EAL Frequently Asked Questions (EALFAQ)
Request Form

(Requestor to Complete)

Licensee:	PVNGS	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 ☐	Generic ◪

Potentially relevant existing EALFAQ numbers:	
This question involves: (check all that apply)	NEI 99-01 EAL ◪, NESP-007 EALs ☐, NUREG 0654 EALs ☐, Other ☐

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 ◪ No ☐

(NEI to complete) Request #	Date entered	By:

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EPFAQ Evaluation and Resolution Section

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

Resolution of EPFAQ

(NRC EPD Director) Approved by:	Date:
(Industry EP Issue Panel Chairman) Approved by:	Date:

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

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.