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SUBJECT: Application for amends to licenses DPR-58 & DPR-74, modifying  
 TS 3/4.7.1.5, "SG Stop Valves" to achieve greater  
 consistency w/new STS for Westinghouse plants, published by  
 NRC as NUREG-1431.

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AEP:NRC:1200

Donald C. Cook Nuclear Plant Units 1 and 2  
Docket Nos. 50-315 and 50-316  
License Nos. DPR-58 and DPR-74  
TECHNICAL SPECIFICATION CHANGE REQUEST:  
STEAM GENERATOR STOP VALVES

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

Attn: T. E. Murley

December 22, 1993

Dear Dr. Murley:

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. The proposed changes modify T/S 3/4.7.1.5 (Steam Generator Stop Valves) to achieve greater consistency with the new Standard T/Ss for Westinghouse plants, published by the NRC as NUREG 1431. We are also proposing certain clarifications regarding surveillance requirements which we committed to in our Unit 2 Voluntary Licensee Event Report (LER) 316/92-009-01, and related changes to the Bases.

Attachment 1 provides a detailed description of the proposed changes, the justification for the changes, and our proposed 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.

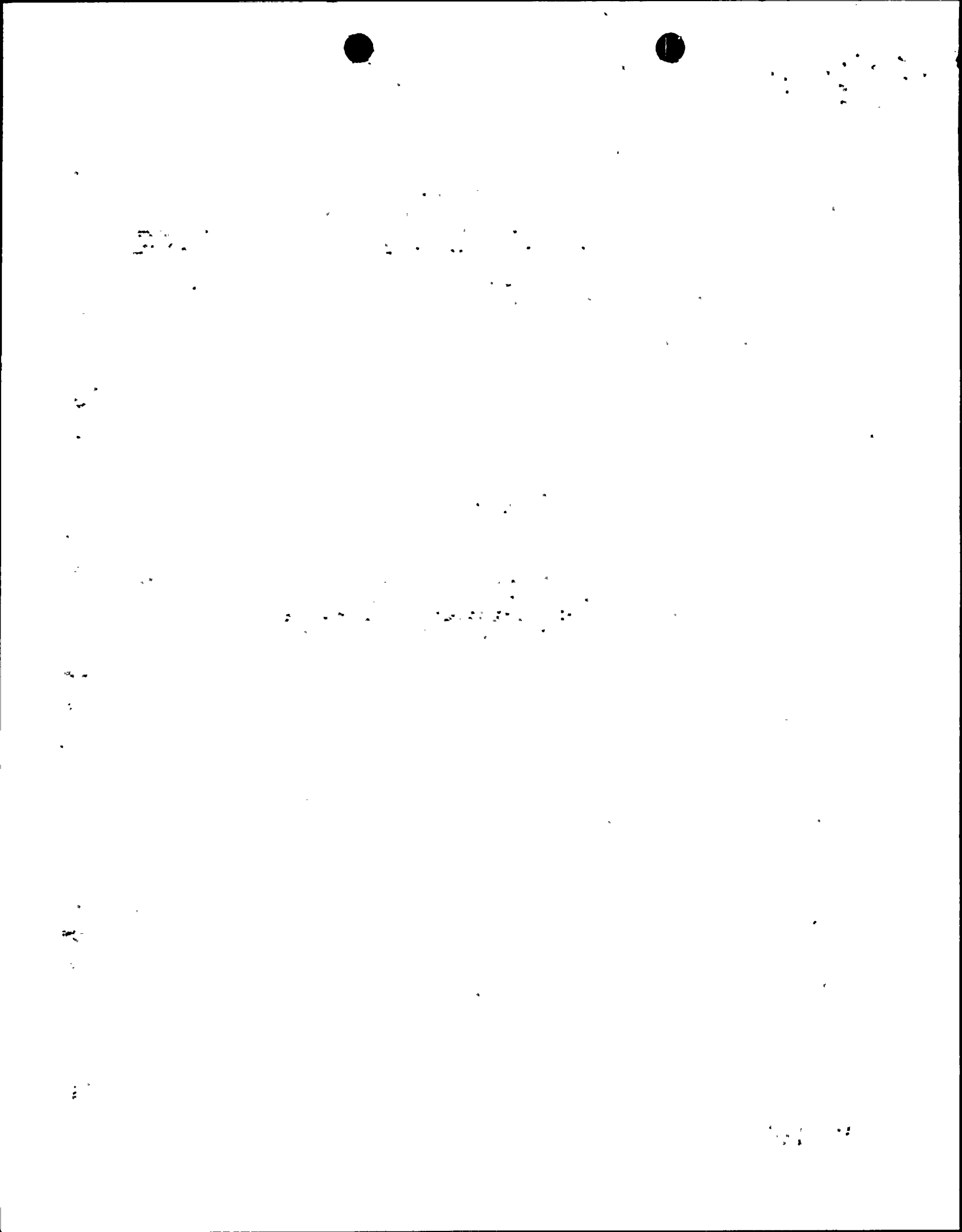
We believe that the proposed changes will not result in 1) a significant change in the types of effluents or a significant increase in the amount of any effluents that may be released offsite, or 2) a significant increase in individual or cumulative occupational radiation exposure.

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

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

This letter is submitted pursuant to 10 CFR 50.30(b), and, as such, an oath statement is attached.

Sincerely,



E. E. Fitzpatrick  
Vice President

dr

Attachments

cc: A. A. Blind  
G. Charnoff  
J. B. Martin - Region III  
NFEM Section Chief  
NRC Resident Inspector  
J. R. Padgett

STATE OF OHIO)  
COUNTY OF FRANKLIN)

E. E. Fitzpatrick, being duly sworn, deposes and says that he is the Vice President of licensee Indiana Michigan Power Company, that he has read the forgoing TECHNICAL SPECIFICATION CHANGE REQUEST: STEAM GENERATOR STOP VALVES and knows the contents thereof; and that said contents are true to the best of his knowledge and belief.

E. E. Fitzpatrick

Subscribed and sworn to before me this 22nd  
day of December, 19 93.

Rita D. Hill  
NOTARY PUBLIC

RITA D. HILL  
NOTARY PUBLIC, STATE OF OHIO  
MY COMMISSION EXPIRES 6-28-94



ATTACHMENT 1 TO AEP:NRC:1200.

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





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# I. DESCRIPTION OF THE CHANGES

We propose to modify T/S 3/4.7.1.5 (Steam Generator Stop Valves) for Units 1 and 2 of the Donald C. Cook Nuclear Plant in order to achieve greater consistency with the new Standard T/Ss for Westinghouse plants, published by the NRC as NUREG 1431. We are also proposing certain clarifications regarding surveillance requirements which we committed to in our Unit 2 Voluntary Licensee Event Report (LER) 316/92-009 Rev.1. The specific proposed changes are as follows:

## A. Surveillance Requirements

As presently written, Unit 2 surveillance requirement 4.7.1.5.1 requires each steam generator stop valve to be demonstrated operable by verifying full closure within 8 seconds when tested pursuant to Specification 4.0.5 (ASME Section XI program). We are proposing to modify this surveillance requirement such that only stop valves that are open must be tested. This wording is consistent with the wording for Unit 1.

## B. Action Statements

For the Mode 1 action statement, we are proposing to change the allowable outage time for one steam generator stop valve to be inoperable from 4 hours to 8 hours, and the subsequent time to reach Mode 2 from 2 hours to 6 hours.

For the Modes 2 and 3 action statement, we are proposing to rewrite the action statement to allow more than one steam generator stop valve to be inoperable. With one or more steam generator stop valves inoperable in these modes, the inoperable valve(s) must be closed within 8 hours and verified to be closed at least once per 7 days. Otherwise, the unit must be placed in Mode 4 within 12 hours, with the unit in at least Mode 3 within the first 6 hours.

## C. Bases

We are proposing to modify the Bases section to provide the rationale behind the proposed action statements. The Bases discussion is taken from NUREG 1431.



## II. REASONS AND JUSTIFICATION FOR PROPOSED CHANGES

### A. Surveillance Requirements

The change to the Unit 2 surveillance requirements is intended to clarify the T/S and to achieve consistency with the Unit 1 T/S. We committed to proposing this change in Unit 2 Voluntary LER 316/92-009 Rev. 1, which was submitted June 4, 1993. This LER revision changed the reportability status to voluntary for an incident that occurred on November 22, 1992.

On November 22, 1992, with Unit 2 in Mode 2, an Unusual Event was declared as a result of entering a T/S 3.0.3 condition. The T/S 3.0.3 entry was made based on a determination that, although the steam generator stop valves were tagged closed for turbine generator maintenance, they were technically inoperable as a result of not having current stroke time surveillances. A shutdown from Mode 2 to Mode 3 was commenced upon determination of the valves' inoperable status. The steam generator stop valves are stroke tested (with an 8 second acceptance criteria) on a cold shutdown frequency. The valves were considered inoperable since the unit was in a startup condition and it had been greater than 92 days since the last full stroke test.

On November 21, 1992, a review was conducted to determine if Unit 2 could enter Mode 2 in preparation for turbine roll. Part of this review included a determination of T/Ss that would be impacted by the mode change. It was identified that T/S 3.7.1.5 allowed for entry into Mode 2 for physics testing with the valve stroke surveillance not current provided the valves were maintained in the closed position. While all low power physics testing had been completed, it was determined to be allowable (satisfying the intent of the T/S) to enter Mode 2 with the surveillance not current as long as the MSIVs were maintained in the closed position.

Following the mode change, the Shift Supervisor commenced a review of the activities performed for entry into Mode 2. As part of his review, he reevaluated the transition into Mode 2 with the steam generator stop valves tagged closed. At this time, he determined that changing modes with valves not having current surveillances was not in literal compliance with the action statement for T/S 3.7.1.5. It was determined that a conservative approach would be to consider the unit in a T/S 3.0.3 condition and perform a shutdown into Mode 3. An Unusual Event was declared and a one hour report was made to the NRC Operations Center in accordance with 10 CFR 50.72(b)(1)(i)(A).

Reviews performed subsequent to November 22 have determined that a unit shutdown was not required per the T/Ss. ASME Section XI Article IWV-3416 states that:

For a valve in a system declared inoperable or not required to be operable, the exercising test schedule need not be followed. Within 30 days prior to return of the system to operable status, the valves shall be exercised and the schedule resumed in accordance with requirements of this Article.

Based on this article, it was determined that no violation of T/S requirements occurred and the LER was changed to voluntary. In order to avoid confusion of this nature in the future, a commitment was made in the voluntary LER to propose changes to the T/S. This conclusion was also reached by the NRC as documented in NRC inspection report 50-315/316 92022.

Based on the circumstances surrounding the November 22, 1992, events, it is clear that the Unit 2 T/S was confusing to the operators and is in need of clarification. The function of the steam generator stop valves is to close to isolate the steam lines for accident conditions, such as steam line breaks. As discussed in NUREG 1431, steam generator stop valves that are closed are already in their safety function position. Therefore, there is no need to require a stroke test on a valve that is already in the closed (safe) position nor is there a need to prevent the change from Mode 3 to Mode 2 with stroke test surveillances not current, provided the valves remain in the closed position. The wording of Unit 1 surveillance requirement 4.7.1.5.1 is superior to the Unit 2 wording in that it clearly states that the valve stroke test only has to be performed on steam generator stop valves that are open. With this wording, it would have been clear that the change from Mode 3 to Mode 2 was acceptable with expired surveillances provided the valves remained in the closed position. Thus, we are proposing to adopt the wording of the Unit 1 surveillance requirement for Unit 2.

#### B. Action Statements

The changes to the action statements are intended to provide greater operational flexibility and to achieve greater consistency with the new standard T/S published by the NRC as NUREG 1431.

For the Mode 1 action statement, we are proposing to change the allowable outage time for one steam generator stop valve to be inoperable from 4 hours to 8 hours, and the subsequent time to reach Mode 2 from 2 hours to 6 hours. As discussed in NUREG 1431:

"The 8 hour Completion Time is reasonable, considering the low probability of an accident occurring during this time period that would require a closure of the MSIVs. The 8 hour Completion Time is greater than that normally allowed for containment isolation valves because the MSIVs are valves that isolate a closed system penetrating containment. These valves differ from other containment isolation valves in that the closed system provides an additional means for containment isolation.

If the MSIV cannot be restored to OPERABLE status within 8 hours, the unit must be placed in a MODE in which the LCO does not apply. To achieve this status, the unit must be placed in MODE 2 within 6 hours...The Completion Times are reasonable, based on operating experience, to reach MODE 2 and to close the MSIVs in an orderly manner and without challenging unit systems."

As presently written, only one steam generator stop valve can be inoperable in Modes 2 and 3. This is overly restrictive, since a steam generator stop valve that is closed is already performing its intended safety function. Additionally, the present T/S is written specifically to address inoperability that occurs in Mode 1. (The the Modes 2 and 3 action statement discusses "subsequent operation in Modes 2 and 3.") Thus, the T/S is unclear as to the requirements for inoperability that occur while the unit is in Modes 2 or 3. For example, there is no time limit established for closing an inoperable stop valve in these modes. We are proposing to rewrite the action statement such that more than one stop valve can be inoperable in Modes 2 and 3 provided the inoperable stop valves are closed within 8 hours and are verified to be closed at least once per 7 days.

As discussed in NUREG 1431:

"Since the MSIVs are required to be OPERABLE in MODES 2 and 3, the inoperable MSIVs may either be restored to OPERABLE status or closed. When closed, the MSIVs are already in the position required by the assumptions in the safety analysis. The 8 hour Completion Time is consistent with that allowed in Condition A (corresponding to the Mode 1 action statement). For inoperable MSIVs that cannot be restored to OPERABLE status within the specified Completion Time, but are closed, the inoperable MSIVs must be verified on a periodic basis to be closed. This is necessary to ensure that the assumptions in the safety analysis remain valid. The 7 day Completion Time is reasonable, based on engineering judgement, in view of MSIV status indications available in the control room, and other administrative controls, to ensure that these valves are in the closed position."

Consistent with the NUREG 1431 T/Ss, if an inoperable steam generator stop valve cannot be restored to operable status or closed within the allowed 8 hours, the unit would have to be placed in Mode 3 within 6 hours and Mode 4 within 12 hours. As stated in NUREG 1431, "the allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from MODE 2 conditions in an orderly manner and without challenging unit systems."

C. Bases

The proposed changes to the Bases provide the rational behind the action statement requirements and are consistent with NUREG 1431.

III. 10 CFR 50.92 CRITERIA

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

1. involve a significant increase in the probability or consequences 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 limiting conditions for operation involving the steam generator stop valves are not altered by this proposed change. The surveillance requirements are lessened for Unit 2 in that valve stroke timing does not have to be performed on valves that are closed. This is consistent with the wording of the Unit 1 T/S, and reflects the fact that, when closed, the valves are already in the position required by the assumptions in the safety analysis and therefore stroke timing is not necessary. The remaining changes are consistent with NUREG 1431, and, as such, have already been found acceptable by the NRC. Therefore, it is concluded that the proposed amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated.

Criterion 2

No changes to the limiting conditions for operation of the steam generator stop valves are proposed as part of this amendment request. The proposed changes do not involve any physical changes to the plant. The changes will allow operation in Modes 2 and 3 with more than one steam generator stop valve inoperable. However, inoperable valves must be closed and their closure periodically reverified. When closed, the valves are already in the position required by the assumptions in the safety analysis. Thus, the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

Criterion 3

The limiting conditions for operation involving the steam generator stop valves are not altered by this proposed change. The surveillance requirements are lessened for Unit 2 in that valve stroke timing does not have to be performed on valves that are closed. This is consistent with the wording of the Unit 1 T/S, and reflects the fact that, when closed, the valves are already in the position required by the assumptions in the safety analysis and therefore stroke timing is not necessary. The remaining changes are consistent with NUREG 1431, and, as such, have already been found acceptable by the NRC. Therefore, it is concluded that the proposed changes do not involve a significant reduction in a margin of safety.



