

**From:** [Diaz, Marilyn X](#)  
**To:** [Morie, Amaryl A](#)  
**Cc:** [Ramsey, Kevin](#)  
**Subject:** NFS Chemical Safety Audit - Nov. 9 Conference Call Summary  
**Date:** Monday, November 21, 2016 8:50:00 AM

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Hi Amaryl,

This email provides a high level summary of the information discussed during the NFS-NRC teleconference on Wednesday, November 9, 2016.

The purpose of the call was to clarify NRC's questions regarding quantities of HF in the laboratory. The NRC's questions are related to the audit summary report staff is developing to document the details of the chemical safety audit conducted on June 26, 2016. The reason for the additional information on HF lab quantities is to understand NFS chemical analyses including laboratory areas. 70.61 requires each licensee to evaluate in an ISA its compliance with the performance requirements in paragraphs 70.61(b), (c) and (d). This includes the evaluation of acute chemical exposure from licensed material or hazardous chemicals produced from licensed material. This requirement applies to all activities at a licensee's facility that are under NRC's regulatory authority. If a licensee conducted an ISA for activities related to SNM, we expect the licensee to demonstrate how they comply with the 70.61 requirement. If it is not comingled or mixed with SNM then it should be evaluated in accordance with OSHA regulations.

On October 9, 2016, the NRC licensing project manager, Kevin Ramsey, mentioned that NFS had a comment regarding a statement NRC staff used in the audit report stating that "NFS no longer has HF hazard" because NFS still handled small quantities of HF in the laboratories and this was evaluated in the ISA for inhalation exposure. The NRC staff noted that HF was not listed in the chemicals used in the lab in the ISA summaries. Emily Senter, NFS ISA manager, responded on October 19, 2016, that HF is not a chemical of concern because it was evaluated for inhalation exposure and resulted in low consequence for scenarios in the labs therefore it wouldn't be in the ISA Summary. The information received by emails was not clear and did not completely respond to the NRC staff questions.

On October 26, 2016, the NFS licensing manager, Amaryl Morie, responded that "NFS considers HF in laboratory experiments and analytical testing to be excluded from dermal and ocular exposure evaluations. NFS laboratories will follow their specific operating procedures and/or Chemical Hygiene Plan in accordance with OSHA 1910.1450(e). Please reference Babcock & Wilcox Nuclear Operations Group, Inc. – Lynchburg's letter to the NRC titled "Proposed Standard for Dermal and Ocular Quantitative Exposure," dated June 8, 2015." Our evaluation of the B&W letter focused on the proposed standard and did not approve the laboratory statement. Our position is that no exemption from the ISA requirements was granted in our acceptance of the B&W standard. The regulations in 10 CFR 70.62(c) require that your ISA identify and evaluate hazards associated with licensed material in all areas, including your laboratories. If the dermal and ocular hazards associated with your laboratory experiments are low consequence or not credible, your ISA must contain an evaluation supporting those conclusions. We believe B&W understands our position on this matter.

Other licensees do analyze for dermal and ocular exposures in their laboratories in their ISA and ISA Summary. However, NRC staff understands that sometimes the quantities used in laboratories are small and may not raise to the level of an ISA Summary. This can be demonstrated by the ISA evaluation.

I believe our discussion on Nov. 9<sup>th</sup> was productive and helpful. If you have any other question, please let Kevin or me know.

We received the additional information requested. We are reviewing the information.

Thanks,

*Marilyn Diaz,*

Chemical Engineer  
U.S Nuclear Regulatory Commission  
NMSS/FCSS/FMB  
Washington, DC 20555  
(301)415-7110

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**From:** Morie, Amaryl A [<mailto:aamorie@nuclearfuelservices.com>]

**Sent:** Wednesday, October 26, 2016 4:02 PM

**To:** Diaz, Marilyn X <[Marilyn.Diaz@nrc.gov](mailto:Marilyn.Diaz@nrc.gov)>

**Cc:** Ramsey, Kevin <[Kevin.Ramsey@nrc.gov](mailto:Kevin.Ramsey@nrc.gov)>; Morie, Amaryl A <[aamorie@nuclearfuelservices.com](mailto:aamorie@nuclearfuelservices.com)>

**Subject:** [External\_Sender] RE: Chem Safety Audit

Hi Marilyn,

Below please find our response to your question:

NFS' understanding of the reason for the query is to provide input into the NRC's Acute Chemical Exposure Audit Report for the NFS site. To be consistent with other industry NRC submittals, NFS considers HF in laboratory experiments and analytical testing to be excluded from dermal and ocular exposure evaluations. NFS laboratories will follow their specific operating procedures and/or Chemical Hygiene Plan in accordance with OSHA 1910.1450(e). Please reference Babcock & Wilcox Nuclear Operations Group, Inc. – Lynchburg's letter to the NRC titled "Proposed Standard for Dermal and Ocular Quantitative Exposure," dated June 8, 2015.

Thanks,  
Amaryl

**Amaryl Morie, MBA, PE, PMP**

Safety & Safeguards Program manager and Licensing Manager

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**From:** Diaz, Marilyn X [<mailto:Marilyn.Diaz@nrc.gov>]  
**Sent:** Friday, October 21, 2016 5:32 PM  
**To:** Morie, Amaryl A <[aamorie@nuclearfuelservices.com](mailto:aamorie@nuclearfuelservices.com)>  
**Cc:** Ramsey, Kevin <[Kevin.Ramsey@nrc.gov](mailto:Kevin.Ramsey@nrc.gov)>  
**Subject:** EXTERNAL: Chem Safety Audit

Hi Amaryl,

Based on the comment that NFS handles small quantities of HF in the laboratories, I reviewed the lab ISA Summaries and did not find the information about HF. Kevin mentioned that Emily had responded that it is not in the ISA Summary because is not a chemical of concern. To better understand the case of HF in the laboratories, could you or Emily provide the quantities, concentration and uses of HF in the Labs?

Thanks,

*Marilyn Diaz,*

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