

Duke Power Company
Catawba Nuclear Generation Department
4800 Concord Road
York, SC 29745

M.S. TUCKMAN
Vice President
(803)831-3205 Office
(803)831-3426 FAX



DUKE POWER

November 11, 1992

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

Subject: Catawba Nuclear Station
Docket Nos. 50-413 and 50-414
Reply To A Notice Of Violation
NRC Inspection Report 50-413/92-22 and 50-414/92-22

Attached is Duke Power's response to the Level IV violation cited in the Notice of Violation by subject Inspection Report dated October 14, 1992.

The violation involved four examples of equipment configuration discrepancies associated with the Unit 1 Steam Generator Blowdown, Safety Injection, and Chemical and Volume Control Systems.

Very truly yours,

A handwritten signature in cursive script, appearing to read 'M.S. Tuckman'.

M.S. Tuckman

JLL/

Attachment

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xc: S.D. Ebner
Regional Administrator, Region II

R.E. Martin, ONRR

W.T. Orders
Senior Resident Inspector

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10CFR50, Appendix B, Criterion XIV, Inspection, Test and Operating Status and the licensee's accepted Quality Assurance Program, Duke Power Company Topical Report, Duke 1-A, Section 17.3.2.10, requires that measures be established for indicating the operating status of structures, systems and components such as by tagging valves and switches, to prevent inadvertent operation.

Technical Specification 6.8.1, Procedures and Programs, 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, which includes equipment control, filling, venting and draining emergency core cooling and reactor coolant systems and maintaining containment integrity.

Operations Management Procedure 2-9, Administration and Control of Keys, requires that persons requiring the use of a key under Operation's control shall contact the Shift Supervisor or his designee for issuance. The Shift Supervisor or his designee is to insure that the person requesting the key is authorized to use the equipment/enter the areas as applicable.

Operations Management Procedure 2-18, Tagout Removal Restoration (R&R) Procedure, specifies the mechanism to be used by the Operations Group to remove equipment from service for maintenance. The procedure requires that an R&R be used anytime a component (valve, breaker, etc.) is in an out of normal position, and defines the implementation process for Block Tagouts.

Contrary to the above requirements:

- A. Between July 31 and August 14, 1992, normally locked open Steam Generator Blowdown valves 1BB-16, 1BB-155, 1BB-12, 1BB-13, 1BB-154, 1BB-2, and 1BB-153 were unsecured without authorization from the Shift Supervisor or his designee.
- B. Between July 31 and August 14, 1992, normally open Steam Generator Blowdown valves 1BB-15, 1BB-16, 1BB-155, 1BB-12, 1BB-13, 1BB-154, 1BB-2, and 1BB-153 were closed without using either an approved procedure to operate the valves or an R&R to document their out-of-normal position.

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- C. Between August 14 and August 20, 1992, an unauthorized party or parties opened Unit 1 valves 1BB-15, 1BB-16, 1BB-155, 1BB-12, 1EB-13, 1BB-154, 1BB-1, 1PB-2, and 1BB-153. This resulted in the loss of status of these valves in that their positions did not agree with the documents of record in the form of a completed procedure or R&R.
- D. On or about August 9, 1992, the instructions/procedures associated with preparing the Unit 1 Emergency Core Cooling System (ECCS) for testing were inadequate in that neither the block tagout which had opened four Chemical and Volume Control System (NV) valves, 1NV-50, 1NV-61, 1NV-72, and 1NV-83, nor the procedure to be used to close the valves, OP/1/A/6200/01A, NV Fill and Vent, listed the valves. This resulted in clearing the R&R with the valves open and approximately 300 gallons of contaminated water were discharged to the Reactor Building Floor and Equipment Sump.
- E. On or about July 26, 1992, the instructions/procedures associated with clearing block tagout 12-588 on the Unit 1 Safety Injection System (NI), were not followed, in that the NI valve checklist which was to have been performed to return valves repositioned by the block tagout to their normal position, was not performed as required by Operations Management Procedure 2-18. This resulted in two valves, 1NI-364, and 1NI-46 being left open when the tagout was cleared which led to approximately 3000 gallons of contaminated water being discharged to the floor drains in the Auxiliary Building.

This is a Severity Level IV violation.

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RESPONSE:

1. Reason For Violation

A. KEY CONTROL

The Operations key locker is located in the Work Control Center (WCC) which primarily serves as a focal point for communication between Operations and those personnel initiating work. Operations Management Procedure 2.9 (Administration and Control of Keys) did not provide adequate guidance to WCC personnel responsibilities in regards to key control.

C. UNDOCUMENTED CONTROL OF STEAM GENERATOR BLOWDOWN (BB) VALVES

Upon discovery of the BB valve mispositionings on Steam Generator 2C, a thorough investigation was initiated to review processes used to manipulate valves (i.e. work requests, procedures, R&Rs, etc.) to determine how these valves were manipulated (expanded to include all four (4) Steam Generators). This investigation established the following facts:

- Determined Containment Integrity was maintained throughout the period,
- Did not identify any work associated with valves involved,
- Operators reported the discrepancies,
- No specific need to manipulate valves identified,
- Eight (8) valves systematically closed, then repositioned opened.

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The results of this investigation concluded that the probable cause was manipulation of valves within a block tagout, without regards to their containment integrity/closure function.

D. INADEQUATE CHEMICAL & VOLUME CONTROL (NV) FILL & VENT PROCEDURE

This incident was caused by not recognizing that different boundaries existed for the seal injection portion of the NV Fill & Vent procedure and the seal injection portion of the NV block tagout, resulting in an inadequate NV Fill & Vent procedure.

E. FAILURE TO FOLLOW ADMINISTRATIVE PROCEDURE

Prior to the outage (1EOC6), the block tagout procedure was revised to provide more definition as to the boundary of the R&R. This new block tagout procedure no longer placed all vents and drains used to drain a system on the R&R sheet. Only block tagout boundary valves are on the R&R sheet. Philosophy for clearing a block tagout was to follow the guidelines developed for restoration of each generic block tagout such as this one. That guideline states to perform valve alignments within the boundary. When the block tagout was cleared, the guidelines for clearing the block tagout as stated in Operations Management Procedure (OMP) 2-18 were not followed.

Prior to the outage, block tagout changes were presented to the shifts in a crew-meeting setting. This event was this shift's first experience with the actual process of clearing a block tagout, and the personnel involved failed to do a complete alignment within the block tagout boundary, nor were they familiar with the vent and drain sheet, therefore having no reason to question its absence.

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2. Corrective Actions Taken And Results Achieved

A. KEY CONTROL

On October 26, 1992, Operations management discussed key control with the Shift Supervisors at a Shift Supervisor's meeting, specifically their responsibilities and planned revisions to Operations Management Procedure (OMP) 2-9 (Administration and Control of Keys).

On October 27, 1992, a column was added to the key control logbook to denote Shift Supervisor or designee that granted permission for issuance of key.

B. & C. UNDOCUMENTED CONTROL OF STEAM GENERATOR BLOWDOWN (BB) VALVES

In addition to conducting the investigation described in section 1.B&C of this response, the following actions were taken:

- Immediately suspended work requiring Containment Integrity,
- Immediately re-verified Containment Integrity,
- Subsequently performed Human Performance Evaluation Review,
- Subsequently determined need for improved Containment Integrity/Closure process.

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D. INADEQUATE CHEMICAL & VOLUME CONTROL FILL & VENT PROCEDURE

Immediately closed the seal injection isolation valves to stop leakage from the vents and drains, then repositioned the vent and drain valves closed. Performed a system alignment check of seal injection and return lines.

On August 16, 1992, Operations initiated a revision to the seal injection fill & vent portion of the NV Fill & Vent procedure to incorporate the same boundary as the seal injection block tagout. This revision is a part of a complete procedure re-write which includes other enhancements to the procedure. Controls are in place to prohibit any future use of this procedure prior to the incorporation and approval of these revisions.

All fill & vent activities that had an associated block tagout were reviewed to ensure their boundaries were in agreement. No other similar problems were encountered during the remainder of the outage.

E. FAILURE TO FOLLOW ADMINISTRATIVE PROCEDURE

On September 1, 1992, "on-shift" refresher training was completed by the Shift Operations Manager to discuss problems with the new block tagout process, with emphasis on where to obtain re-alignment guidance and the vent/drain sheet.

3. Corrective Actions To Be Taken To Avoid Further Violations

A. KEY CONTROL

Operations Management Procedure (OMP) 2-9 will be revised to provide specific guidance for issuance of keys controlled by Operations to Work Control Center personnel, Shift Supervisors, and their designees (Senior Reactor Operators) by November 30, 1992.

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Training will be provided to Work Control Center personnel outlining their responsibilities for key control. This training will be provided by Operations and will be completed by December 31, 1992.

B. & C. UNDOCUMENTED CONTROL OF STEAM GENERATOR BLOWDOWN (BB) VALVES

A tagging system is currently being developed to identify and control Containment Integrity/Closure boundary valves and will be implemented prior to the next outage (next outage, 2EOC5, currently scheduled to begin January 23, 1993). This process will identify valves which are fulfilling a Containment Integrity/Closure function by use of a tag locally at the valve, or by use of a shroud on the Control Board panel in the Control Room. The tag will require personnel to contact the Control Room prior to repositioning the valve.

The Containment Closure and Containment Integrity procedures will be revised to facilitate the new process for tagging containment closure boundaries prior to the next outage (next outage, 2EOC5, currently scheduled to begin January 23, 1993).

Training will be provided to appropriate personnel to introduce and provide guidance on the Containment Integrity/Closure process prior to the next outage (next outage, 2EOC5, currently scheduled to begin January 23, 1993).

D. INADEQUATE CHEMICAL & VOLUME CONTROL FILL & VENT PROCEDURE

No further corrective actions, other than those described in section 2 above, will be taken.

E. FAILURE TO FOLLOW ADMINISTRATIVE PROCEDURE

No further corrective actions, other than those described in section 2 above, will be taken.

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4. Date Of Full Compliance

Duke Power is now in full compliance.