

ArevaEPRDCPEm Resource

From: Pederson Ronda M (AREVA NP INC) [Ronda.Pederson@areva.com]
Sent: Thursday, April 23, 2009 4:38 PM
To: Getachew Tesfaye
Cc: BENNETT Kathy A (OFR) (AREVA NP INC); DELANO Karen V (AREVA NP INC); LANIER Dave (EXT)
Subject: Response to U.S. EPR Design Certification Application RAI No. 214, FSARCh. 12
Attachments: RAI 214 Response US EPR DC.pdf

Getachew,

Attached please find AREVA NP Inc.'s response to the subject request for additional information (RAI). The attached file, "RAI 214 Response US EPR DC.pdf" provides a technically correct and complete response to the 1 question.

Appended to this file are affected pages of the U.S. EPR Final Safety Analysis Report in redline-strikeout format which support the response to RAI 214 Question 12.05-2.

The following table indicates the respective page in the response document, "RAI 214 Response US EPR DC.pdf," that contains AREVA NP's response to the subject question.

Question #	Start Page	End Page
RAI 214 — 12.05-2	2	2

This concludes the formal AREVA NP response to RAI 214, and there are no questions from this RAI for which AREVA NP has not provided responses.

Sincerely,

Ronda Pederson

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Licensing Manager, U.S. EPR Design Certification

AREVA NP Inc.

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From: Getachew Tesfaye [mailto:Getachew.Tesfaye@nrc.gov]

Sent: Monday, April 13, 2009 2:33 PM

To: ZZ-DL-A-USEPR-DL

Cc: Sara Bernal; Timothy Frye; Jason Jennings; Surinder Arora; Joseph Colaccino; ArevaEPRDCPEm Resource

Subject: U.S. EPR Design Certification Application RAI No. 214 (2525), FSARCh. 12

Attached please find the subject requests for additional information (RAI). A draft of the RAI was provided to you on April 7, 2009, and on April 8, 2009, you informed us that the RAI is clear and no further clarification is needed. As a result, no change is made to the draft RAI. The schedule we have established for review of your application assumes technically correct and complete responses within 30 days of receipt of RAIs. For any RAIs that cannot be answered within 30 days, it is expected that a date for receipt of this information will be

provided to the staff within the 30 day period so that the staff can assess how this information will impact the published schedule.

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

Hearing Identifier: AREVA_EPR_DC_RAIs
Email Number: 425

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Subject: Response to U.S. EPR Design Certification Application RAI No. 214, FSARCh.
12
Sent Date: 4/23/2009 4:38:07 PM
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From: Pederson Ronda M (AREVA NP INC)

Created By: Ronda.Pederson@areva.com

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MESSAGE	2258	4/23/2009 4:38:09 PM
RAI 214 Response US EPR DC.pdf		121554

Options

Priority: Standard

Return Notification: No

Reply Requested: No

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Response to

Request for Additional Information No. 214 (2525), Revision 0

4/7/2009

U. S. EPR Standard Design Certification

AREVA NP Inc.

Docket No. 52-020

SRP Section: 12.05 - Operational Radiation Protection Program

Application Section: Section 12.5, Operational Radiation Protection Program

QUESTIONS for Health Physics Branch (CHPB)

Question 12.05-2:

In response to RAI 192, Question No. 12.05-1, the applicant stated that COL Information Item 12.5-1 and Table 1.8-2 would be updated to delete outdated Regulatory Guides (RGs) 8.20, 8.26 and 8.32. In addition, the reference to Part 72 was changed to Part 71. These changes are satisfactory. However, the RGs listed in Table 1.8-2 for COL information item 12.5-1 and the RGs listed in the COL item itself in section 12.5 of the FSAR are not consistent. Please modify COL item 12.5-1 in Table 1.8-2 so that it is identical to the COL item in Section 12.5 of the FSAR.

Response to Question 12-05-2:

In order to make the RGs listed in U.S. EPR FSAR Tier 2, Table 1.8-2—U.S. EPR Combined License Information Items, Item 12.5-1, consistent with the RGs listed in the COL Item as described in U.S. EPR FSAR Tier 2, Section 12.5, “Operational Radiation Protection Program” the following changes will be made:

1. RG 8.7, “Instructions for Recording and Reporting Occupational Radiation Exposure,” will be added to the RGs listed in U.S. EPR FSAR Tier 2, Table 1.8-2, COL Item 12.5-1, and U.S. EPR FSAR Tier 2, Section 12.5.
2. RG 8.19, “Occupational Radiation Dose Assessment in Light-Water Reactor Power Plants – Design Stage Man-Rem Estimates,” will be removed from the RGs listed in U.S. EPR FSAR Tier 2, Table 1.8-2, COL Item 12.5-1.
3. RG 8.34 will be added to the list of RGs listed in U.S. EPR FSAR Tier 2, Table 1.8-2, COL Item 12.5-1.

The above changes are also consistent with the RGs listed in U.S. EPR FSAR Tier 2, Table 1.92—U.S. EPR Conformance with Regulatory Guides and NEI 07-03, Revision 7, “Generic FSAR Template Guidance for Radiation Protection Program Description (November 2008).”

Additionally, RG 8.20, “Applications of Bioassay for I-125 and I-131,” RG 8.26 “Applications of Bioassay for Fission and Activation Products,” and RG 8.32, “Criteria for Establishing a Tritium Bioassay Program” will be deleted from U.S. EPR FSAR Tier 2, Table 1.9-2 for consistency with the RGs listed in U.S. EPR FSAR Tier 2, Table 1.8-2, COL Item 12.5-1; U.S. EPR FSAR Tier 2, Section 12.5; NEI 07-03, Revision 7 and the AREVA NP, Inc. Response to RAI 192, Question 12.05-1.

FSAR Impact:

U.S. EPR FSAR Tier 2, Section 12.5, Table 1.8-2 and Table 1.9-2 will be revised as described in the response and indicated on the enclosed markup.

U.S. EPR Final Safety Analysis Report Markups

Table 1.8-2—U.S. EPR Combined License Information Items
Sheet 35 of 44

Item No.	Description	Section	Action Required by COL Applicant	Action Required by COL Holder
12.3-2	A COL applicant that references the U.S. EPR design certification will provide site-specific information on estimated annual doses to construction workers in a new unit construction area as a result of radiation from onsite radiation sources from the existing operating plant(s). This information will include bases, models, assumptions, and input parameters associated with these annual doses.	12.3.5.1	Y	
12.3-3	A COL applicant that references the U.S. EPR design certification will describe the use of portable instruments, and the associated training and procedures, to accurately determine the airborne iodine concentration within the facility where plant personnel may be present during an accident, in accordance with requirements of 10 CFR 50.34(f)(2)(xxvii) and the criteria in Item III.D.3.3 of NUREG-0737. The procedures for locating suspected high-activity areas will be described.	12.3.4.5	Y	
12.5-1	A COL applicant that references the U.S. EPR design certification will fully describe, at the functional level, elements of the Radiation Protection Program. The purpose of the Radiation Protection Program is to maintain occupational and public doses ALARA. The program description will identify how the program is developed, documented, and implemented through plant procedures that address quality requirements commensurate with the scope and extent of licensed activities. This program will comply with the provisions of 10 CFR Parts 19, 20, 50, 52, and 7271 and be consistent with the guidance in RGs 1.206 , 1.8, 8.2, 8.4, 8.5, 8.6, 8.7 , 8.8, 8.9, 8.10, 8.1319 , 8.15, 8.20, 8.26 , 8.27, 8.28, 8.29 , 8.32 , 8.34 , 8.35, 8.36, 8.38, and the consolidated guidance in NUREG-1736.	12.5	Y	

12.05-2

Table 1.9-2—U.S. EPR Conformance with Regulatory Guides
Sheet 18 of 19

RG / Rev	Description	U.S. EPR Assessment	FSAR Section(s)
5.68, 08/1994	Protection Against Malevolent Use of Vehicles at Nuclear Power Plants	N/A-COL	N/A
Division 8 Regulatory Guides			
8.2, 02/1973	Guide for Administrative Practices in Radiation Monitoring	N/A-COL	N/A
8.4, 02/1973	Direct-Reading and Indirect-Reading Pocket Dosimeters	N/A-COL	N/A
8.5, R1	Criticality and Other Interior Evacuation Signals	N/A-COL	N/A
8.6, 05/1973	Standard Test Procedure for Geiger-Muller Counters	N/A-COL	N/A
8.7, R2	Instructions for Recording and Reporting Occupational Radiation Exposure Data	N/A-COL	N/A
8.8, R3	Information Relevant to Ensuring that Occupational Radiation Exposures at Nuclear Power Stations Will Be as Low as Is Reasonably Achievable	Y	11.4
			12.1.1
			12.3
8.9, R1	Acceptable Concepts, Models, Equations, and Assumptions for a Bioassay Program	N/A-COL	N/A
8.10, R1-R	Operating Philosophy for Maintaining Occupational Radiation Exposures as Low as Is Reasonably Achievable	N/A-COL	N/A
8.13, R3	Instruction Concerning Prenatal Radiation Exposure	N/A-COL	N/A
8.15, R1	Acceptable Programs for Respiratory Protection	N/A-COL	N/A
8.19, R1	Occupational Radiation Dose Assessment in Light-Water Reactor Power Plants -- Design Stage Man-Rem Estimates	Y	12.3.5
12.05-2	↓		
8.20, R1	Applications of Bioassay for I-125 and I-131	N/A-COL	N/A
8.25, R1	Air Sampling in the Workplace	N/A-COL	N/A
8.26, 09/1980	Applications of Bioassay for Fission and Activation Products	N/A-COL	N/A
8.27, 03/1981	Radiation Protection Training for Personnel at Light-Water-Cooled Nuclear Power Plants	N/A-COL	N/A
			12.05-2
8.28, 08/1981	Audible-Alarm Dosimeters	N/A-COL	N/A
8.29, R1	Instruction Concerning Risks from Occupational Radiation Exposure	N/A-COL	N/A

**Table 1.9-2—U.S. EPR Conformance with Regulatory Guides
Sheet 19 of 19**

12.05-2

RG/ Rev	Description	U.S. EPR Assessment	FSAR Section(s)
8.32, 07/1988	Criteria for Establishing a Tritium Bioassay Program	N/A-COL	N/A
8.34, 07/1992	Monitoring Criteria and Methods To Calculate Occupational Radiation Doses	N/A-COL	N/A
8.35, 06/1992	Planned Special Exposures	N/A-COL	N/A
8.36, 07/1992	Radiation Dose to the Embryo/Fetus	N/A-COL	N/A
8.38, R1	Control of Access to High and Very High Radiation Areas of Nuclear Plants	N/A-COL	N/A

12.5 Operational Radiation Protection Program

A COL applicant that references the U.S. EPR design certification will fully describe, at the functional level, elements of the Radiation Protection Program. The purpose of this Radiation Protection Program is to maintain occupational and public doses ALARA. The program description will identify how the program is developed, documented, and implemented through plant procedures that address quality requirements commensurate with the scope and extent of licensed activities. This program will comply with the provisions of 10 CFR Parts 19, 20, 50, 52, and ~~72~~71 and be consistent with the guidance in RGs ~~1.206~~, ~~RG 1.8~~, ~~RG 8.2~~, ~~RG 8.4~~, ~~RG 8.5~~, ~~RG 8.6~~, ~~RG 8.7~~, ~~RG 8.8~~, ~~RG 8.9~~, ~~RG 8.10~~, ~~RG 8.13~~, ~~RG 8.15~~, ~~8.20~~, ~~8.26~~, ~~RG 8.27~~, ~~RG 8.28~~, ~~RG 8.29~~, ~~8.32~~, ~~RG 8.34~~, ~~RG 8.35~~, ~~RG 8.36~~, ~~RG 8.38~~, and the consolidated guidance in NUREG-1736 (Reference 1).

12.05-2

12.5.1 References

1. NUREG-1736, "Consolidated Guidance: 10 CFR Part 20—Standards for Protection Against Radiation," U.S. Nuclear Regulatory Commission~~NRC~~, October 2001.