

ArevaEPRDCPEm Resource

From: Getachew Tesfaye
Sent: Tuesday, April 14, 2009 9:02 AM
To: 'usepr@areva.com'
Cc: Sara Bernal; Timothy Frye; Peter Hearn; Joseph Colaccino; ArevaEPRDCPEm Resource
Subject: Draft - U.S. EPR Design Certification Application RAI No. 217 (2573), FSAR Ch. 9
Attachments: Draft RAI_217_CHPB_2573.doc

Attached please find draft RAI No. 217 regarding your application for standard design certification of the U.S. EPR. If you have any question or need clarifications regarding this RAI, please let me know as soon as possible, I will have our technical Staff available to discuss them with you.

Please also review the RAI to ensure that we have not inadvertently included proprietary information. If there are any proprietary information, please let me know within the next ten days. If I do not hear from you within the next ten days, I will assume there are none and will make the draft RAI publicly available.

Thanks,
Getachew Tesfaye
Sr. Project Manager
NRO/DNRL/NARP
(301) 415-3361

Hearing Identifier: AREVA_EPR_DC_RAIs
Email Number: 402

Mail Envelope Properties (C56E360E9D804F4B95BC673F886381E71E0B3CE0E2)

Subject: Draft - U.S. EPR Design Certification Application RAI No. 217 (2573), FSAR Ch.
9
Sent Date: 4/14/2009 9:02:27 AM
Received Date: 4/14/2009 9:02:29 AM
From: Getachew Tesfaye

Created By: Getachew.Tesfaye@nrc.gov

Recipients:

"Sara Bernal" <Sara.Bernal@nrc.gov>
Tracking Status: None
"Timothy Frye" <Timothy.Frye@nrc.gov>
Tracking Status: None
"Peter Hearn" <Peter.Hearn@nrc.gov>
Tracking Status: None
"Joseph Colaccino" <Joseph.Colaccino@nrc.gov>
Tracking Status: None
"ArevaEPRDCPEm Resource" <ArevaEPRDCPEm.Resource@nrc.gov>
Tracking Status: None
"usepr@areva.com" <usepr@areva.com>
Tracking Status: None

Post Office: HQCLSTR02.nrc.gov

Files	Size	Date & Time
MESSAGE	722	4/14/2009 9:02:29 AM
Draft RAI_217_CHPB_2573.doc		40442

Options

Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

Draft

Request for Additional Information No. 217 (2573), Revision 0

4/14/2009

U. S. EPR Standard Design Certification

AREVA NP Inc.

Docket No. 52-020

SRP Section: 09.03.02 - Process and Post-Accident Sampling Systems

Application Section: 9.3.2 Process Sampling Systems

QUESTIONS for Health Physics Branch (CHPB)

09.03.02-13

RAI 113, Question 09.03.02-8 described the guidelines as stated in 10CR20.1101(b) dealing with procedures and engineering controls to achieve occupational doses that are ALARA. The response to RAI 113 Question 09.03.03-8 identifies that the process sampling stations incorporate shielding and other design features that minimize personnel doses. However, clarification of the response is requested as follows:

1. Part 1 of 9.03.02-8 asked that the licensee verify that the design features of the sampling stations would minimize contamination of the facility and dose to samplers while taking samples. Several parts of the response to this question are noted here:
 - a. "Sample stations are placed in a room isolated from the collection disposal of the samples". Justify locating the sampling stations in a room that is separate from the collection point.
 - b. "Formation of crud is reduced through sample velocity, short delay times, and flushing. Deposition of radioactive materials is reduced by sloping of sample lines avoiding stagnant legs and providing low point drains."
 - i) Explain the CRUD reduction by sample velocity or arrangement of sample lines configuration.
 - ii) The EPRI Secondary Water Chemistry Guidelines, Chapter 7, has diagrams and a description of the proper configuration of sample lines to prevent sample bias when two phase flow is to be sampled. Such two-phase flow occurs in the primary system sample lines as well. Describe the representative sampling and rection of of "hot spots" during and after sampling resulting from the sloped sample lines during and after sampling.
 - c. "Laboratory and sample disposal areas are shielded and are in close proximity to the sampling station, thereby reducing the length of exposure". Provide clarification for the term "sample disposal area".

- d. Section 9.3.2 of the SRP discusses the need for ALARA considerations in the design of the Sampling System, including shielding. Revise Section 9.3.2 to incorporate the shielding design features that you included in your response to question 9.03.02-8. In addition, provide a reference to section 12.3.1.9.2 of the FSAR for additional discussion on sampling station accessibility and shielding.