PMBelCOL PEmails

From: Ravindra Joshi
Sent: Monday, July 28, 2008 7:45 AM
To: Ray, Phillip M; Eddie R Grant; bob Hirman
Cc: BelCol Resource; Edward Roach; Timothy Frye
Subject: Draft RAIs related Bellefonte Chapter 12
Attachments: RAI 612.doc; RAI 613.doc; RAI 865.doc; RAI 868.doc

To All,
Attached are the Draft RAIs related to SRP 12. Please let me know if you would like to discuss the RAIs before they are made official.
Ravi Joshi
415-6191

Hearing Identifier: Bellefonte_COL_Public_EX
Email Number: 718

Mail Envelope Properties (CEEA97CC21430049B821E684512F6E5E979C568340)

Subject: Draft RAIs related Bellefonte Chapter 12
Sent Date: 7/28/2008 7:45:12 AM
Received Date: 7/28/2008 7:45:16 AM
From: Ravindra Joshi

Created By: Ravindra.Joshi@nrc.gov

Recipients:
"BelCol Resource" <BelCol.Resource@nrc.gov>
Tracking Status: None
"Edward Roach" <Edward.Roach@nrc.gov>
Tracking Status: None
"Timothy Frye" <Timothy.Frye@nrc.gov>
Tracking Status: None
"Ray, Phillip M" <pmray@tva.gov>
Tracking Status: None
"Eddie R Grant" <erg-xl@cox.net>
Tracking Status: None
"bob Hirman" <bobhirman@live.com>
Tracking Status: None

Post Office: HQCLSTR01.nrc.gov

Files	**Size**	**Date & Time**
MESSAGE	183	7/28/2008 7:45:16 AM
RAI 612.doc	28154	
RAI 613.doc	28666	
RAI 865.doc	28154	
RAI 868.doc	29178	

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

Request for Additional Information No. 612

Bellefonte Units 3 and 4
TVA
Docket No. 52-014 and 52-015
SRP Section: 12.01 - Assuring that Occupational Radiation Exposures Are As Low as is Reasonably Achievable
Application Section: FSAR 12.1

QUESTION from Health Physics Branch (CHPB)

12.01-***

FSAR Section 12.1.2.4.3, STD SUP 12.1-1 states that a video record of the equipment layout in areas where the radiation fields are expected to be high following operations may be used to assist in ALARA planning and to facilitate decommissioning.
The operational Radiation Protection Program implementation does not state when the appropriate ALARA program procedures as described in the proposed License Conditions (Part 10 of the Bellefonte Nuclear Plant, Units 3 & 4 COL application) will be implemented. Also, according to Table 13.4-201, *Operational Programs Required by NRC regulations*, FSAR Section 12.1, ALARA is not specifically required by any milestone. The functional elements of an ALARA program, if met, would demonstrate compliance with 10 CFR 20.1101 and 10 CFR 19.12.
Accordingly, please update FSAR Section 12.1, STD SUP 12.1-1, to clarify TVA's commitment to the final ALARA program implementation. When, for example, will TVA implement ALARA procedures for planning prior to receipt of radioactive material or fuel?

Request for Additional Information No. 613

Bellefonte Units 3 and 4
TVA
Docket No. 52-014 and 52-015
SRP Section: 12.03-12.04 - Radiation Protection Design Features
Application Section: FSAR 12.3

QUESTION from Health Physics Branch (CHPB)

12.03-12.04-***

The NRC staff reviewed STD COL information item 12.3-3, dealing with groundwater monitoring program, using the text added in Appendix 12AA:
A groundwater monitoring program will be established with the intent to meet the regulations described in 10 CFR 20.1406 which are described in Appendix 12AA.5.4.13.

Until issuance of Regulatory Guide 4.21 (June 2008), there was no specific regulatory guidance that described an acceptable method for meeting the regulation. The certified design for the AP1000 established a COL information item, 12.3-3, to ensure that as a minimum each site would develop operational programs to monitor groundwater for the presence of radionuclides that could be migrating from systems structures and components containing radioactive material.

The groundwater monitoring program as described in the Appendix 12AA includes implementation considerations, but the program lacks a description of the key components of the program such as types and periodicity of routine samples, threshold activity to be detected, actions to be taken upon detection, and quality assurance practices to be used to ensure a reasonable assurance of prompt identification of leakage into the groundwater.

Describe the ground water monitoring program in sufficient detail to demonstrate compliance with 10 CFR 20.1406 or consider the guidance provided by RG 4.21 and incorporate into the application.

Request for Additional Information No. 865

Bellefonte Units 3 and 4
TVA
Docket No. 52-014 and 52-015
SRP Section: 12.03-12.04 - Radiation Protection Design Features
Application Section: FSAR Chapter 12

QUESTION Health Physics Branch (CHPB)

12.03-12.04-***

The NRC staff reviewed supplemental information item BLN SUP 12.4-1, regarding dose to construction workers, in the new Subsection 12.4.1.9 (subsections 12.4.1.9.1 through 12.4.1.9.5). The information provided in FSAR section 12.4.1.9.1-4 was not sufficient for the staff to validate and verify the estimated doses for Unit 4 construction workers. Without this information the staff can not verify that the application meets the acceptance criteria in SRP 12.3-4 and complies with the dose limits in 10 CFR 20.1301and 1302. Information provided to the staff should include the information necessary to reproduce the calculations, or reference where the information was obtained and where it is available to the staff.
The applicant discussed, as part of the dose assessment, the site layout, radiation sources, construction worker dose estimates, compliance with dose regulations, and collective doses to BLN Unit 4 workers.

Please provide the specific points of reference necessary for the staff to reproduce the calculations that were not included in the FSAR or ER because of your claim that the calculations are proprietary.

Request for Additional Information No. 868

Bellefonte Units 3 and 4
TVA
Docket No. 52-014 and 52-015
SRP Section: 12.03-12.04 - Radiation Protection Design Features
Application Section: FSAR 12.3.4

QUESTION from Health Physics Branch (CHPB)

12.03-12.04-***

The staff has determined that information should be provided in addition to the use of manufacturers' recommendations. Additional standards such as ANSI N42.17A-1989, as it relates to the accuracy and overall performance of portable survey instruments, and ANSI N323A-1997, as it relates to the calibration and maintenance of portable radiation survey instruments, should be provided.
The applicant describes Area and Airborne Radioactivity Monitoring Instrumentation in FSAR section 12.3.4 and also includes Section 14.2.9.4.27 Portable Personnel Monitors and Radiation Survey Instruments in the FSAR (after DCD Subsection 14.2.9.4.15) as a response to the action item (COL Action Item 14.4-5). The action item lists portable personnel monitors and radiation survey instruments as an item to be considered for testing that may be required of structures and systems that are outside the scope of the design certification.
Portable personnel monitor and radiation survey instrument testing verifies that the devices operate in accordance with their intended function in support of the radiation protection program as described in Chapter 12. The applicant states as a prerequisite that the monitors, instruments and certified test sources are on site. The applicant also states the general test method and acceptance criteria for the monitors and instruments would be source checking and testing in accordance with the manufacturers' recommendations. The NRC staff's position is that the manufacturers' recommendations are not sufficient to meet performance standards. Rather, industry standards are the current industry basis for maintaining and calibrating such instrumentation.

Please provide information addressing the applicant's use of standards such as ANSI N42.17A-1989, as it relates to the accuracy and overall performance of portable survey instruments, and ANSI N323A-1997, as it relates to the calibration and maintenance of portable radiation survey instruments.