



DUKE POWER

June 5, 1991

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, 414  
NRC Inspection Report Nos. 50-413, 414/91-09 and 50-413, 414/91-11  
Violations 50-413/91-09-01, 50-414/91-09-02, and 50-413/91-11-01  
Reply to a Notice of Violation

Enclosed is the response to the Notice of Violation issued May 6, 1991 concerning the failure to correctly perform electrical alignment resulting in the RN system being inoperable and inadequate work request instructions resulting in personnel potentially degrading the safety-related function of the 2B NI pump room's ventilation system. The response to Violation 413/91-09-01 also addresses a similar violation (413/91-11-01) issued May 21, 1991 concerning failure to realign essential power supplies when removing the 1B Diesel Generator from service. (See item B of the 413/91-09-01 response.)

Very truly yours,

Hal B. Tucker

RES/91-09

Attachment

xc: Mr. S. D. Ebnetter  
Regional Administrator, Region II

Mr. W. T. Orders  
Senior Resident Inspector

Mr. R. E. Martin, ONRR

DUKE POWER COMPANY  
REPLY TO A NOTICE OF VIOLATION  
413/91-09-01

Technical Specification 3.7.4 requires that two independent nuclear service water (RN) loops be operable with each loop containing two operable RN pumps and associated emergency diesel generators (D/G), two essential supply and return headers, and a flow path capable of being aligned to the Standby Nuclear Service Water Pond (SNSWP) when both Units 1 and 2 are above Mode 5, Cold Shutdown. With only one Unit above Mode 5, the two independent RN loops are required to be operable with each loop containing one operable RN pump and the before mentioned equipment associated with the operating Unit. If the Limited Condition for Operation (LCO) cannot be met, operability is to be restored within 72 hours, or the unit(s) must be placed in Mode 3, Hot Standby, within 6 hours, and in Mode 5 within the following 30 hours.

Technical Specification 6.8.1 requires that written procedures be established, implemented and maintained covering in part the operation of the emergency electrical power sources and the service water system. Operating Procedure OP/1/A/6350/02, Diesel Generator Operation, Enclosure 4.13, Step 2.7.1 states, "Ensure motor control center (MCC) 1EMXG is being fed from 2ELXA".

Contrary to the above:

- A. On March 23, 1991, a Catawba non-licensed operator, when diesel generator 1A was being removed from service, failed to ensure that motor control center MCC 1EMXG was being fed from Unit 2 load center 2EXLA in order to supply power to critical RN valves shared between both units. Failing to perform this electrical alignment resulted in the A train of RN being inoperable on both Units 1 and 2 in excess of the 72 hour action statement.
- B. On April 18, 1991, while returning 1B D/G to service, the operator failed to align the system according to OP/1/A/6350/02. 2EMXH power supply was being supplied from Unit 1 in which 1B D/G was inoperable. 2EMXH should have been on a Unit 2 power supply.

RESPONSE:

1. Reasons for Violation if Admitted

Item A.

This incident was attributed to Inappropriate Action in that the Non-Licensed Operator (NLO) and Operator at the Controls (OATC) misread the Operator Aid Computer (OAC) graphics while verifying the alignment of 1EMXG to 2ELXA.

Item B.

The operators involved determined that the D/G in question was not inoperable per Technical Specifications, therefore it was decided that there was no need to swap 2EMXH power supply to another D/G. However, the procedure flow path will be enhanced.

3. Corrective Actions Taken to Avoid Further Violations

Item A.

Operations personnel aligned 1EMXG to 2ELXA.

Operations personnel initiated W/R 48255OPS to investigate and OAC graphics.

Operations personnel initiated W/R 49167OPS to investigate and repair 1.47 Bypass Panel.

A damaged 1.47 Bypass terminal was discovered and repaired by the Instrument and Control section.

Operations emphasized through an operator update that the OAC graphics should not be used for procedure sign-offs.

OMP 2-33 was revised to specify that procedures should not be completed by determining a breaker's position from the OAC indication or graphics unless the procedure specifies.

Item B.

This incident was discussed by management with individuals involved.

3. Corrective Actions to be Taken to Avoid Further Violations

Item A.

Evaluate the OAC graphics accuracy and establish a schedule to implement appropriate enhancements to include control of OAC changes and logic verification, if needed, by 3/1/92.

Evaluate and provide enhanced training on the OAC policy, use, indications, and limits of the OAC by 9/30/91.

Item B.

Operations procedures which deal with inoperable D/Gs and RN pumps will be revised as necessary to ensure that essential power supplies are aligned to an operable D/G prior to rendering D/G inoperable. This is to be completed by 8/31/91.

The operators will be trained on the recent procedure changes and philosophy associated with the operations involving shared essential switchgear by 10/31/91.

4. Date of Full Compliance

Duke Power is now in full compliance.

DUKE POWER COMPANY  
REPLY TO A NOTICE OF VIOLATION  
413/91-09-02

10 CFR 50 Appendix B, Criterion V, as implemented by Duke Power Company, Topical Report, Quality Assurance Program (Duke 1-A, Amendment 11) Section 17.2.5 requires that activities affecting quality shall be prescribed by instructions, procedures, and drawings include appropriate quantitative or qualitative acceptance criteria for determining that important activities are satisfactorily accomplished.

Catawba Nuclear Station Directive 3.3.7, Work Request Origination, Section 4.0, administration of Work Control System,, Step 4.2, requires personnel initiating a work request to supply complete, accurate, and legible information.

Contrary to the above, the instructions provided in Work Request No. 7466PRF, written to seal penetrations in the walls of Unit 2 ECCS pump rooms, were inadequate, in that personnel following the instructions on April 4, 1990, taped the openings of the Auxiliary Ventilation exhaust ducts in the 2B Safety Injection pump room, degrading the safety-related function of the room's ventilation system.

RESPONSE:

1. Reasons for Violation if Admitted

The flow on the VA (Auxiliary Ventilation System) system for the LOCA (Loss of Coolant Accident) alignment was lowered in order to ensure the heaters on the VA filter units would keep the relative humidity of the incoming air below 70 percent. This was due to the heaters being undersized when the plant is in a degraded voltage condition.

At the reduced flow, it was thought that it would be difficult to verify that the ECCS (Emergency Core Cooling System) pump rooms would be under a negative pressure since the pump rooms have a multitude of penetrations that are opened. The method used to verify negative pressure at each room is by using a smoke stick and verifying that the smoke flows into each room via the door grills. In order to obtain adequate results to the negative pressure test in this reduced flow condition, it was decided to seal up all the penetrations which would allow air to enter the rooms. This would cause the air to enter the rooms only through the door grills.

To seal up all the penetrations would take an enormous amount of time. Because of this, the decision was made to seal up all the rooms with tape and then come back after the flows were reduced and seal the penetrations permanently. After the rooms were taped up, the flows from the pump rooms were reduced by using a manual volume damper. To ensure that the tape was placed properly, the system was tested. The test results showed inward flow to each pump room and proper air flow through each filter unit.

After the test was complete, it was thought that the work on the penetrations would start. Because the penetrations were going to be sealed up permanently under the work request, a TSM (Temporary Station Modification) was never installed. The work never began because of

problems with obtaining the required manpower for the job. But in November, it was determined that a TSM was not needed because the system was capable of producing a negative pressure in the rooms while having a large hole present.

A retest of the system was performed after the work was completed on April 5, 1991 which showed that the system could perform its safety function. The system has been tested 3 times prior to the discovery of tape being on the vent of the 2B NI (Safety Injection System) pump room with satisfactory results. A TSM should have been put in place to control the tape until it was determined that the tape was not needed to maintain the system operation. Duke Power Company admits the violation due to not properly using the Temporary Station Modification process.

2. Corrective Actions Taken and Results Achieved

- a. Negative pressure was verified in the 2B NI Pump Room.
- b. Tape was removed from the duct and a negative pressure was verified in the rooms along with proper flow rate to the filter unit.
- c. Tape was removed from the 2B NI Pump Room walls and a negative pressure was verified in the rooms along with proper flow rate through the filter unit.

3. Corrective Actions to be Taken to avoid further Violations

- a. The ECCS pump rooms will be sealed up permanently by 5/1/92.
- b. The TSM process will be reviewed with appropriate Performance Section personnel by 7/31/91 to ensure that the process is used correctly.

4. Date of Full Compliance

Duke Power Company is currently in full compliance.