

EDO Principal Correspondence Control

FROM: DUE: 05/21/10

EDO CONTROL: G20100240

DOC DT: 04/21/10

FINAL REPLY:

Said Abdel-Khalik, ACRS

TO:

Borchardt, EDO

FOR SIGNATURE OF :

** GRN **

CRC NO:

Borchardt, EDO

DESC:

ROUTING:

Chapters 2, 4, 5, 8, 10, 12, and 17 of the Safety Evaluation Report with Open Items Associated with the U.S. Evolutionary Power Reactor Design Certification Application (EDATS: OEDO-2010-0306)

Borchardt
Virgilio
Mallett
Ash
Mamish
Burns/Rothschild
Leeds, NRR
Frazier, OEDO

DATE: 04/22/10

ASSIGNED TO:

CONTACT:

NRO

Johnson

SPECIAL INSTRUCTIONS OR REMARKS:

Please prepare response to the ACRS for the signature of the EDO. Add the Commission and SECY as cc's. USE SUBJECT LINE IN RESPONSE.

Template: EDO-001

E-RIDS: EDO-01

EDATS

Electronic Document and Action Tracking System

EDATS Number: OEDO-2010-0306

Source: OEDO

General Information

Assigned To: NRO

OEDO Due Date: 5/21/2010

Other Assignees:

SECY Due Date: NONE

Subject: Chapters 2, 4, 5, 8, 10, 12 and 17 of the Safety Evaluation Report with Open Items Associated with the U.S. Evolutionary Power Reactor Design Certification Application

Description:

CC Routing: NRR

ADAMS Accession Numbers - Incoming: NONE

Response/Package: NONE

Other Information

Cross Reference Number: G20100240

Staff Initiated: NO

Related Task:

Recurring Item: NO

File Routing: EDATS

Agency Lesson Learned: NO

OEDO Monthly Report Item: NO

Process Information

Action Type: Letter

Priority: Medium

Sensitivity: None

Signature Level: NRO

Urgency: NO

Approval Level: No Approval Required

OEDO Concurrence: NO

OCM Concurrence: NO

OCA Concurrence: NO

Special Instructions: Please prepare response to the ACRS for the signature of the EDO. Add the Commission and SECY as cc's. USE SUBJECT LINE IN RESPONSE.

Document Information

Originator Name: Said Abdel-Khalik

Date of Incoming: 4/21/2010

Originating Organization: ACRS

Document Received by OEDO Date: 4/22/2010

Addressee: R. W. Borchardt, EDO

Date Response Requested by Originator: NONE

Incoming Task Received: Letter



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

April 21, 2010

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

SUBJECT: CHAPTERS 2, 4, 5, 8, 10, 12, AND 17 OF THE SAFETY EVALUATION
REPORT WITH OPEN ITEMS ASSOCIATED WITH THE U.S. EVOLUTIONARY
POWER REACTOR DESIGN CERTIFICATION APPLICATION

Dear Mr. Borchardt:

During the 571st meeting of the Advisory Committee on Reactor Safeguards, April 8 - 10, 2010, we met with representatives of the NRC staff and AREVA NP, Inc., (AREVA) to review the following chapters of the Safety Evaluation Report (SER) with Open Items associated with the review of the U.S. Evolutionary Power Reactor (U.S. EPR) Design Certification Application: Chapter 2, "Site Characteristics"; Chapter 4, "Reactor"; Chapter 5, "Reactor Coolant System and Connected Systems"; Chapter 8, "Electric Power"; Chapter 10, "Steam and Power Conversion"; Chapter 12, "Radiation Protection"; and Chapter 17, "Quality Assurance." Our EPR Subcommittee also reviewed these chapters during meetings on November 3 and 19, 2009, February 18 and 19, 2010, and March 3, 2010. Technical aspects of the U.S. EPR design as well as the open items and the combined license (COL) action items identified in each of these SER chapters were discussed at these meetings. We also had the benefit of the documents referenced.

CONCLUSIONS

1. Our review of the staff's SER with Open Items for Chapters 2, 4, 5, 8, 10, 12, and 17 has not identified any issues that merit further consideration by us at this time.
2. We plan to review the staff's resolution of the open items in these SER Chapters during future meetings.
3. The U.S. EPR structures, systems, and components (SSC) described in these chapters may interact with SSC discussed in other SER chapters that have not been reviewed yet. We will comment on any potential safety implications of SSC interactions in future letters and in our final report.

BACKGROUND

By letter dated December 11, 2007, AREVA submitted an application for certification of a standard design for the U.S. EPR, pursuant to 10 CFR Part 52, "*Licenses, Certifications, and Approvals for Nuclear Power Plants.*" Subsequent to the original application in a letter dated

May 29, 2009, AREVA submitted Revision 1 to the Final Safety Analysis Report (FSAR) portions of the application which is under review by the staff.

DISCUSSION

We have agreed to review the staff's SER on a chapter-by-chapter basis to identify technical issues that may merit further consideration. The staff has provided to us SER Chapters 2, 4, 5, 8, 10, 12, and 17 with Open Items and associated COL action items for our review. SER Chapter 8, "Electric Power," contains no open items.

We found the open items identified by the NRC staff to be appropriate. We did not identify any additional items or other technical issues that merit further consideration by us at this time for these SER chapters. We will review the staff's resolution of the open items in these SER chapters during future meetings.

The U.S. EPR structures, systems, and components described in these chapters may interact with SSC discussed in other chapters of the SER that have not been reviewed yet. We will comment on the potential safety implications of any SSC interactions in future letters and in our final report.

Sincerely,

/RA/

Said Abdel-Khalik
Chairman

References:

1. Letter to the U.S. Nuclear Regulatory Commission, Application for Standard Design Certification of the U.S. EPR (Project No. 733), 12/11/2007 (ML073520305)
2. Letter to the U.S. Nuclear Regulatory Commission, Submittal of Revision 1 of the U.S. EPR Final Safety Analysis Report for Design Certification, 05/29/2009 (ML091670376)
3. Memorandum to Edwin M. Hackett, U.S. Nuclear Regulatory Commission, EPR Design Certification Application – Safety Evaluation Report with Open Items for Chapter 2, "Site Characteristics," 09/03/2009 (ML091950194)
4. Memorandum to Edwin M. Hackett, U.S. Nuclear Regulatory Commission, EPR Design Certification Application – Safety Evaluation Report with Open Items for Chapter 4, "Reactor," 02/04/2010 (ML093290134)
5. Letter to the U.S. Nuclear Regulatory Commission, Request for Review and Approval of ANP-10285P, "U.S. EPR Fuel Assembly Mechanical Design Topical Report," 10/20/2007 (ML072840175)

6. Memorandum to Edwin M. Hackett, U.S. Nuclear Regulatory Commission, EPR Design Certification Application – Safety Evaluation Report with Open Items for Chapter 5, “Reactor Coolant System and Connected Systems,” 02/16/2010 (ML093350274)
7. Memorandum to Edwin M. Hackett, U.S. Nuclear Regulatory Commission, EPR Design Certification Application – Safety Evaluation Report with Open Items for Chapter 8, “Electric Power,” 08/20/2009 (ML091760963)
8. Memorandum to Edwin M. Hackett, U.S. Nuclear Regulatory Commission, EPR Design Certification Application – Safety Evaluation Report with Open Items for Chapter 10, “Steam and Power Conversion,” 10/19/2009 (ML092510210)
9. Memorandum to Edwin M. Hackett, U.S. Nuclear Regulatory Commission, EPR Design Certification Application – Safety Evaluation Report with Open Items for Chapter 12, “Radiation Protection,” 10/13/2009 (ML092520436)
10. Memorandum to Edwin M. Hackett, U.S. Nuclear Regulatory Commission, EPR Design Certification Application – Safety Evaluation Report with Open Items for Chapter 17, “Quality Assurance,” 1/12/2010 (ML093060192)