the change could be made without NRC approval.

Facility Change Package: 2011-0064

Short Description: The proposed activity is Revision 7 to Procedure EG-3-3100-03, Quality Assurance (QA) Level Assignments. This procedure provides direction on assigning QA Levels to structures, systems and components and activities. This revision changed ownership of the procedure to Design Engineering Manager. This revision also added definitions for QLs 1, 2 and 3; added a line in Attachment 1 to address IROFS35 items; and changed Form 1 to allow the user to write in the QL. The specifics of the revisions are contained in the revision summary of the procedure.

Findings

Does the change create a new type of accident sequence that, unless mitigated or prevented, would exceed the performance requirements of § 70.61?

YES **NO** TBD

Does the change use new processes, technologies, or control systems for which the licensee has no prior experience?

YES **NO**

Does the change remove an IROFS without equivalent replacement of the safety function?

YES **NO**

Does the change alter any sole IROFS?

YES **NO**

Is the change prohibited by other regulations?

YES **NO**

Conclusion

Louisiana Energy Services (LES) made changes to procedure EG-3-3100-03, QA Level Assignment. The staff reviewed the changes and found them to be in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR), Section 70.72.

Facility Change Package: 2011-0112

Short Description: The proposed activity is Revision 2 to Procedures OP-3-1000-15, IROFS 50a Uranium Byproduct Cylinder (UBC) Storage Pad Barrier Control and OP-3-1000-22, IROFS 50h UBC Storage Pad Barrier Control. This revision updates the referenced area of concern following the issuance of OP-3-1000-24, IROFS 50 Series Areas of Concern. In addition, these procedures were updated to reflect modifications to similar IROFS 50 breach permits that allow Operators to sign one of the required signatures on a Control Boundary Breach permit and more adequately defines the requirements for de-posting the flag person. The specifics of the revisions are contained in the revision summary of the procedures.

Findings

Does the change create a new type of accident sequence that, unless mitigated or prevented, would exceed the performance requirements of § 70.61?

YES

NO

Does the change use new processes, technologies, or control systems for which the licensee has no prior experience?

YES

NO

Does the change remove an IROFS without equivalent replacement of the safety function?

YES

NO

Does the change alter any sole IROFS?

YES

NO

Is the change prohibited by other regulations?

YES

NO

Conclusion:

These changes are procedural clarifications/slight modifications in how the UBC Storage Pad barriers are controlled administratively to ensure construction vehicles or other do not intrude and potentially compromise stored cylinders. Staff agrees with the licensee's assessment that NRC pre-approval of the change was not warranted.

Facility Change Package: 2011-0143

Short Description: The proposed activity is for CC Number CC-EG-2011-007. This activity is the owner acceptance review (OAR) for a Simpson, Gumpertz & Heger calculation (CA-02), Response Spectra Generation for SBM-1003 Building. The purpose of this document is to analyze the response of SBM-1003 to a design basis earthquake (DBE), and demonstrate that the building design will maintain structural integrity during this event. This proposed change requires update to the Integrated Safety Analysis (ISA) Summary Section 3.2.6 to describe the seismic analysis of SBM-1003. Additionally, Safety Analysis Report (SAR) Section 1.3.5.2 was revised to clarify the difference between the 10,000 years earthquake (0.15g) and the DBE (0.1611g). This difference is described in ISA Summary Section 3.2.6

Findings

Does the change create a new type of accident sequence that, unless mitigated or prevented, would exceed the performance requirements of § 70.61?

YES

NO

Does the change use new processes, technologies, or control systems for which the licensee has no prior experience?

YES

NO

Does the change remove an IROFS without equivalent replacement of the safety function?

YES

NO

Does the change alter any sole IROFS?

YES

NO

Is the change prohibited by other regulations?

YES

NO

Conclusion:

This change is essentially an update to the ISA/SAR descriptions for building SBM-1003 and the design basis earthquake to state how the structure complies with the commitments to withstand the design basis earthquake, the magnitude of which was not changed. Demonstration of compliance was a contractor's analysis for which this change package was initiated to show owner acceptance review. The contractor's analysis was not included in the change package reviewed. Staff agrees with the licensee's assessment that NRC pre-approval of the change was not warranted.

Facility Change Package: 2011-0150

Short Description: This modification makes a temporary modification a permanent plant modification. Temporary modification 10-773-001 was initiated to keep the trace heating circuits for all Low temperature Take-off Station feed purification, product and tails stations in the active state. This modification was made to ensure the cylinder surface and valve remains at an adequate temperature for normal operation.

Findings

Does the change create a new type of accident sequence that, unless mitigated or prevented, would exceed the performance requirements of § 70.61?

YES **NO** TBD

Does the change use new processes, technologies, or control systems for which the licensee has no prior experience?

YES **NO**

Does the change remove an IROFS without equivalent replacement of the safety function?

YES **NO**

Does the change alter any sole IROFS?

YES **NO**

Is the change prohibited by other regulations?

YES **NO**

Staff's Conclusion

The change makes permanent a modification to make sure that the cylinder surface and valve for purification, product and tail stations remain heated to reduce the potential for UF₆ condensation.

The evaluation of the change performed on Form LS-3-1000-04 dated 3/14/2011 was reviewed by NRC staff and considered to be complete. The review package also included a completed Minor Modification Request Form (EG-3-4100-02-F-9) dated 3/6/2011. The proposed change was reviewed and approved (with conditions if appropriate) by plant operations, plant maintenance, training, ISA engineering and plant engineering. The documentation showed that any approval conditions were met.

The staff agrees with the licensee's assessment that the change could be made without NRC approval.

Facility Change Package: 2011-0218

Short Description: The proposed activity is Revision 7 to Procedure PR-3-2000-01, URENCO USA (UUSA) Control of Procurement. This procedure specifies process and responsibilities for controlling the procurement of items, materials, parts, and components, and services required for UUSA. This revision is primarily to implement a number of UUSA programmatic and procedural changes involving: (1) how IROFS Support Components (SAR Table 3.4-1) are to be procured (QL-3) and then controlled as QL-2AC after receipt inspection; (2) how basic components of QL-1 F fire rated features like bolts, screws and sheet metal, can be procured as QL-3 items if the supplier does not have a Underwriters Laboratories or Factory Mutual certification; (3) reduction in the scope of QA review of procurement documents to only those involving QL classifications QL-1, QL-1F and QL-1G; and (4) removal of the current mixing of QL classifications and equipment groupings in the same sentence to that of QLs and "Applications." Other intent changes made that corrects procedural structure weaknesses or enhances the procedure. The specifics of the revision are contained in the revision summary of the procedure.

Findings

Does the change create a new type of accident sequence that, unless mitigated or prevented, would exceed the performance requirements of § 70.61?

YES **NO** TBD

Does the change use new processes, technologies, or control systems for which the licensee has no prior experience?

YES **NO**

Does the change remove an IROFS without equivalent replacement of the safety function?

YES **NO**

Does the change alter any sole IROFS?

YES **NO**

Is the change prohibited by other regulations?

YES **NO**

Conclusion

LES made changes to procedure PR-3-2000-01, UUSA Control of Procurement. The staff reviewed the changes and found them to be in accordance with §70.72.

Facility Change Package: 2011-0239

Short Description: LES revised its SAR, Quality Assurance Program (QAPD), and the ISA Summary to include licensing basis clarification information provided by LAR-10-08 correspondence LES-10-00127-NRC, LES-10-0212-NRC, LES-10-00257-NRC, and LES-10-00261-NRC as approved by the NRC Safety Evaluation Report issued in December 23, 2010. The changes provide additional clarification of the previously approved requirements contained in Section 23 of the LES QAPD.

Findings

Does the change create a new type of accident sequence that, unless mitigated or prevented, would exceed the performance requirements of § 70.61?

YES **NO** TBD

Does the change use new processes, technologies, or control systems for which the licensee has no prior experience?

YES **NO**

Does the change remove an IROFS without equivalent replacement of the safety function?

YES **NO**

Does the change alter any sole IROFS?

YES **NO**

Is the change prohibited by other regulations?

YES **NO**

Conclusion

LES made changes to procedure PR-3-2000-01, UUSA Control of Procurement. The staff reviewed the changes and found that no reductions in commitments were made to Section 23 of the LES QAPD. In addition, these changes were submitted to the NRC according to Section 19 of the LES QAPD (ML11231A963).

Facility Change Package: 2011-0295

Short Description: This CC removes Accident Sequence PB1-3 from the ISAS and SAR and changes the applicability of IROFS 45 to only apply to the CRDB and not to the Blending and Liquid Sampling Area (BLSA) or the UF₆ Handling Area. Previously IROFS 45 included language that it applied to the BLSA and the CRDB. However, when the CRDB was redesigned the BLSA was relocated to within the UF₆ Handling Area in SBM-1001, and the accident described in Accident Sequence PB1-3 is not credible in the UF₆ Handling Area.

Findings

Does the change create a new type of accident sequence that, unless mitigated or prevented, would exceed the performance requirements of § 70.61?

YES ☒ NO TBD

Does the change use new processes, technologies, or control systems for which the licensee has no prior experience?

YES ☒ NO

Does the change remove an IROFS without equivalent replacement of the safety function?

☒ YES NO (However, the IROFS is 'removed' because the accident sequence was deemed incredible; and therefore, the IROFS wasn't needed to meet § 70.61, thus satisfying the additional clause in § 70.72(c)(2) that doesn't appear on this form).

Does the change alter any sole IROFS?

YES ☒ NO (As per R.G. 3.74: The safety function of a 'sole IROFS' was not altered)

Is the change prohibited by other regulations?

YES ☒ NO

Conclusion

The licensee correctly determined that the change didn't require prior NRC approval, as per the interpretation of § 70.72 in R.G. 3.74. This hinges on the interpretation that adjusting the areas of the facility in which a 'sole IROFS' is applied, because the event sequence is now deemed "Not credible," does not constitute altering a 'sole IROFS.' The staff reviewed the changes and found them to be in accordance with § 70.72.

Facility Change Package: 2011-0296

Short Description: This Configuration Change, CC-EG-2011-0007, removes Accident Sequence PB1-3 from the ISAS and SAR and changes the applicability of IROFS 45 to only apply to the CRDB and not to the BLSA or the UF₆ Handling Area. (Note the BLSA was previously located in the CRDB, but is now contained in the UF₆ Handling Area). Previously IROFS 45 included language that it applied to the BLSA and the CRDB. However, when the CRDB was redesigned the BLSA was relocated to within the UF₆ Handling Area in SBM-1001, and the accident described in Accident Sequence PB1-3 is not credible in the UF₆ Handling Area. There are no cranes inside the UF₆ Handling Area or other material handling equipment that could credibly enable the stacking of 30B product cylinders and cause a criticality.

This CC also revises the definition and implementation of IROFS 45 and revises Accident Sequence RDI-1, which applies to the CRDB. The intent of IROFS 45 is to ensure that no more than one filled or heeled 30B product cylinder is stacked or suspended above an array of other filled or heeled 30B cylinders, thus preventing the possibility of a nuclear criticality.

Screening: This change would require a license amendment, due to altering a 'sole IROFS.'

Findings

Does the change create a new type of accident sequence that, unless mitigated or prevented, would exceed the performance requirements of § 70.61?

YES ☒ NO ☐ TBD

Does the change use new processes, technologies, or control systems for which the licensee has no prior experience?

YES ☒ NO ☐

Does the change remove an IROFS without equivalent replacement of the safety function?

YES ☒ NO ☐

Does the change alter any sole IROFS?

☒ YES ☐ NO (The definition of the IROFS is being revised)

Is the change prohibited by other regulations?

YES ☒ NO ☐

Conclusion

In Section 5: "Disposition of 70.72 (c) Evaluation" of EG-3-2100-01-F-1 "Configuration Change Form" Tim Harney checked the boxes labeled: "Change does require prior NRC approval," and "CC is **not** acceptable, cancel CC." He added the comment: "Management decision - No IROFS alteration." Section 6 has been crossed out, and indicates the change was cancelled and never implemented. However, it was provided to the NRC with the list of completed changes, for which prior NRC approval was not needed. Forward to Region II for consideration during inspection of LES change process/configuration management.

Facility Change Package: 2011-0297

Short Description: This change package, MA-3-3400-11, involved issuance of a procedure that establishes management measures for IROFS 11. The procedure provides instructions for functionally testing and calibrating the Autoclave Heater/Fan Trip generated by the PT100 Resistance Temperature Detector (IROFS 11). This procedure satisfies the surveillance requirements of ISA Summary IROFS 11 and the Operating Requirements Manual (ORM) 3470-2. In all cases, the proposed procedure implements ISA & SAR requirements and restore the associated SSC to its design configuration following completion of the activity. The proposed procedures implement the maintenance management measures associated with the verification of IROFS functionality and operability.

Findings

Does the change create a new type of accident sequence that, unless mitigated or prevented, would exceed the performance requirements of § 70.61?

YES **NO** TBD

Does the change use new processes, technologies, or control systems for which the licensee has no prior experience?

YES **NO**

Does the change remove an IROFS without equivalent replacement of the safety function?

YES **NO**

Does the change alter any sole IROFS?

YES **NO**

Is the change prohibited by other regulations?

YES **NO**

Conclusion: This change was issuance of a procedure to establish management measures to ensure IROFS11 is reliable and available. This did not involve any changes to IROFS or otherwise impact the ISA. Staff agrees that the change did not warrant NRC pre-approval.

Facility Change Package: 2011-0300

Short Description: The proposed activity is Design Change Notice DCN-2011-004. This activity is to install IROFS C21 in the Pressure Transducer Calibration Rig (0000-499-1U1). There is a postulated scenario where if the valve lineup is incorrect (operator error), the rig could vent to atmosphere. The IROFS C21 orifice spool is installed in locations upstream of the two pumping trains to reduce flow and minimize consequence to the local worker.

Findings

Does the change create a new type of accident sequence that, unless mitigated or prevented, would exceed the performance requirements of § 70.61?

YES

NO

Does the change use new processes, technologies, or control systems for which the licensee has no prior experience?

YES

NO

Does the change remove an IROFS without equivalent replacement of the safety function?

YES

NO

Does the change alter any sole IROFS?

YES

NO

Is the change prohibited by other regulations?

YES

NO

Conclusion:

This change involved adding IROFS C21 (flow reducing orifices) to the Pressure Transducer Calibration Rig. This was necessary as the rig had previously only been designated to be used in non-UF₆ contaminated systems but is apparently now being proposed for use on UF₆ systems. As such, accident sequences and IROFS C21, which were previously not applicable, are now applicable and the ISA and SAR were adjusted to reflect this. IROFS C21 is a sole IROFS. The calculation for the orifice size was performed to meet the § 70.61 performance criteria. Staff agrees that the change did not warrant NRC pre-approval.

Facility Change Package: 2011-0440

Short Description: This change package, CC-EG-2008-126, involves the removal of Accident Sequence PB3-3 and associated IROFS 3 and 47a. The licensee determined that the accident sequence falls into the category of not credible based on NUREG 1520 criteria: a process deviation that consists of a sequence of many human actions or errors for which there is no reason or motive. Therefore, the associated IROFS 3 and 47a were determined to not be required to meet § 70.61 performance requirements.

Findings

Does the change create a new type of accident sequence that, unless mitigated or prevented, would exceed the performance requirements of § 70.61?

YES **NO** TBD

Does the change use new processes, technologies, or control systems for which the licensee has no prior experience?

YES **NO**

Does the change remove an IROFS without equivalent replacement of the safety function?

YES NO See discussion in conclusion

Does the change alter any sole IROFS?

YES **NO**

Is the change prohibited by other regulations?

YES **NO**

Conclusion: The licensee states that, only after three coincident failures to allow the pump to first run AND after multiple additional failures initiating the accident sequence itself and during a small window of opportunity, the PB3-3 sequence may initiate. Without the pump running, initiation of these accident sequences is not physically possible. The design changes in CC-EG-2008-126 (DCP ETC4054921), Product Blending, eliminated the potential for the pump to be running, which eliminates the potential for the PB3-3 accident sequence to initiate.

While the licensee's description of the accident sequence in this package appears on the surface to meet the definition in NUREG-1520, it was noted that the discussion appears to credit several controls/alarms/etc. As discussed in NUREG-1520, "the fact that an event is not credible must not depend on any facility feature that could credibly fail to function, or be rendered ineffective as a result of a change to the system." Valves, sensors, PLC controls, and response to alarms should fall into this category. It is unclear if the accident sequence meets the definition of not credible.

Facility Change Package: 2011-0588

Short Description: The SAR and ISA Summary are being changed to incorporate various corrective actions from condition reports. The SAR changes include updating the Table 6.1-2 to the new values identified in the ISA Calculation 32-2400503-01-LES Attachment F (ISA Consequences Assessments of Airborne Releases Attachment F: Fire Accident Scenarios) and broaden the SAR statement pertaining to SBM operations due to allowance to store product cylinders in the UF₆ Handling Area. The ISA Summary changes were to: 1) Update the facility fire accident sequences to be consistent with the applicable ISA, which was updated due to the addition of SBM-1003 as each SBM has a different material at risk inventory. The description of the UF₆ inventory was described in more generic terms. 2) Corrected the public consequences statement in Accident Sequence EC4-1 as the public consequences are low. 3) Updated the 30B product cylinder criticality analysis based on the nuclear criticality safety analysis (NCS-CSA-016).

Findings

Does the change create a new type of accident sequence that, unless mitigated or prevented, would exceed the performance requirements of § 70.61?

YES ☒ NO

Does the change use new processes, technologies, or control systems for which the licensee has no prior experience?

YES ☒ NO

Does the change remove an IROFS without equivalent replacement of the safety function?

YES ☒ NO

Does the change alter any sole IROFS?

YES ☒ NO

Is the change prohibited by other regulations?

YES ☒ NO

Conclusion

The proposed configuration change as describe above updated the SAR and ISA Summary based on the identified condition reports' action items. The changes basically updated the SAR and ISA Summary to be consistent with current operations, updated nuclear criticality safety analysis, and updated ISA assessment for facility fire scenarios. No IROFS are affected by the proposed configuration change. Staff agrees that the change did not warrant NRC pre-approval in accordance with § 70.72.