



~~OFFICIAL USE ONLY~~

1205 banner hill road ■ erwin, tn 37650 ■ phone 423.743.9141  
www.nuclearfuelservices.com

21G-17-0038  
GOV-01-55-04  
ACF-17-0012

January 23, 2017

Director, Office of Nuclear Material Safety and Safeguards  
U.S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, DC 20555

Reference: Docket No. 70-143; SNM-124

**Subject: Submittal of Internally  
Authorized Changes (IACs) for  
Calendar Year 2016**

<p><del>OFFICIAL USE ONLY</del></p> <p>May be exempt from public release under the Freedom of Information Act (5 U.S.C. 552)</p> <p>Exemption number <u>7</u></p> <p>Nuclear Regulatory Commission review required before public release.</p> <p><u>P. Shaeffer</u> /NFS, Inc.</p> <p>Name and organization of person making determination</p> <p>Date of Determination <u>1/17/2017</u></p>
--

In accordance with 10 CFR 70.72(d)(2), Nuclear Fuel Services, Inc. (NFS) hereby submits a summary of the four Internally Authorized Changes (IACs) that were implemented at NFS during Calendar Year 2016.

The *Summary of IACs Implemented During Calendar Year 2016* (Attachment 1) includes for each IAC: IAC number, IAC Title and Reason for IAC, and the Date the IAC was Released for Operation. The "Reason for IAC" includes a brief description of why the change was made.

In accordance with Section 11.1.1, paragraph 1, of SNM-124, each IAC was reviewed by NFS safety disciplines, and the questions from 10 CFR 70.72(c)(1 - 4) were answered using the documentation format shown in Attachment 2. If the answer was "Yes" to any of the questions, then NRC approval was required. Each IAC was also approved by the Safety and Safeguards Review Council (SSRC). All IACs included in Attachment 1 did not require pre-approval under 10 CFR 70.72 because responses to each question from 10 CFR 70.72(c)(1 - 4) were "No."

**Information provided in Attachment 1 includes sensitive information and is marked as "Official Use Only" in accordance with 5 U.S.C. 552, and is not suitable for public release.**

The Integrated Safety Analysis (ISA) Summaries that reflect changes to existing NFS operations were revised and are being submitted under separate cover letter in accordance with 10 CFR 70.72(d)(3). To assist in your review of the revised ISA Summaries, Attachment 1 groups the IACs by the ISA Summary that relates to each process change.

~~OFFICIAL USE ONLY~~

**WHEN DETACHED, HANDLE THIS PAGE AS DECONTROLLED**

NMSS20

~~OFFICIAL USE ONLY~~

If you or your staff have any questions, require additional information, or wish to discuss this further, please contact me at (423) 743-1705, or Mr. Robert Maurer, Acting ISA and Fire Protection Manager, at (423) 735-5583. Please reference our unique document identification number (21G-17-0038) in any correspondence concerning this letter.

Sincerely,

**NUCLEAR FUEL SERVICES, INC.**



Richard J. Freudenberger, Director  
Safety and Safeguards

EAS/pdj

Attachment 1: Summary of Internally Authorized Changes (IACs) Implemented During Calendar Year 2016 (IAC-884, IAC-886, IAC-887, and IAC-890)

Attachment 2: License Amendment Evaluation from NFS-HS-A-67

~~OFFICIAL USE ONLY~~

WHEN DETACHED, HANDLE THIS PAGE AS DECONTROLLED

~~OFFICIAL USE ONLY~~

Copy:

Regional Administrator  
U.S. Nuclear Regulatory Commission  
Region II  
245 Peachtree Center Ave., NE, Suite 1200  
Atlanta, GA 30303-1257

Mr. Leonard Pitts  
Senior Fuel Facility Inspector  
U.S. Nuclear Regulatory Commission  
Region II  
245 Peachtree Center Ave., NE, Suite 1200  
Atlanta, GA 30303-1257

Mr. Marvin Sykes  
Chief, Project Branch I  
US Nuclear Regulatory Commission  
Region II  
245 Peachtree Center Ave., NE, Suite 1200  
Atlanta, GA 30303-1257

Mr. Kevin Ramsey  
Senior Project Manager  
Fuel Manufacturing Branch  
Division of Fuel Cycle Safety, Safeguards,  
and Environmental Review  
Office of Nuclear Material Safety and Safeguards  
U.S. Nuclear Regulatory Commission  
Two White Flint North  
11555 Rockville Pike  
Rockville, MD 20852-2738

Mr. Larry Harris  
Senior Resident Inspector  
U.S. Nuclear Regulatory Commission

~~OFFICIAL USE ONLY~~

WHEN DETACHED, HANDLE THIS PAGE AS DECONTROLLED

~~OFFICIAL USE ONLY~~

ATTACHMENT 1

Summary of Internally Authorized Changes (IACs)  
Implemented During Calendar Year 2016

1 page to follow

<p><del>OFFICIAL USE ONLY</del></p> <p>May be exempt from public release under the Freedom of Information Act (5 U.S.C. 552)</p> <p>Exemption number <u>7</u></p> <p>Nuclear Regulatory Commission review required before public release</p> <p><u>R. Shadeitord</u> /NFS, Inc.</p> <p>Name and organization of person making determination</p> <p>Date of Determination <u>1/19/2017</u></p>
---

~~OFFICIAL USE ONLY~~

WHEN DETACHED, HANDLE THIS PAGE AS DECONTROLLED

~~OFFICIAL USE ONLY~~

**ATTACHMENT 2**

License Amendment Evaluation from NFS-HS-A-67

3 pages to follow

**WHEN DETACHED, HANDLE THIS PAGE AS DECONTROLLED**

**OFFICIAL USE ONLY**

NFS-HS-A-67, Revision 12  
DATE  
Page 25 of 28  
Attachment A  
SAFETY AND REGULATORY REVIEW ROUTING FORM  
(Part I, Front Side)

FM-NFS-HS-A-67-A, Rev. 4, NFS-HS-A-67  
Authorization of Form (initials):

Revision Date: 09/08/2015

LIC-11

**SAFETY & REGULATORY REVIEW ROUTING FORM (Part I)**

Date In: / /	Date Out With Comments: / /
Date Approved: / /	Date Returned: / /

Circle Review Type → Procedure - LOA - CA/CCP - FWP - WR - GH-44 Att. A - New Feed Material - Other

Number: Section: Revision:

Title/Subject:

Originator: Phone No.: ECR#:

SSRC Comments from Triennial Reviews of Procedures: Attached / None / NA

Safety Discipline Review Questions (Place comments, if needed, on the back of this form)	Ind. Safety	Rad. Safety	Env. Safety	Crit.* Safety	ISA/Fire Safety*	Other†
<b>A. Is the attached document related to an existing Internally Authorized Change (IAC)?</b> If yes, enter IAC Number . If no, is an IAC required? (Be prepared to justify your answer)						
1. The change may significantly affect radiological or criticality safety.		Y/N		Y/N		Y/N
2. The change may significantly affect environmental, industrial, or fire safety.	Y/N		Y/N		Y/N	Y/N
3. The change results in non-compliance with an existing license condition.	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
4. The change results in facilities, equipment, procedures, or safety controls substantially different from those currently in use.	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
5. The change requires revision of the applicable safety or environmental basis.	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
6. The change results in a violation of currently established criticality, industrial, fire, radiological, or environmental safety principles, or established methods of maintaining radiation exposures ALARA.	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
7. The change involves decommissioning-related activities. If yes, Env. Safety must attach a completed Form FM-NFS-GH-44-H.	Y/N	Y/N	Y/N	Y/N		Y/N
<b>B. Is a license document change required? (Be prepared to justify your answer)</b>						
1. The change requires a modification to a license condition or to SNM-124. If yes, provide license pages with edits to Licensing to support completion of Part II of this form (to determine the type of license change required).	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
2. The change results in the creation of a new type of accident sequence that, unless mitigated or prevented, would result in high or intermediate consequences (exceed the performance requirements of 10 CFR 70.61) and has not previously been described in the ISA summary.				Y/N	Y/N	
3. The change results in the usage of new processes, technologies, or controls for which NFS has no prior experience.	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
4. The change results in the removal, without at least an equivalent replacement of the safety function, of an item relied on for safety that is listed in the ISA summary and is necessary for compliance with the performance requirements of 10 CFR 70.61.				Y/N	Y/N	
5. The change results in the alteration of any item relied on for safety, listed in the ISA summary, that is the sole item preventing or mitigating an accident sequence that exceeds the performance requirements in 10 CFR 70.61.				Y/N	Y/N	
6. The change requires an NRC-approved Decommissioning Plan.			Y/N			
<b>C. Is a safety basis document available? (Examples include ACE, FHA, ISA, PHA, NCSE, Env. Rpt., Emergency Plan, TDEC Permit, etc.)</b>						
1. If yes, has a revision already been completed that addresses this change?		Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA
2. If no to #1 of this section, is a revision needed prior to implementing the change?		Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA
3. If no safety basis document is available, is one needed?		Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA
4. The change may affect criticality detector system coverage or audibility of criticality alarms.		Y/N/NA		Y/N/NA		Y/N/NA
5. Does the change require a walkdown?				Y/N/NA	Y/N/NA	
<b>D. Is a current IROFS/SRE list available? (circle one: Yes / No)</b>						
1. If yes, is a revision needed prior to implementing the change?				Y/N/NA	Y/N/NA	
2. If no, is a new list needed prior to implementing the change?				Y/N/NA	Y/N/NA	
*Must review all changes involving SNM equipment/processes	Initials ⇒					
	Concurrence ⇒					

†Other – (EP, NDA, ES)

RETURN COMPLETED FORM TO SAFETY DEPARTMENT ADMINISTRATIVE ASSISTANT

NOTE: Knowingly or willfully falsifying or concealing a material fact on this form, or making false, fictitious or fraudulent statements or representations herein could constitute a felony punishable under Federal Statutes.

NFS PROPRIETARY INFORMATION This document, including all information contained herein, is property of Nuclear Fuel Services, Inc. (NFS). If this document is transmitted or loaned to any non-NFS parties, it is subject to return on demand, and is not to be copied, reproduced, made available or disclosed by said parties, without prior written consent of NFS.

**WHEN DETACHED, HANDLE THIS PAGE AS DECONTROLLED**

**~~OFFICIAL USE ONLY~~**

NFS-HS-A-67, Revision 12

DATE

Page 26 of 28

Attachment A

**SAFETY AND REGULATORY REVIEW ROUTING FORM**

(Part I, Back Side)

Safety & Regulatory Management Review Questions (Place comments, if needed, on the bottom of this form)	SSRC Safety	SSRC Chair
1. Does the BLEU Complex Safety Manager need to review?	Y/N/NA	Y/N/NA
2. SSRC comments from Procedure reviews have been resolved?		Y/N/NA
3. Add Procedure to SSRC review list? (For new procedures only)		Y/N/NA
4. Does the change have a negative impact on NDA measurements or measurement systems? (If yes, notify the change originator and NDA)	Y/N/NA	Y/N/NA
5. IAC is required? (If yes, send copy of form to Originator to initiate IAC process) IAC Number	Y / N	Y / N
6. IAC Final Installation Reviews are complete? (If no, withhold approval of LOA or SOP until reviews are complete or the IAC release is being tracked by an ORR.)		Y/N/NA
7. License document change is required? (If yes, verify Part II is attached, and send copy of form to Licensing Mgr.)	Y / N	Y / N <sup>o</sup>
<b>NOTE FOR QUESTIONS 8 AND 9:</b> If question C.2, D.1 or D.2 is answered "yes" ensure the safety basis document (question 8) and/or the IROFS/SRE list (question 9) is generated/revised prior to implementation of the change for procedures and LOAs.		
8. Generate/revise safety basis document? (If yes, send copy of form to appropriate Safety Mgr.)	Y / N	Y / N
9. Generate/revise IROFS/SRE list? (If yes, send copy of form to ISA Manager)	Y / N	Y / N
<sup>o</sup> Chairman acts on behalf of SSRC, provided no IAC is required. Initials →		
Comments / Basis (Attach additional Sheets, if needed)		

**Industrial Safety**

**Radiological Safety**

**Environmental Safety**

**Criticality Safety**

**Safety Analysis (ISA)**

	*Impact to Safety Basis ?	Initials	Screening Guideline *Circle the applicable	Comments
Chem	Y / N		1 2 3a 3b 3c 3d 4 5 6 7 8 9 10 11 12	
Rad	Y / N		1 2 3a 3b 3c 3d 4 5 6 7 8 9 10 11 12	
Fire	Y / N		1 2 3a 3b 3c 3d 4 5 6 7 8 9 10 11 12	

\*If any are answered "No" by an ISA Team Leader, circle criteria item number(s) that apply from Attachment B in the Screening Guideline column.

**SSRC Safety**

**SSRC Chairman**

**BLEU Complex Safety Mgr.**

**Other**

NOTE: Maintain Record (Form) until Termination of License SNM-124

**WHEN DETACHED, HANDLE THIS PAGE AS DECONTROLLED**

**~~OFFICIAL USE ONLY~~**

NFS-HS-A-67, Revision 12

Date

Page 27 of 28

Attachment A

**SAFETY AND REGULATORY REVIEW ROUTING FORM  
(Part II)**

FM-NFS-HS-A-67-A, Rev. 4, NFS-HS-A-67

Authorization of Form (initials): \_\_\_\_\_

Revision Date: 09/08/2015

LIC-11

**SAFETY & REGULATORY REVIEW ROUTING FORM (Part II)**

**License Document Change (Administrative or Amendment)**

As specified in SNM-124 License Condition S-2, the following are examples of administrative changes that generally do not require prior NRC approval:

- modifications to facility and process descriptions
- enhancements or clarifications of text
- grammatical corrections
- reformatting of text.

If the following questions are answered "no" the license document change is administrative. Give justification in the provided space and/or attach evidence. (e.g., redlined safety basis documents, procedure mark-ups, etc.)		Licensing
1. The change decreases the level of effectiveness of the design basis as described in the License Application.		Y / N
Justification:		
2. The change results in a departure from the methods of evaluation described in the License Application used in establishing the design basis.		Y / N
Justification:		
3. The change results in a degradation of safety.		Y / N
Justification:		
4. The change affects compliance with applicable regulatory requirements.		Y / N
Justification:		
5. The change conflicts with an existing license condition.		Y / N
Justification:		

Checklist for License Document Changes (To be completed by Licensing)	Licensing Initials	
	Administrative	Amendment
The license page(s) has been modified.		
The license page(s) has been approved by the SSRC.		
The licensing Sharepoint Site and eB have been updated to reflect the license document change.		
A PIRCS entry, with a due date no later than 6 months from the time of implementation of the change, has been made for submittal of the license document page(s) to the NRC. (PIRCS ID _____)		

NOTE: Knowingly or willfully falsifying or concealing a material fact on this form, or making false, fictitious or fraudulent statements or representations herein could constitute a felony punishable under Federal Statutes.

**NFS PROPRIETARY INFORMATION** This document, including all information contained herein, is property of Nuclear Fuel Services, Inc. (NFS). If this document is transmitted or loaned to any non-NFS parties, it is subject to return on demand, and is not to be copied, reproduced, made available or disclosed by said parties, without prior written consent of NFS.

**WHEN DETACHED, HANDLE THIS PAGE AS DECONTROLLED**