

Anderson, Joseph

From: Bradford.Robinson@aps.com
Sent: Friday, December 16, 2011 7:27 PM
To: DLY@NEI.org; Anderson, Joseph
Cc: Earl.Bethke@aps.com; Douglas.Wilson@aps.com; Brian.Ferguson@aps.com; Lance.Sharrett@aps.com
Subject: FW: NEI EP FAQ "resubmittal" -----RCS to NC Leak Eval for NEI 99 01 Rev 05
Attachments: NEI EP FAQ DRAFT 120411.doc

David-----Attached is the "Revised" EP FAQ, after much consideration I feel that this does not need to be resubmitted as a new issue. The reasoning being:

The original submittal went through the NRC and is in their system as "NRC's Agency-wide Documents Access and Management System (ADAMS) under Accession No. ML112850833".

The original submittal was on 10/11/11, again we have gone two months and no closer to resolution to an issue which will be 2 years old in May 2012.

The submittal for a second time will in my mind, create potential confusion.

I believe you understand the issue and response requested.

A "New" submittal will add little additional value to the question at hand.

The instructions contained in the NEI White Paper dated October 2011, Emergency Preparedness Frequently Asked Questions Process page 3 bullet 9, Proposed Solution, States: If you would like to propose a solution to your question, document the solution here. It does not require a proposed solution.

To clarify the question and solution, I have filled out a new format form of the EP FAQ that can be added to the Original for further information and clarity.

I await your earliest response to the question/issue.

Thanks for the assistance, should any questions arise feel free to contact me at work 623-393-4207 or home at 623-566-3177.
Brad

Emergency Preparedness Frequently Asked Questions (EPFAQ) Request Form

NEI EPFAQ Number: _____ NRC EPFAQ Number: _____ ROP FAQ Number: _____

(Requestor to Complete)

Licensee:	Palo Verde Nuclear Generating Station	Date Submitted:	Originally 10/11/11
Licensee Contact: Bradford H. Robinson		Phone: 623-393-4207	E-mail: Bradford.Robinson@aps.com

Potentially relevant existing EPFAQ numbers:	NRC's Agency-wide Documents Access and Management System (ADAMS) under Accession No. ML112850833
This question involves:	Loss of the Containment Barrier with Reactor Coolant releases to the Environment via a Non Intact Interfacing Liquid System.

Question, including background description and applicable reference(s):

Is there a Loss of the Containment Barrier with Reactor Coolant exiting uncontrollably and directly to the Atmosphere through a Non Intact Interfacing Liquid System (Nuclear Cooling Water (NC)/Component Cooling Water (CCW)).

Confusion/interpretation exists surrounding the wording of NEI 99-01 Rev 05, "The use of the modifier "direct" in defining the release path discriminates against release paths through interfacing liquid systems". See attached additional information on the last two pages.

Proposed Solution:

Clearly state that Reactor Coolant exiting to atmosphere via an Interfacing Liquid System that is not Intact or is Uncontrollable is a Loss of the Containment Barrier.

Additional pages attached? Yes No

NEI to complete	Date logged	By:
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Emergency Preparedness Frequently Asked Questions (EPFAQ) Request Form

EPFAQ RITF member assigned for response development: _____

EP FAQ Action Plan			
Action	Due Date	Actual Completion	Step Required
EPFAQ scheduled for first RITF meeting			
EPFAQ resolution developed by assigned RITF member			
EPFAQ presented to RITF for review			
EPFAQ EPWG discussion and approval			Yes <input type="checkbox"/> No <input type="checkbox"/>
EPFAQ posted to NRC web site			Yes <input type="checkbox"/> No <input type="checkbox"/>
EPFAQ sent to FEMA for endorsement			Yes <input type="checkbox"/> No <input type="checkbox"/>
EPFAQ sent to ROP coordinator			Yes <input type="checkbox"/> No <input type="checkbox"/>

Resolution Requires a Document(s) Revision: Yes No Document(s):

Industry RITF approval Date:	EPWG approval Required Yes <input type="checkbox"/> No <input type="checkbox"/> EPWG approval Date:
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NRC approval Required Yes <input type="checkbox"/> No <input type="checkbox"/> NRC approval Date:	ROP approval Required Yes <input type="checkbox"/> No <input type="checkbox"/> ROP approval Date:
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Final Resolution:

EPFAQ log updated	
EPFAQ posted to NEI web page	

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

QUESTION:

Is there a Loss of The Containment Barrier with Reactor Coolant exiting uncontrollably directly to the Atmosphere through a Non Interfacing System (Nuclear Cooling Water (NC)/Component Cooling Water (CCW)).

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/CCW) 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 *ISAE* 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 9599% 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/CCW) 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 Early 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