PMNorthAnna3COLPEmails Resource

From: Kevern, Thomas
Sent: Tuesday, October 27, 2009 10:59 AM
To: Joe Hegner; Regina.Borsh@dom.com
Cc: NorthAnna3COL Resource
Subject: FW: ACRS letter re North Anna COLA SER-OI
Attachments: ACRS Letter NorthAnnaSER-OI ML0928903700.pdf

FYI. Letter is publicly available.

From: Kevern, Thomas
Sent: Tuesday, October 27, 2009 10:38 AM
To: Nakoski, John; Segala, John; Dixon-Herrity, Jennifer; Junge, Michael; Donoghue, Joseph; Xu, Jim; Jenkins, Ronaldo; Jung, Ian; Snodderly, Michael; Samaddar, Sujit; Hamzehee, Hossein; Ray, Neil; Munson, Clifford; Caruso, Mark; Cook, Christopher; Karas, Rebecca; Lauron, Carolyn; Barss, Dan; Williams, Kevin; Harbuck, Craig; Raione, Richard; Radlinski, Robert; Frye, Timothy; Chakravorty, Manas; Hawkins, Kimberly
Cc: Cruz, Jeffrey; Akstulewicz, Frank; Matthews, David; Cubbage, Amy; Jessie, Janelle; Kirkwood, Sara; Koenick, Stephen; Shuaibi, Mohammed; Hatchett, Gregory; Williamson, Alicia; Carpentier, Marcia; Huyck, Doug; Eudy, Michael; Berrios, Ilka
Subject: ACRS letter re North Anna COLA SER-OI

Branch Chiefs:

FYI. The ACRS letter regarding the staff's SER with Open Items for the North Anna COLA has been issued to the EDO. As noted in the letter, this is the first COLA review to complete Phase 3 and the first such ACRS letter. The ACRS identifies no staff actions other than to proceed with review/evaluation of the COLA and the ESBWR design certification application.

Thanks for your support throughout the challenges of Phases 1, 2, & 3!

Tom

Hearing Identifier: NorthAnna3_Public_EX
Email Number: 827

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Subject: FW: ACRS letter re North Anna COLA SER-OI
Sent Date: 10/27/2009 10:59:09 AM
Received Date: 10/27/2009 10:59:10 AM
From: Kevern, Thomas

Created By: Thomas.Kevern@nrc.gov

Recipients:
"NorthAnna3COL Resource" <NorthAnna3COL.Resource@nrc.gov>
Tracking Status: None
"Joe Hegner" <joseph.hegner@dom.com>
Tracking Status: None
"Regina.Borsh@dom.com" <Regina.Borsh@dom.com>
Tracking Status: None

Post Office: HQCLSTR01.nrc.gov

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
WASHINGTON, DC 20555 - 0001

October 23, 2009

Mr. R.W. Borchardt
Executive Director for Operations
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

SUBJECT: NRC STAFF'S SAFETY EVALUATION REPORT WITH OPEN ITEMS REGARDING THE NORTH ANNA, UNIT 3 COMBINED LICENSE APPLICATION

Dear Mr. Borchardt:

During the 566th meeting of the Advisory Committee on Reactor Safeguards, October 8-10, 2009, we discussed the NRC staff's Safety Evaluation Report (SER) with open items related to the North Anna Combined License (COL) application. Our Economic Simplified Boiling Water Reactor (ESBWR) Subcommittee held meetings on June 18, July 21-22, and August 21, 2009 to discuss technical aspects of the North Anna COL application as well as the open items identified in the SER Chapters. During these meetings, we had the benefit of discussions with representatives of the NRC staff and the applicant, Dominion Virginia Power. We also had the benefit of the documents referenced. Our reviews have not addressed security matters and their impact on the North Anna COL application or the ESBWR design referenced.

CONCLUSIONS AND RECOMMENDATIONS

1. We have not identified any significant issues at this time regarding the North Anna COL application. The staff should proceed with the development of the final SER after resolving all open items.

2. The completion of the ESBWR Design Certification SER with no open items is a major activity that remains to be resolved for the North Anna COL.

3. We will review the resolution of North Anna COL open items when the final North Anna SER is issued by the staff.

BACKGROUND

The North Anna Power Station site is located in Louisa County, Virginia, approximately 40 miles northwest of Richmond. The site currently includes two operating pressurized water reactors, North Anna Units 1 and 2, and an Independent Spent Fuel Storage Installation. The applicant has proposed a boiling water reactor, the ESBWR, for Unit 3, to be located adjacent to and west of the existing units. The North Anna, Unit 3 COL application is the first one to be reviewed by the staff under 10 CFR Part 52. The COL application incorporates by reference the draft ESBWR Design Control Document (DCD). The ESBWR design is currently undergoing certification review by the staff.

The COL application also incorporates by reference documentation related to the North Anna Early Site Permit (ESP). Pursuant to 10 CFR 52.24, the early site permit (ESP-003) for the North Anna site was issued on November 27, 2007. The ESP, using the plant parameter envelope approach rather than a specific nuclear plant design, provides the final resolution for most of the site-specific information and characteristics. The COL application, however, identifies 14 site-specific variances (primarily updated site-specific information or ESBWR design-specific parameters), which have been reviewed and evaluated by the staff in the SER.

DISCUSSION

The Standard Review Plan, NUREG-0800, for the Review of Safety Analysis Reports for Nuclear Power Plants provides the guidance and acceptance criteria for the staff's review of the North Anna COL application. NUREG-0800 generally provides comprehensive guidance and the North Anna SER is consistent with the NUREG-0800 guidance. However, NUREG-0800 may contain outdated guidance information and/or criteria that need to be updated. One example involves commercial and military aircraft crash frequency data and analyses. Even though the staff considers the current crash frequency data as bounding, the staff agreed that such guidance should be updated in the future. Overall, the staff has done an extensive review of the North Anna COL application. We have not uncovered any significant issues at this time regarding the application, and the staff should proceed with the development of the final SER after resolution of the open items.

The staff has been conducting the North Anna COL review concurrent with the ESBWR Design Certification application review. In our review of the North Anna COL application, we identified several items which are generic to the ESBWR design certification application. The completion and issuance of the ESBWR Design Certification SER with no open items is a major activity that remains to be resolved for completion of the North Anna SER.

This situation of nearly parallel design certification and COL reviews has created challenges. One of the major challenges is the alignment of the updates to the North Anna COL application relative to the revisions of the ESBWR design certification application. Subsequent to a final revision of the design certification application, the COL application needs to be revised to reflect that revision as well as to incorporate responses to COL-related requests for additional information. The COL application incorporates by reference the current version of the design certification application and supports the staff's concurrent review process for both applications. The draft ESBWR DCD includes COL information items that the applicant should include as COL-specific supplemental information in the Final Safety Analysis Report.

We will review the resolution of open items for the North Anna COL and the associated final SER during future meetings.

Sincerely,

Mario V. Bonaca

Mario V. Bonaca
Chairman

REFERENCES

1. Memorandum from D. B. Matthews, Director, Division of New Reactor Licensing, NRO, to E. M. Hackett, Executive Director, ACRS, "Safety Evaluation Report with Open Items Regarding the North Anna Unit 3 Combined License Application," 08/07/2009 (ML092150277)

2. Memorandum from D. B. Matthews, Director, Division of New Reactor Licensing, NRO, to E. M. Hackett, Executive Director, ACRS, "Safety Evaluation Report (SER) with Open Items (OIs) for Chapter 7, 'Instrumentation and Controls' Regarding the Economic Simplified Boiling Water Reactor (ESBWR) Design Certification Review," 11/07/2008 (ML082600487)

3. Memorandum from D. B. Matthews, Director, Division of New Reactor Licensing, NRO, to E. M. Hackett, Executive Director, Advisory Committee on Reactor Safeguards, "Safety Evaluation Report (SER) with Open Items (OIs) for Chapter 14.2, 'Initial Test Program for Final Safety Analysis Reports' Regarding the Economic Simplified Boiling Water Reactor (ESBWR) Design Certification Review," 10/02/2008 (ML082420017)

4. Memorandum from D. B. Matthews, Director, Division of New Reactor Licensing, NRO, to E. M. Hackett, Executive Director, Advisory Committee on Reactor Safeguards, "Safety Evaluation Report (SER) with Open Items (OIs) for Chapter 14.3, 'Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC)' Regarding the Economic Simplified Boiling Water Reactor (ESBWR) Design Certification Review," 10/02/2008 (ML082420005)

5. Letter from James C. Kinsey, Project Manager, ESBWR Licensing, GEH, to Nuclear Regulatory Commission, "General Electric Company – ESBWR Standard Plant Design - Revision 3 to Design Control Document – Tier 1 and Tier 2, Chapters 1 through 18," 02/22/2007 (ML070660561)

6. Letter from W. J. Shack, Chairman, Advisory Committee on Reactor Safeguards, to L. A. Reyes, Executive Director for Operations, "Interim Letter: Chapters 2, 5, 8, 11, 12, and 17 of the NRC Staff's Safety Evaluation Report With Open Items Related to the Certification of the ESBWR Design," 11/20/2007 (ML073070006)

7. Letter from W. J. Shack, Chairman, Advisory Committee on Reactor Safeguards, to L. A. Reyes, Executive Director for Operations, "Interim Letter Chapters 9, 10, 13, and 16 of the NRC Staff's Safety Evaluation Report with Open Items Related to the Certification of the ESBWR Design," 03/20/2008 (ML080670596)

8. Letter from W. J. Shack, Chairman, Advisory Committee on Reactor Safeguards, to R. W. Borchardt, Executive Director for Operations, "Interim Letter 3: Chapters 4, 6, 15, 18, and 21 of the NRC Staff's Safety Evaluation Report with Open Items Related to the Certification of the ESBWR Design," 05/23/2008 (ML 081330447)

9. Letter from W. J. Shack, Chairman, Advisory Committee on Reactor Safeguards, to R. W. Borchardt, Executive Director for Operations, “Interim Letter: Chapter 3 of the NRC Staff’s Safety Evaluation Report with Open Items Related to the Certification of the ESBWR Design,” 07/21/2008 (ML081930777)

10. Letter from W. J. Shack, Chairman, Advisory Committee on Reactor Safeguards, to R. W. Borchardt, Executive Director for Operations, "Interim Letter 5: Chapters 19 and 22 of the NRC Staff's Safety Evaluation Report with Open Items Related to the Certification of the ESBWR Design," 10/29/2008 (ML082810703)

11. U.S. Nuclear Regulatory Commission, NUREG-0800, “Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants,” March 2007

The COL application also incorporates by reference documentation related to the North Anna Early Site Permit (ESP). Pursuant to 10 CFR 52.24, the early site permit (ESP-003) for the North Anna site was issued on November 27, 2007. The ESP, using the plant parameter envelope approach rather than a specific nuclear plant design, provides the final resolution for most of the site-specific information and characteristics. The COL application, however, identifies 14 site-specific variances (primarily updated site-specific information or ESBWR design-specific parameters), which have been reviewed and evaluated by the staff in the SER.

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Sincerely,
/RA/
Mario V. Bonaca
Chairman

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Letter to the Honorable Gregory B Jaczko, Chairman, NRC, from Mario V. Bonaca, Chairman, ACRS, dated October 23, 2009

SUBJECT: NRC STAFF'S SAFETY EVALUATION REPORT WITH OPEN ITEMS REGARDING THE NORTH ANNA, UNIT 3 COMBINED LICENSE APPLICATION

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