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SUBJECT: Application for amends to licenses DPR-58 & DPR-74,
 modifying TS 4.7.5.1.e.2 which describes control room
 ventilation sys autostart functions.

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March 26, 1997

AEP:NRC:0398AS

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
TECHNICAL SPECIFICATION CHANGE REQUEST
CONTROL ROOM VENTILATION SYSTEM
REVISE AUTOSTART DESCRIPTION

This letter and its attachments constitute an application for amendment to the technical specifications (T/Ss) for Donald C. Cook Nuclear Plant units 1 and 2. Specifically, we propose to modify T/S 4.7.5.1.e.2 which describes the control room ventilation system autostart functions.

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 and approved by the Plant Nuclear Safety Review Committee and the Nuclear Safety and Design Review Committee.

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.

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

SWORN TO AND SUBSCRIBED BEFORE ME

THIS 26th DAY OF March, 1997

Notary Public

My Commission Expires: 2001

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/jen



Attachments

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JANICE M. BICKERS
Notary Public, Berrien County, MI
My Commission Expires Feb. 16, 2001

U. S. Nuclear Regulatory Commission
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AEP:NRC:0398AS

cc: A. A. Blind
A. B. Beach
MDEQ - DW & RPD
NRC Resident Inspector
J. R. Padgett

ATTACHMENT 1 TO AEP:NRC:0398AS

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

Introduction

The purpose of these changes is to clarify the description of control room ventilation system operation that is included in the present T/Ss.

These changes were originally proposed to the NRC in our letter AEP:NRC:08560, dated July 10, 1986, as part of a larger group of proposed changes related to NUREG 0737 Item III.d.3.4, "Control Room Habitability." These changes were subsequently withdrawn, and submitted in revised form in our letter AEP:NRC:0398R, dated June 29, 1989.

For reasons unrelated to the specific changes proposed in this letter, the changes were again withdrawn (ref. AEP:NRC:0398T, dated June 15, 1990), per agreement with the NRC, with an understanding that they would be resubmitted following NRC approval of our 10 CFR 50 Appendix B control room dose analyses that were submitted separately in our letter AEP:NRC:0398AA, dated April 7, 1995.

In order to ensure that our T/Ss accurately describe the design of the control room ventilation system, and following discussions with our NRC resident inspector, we now are proposing to resubmit the specific changes described below, apart from those last proposed in AEP:NRC:0398R. The changes submitted here do not depend on the control room dose calculations currently under NRC review.

Control Room Ventilation System

Various rooms are served by the control room ventilation system, including the control room itself, the HVAC machine room (which houses the various ventilation equipment), and the computer room. During normal operation, outdoor air is drawn into the system through the normal air conditioning units and supplied to the computer room and the control room. The computer room and the machine room are connected by an open grating. Return flow is drawn directly from the control room and the machine room.

In the event of a radiological accident, the system would automatically be realigned in the "pressurization/cleanup" mode. This would occur on a safety injection (SI) signal from either unit. In this mode, the pressurization fans start, drawing air through the cleanup system's roughing, high efficiency particulate air (HEPA), and charcoal filters. Dampers automatically realign to prevent unfiltered air from being drawn into the system and to provide recirculation capability within the three room complex. The pressurization unit fans maintain the control room at positive pressure to limit the potential infiltration of unfiltered radioactive air.

Description of and Justification for Changes

As presently written, T/S 4.7.5.1.e.2 instructs us to verify every 18 months that:

"On a safety injection signal from either Unit 1 or Unit 2, or on a containment phase A isolation signal, the system automatically diverts its inlet flow through the HEPA filters and charcoal adsorber bank and that either fan can then be manually started in the recirculation mode."

This does not adequately describe the Cook Nuclear Plant control room ventilation system for the following reasons:

- (1) Automatic system actuation occurs on an SI signal from either unit. The SI signal will also initiate the respective unit's phase A containment isolation signal. However, the containment phase A isolation signal will not itself initiate ventilation system actuation.
- (2) In the event of an SI signal from either unit, both pressurization fans would automatically start. One fan would then be turned off by the operators so that proper iodine residence time is obtained. The T/S as currently written implies that the fans must be turned on manually.
- (3) Our control room ventilation units do not have HEPA or charcoal bypasses. Air is drawn through the HEPAs and charcoal whenever the pressurization fans are running. Therefore, air is not "diverted" through the HEPA and charcoal, as stated in the present T/S.

To correct these items, we propose to revise T/S 4.7.5.1.e.2 to require verification that:

- a) On a safety injection signal from unit 1, the system automatically operates in the pressurization/cleanup mode.
- b) On a safety injection signal from unit 2, the system automatically operates in the pressurization/cleanup mode.

We have separated the testing requirements for the unit 1 and unit 2 signals to emphasize that the signal from both units must be tested, i.e., that either/or is not sufficient.

These changes are administrative in nature, intended to ensure that the description of the control room ventilation system operation in T/S 4.7.5.1.e.2 accurately reflects the system design.

Regarding (1) above, it is noted that an SI signal is the only signal which will cause the phase A isolation signal to be initiated automatically.

An independent phase A isolation signal can be generated manually from the control room. This switch would be used by the operators if it was determined or suspected that a required automatic phase A signal did not occur as a result of a safety injection signal.

The emergency operating procedures require verification that the control room ventilation system has responded appropriately to an SI signal. Automatic starting of the pressurization fans and alignment of each of the system dampers is specifically verified.

Regarding (2) above, Cook Nuclear Plant design is conservative with regard to the T/S description because no bypass dampers must function in order to provide flow through the charcoal and HEPA filters.

Regarding (3) above, Cook Nuclear Plant design is conservative with regard to the T/S description because manual action is not necessary to provide a fan start. Rather, both fans start automatically, and then, as required by the emergency operating

procedure, one fan would be shut down by the operator to ensure adequate iodine residence time.

The bases in the Cook Nuclear Plant T/Ss do not specifically discuss the surveillance requirement addressed in this amendment request. However, it was determined to be prudent to add one piece of clarifying information. The following is proposed to be added to the unit 1 (unit 2) specification bases:

"The unit 1 (2) control room emergency ventilation system operates automatically on a safety injection signal from either unit 1 or unit 2. The automatic start from unit 2 (1) is only available when the unit 2 (1) ESF actuation system is active in modes 1 through 4 in unit 2 (1)."

The purpose of adding this paragraph is to clearly address any operability question for the control room emergency ventilation system with respect to the opposite unit status and the availability of the SI initiating signal.

10 CFR 50.92 Analysis

Per 10 CFR 50.92, a proposed amendment will involve a no significant hazards consideration if the proposed amendment 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 previously analyzed or evaluated; or
- (3) involve a significant reduction in a margin of safety.

Criterion 1

These changes are administrative in nature, intended to correct and clarify the T/S description of control room ventilation system operation. Because no changes to plant operations or physical changes to the plant will occur due to these changes, they do not involve a significant increase in the probability or consequences of a previously evaluated accident.

Criterion 2

Because no changes to plant operations or the physical plant will occur due to these changes, the changes will not create the possibility of a new or different kind of accident from any previously evaluated.

Criterion 3

These changes are administrative in nature, intended to correct and clarify the present T/Ss with regard to system operation descriptions. Thus, the changes involve no reduction in margins of safety.

ATTACHMENT 2 TO AEP:NRC:0398AS
CURRENT TECHNICAL SPECIFICATION PAGES
MARKED WITH PROPOSED CHANGES