

45

CuadradoDeJesus, Samuel

From: Sheikh, Abdul *MR*
Sent: Tuesday, December 13, 2011 5:09 PM
To: Lehman, Bryce; Auluck, Rajender
Cc: CuadradoDeJesus, Samuel
Subject: RE: Davis Besse Shield Building RAI
Attachments: DB Containment Crack RAI-abdul.DOC

I have added request for some specific information on the attached file. Some of the information I have requested is the gray area of part 50/54. However, I feel it is better to ask it since such information has not been formally requested previously by the NRC.

From: Lehman, Bryce *MR*
Sent: Tuesday, December 13, 2011 3:52 PM
To: Sheikh, Abdul; Auluck, Rajender
Cc: CuadradoDeJesus, Samuel
Subject: FW: Davis Besse Shield Building RAI

Can you please review the attached RAI and forward it to Samuel once you have concurred?

Thanks,
Bryce

From: CuadradoDeJesus, Samuel *MR*
Sent: Tuesday, December 13, 2011 1:31 PM
To: Lehman, Bryce
Cc: Davis-BesseHearingFile Resource
Subject: Davis Besse Shield Building RAI

Bryce,

With all the parties and frequent interruptions I almost forgot to get in touch with you on the issue with the shield building RAI. Can you let me know when I'll get your final draft?

Thanks

Samuel Cuadrado de Jesús

Project Manager

Projects Branch 1

Division of License Renewal

U.S. Nuclear Regulatory Commission

Phone: 301-415-2946

Samuel.CuadradoDeJesus@nrc.gov

B/45

RAI B.2.39-X

Background:

In order to perform a scheduled reactor head replacement, a construction opening was made in the concrete shield building. During hydro-demolition of the concrete shield building, cracks were identified in the 'architectural shoulders' of the shield building. While investigating the extent of the cracking, additional cracks were identified around the shield building. The additional cracks were identified using an Impulse Response (IR) technique and core bores were used to verify the IR results.

Issue:

Extensive cracking in the shield building could affect the structural integrity of the shield building and may impact its ability to perform its intended function during the period of extended operation.

Request:

1. Summarize the shield building degradation, the root cause, and the expected corrective actions.
2. Explain how the recent plant-specific operating experience impacts the Shield Building's ability to perform its intended functions during the period of extended operation. Include a list of any additional aging effects that may require management based on this operating experience.
3. Explain how the recent plant-specific operating experience will be incorporated into the Structures Monitoring Program AMP, and if the current program will be adequate to manage aging of the shield building during the period of extended operation, based on this operating experience. Specifically address the following:
 - i. Details of tests planned to determine the long term effect of the concrete cracks on the ability of the rebars to carry design loads.
 - ii. Plans, if any, to repair the crack or reinforce the shield building concrete
 - iii. Detailed plans to monitor the extent and thickness of cracks, and corrosion of the rebars over the long term.
 - iv. Plans, if any, to perform detailed structural analysis, with explicit modeling of rebars, cracks, and concrete, to demonstrate that the shield building will perform its intended design function over the long term. This analysis should also consider the effect of shrinkage and environment on the concrete and rebar during the period of extended operation.
4. Identify and explain any changes to the license renewal application based on the recent plant specific operating experience.

Deleted: whether or not

Deleted: whether or not a plant-specific program is necessary to

Deleted:

Formatted: Indent: Left: 0.5", No bullets or numbering