

February 13, 2002

Mr. Charles H. Cruse  
Vice President - Nuclear Energy  
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 NO. 2 - AMENDMENT  
RE: ONE-TIME EXTENSION OF THE UNIT 2 CONTROL ROOM EMERGENCY  
VENTILATION SYSTEM TECHNICAL SPECIFICATION (TAC NO. MB3445)

Dear Mr. Cruse:

The Commission has issued the enclosed Amendment No. 223 to Renewed Facility Operating License No. DPR-69 for the Calvert Cliffs Nuclear Power Plant, Unit No. 2. This amendment consists of changes to the Technical Specifications (TSs) in response to your application transmitted by letter dated November 19, 2001.

The amendment increases the allowed outage time of one train of the control room emergency ventilation system from 10 to 14 days (for the loss of the emergency power supply only). This is a one-time change to support corrective maintenance and inspections of the 1A Diesel Generator during the Unit 1 refueling outage.

A copy of the related Safety Evaluation is enclosed. A Notice of Issuance will be included in the Commission's next regular biweekly *Federal Register* notice.

Sincerely,

**/RA/**

Donna Skay, Project Manager, Section 1  
Project Directorate 1  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-318

Enclosures: 1. Amendment No. 223 to DPR-69  
2. Safety Evaluation

cc w/encls: See next page

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Package: ML020490059

Amendment 223: ML020450534

Accession Number: ML020090620

\* See previous concurrence

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DATE	2/7/02	2/7/02	01/24/02	01/30/02	2/7/02	02/06/02

OFFICIAL RECORD COPY

DATED: February 13, 2002

AMENDMENT NO. 223 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-69  
CALVERT CLIFFS UNIT 2

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Unit Nos. 1 and 2

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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. 223  
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 November 19, 2001, 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. 223, 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/*

Joel Munday, Acting 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: February 13, 2002

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 223 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-69

DOCKET NO. 50-318

Replace the following page of the Appendix A Technical Specifications with the attached revised page. The revised page is identified by amendment number and contains marginal lines indicating the areas of change.

Remove Page

3.7.8-2  
3.7.8-3  
3.7.8-4

Insert Page

3.7.8-2  
3.7.8-3  
3.7.8-4

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 223 TO RENEWED

FACILITY OPERATING LICENSE NO. DPR-69

CALVERT CLIFFS NUCLEAR POWER PLANT, INC.

CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NO. 2

DOCKET NO. 50-318

1.0 INTRODUCTION

By letter dated November 19, 2001, Calvert Cliffs Nuclear Power Plant, Inc. (CCNPPI or the licensee) submitted a request for changes to the Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2, Technical Specifications (TSs). The requested changes would increase the allowed outage time (AOT) of one train of the control room emergency ventilation system (CREVS) from 10 to 14 days (for the loss of the emergency power supply only). This is a one-time change to support corrective maintenance and inspections of the 1A Diesel Generator (DG) during the Unit 1 refueling outage.

2.0 BACKGROUND

Calvert Cliffs Units 1 and 2 have a common control room. The CREVS is a shared system that consists of two redundant trains. Number 11 CREVS receives power from Unit 1 through 4 kV Bus. No. 11, with No. 1A DG as the emergency power supply. With either unit in modes 1 through 4, the TSs require both trains of the CREVS to be operable. The TSs allow one train of the CREVS to be inoperable for up to 10 days due to its emergency power supply being inoperable. The 10-day AOT is derived from TS 3.8.1 which allows a DG to be inoperable for 72 hours before declaring the associated CREVS train inoperable and TS 3.7.8.2.D which allows one train of CREVS to be inoperable for up to 7 days.

During the Unit 1 2002 refueling outage, corrective maintenance and manufacturer recommended inspections are scheduled for the No. 1A DG. The licensee estimates that this work will take up to 14 days to complete. The No. 11 CREVS train will remain functional and will have an offsite power supply available during this period. To provide an alternate power supply during this period, the No. 0C DG (the non-safety related alternate AC power source) will be available to the 4 kV Bus No. 11. Although the No. 0C DG was designed and procured under the same requirements as the No. 1A DG, the No. 0C DG is not safety-related, mainly because it does not auto-start or meet the safety-related requirements for natural phenomena.



### 3.0 EVALUATION

Calvert Cliffs Updated Final Safety Analysis Report describes the two redundant emergency ventilation system trains for the control room. The safety function of the CREVS is to maintain the control room habitable for operators and to maintain the environment needed for continued equipment operation. The CREVS utilizes fans, dampers, filters, and compressors to accomplish its safety functions. To allow for a single failure of the system, the control room is served by two redundant, 100% capacity CREVS. Each of the CREVS is powered from a different safety-related bus, which are powered from different DGs.

During the 2002 refueling outage for Unit 1, the emergency power supply for No. 11 CREVS will be inoperable for up to 14 days while inspections and corrective maintenance are performed on No. 1A DG. An operating unit is allowed by the TS to remove one of the CREVS trains from service for up to 10 days due to emergency power supply being inoperable, thereby eliminating the single failure protection. This temporary relaxation of the single failure criterion, consistent with overall system reliability considerations, provides a limited time to make modifications, repair equipment, and conduct testing.

While the licensee provided some risk information regarding the No. 1A DG being inoperable, it did not address the associated risk with respect to the No. 11 CREVS. Therefore, the staff did not evaluate the amendment as risk-informed. However, the following qualitative considerations provide confidence that the impact of the proposed DG inspection and maintenance should have minimal risk consequences.

The No. 11 CREVS — which does not directly impact core damage frequency or large early release frequency but does support the control room envelope safe haven for operators to control the plant during postulated radiological, smoke, or other toxic gas events — will have normal electrical power and will be functional during the period of the extended AOT. In addition, the No. 11 CREVS will have emergency power supplied by the No. 0 DG, a non-safety related alternate AC power source. Loss of all power to the No. 11 CREVS would require loss of the four offsite power sources and the failure of the No. 0 DG to start. In addition, the redundant CREVS will be OPERABLE during the 1A DG inspection and maintenance.

The only design basis event that could interrupt normal power to both CREVS trains is loss-of-offsite power. The offsite power system for Calvert Cliffs consists of three 500 kV transmission lines that meet in a common switchyard and a fourth 69 kV transmission line that connects to 13 kV buses. The three 500 kV lines are independent of each other and are mounted on weather-resistant towers along a single right-of-way. The 69 kV transmission line enters a separate substation on the site along a different right-of-way and is buried for most of its length on Calvert Cliffs property. Offsite power could be inadvertently lost through maintenance activities and weather-related events. The design and construction of the four transmission lines lessens their vulnerability to weather-related events, including hurricanes, tornadoes and ice storms. The licensee anticipates that all work on the 1A DG will be completed before the time of the year when tornadoes and hurricanes have historically been experienced at Calvert Cliffs. In addition, the 69 kV transmission lines are designed for one-half inch coating of ice, and the 500 kV lines are designed to remain functional with a one and-one-half inch coating of ice. Because of the redundancy and diversity of the electrical power sources, the probability of a loss of offsite power is very low. Finally, to minimize the possibility of a loss of offsite power, the licensee will restrict maintenance activities on the three 500 kV offsite transmission lines during the No. 1A DG inspection and maintenance.

The licensee will also restrict planned maintenance on the No. 12 CREVS while the No. 11 CREVS is inoperable to ensure the availability of the alternate train.

Based on the above, the probability of postulated events that could successfully challenge the CREVS function seems fairly low. Therefore, the staff has reasonable assurance that a one-time AOT increase from effectively 10 to 14 days will not pose undue risk to public health and safety.

#### 4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Maryland State official was notified of the proposed issuance of the amendment. 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 926). 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 Contributors: D. Skay, Y. Diaz

Date: February 13, 2002