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DUKE POWER

November 9, 1990

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

Subject: Catawba Nuclear Station, Units 1 and 2
Docket Nos. 50-413 and 50-414
NRC Inspection Report No. 50-413, 414/90-24
Reply to a Notice of Violation

Gentlemen:

Enclosed is the response to the Notice of Violation issued October 3, 1990 by the NRC concerning failure to follow proccdures.

Very truly yours,

M. S. Tuckman

M. S. Tuckman, Vice President
Nuclear Operations

WRC/202/lcs

xc: Mr. Stewart D. Ebneter
Regional Administrator, Region II
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Mr. W. T. Orders
NRC Resident Inspector
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**DUKE POWER COMPANY**
**REPLY TO A NOTICE OF VIOLATION**
**414/90-24-02**
**and**
**414/90-28-01**

Technical Specification 3.9.2.1 requires that two trains of the Boron Dilution Mitigation System (BDMS) be operable and operating in Mode 6. With one or both trains of BDMS inoperable, two Source Range Neutron Flux (SRNF) Monitors must be operable and operating with continuous visual indication in the control room and audible indication in the Control Room and Containment.

Technical Specification 6.8.1 requires that written procedures be established, implemented, and maintained covering the activities referenced in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978.

Contrary to the above:

A. Procedure OP/2/A/6100/02, Controlling Procedure for Unit Shutdown, Enclosure 4.3, Step 2.9, requires in part that either two trains of the BDMS system be verified to be operable and operating or two SRNF monitors with visual indication in the control room and audible indication in the control room and containment be operable and operating prior to entering Mode 6.

   On July 22, 1990, the Shift Supervisor failed to follow procedural requirements in that with the BDMS system inoperable, the Shift Supervisor signed off procedural steps verifying that two SRNF monitors were operable and operating with visual indication in the control room and audible indication in the control room and containment when in fact the audible indication for both the control room and containment was inoperable. This resulted in the unit operating in Mode 6 with the BDMS and both SRNF audible indications inoperable.

B. PT/2/A/4600/19F, Premode 6 Periodic Surveillance Items, Enclosure 13.3, Step 1, requires in part that prior to the unit being placed in Mode 6, the control room operator verify that both SRNF monitors are operable and operating with visual indication in the control room and audible indication in the control room and containment if the BDMS is operable.

   On July 23, 1990, the control room operator failed to follow procedural requirements in that with the BDMS system inoperable, the control room operator signed off the procedure step verifying that two SRNF monitors were operable and operating with visual indication in

the control room and audible indication in the control room and containment when in fact the audible indication for both the control room and containment was inoperable. This resulted in the unit entering in Mode 6 and commencing core alternation with the BDMS and both SRNF audible indications inoperable.

C. On September 5, 1990, Operations personnel failed to follow Operating Procedure OP/2/A/6100/01 in that by initialling steps 14, 26, and 26A, the Control Room Senior Reactor Operator (CRSRO) verified that the SSF was operable and that any item preventing entry into Mode 3, had been cleared when in fact neither was the case. Thus the degraded condition of the SSF was not identified.
(This is another example of failure to follow procedure which is identified in NRC Inspection Report 50-413, 414/90-28).

**RESPONSE:**

1. **Admission or Denial of Violation**

Duke Power admits the violation.

2. **Reasons for Violation if Admitted**

The incidents were attributed to Inappropriate action.

Item A. The supervisor who signed off the step did so without completely comprehending the entire step. He felt the intent of the step was perfectly clear to him at that time and thought he knew exactly what he was signing as being operable, when in fact the total meaning of the step was not fully comprehended.

Item B. The Operator who signed off the Periodic Test was unsure as to what was required to be operable to sign the step and failed to get assistance from a more knowledgeable individual.

Item C. On two occasions, handwritten lists were developed and given to the Unit Supervisor to clear outstanding items prior to Mode 3 entry. On each occasion, these worklists were used without adequate communication between the Unit Supervisor and the CRSRO, who developed the lists.

3. **Corrective Actions Taken to Avoid Further Violations and Results Achieved**

Item A. and Item B. Operations initiated an investigation to determine why Source Range Neutron Flux (SRNF) monitor audible count rate indication was not present in the control room and immediately restored the SRNF monitor audible count rate in the control room and in containment.

An excellent Video on "Use of Procedures" was shown to Operations personnel. This video humorously dealt with a macho individual and the consequences of his failing to follow procedures. The message of the importance of following procedures was creatively displayed in the video.

The Supervisor involved in the incident gave an effective testimonial to each Operations Shift explaining the event and the circumstances leading up to and following his error. He explained how he fell into the trap of not fully comprehending the procedure step and cautioned others not to let it happen to them.

Operations procedures will be enhanced, when they are retyped, to eliminate multiple actions and requirements within a procedure step that are not appropriate. This is a continuous on going process. We feel our procedures were written with that thought in mind. The words contained in our procedure very closely resemble the words straight from Technical Specifications. The specific step in question has been changed to eliminate multiple actions, or thoughts and to provide some specific guidance on ensuring the source range Nuclear Instruments are operable.

Item C. The operator signed the procedure step believing he met all the requirements. We are continuing to reinforce the self-verification concepts we have already trained our people on and will provide additional training in this area.

An enclosure was added to OP/0/B/6100/13, Standby Shutdown Facility Operation , for placing the SSF in standby readiness.

Operations Startup Procedures, OP/1,2/A/6100/01, were changed to require SSF standby readiness enclosure to be completed prior to Mode 3.

4. **Corrective Actions to be Taken to Avoid Further Violations**

Item A. and Item B. A procedure is being written by Operations which will identify the steps necessary to properly place the Source Range in service by 1/31/91.

Item A. Item B. and Item C. Catawba Management will pursue and provide additional training on self-verification/human factors to Operations personnel to enhance the training they have already received. This is a continuous on-going process.

Item C. A requirement will be added to enter those R&R's that must be cleared for an upcoming Mode or condition change into TSAIL. This item will be completed by 3/1/91.

5. **Date of Full Compliance**

Duke Power is now in full compliance.