

## Anderson, Joseph

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**From:** Anderson, Joseph  
**Sent:** Wednesday, October 12, 2011 8:19 AM  
**To:** Bradford.Robinson@aps.com  
**Cc:** [REDACTED] Mroz, Sara; Johnson, Don; Norris, Michael  
**Subject:** EAL FAQ Submittal (October 11, 2011)  
**Attachments:** 101111 EAL FAQ Submittal.pdf

Mr. Robinson:

This e-mail serves to acknowledge receipt of your EAL FAQ, dated October 11, 2011. Per the EAL FAQ process, we will be transmitting your FAQ to the Nuclear Energy Institute (NEI) for evaluation by the industry EAL Task Force as part of a future revision to industry document NEI 99-01, "Methodology for Development of Emergency Action Levels." This transmittal letter, with enclosed EAL FAQ, will be entered into the NRC's Agency-wide Document Access and Management System (ADAMS) as publicly available, and I will ensure that a copy of this letter is e-mailed to you. The issue and proposed resolution will be discussed in at future public meeting with the Nuclear Energy Institute and interested stakeholders based on a schedule to be determined.

Thank you for your interest in this process.

*Joseph D. Anderson, Chief  
Operating Reactor Licensing and Outreach Branch  
Division of Preparedness and Response  
Office of Nuclear Security & Incident Response  
U.S. Nuclear Regulatory Commission*

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**From:** [Bradford.Robinson@aps.com](mailto:Bradford.Robinson@aps.com) [<mailto:Bradford.Robinson@aps.com>]  
**Sent:** Wednesday, October 12, 2011 1:45 AM  
**To:** Anderson, Joseph; [REDACTED]  
**Cc:** [Douglas.Wilson@aps.com](mailto:Douglas.Wilson@aps.com); [AZCRUZN@aol.com](mailto:AZCRUZN@aol.com); [Earl.Bethke@aps.com](mailto:Earl.Bethke@aps.com); [Bradford.Robinson@aps.com](mailto:Bradford.Robinson@aps.com); [Lance.Sharrett@aps.com](mailto:Lance.Sharrett@aps.com)  
**Subject:** Forward to NRC Document Control Desk----EAL FAQ

Dear Sir(s)---As outlined below [REDACTED] from portions of NRC letter RIV-2010-A-0176 dated 10/05/11, please find attached the completed suggested EAL FAQ Form.

The issue you raised would appear primarily to deal with the interpretation of the industry guidance itself (Nuclear Energy Institute 99-01, "Methodology for Development of Emergency Action Levels"), which was not developed but rather endorsed by the NRC. As such, Nuclear Energy Institute 99-01 is not the NRC's document to revise.

Based on discussions with staff members of the Division of Preparedness and Response, we would recommend the following option. Use the Emergency Preparedness Frequently Asked Question

Process, in accordance with the enclosed letter dated August 31, 2005 (ML051950112). to submit emergency action level interpretation questions and/or concerns. The frequently asked question must be generic and not reference a specific site or licensee; however, the frequently asked question may focus on a specific plant design.

In accordance with the process, the NRC staff performs an initial screening of a frequently asked question and any proposed resolution received from an external stakeholder (e.g., State/local representatives, public), and then submits them to the Nuclear Energy Institute for evaluation by the industry Emergency Action Level Task Force. Transmittal of emergency action level frequently asked question documentation between all parties is entered into ADAMS as a public record, and the issue and proposed resolution is discussed in a public meeting with the Nuclear Energy Institute and interested stakeholders. After staff review of the concern and proposed resolution, the staff will document its conclusions on the NRC public webpage (<http://www.nrc.gov/about-nrc/emerg-preparedness/about-emerg-preparedness/emerg-actionlevel-dev.html>). Final resolutions would then serve as the basis for future revision to industry guidance.

The staff is currently engaging industry on Revision 6 to Nuclear Energy Institute 99-01 (ML 110240324), which was submitted to the NRC by Nuclear Energy Institute on January 21, 2011, requesting endorsement. Staff endorsement would occur through a revision to Regulatory Guide 1.101, "Emergency Planning and Preparedness for Nuclear Power Reactors," which would also provide a formal opportunity for public comment.

To ensure your issue and any proposed resolution are accurately documented, we request that you **complete page 1 of the enclosed emergency action level frequently asked question form and submit it to the NRC Document Control Desk, copying Mr. Joseph Anderson, Chief, Operating Reactor Licensing and Outreach Branch.** Mr. Anderson's email address is: [Joseph.Anderson@NRC.gov](mailto:Joseph.Anderson@NRC.gov). Since we are currently engaged with the industry's Emergency Action Level Task Force in considering Revision 6 to the Nuclear Energy Institute 99-01, we would encourage you to submit a completed form at your earliest opportunity. Further questions about this process may be directed to Mr. Anderson at (301) 415-4114.

Sincerely,  
Bradford H. Robinson PE

# EAL Frequently Asked Questions (EALFAQ) Request Form

(Requestor to Complete)

Licensee:	RWNGS	Date Submitted:	10/11/11
Licensee Contact:	Bradford Robinson	Phone:	623-393-4207 e-mail:
NRC Contact:		Phone:	e-mail:

Is this a request for a Site-Specific EPFAQ or a Generic EPFAQ?	Site <input type="checkbox"/>	Generic <input checked="" type="checkbox"/>
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Potentially relevant existing EALFAQ numbers:	
This question involves: (check all that apply)	NEI 99-01 EAL <input checked="" type="checkbox"/> , NESP-007 EALs <input type="checkbox"/> , NUREG 0654 EALs <input type="checkbox"/> , Other <input type="checkbox"/>

**Description of Question:**

Is there a loss of CNMT with RCS exiting uncontrollably directly to the Atmosphere through an Interfacing System (Nuclear Cooling Water)? See Attachment for further details

**Proposed Solution:**

Note: Requestor to complete page 1 of the form and transmit through approved electronic means or mail to apn@nei.org or NEI Emergency Preparedness FAQ, 1776 I St. NW, Suite 400, Washington, DC 20006-3708. Alternatively, the form and supporting documentation may be hand delivered to the NEI EPFAQ Coordinator. The question will be discussed at the next regularly scheduled EP Issue Panel meeting.

Additional pages attached? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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(NEI to complete) Request #	Date entered	By:
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**EAL Frequently Asked Questions (EALFAQ)  
Request Form**

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**EPFAQ Evaluation and Resolution Section**

Issue presented at Joint NRC/NEI EP Issue Panel: Date

**Resolution of EPFAQ**

<small>(NRC EPD Director)</small> Approved by:	Date:
<small>(Industry EP Issue Panel Chairman)</small> Approved by:	Date:

EPFAQ closed in tracking system and EPFAQ database updated: Date:

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The following is in Reference to NEI 99-01 Rev 05 -----

**QUESTION:**

Is there a Loss of CNMT with RCS exiting uncontrollably directly to the Atmosphere through an interfacing System (Nuclear Cooling Water).

The following questions in regards to NEI 99-01 Rev 05 outline this point:

1. Why is a Steam Generator Tube Rupture with a Primary to Secondary leak rate of greater than 10 GPM and an Unisolable steam release from the affected Steam Generator is a LOSS of Containment Barrier and a 40-160 GPM RCS leak through an Unisolable Interfacing (NC) System to Atmosphere is NOT a LOSS of Containment Barrier.
2. Why if a CNMT Purge was in process, a LOCA occurred and Purge could not be isolated it would be a LOSS of CNMT /SAE and a 40-160 GPM RCS leak through an Unisolable Interfacing (NC) System to Atmosphere is NOT a LOSS of Containment Barrier..
3. Why in NEI 99-01 Rev 04 on page 5-F-17 does it state .....

**Containment Isolation Valve Status after Containment Isolation**

**This EAL is intended to address incomplete containment isolation that allows direct release to the environment. It represents a loss of the containment barrier.**

The use of the modifier "direct" in defining the release path discriminates against release paths through interfacing liquid systems. The existence of an in-line charcoal filter does not make a release path indirect since the filter is not effective at removing fission noble gases. Typical filters have an efficiency of 95-99% removal of iodine. Given the magnitude of the core inventory of iodine, significant releases could still occur. In addition, since the fission product release would be driven by boiling in the reactor vessel, the high humidity in the release stream can be expected to render the filters ineffective in a short period. There is no "Potential Loss" EAL associated with this item.

Why NEI 99-01 Rev 05 deleted/modified the above underlined sentence is not clear, since if there is No Loss and per the last sentence of the paragraph there is "No Potential Loss" what's the purpose and why even have the paragraph?

4. Why does NEI 99-01 Rev 4 and 5 state:

The existence of an in-line charcoal filter does not make a release path indirect since the filter is not effective at removing fission noble gases. Typical filters have an efficiency of 95-99% removal of iodine. Given the magnitude of the core inventory of iodine, significant releases could still occur. In addition, since the fission product release would be driven by boiling in the reactor vessel, the high humidity in the release stream can be expected to render the filters ineffective in a short period.

A release through an Interfacing System (NC) would not be filtered and per the above, a release through a filter is not indirect.....so it's direct?

5. Why does NEI 99-01 Draft Rev 6 consider a leak through a non intact system to be a loss of CNMT.

Page 118, -----Second bullet – Containment isolation was not successful on a line that can allow a release of radioactive material to the environment. As used in this threshold, "direct" means that the line provides a pathway for the migration of radioactive materials from the RCS or containment atmosphere to a point in the plant where the material enters, or can become entrained in, a ventilation system flow path that ultimately exhausts to the environment. **A line that is part of an intact closed liquid system is not a "direct" pathway.**

The existence of an in-line filter does not make a release path indirect since the filter is not effective at removing fission product noble gases. Filters typically have an efficiency of 95-99% for removal of iodine. Given the magnitude of the core inventory of iodine, significant releases could still occur. In addition, since the fission product release would be driven by boiling in the reactor vessel, the high humidity in the release stream can be expected to render the filters ineffective in a short period.