

September 13, 2004

Mr. George Vanderheyden, Vice President  
Calvert Cliffs Nuclear Power Plant, Inc.  
Calvert Cliffs Nuclear Power Plant  
1650 Calvert Cliffs Parkway  
Lusby, MD 20657-4702

SUBJECT: CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NOS. 1 AND 2 -  
ISSUANCE OF AMENDMENTS RE: REVISION TO THE REFUELING  
OPERATIONS SECTION OF THE TECHNICAL SPECIFICATIONS (TAC NOS.  
MB6062 AND MB6063)

Dear Mr. Vanderheyden:

The Commission has issued the enclosed Amendment No. 268 to Renewed Facility Operating License No. DPR-53 and Amendment No. 244 to Renewed Facility Operating License No. DPR-69 for the Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2. These amendments consist of changes to the Technical Specifications (TSs) in response to your application dated August 6, 2002, as supplemented by letters dated December 12, 2002, July 24, 2003, and March 1, May 20, and August 11, 2004.

The amendments replace the TS 3.9.4 and TS 3.9.5 requirements to close all containment penetrations providing direct access from the containment atmosphere to outside temperature with a set of more detailed and less restrictive requirements. In your supplemental letter dated August 11, 2004, you determined that the calculations needed to support an interim control room habitability determination did not form a sufficient basis to support your proposed change to TS 3.9.3. Therefore, you withdrew the proposed change to TS 3.9.3 from further NRC review.

A copy of our safety evaluation is also enclosed. The Notice of Issuance will be included in the Commission's Biweekly *Federal Register* Notice.

Sincerely,

*/RA/*

Richard V. Guzman, Project Manager, Section 1  
Project Directorate I  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket Nos. 50-317 and 50-318

Enclosures: 1. Amendment No. 268 to  
License No. DPR-53  
2. Amendment No. 244 to  
License No. DPR-69  
3. Safety Evaluation

cc w/encls: See next page

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Docket Nos. 50-317 and 50-318

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- 2. Amendment No. 244 to License No. DPR-69
- 3. Safety Evaluation

DISTRIBUTION:

PDI-1 R/F	GMatakas, RGN-1
ACRS	RGuzman OGC
PUBLIC	SLittle GHill (4)
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DCullison	

cc w/encls: See next page

\* Provided SE input by memo. No substantive changes made.

Accession No.: ML042530436

Package No.: ML042530441

TSs: ML

OFFICE	PDI-1/PM	PDI-2/LA	SPLB*	OGC	PDI-1/SC
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DATE	9/10/04	9/10/04	1/7/03	9/2/04	9/13/04

Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2

cc

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CALVERT CLIFFS NUCLEAR POWER PLANT, INC.

DOCKET NO. 50-317

CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NO. 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 268  
Renewed License No. DPR-53

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Calvert Cliffs Nuclear Power Plant, Inc. (the licensee) dated August 6, 2002, as supplemented by letters dated December 12, 2002, July 24, 2003, and March 1, May 20, and August 11, 2004, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.2. of Renewed Facility Operating License No. DPR-53 is hereby amended to read as follows:

2. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 268, are hereby incorporated into the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

Richard J. Laufer, Chief, Section 1  
Project Directorate I  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: September 13, 2004

CALVERT CLIFFS NUCLEAR POWER PLANT, INC.

DOCKET NO. 50-318

CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NO. 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 244  
Renewed License No. DPR-69

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Calvert Cliffs Nuclear Power Plant, Inc. (the licensee) dated August 6, 2002, as supplemented by letters dated December 12, 2002, July 24, 2003, and March 1, May 20, and August 11, 2004, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.2. of Renewed Facility Operating License No. DPR-69 is hereby amended to read as follows:

2. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 244, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

Richard J. Laufer, Chief, Section 1  
Project Directorate I  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: September 13, 2004

ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO. 268 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-53

AMENDMENT NO. 244 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-69

DOCKET NOS. 50-317 AND 50-318

Replace the following pages of the Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove Pages

3.9.4-2

3.9.4-3

3.9.5-3

-

Insert Pages

3.9.4-2

3.9.4-3

3.9.5-3

3.9.5-4



SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 268 TO RENEWED  
FACILITY OPERATING LICENSE NO. DPR-53  
AND AMENDMENT NO. 244 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-69  
CALVERT CLIFFS NUCLEAR POWER PLANT, INC.  
CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NOS. 1 AND 2  
DOCKET NOS. 50-317 AND 50-318

1.0 INTRODUCTION

By application dated August 6, 2002 (ADAMS Accession No. ML022210229), as supplemented by letters dated December 12, 2002 (ADAMS Accession No. ML023510053), July 24, 2003 (ADAMS Accession No. ML032110026), March 1, 2004 (ADAMS Accession No. ML040640637), May 20, 2004 (ADAMS Accession No. ML041450503), and August 11, 2004 (ADAMS Accession No. ML042290238), the Calvert Cliffs Nuclear Power Plant, Inc. (the licensee) submitted a request for changes to the Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2 (CCNPP 1 and 2), Technical Specifications (TSs). The requested changes would replace the requirement in TSs 3.9.4 and 3.9.5 to close all containment penetrations providing direct access from containment atmosphere to the outside atmosphere with a set of more detailed and less restrictive requirements.

The supplemental letters dated December 12, 2002, July 24, 2003, March 1, 2004, and May 20, 2004, provided clarifying information that did not change the Nuclear Regulatory Commission (NRC) staff's proposed no significant hazards consideration determination as published in the *Federal Register* (67 FR 63690, October 15, 2002).

The August 6, 2002, submittal also requested a change to TS 3.9.3 to allow penetration flow paths that have direct access from the containment atmosphere to the outside atmosphere to be unisolated under administrative control during core alterations and fuel handling within containment. Based on its review of the licensee's application and supplements, the NRC staff concluded that the licensee had not demonstrated that the control room operator doses would meet General Design Criterion (GDC) 19 or how normal or accident releases would be monitored. Subsequently, in the supplemental letter dated August 11, 2004, the licensee determined that the calculations needed to support an interim Control Room habitability determination did not form a sufficient basis to support its proposed change to TS 3.9.3. Therefore, the licensee withdrew its proposed change to TS 3.9.3 from further NRC review, and requested NRC to continue review of the remaining proposed changes.

## 2.0 REGULATORY EVALUATION

The NRC staff finds that the licensee in its August 6, 2002, submittal identified the applicable regulatory requirements. The regulatory requirements and guidance which the NRC staff considered in its review of the application are as follows:

1. Title 10 of the *Code of Federal Regulations* (10 CFR) establishes the fundamental regulatory requirements with respect to the reactivity control systems. Specifically, GDC 16, "Containment design," in Appendix A to Part 50, "General Design Criteria for Nuclear Power Plants," states that reactor containment and associated systems shall be provided to establish an essentially leak tight barrier against the uncontrolled release of radioactivity to the environment and to assure that the containment design conditions important to safety are not exceeded for as long as postulated accident conditions require.
2. GDC 50, "Containment design basis," states, in part, that the reactor containment structure, including access openings, penetrations, and the containment heat removal system shall be designed so that the containment structure and its internal compartments can accommodate, without exceeding the design leakage rate and with sufficient margin, the calculated pressure and temperature conditions resulting from any loss-of-coolant accident.
3. NUREG-1432, Revision 2, "Standard Technical Specifications Combustion Engineering Plants," provides, in part, the TSs for the shutdown cooling system during refueling operations.

## 3.0 TECHNICAL EVALUATION

### 3.1 Technical Specification Task Force 197 (TSTF-197)

The licensee proposed changes to the Action statements in TS 3.9.4, Shutdown Cooling (SDC) and Coolant Circulation - High Water Level, and TS 3.9.5, Shutdown Cooling and Coolant Circulation - Low Water Level. The proposed changes would clarify requirements in the Action statement. Both TSs currently require the licensee to "Close all containment penetrations providing direct access from containment atmosphere to outside atmosphere" when the limiting condition for operation is not met. This wording is common to Combustion Engineering plant TSs and is the subject of TSTF-197. TSTF-197 addresses the concern that this wording is vague and, in some cases, overly restrictive and that there is no reason that the containment purge valves should be closed as long as they are Operable (i.e., will close automatically on a Containment High Radiation Signal). To replace the overly restrictive actions, TSTF-197 replaces the above phrase with the following actions:

1. close the equipment hatch and secure with [four] bolts;
2. close one door in each airlock; and
3. either close each penetration providing direct access from the containment atmosphere to the outside atmosphere with a manual or automatic isolation valve, blind flange, or equivalent, or verify the penetration is capable of being

closed by an OPERABLE Containment Purge and Exhaust Isolation System.

### 3.2 TS 3.9.4, SDC and Coolant Circulation - High Water Level

The licensee proposes to replace Action A.4, which is required with “One required SDC loop inoperable or not in operation,” with more descriptive actions. Action A.4 states:

Close all containment penetrations providing direct access from containment atmosphere to outside atmosphere.

Action A.4 will be replaced with the following to clarify what penetrations should be closed:

A.4.1 Close equipment hatch and secure with a minimum of four bolts,

OR

A.4.2 Close the containment outage door.

AND

A.5 Close one door in each airlock.

AND

A.6.1 Close each penetration providing direct access from the containment atmosphere to the outside atmosphere with a manual or automatic isolation valve, blind flange, or equivalent.

OR

A.6.2 Verify each penetration is capable of being closed by an OPERABLE Containment Purge Valve Isolation System.

### 3.3 TS 3.9.5, SDC and Coolant Circulation - Low Water Level

The licensee proposes to replace Action B.3 which is required with “No SDC loop OPERABLE or in operation” with more descriptive actions. Action B.3 states:

Close all containment penetrations providing direct access from containment atmosphere to outside atmosphere.

Action B.3 will be replaced with the following to clarify what penetrations should be closed:

B.3.1 Close equipment hatch and secure with a minimum of four bolts,

OR

B.3.2 Close the containment outage door.

AND

B.4 Close one door in each airlock,

AND

B.5.1 Close each penetration providing direct access from the containment atmosphere to the outside atmosphere with a manual or automatic isolation valve, blind flange, or equivalent.

OR

B.5.2 Verify each penetration is capable of being closed by an OPERABLE Containment Purge Valve Isolation System.

3.4 Evaluation of the proposed changes to TS 3.9.4 and TS 3.9.5

As stated in TSTF-197, the change to TS 3.9.4 and TS 3.9.5 has several advantages. First, establishing containment closure meets the Bases description for the Action, which is to prevent fission products from being released from the containment during a loss of shutdown cooling event. Secondly, containment closure is a well understood and controlled condition which is used routinely during a refueling outage. Utilizing containment closure instead of the current special actions gives greater confidence that the containment will be in the appropriate state. Therefore, the analysis assumptions and Bases assumptions for the Actions are preserved while eliminating an unclear requirement, lessening the administrative burden on the plant, and increasing confidence that the containment will be in the proper status should an event occur.

The licensee is not proposing to change the 4-hour completion time for the required action in TS 3.9.4 and TS 3.9.5, which is consistent with TSTF-197. In addition, CCNPP 1 and 2 have containment outage doors in addition to the equipment hatches. The containment outage door can be closed more rapidly than the equipment hatch and was installed so containment closure could be achieved in less time in the event of an accident while shutdown with the equipment hatch open. The containment outage door is designed to prevent a radioactive release to the atmosphere outside containment if SDC is lost, and retain the pressure generated by boiling reactor coolant resulting from a loss of SDC. In the event of a loss of SDC, the containment outage door will perform the function of the equipment hatch. The proposed changes to TS 3.9.4 and TS 3.9.5 are consistent with and meet all the guidance in TSTF-197. Therefore, the NRC staff determines that the proposed changes are acceptable.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Maryland State official was notified of the proposed issuance of the amendments. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has

determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (67 FR 63690, dated October 15, 2002). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

## 6.0 CONCLUSION

The Commission has concluded based on the considerations discussed above that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: D. Cullison

Date: September 13, 2004