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SUBJECT: Application for amends to licenses DPR-58 & DPR-74, modifying  
 TS section 4.4.11 to eliminate SR demonstrating operability  
 of emergency power supply for pressurizer PORVs & block  
 valves.

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January 12, 1996

AEP:NRC:1233

Docket Nos.: 50-315  
50-316

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D. C. 20555

Gentlemen:

Donald C. Cook Nuclear Plant Units 1 and 2  
PROPOSED TECHNICAL SPECIFICATION AMENDMENT  
TO MODIFY REACTOR COOLANT SYSTEM RELIEF  
VALVES SURVEILLANCE REQUIREMENTS

This letter and its attachments constitute an application for amendment to the technical specifications (T/Ss) for the Donald C. Cook Nuclear Plant units 1 and 2. We are proposing to modify T/S section 4.4.11 to eliminate the surveillance requirement (SR) demonstrating operability of the emergency power supply for the pressurizer power operated relief valves (PORVs) and block valves. Specifically, we are proposing to eliminate SR 4.4.11.3. The proposed amendment is consistent with the new standard T/Ss published by the NRC as NUREG 1431 Rev. 1.

Attachment 1 provides a detailed description of the proposed changes, the justification for the changes, and our determination of no significant hazards consideration performed pursuant to 10 CFR 50.92. Attachment 2 contains the existing T/S pages marked to reflect the proposed changes. Attachment 3 contains the proposed revised T/S pages.

We believe the proposed changes will not result in (1) a significant change in the types of any effluent that may be released offsite, or (2) a significant increase in individual or cumulative occupational radiation exposure.

These proposed changes have been reviewed by the Plant Nuclear Safety Review Committee and the Nuclear Safety and Design Review Committee.

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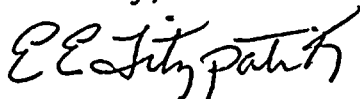
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We request that the amendment, when approved by the NRC, be effective within 45 days of the date of issuance to allow for orderly implementation of the amendment.

In compliance with the requirements of 10 CFR 50.91(b)(1), copies of this letter and its attachments have been transmitted to the Michigan Public Service Commission and to the Michigan Department of Public Health.

Sincerely,



E. E. Fitzpatrick  
Vice President

SWORN TO AND SUBSCRIBED BEFORE ME

THIS 12th DAY OF January 1996

  
\_\_\_\_\_  
Notary Public

My Commission Expires: 6-28-99

plt

Attachments

cc: A. A. Blind  
G. Charnoff  
H. J. Miller  
NFEM Section Chief  
NRC Resident Inspector - Bridgman  
J. R. Padgett



Year	Percentage of Total Population in Labor Force
1950	55
1955	65
1960	63
1965	75
1970	80

ATTACHMENT 1 TO AEP:NRC:1233

DESCRIPTION AND JUSTIFICATION OF CHANGES

10 CFR 50.92 ANALYSIS FOR CHANGES  
TO THE DONALD G. COOK NUCLEAR PLANT  
UNITS 1 AND 2 TECHNICAL SPECIFICATIONS

# I. DESCRIPTION OF CHANGES

We are proposing to modify technical specification (T/S) 3/4.4.11 (Reactor Coolant System - Relief Valves) to delete surveillance requirement (SR) 4.4.11.3. Currently, SR 4.4.11.3 requires that the emergency power supply for the pressurizer power operated relief valves (PORVs) and block valves be demonstrated operable once every 18 months by operating the valves through a complete cycle of full travel while the emergency buses are energized by the onsite diesel generators and the onsite plant batteries.

## II. BACKGROUND

The Cook Nuclear Plant design contains three PORVs, each having a corresponding block valve. The PORVs are spring-closed, air-to-open upon actuation of their corresponding solenoid control valve. The solenoid valve and the block valve are electrically operated (the block valve being a motor operated valve) and powered from the emergency buses. The PORVs are powered by the 250V DC power supply, while the block valves are powered by the 600V AC power supply.

## III. JUSTIFICATION FOR CHANGES

SR 4.4.11.3 was added to the unit 1 and 2 T/Ss (amendment 49/34) as a post-TMI requirement in response to NUREG-0578 (TMI-2 Lessons Learned, Category A Items), and was based on existing plant designs which powered the PORVs and block valves from non-emergency power supplies. An NRC generic letter dated July 2, 1980, provided model T/S changes that reflected the intent of NUREG-0578. One of the model changes required that the emergency power supply for the PORVs and block valves be demonstrated operable at least once per 18 months by manually transferring motive and control power from the normal to the emergency power supply and operating the valves through a complete cycle of full travel. This requirement was intended to apply to plants where the PORVs and block valves were not permanently attached to the emergency power distribution buses.

The power supplies for the block valves and PORVs are from the Class 1E emergency buses. This is a permanent feature

for the Cook Nuclear Plant design. Class 1E electrical systems are redundant to, and physically separated and electrically isolated from one another.

Since both the PORVs and block valves are permanently connected to the emergency power distribution buses, there is no manual switching of the power supplies for these components. To model our T/Ss as closely as possible with the model T/Ss in the generic letter, SR 4.4.11.3 was added, which requires that:

"The emergency power supply for the PORVs and block valves shall be demonstrated operable at least once per 18 months by operating the valves through a complete cycle of full travel while the emergency buses are energized by the onsite diesel generators and the onsite plant batteries. This testing can be performed in conjunction with the requirements of Specifications 4.8.1.1.2.e and 4.8.2.3.2.d."

The SR allowed the testing of the PORVs and block valves to occur during the emergency diesel generator (EDG) testing (4.8.1.1.2.e) and plant batteries service testing (4.8.2.3.2.d). However, the requirement for manual switching of power supplies was not applicable and thus was not included. The SR was intended to provide a T/S that did not require manual energizing of the equipment, as required by the NRC's model T/S from NUREG-0578, and thus to allow testing of the PORVs and block valves during testing that was already required to be performed on the EDGs and the plant batteries.

SR 4.8.1.1.2.e verifies the operability of the EDG including its ability to start on the appropriate signals and to energize the emergency busses. During this test, the EDG powers the 600V AC power buses directly and powers the 250V DC power buses by means of battery chargers.

SR 4.8.2.3.2.d performs a plant battery service test during shutdown verifying that the battery capacity is adequate to supply the actual or simulated emergency loads with the battery charger disconnected.

These tests are adequate to demonstrate the operability of the Class 1E emergency power supplies. By verifying the operation of the EDGs and the plant batteries, the operation of the emergency power system is verified.



The operability of the PORVs and the block valves will still be tested as mandated in SR 4.4.11.1 and SR 4.4.11.2. During these tests, the block valves will still be powered from the 600V AC bus and the PORVs will still be powered from the 250V DC bus. Therefore, these tests ensure both the operability of the valves as well as the integrity of the valve's connection to their respective power buses. Since Class 1E power distribution systems are independently tested to demonstrate their operability as mandated by the previously mentioned SRs, elimination of the specific requirement that the EDGs and/or plant batteries power the respective buses during testing makes no practical difference and is acceptable. This will allow for greater test scheduling flexibility.

Furthermore, SR 3.4.11.4 in NUREG-1431 requires verification that "PORVs and block valves are capable of being powered from emergency power sources." However, the bases for NUREG-1431 SR 3.4.11.4 states that the "SR is not required for plants with permanent 1E power supplies to the valves."

Therefore, since Cook Nuclear Plant's PORVs and block valves are permanently powered by Class 1E power supply systems, deletion of SR 4.4.11.4 is consistent with NUREG-1431.

#### IV. 10 CFR 50.92 CRITERIA

Per 10 CFR 50.92, a proposed change does not involve significant hazards consideration if the change does not:

1. involve a significant increase in the probability or consequence of an accident previously evaluated,
2. create the possibility of a new or different kind of accident from any accident previously evaluated, or
3. involve a significant reduction in a margin of safety.

##### Criterion 1

The proposed change is consistent with NUREG-1431. Due to the high reliability and continued testing of the Class 1E power supply, we conclude that the elimination of the SR will not involve a significant increase in the probability or consequences of an accident previously evaluated.

Criterion 2

The proposed change does not involve the addition of any new plant operations or procedures, and the elimination of the SR is consistent with NUREG-1431. For these reasons, we believe that the proposed change will not create the possibility of a new or different kind of accident from any accident previously evaluated.

Criterion 3

The proposed change is consistent with NUREG-1431, and it does not affect the acceptance criteria of any of the other PORV and block valve tests currently performed. For these reasons, we believe that the proposed amendment will not involve a significant reduction in a margin of safety.

Attachment 2 to AEP:NRC:1233

EXISTING TECHNICAL SPECIFICATIONS  
PAGES MARKED TO REFLECT PROPOSED CHANGES