

# ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

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SUBJECT: Responds to NRC 911023 ltr re violations noted in Insp Rept 50-263/91-17. Corrective actions: PA sys audibility test performed in Nov 1991 & personnel informed of steps to be taken during emergency evacuation.

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November 21, 1991

10 CFR Part 2  
Section 2.201

U.S. Nuclear Regulatory Commission  
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MONTICELLO NUCLEAR GENERATING PLANT  
Docket No. 50-263 License No. DPR-22

Reply to a Notice of Violation  
NRC Inspection Report No. 91017  
Failure to Maintain Control of Locked Valves

Pursuant to the provisions of 10 CFR Part 2, Section 2.201, the following response to the notice of violation contained in your letter of October 23, 1991 is submitted. As requested, we have also included an evaluation of the open item identified in that letter concerning public address system audibility.

Violation:

10 CFR 50, Appendix B, Criterion V, required that activities affecting quality shall be accomplished in accordance with instructions, procedures, or drawings. Technical Specification 6.5.A.1 required detailed written procedures (including checkoff lists) to be followed during such plant operations as normal startup, operation and shutdown of the reactor and all systems and components involving nuclear safety of the facility.

Contrary to the above, on September 25, 1991, meter seals and chains were not installed on valves SW-109, SW-114 and SW-115 (Emergency Service Water Valves to RHR A and B Room Coolers) as required by Procedure 2154-12, "RHR System Valve Prestart Checklist." The valves were part of a system required for nuclear safety of the facility. The valves were found to be positioned correctly but not locked as required by the checklist.

This is a Severity Level V violation (Supplement 1).

Reason for the Violation

The purpose of seal-wiring valves is to indicate to plant personnel that certain valves should not be tampered with; i.e., that they are components which are important to plant safety. Seal-wiring does not necessarily require the use of wire and may involve use of chain and plastic materials. The determination of which valves are to be seal-wired is made by following a logic flow chart presented in administrative procedure 4ACD-4.5: "Equipment

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Control Procedure." According to this process, valves SW-109, SW-114 and SW-115 are to be seal-wired open because they are on lines providing cooling water to the A and B RHR room coolers, components which are required by design to function during accident conditions.

Several maintenance activities took place during the April-May 1991 refueling outage involving valves SW-109, SW-114 and SW-115. Following maintenance activities, these valves were properly positioned open, seal-wired and independently verified on May 26, 1991, by completion of Procedure 2154-12: "RHR System Valve Prestart Checklist."

A review of all work performed on the RHR and Service Water systems between May 26, 1991 and September 25, 1991 indicates no additional mechanical maintenance activities involving these valves. Reviewing completed surveillance testing during this period, it was found that Test 1339, "ECCS Pump Motor Cooler Flush," was completed as a quarterly operational surveillance test on June 29, 1991. Test 1339 requires that valves SW-109 and SW-115, the outlet valves from the RHR room coolers, be closed during flushing operations and then re-opened and independently verified. These steps were completed and signed-off during the test. However, seal-wiring is not specified on Test 1339. Thus, it appears that SW-109 and SW-115 were left properly positioned open, but without seals re-installed after flushing was completed on June 29, 1991. Discussion with the operator involved with the test was inconclusive regarding recollection of re-installing seals on June 29, 1991.

It is also possible that the seals were inadvertently broken during system inspections by plant personnel. The seal device used for this application is designed to break easily to permit valve manipulation in the event of an emergency; however, it appears the seal may break too easily for this application. Examination of a number of identical seals has led to the determination that they can be inadvertently broken if the clip is moved only slightly once the seal has been locked. This may explain why SW-114, inlet to the A RHR room cooler, was also found to be un-sealed, since it is not manipulated during the performance of Test 1339.

#### Corrective Actions Taken and Results Achieved

1. Seals were replaced on valves SW-109, SW-114 and SW-115 on September 25, 1991 the date these deficiencies were discovered.
2. RHR System Valve Prestart Checklist, #2154-12, was initiated and completed on September 25, 1991. This checklist includes all sealed and key locked valves in both the A and B RHR rooms, including the service water valves supplying cooling water to the room coolers. No deficiencies were found.

3. Additionally, a verification was completed by September 27, 1991 of all sealed and key locked accessible valves in the plant. No other deficiencies were discovered during this verification. This verification encompassed approximately 100 valves.
4. All Work Request Authorizations on Service Water valves completed during 1991 were reviewed. It was found that all mechanical maintenance work on the valves in question was completed prior to the end of the 1991 refueling outage. Thus, with the completion of Checklist #2154-12 on May 26, 1991, it was confirmed that the subject valves were properly sealed at that time.

Corrective Action To Be Taken To Avoid Further Violation

1. Test 1339 will be revised to specify that valves which are manipulated must be returned to the condition specified on the Prestart Checklist by January 15, 1992.
2. A review of the philosophy and requirements to lock or seal valves at Monticello will be completed by January 15, 1992.
3. The manufacturer of the seals has been contacted to obtain a better seal for this application at Monticello. Several styles of seals which can be defeated intentionally but not inadvertently will be evaluated, and an improved locking/sealing device will be installed on all accessible valves designated to be seal-wired by June 30, 1992.
4. Other tests and procedures similar to Test 1339 will be reviewed and revised, if necessary, to specify that valves which are manipulated must be returned to the condition specified on the Prestart Checklist by March 15, 1993.

Date When Full Compliance Will Be Achieved

We are in full compliance.

NRC Comment - Open Item, Public Address System Audibility:

In addition, an open item involving the lack of public address speakers in certain areas and inaudible speakers in other areas noted during an emergency drill is of concern to the NRC because your ability to promptly evacuate plant personnel during an emergency could be affected. We request that your response to this letter include your evaluation of and intended corrective actions for that concern.

Response

The public address system is used to communicate with personnel in the plant during routine operations and emergencies. Due to noise in the plant during routine operations, audibility of the public address system in all areas of the plant is not possible. The system is also used to evacuate the personnel during emergencies by transmitting the evacuation siren and verbal evacuation instructions. The evacuation siren must be audible in all areas where personnel routinely work. Upon hearing the evacuation siren, personnel should then listen to the page and, if it is inaudible, move to a area with less background noise.

During the 1991 Full Scale Emergency Preparedness Drill a problem was identified with the audibility of the public address system on the 951' elevation of the Turbine Building. Further investigation into this matter raised additional concerns regarding the upkeep and testing of the public address system including its effectiveness to warn personnel in the event of an emergency evacuation at the plant. In April 1991, Test 1028 (PA System Audibility Test) was performed during plant shutdown where in some areas background noise was lower than during normal operation. Test procedure requirements specify that some areas must be tested during power operation. This was a procedural violation.

In response to these concerns the following corrective actions have been taken:

1. Test 1028 (PA System Audibility Test) was performed in November 1991 in select plant areas during plant operation. The selected areas were areas where the background noise increases during plant operation. Public address system speakers found to be inoperable during the test were repaired and returned to full operability. In other instances, the volume of public address system speakers was adjusted as needed.
2. Since Test 1028 does not currently cover all areas within the Protected Area, a special test was conducted to verify that the Evacuation Siren can be heard in all areas (within the Protected Area) identified as having inadequate public address system audibility. Test results confirm that the siren can be heard in all of these areas except the Plant Administration Building 3rd Floor Heating & Ventilation Room which is normally an unoccupied area.
3. Through site mailings, all personnel were informed of what to do during an emergency evacuation if they are in a plant area in which verbal communication over the public address system cannot be heard or understood.

Corrective actions planned to further resolve the public address system concerns include:

1. Revise Test 1028 (PA System Audibility Test) by January 15, 1992 to:
  - A. Include buildings and plant structures not presently covered by the test.
  - B. Provide instructions for the initiation of corrective action for those areas found deficient (during performance of Test 1028) that cannot be corrected under the Work Request Authorization process.
  - C. Clarify instructions regarding plant areas to be tested during shutdown and plant operating conditions.
2. Revise General Employee Training by January 15, 1992 to include specific instructions for response to the Evacuation Siren when in an area of the plant in which the public address system cannot be heard or understood.
3. By January 15, 1992 the public address System will be included as a "modification consideration assessment item" in accordance with 4AWI-07.01.01 (Special Items for Consideration in Modifications). The item will address:
  - A. Installation and initial testing of public address system speakers in any new buildings constructed under the modification process.
  - B. Inclusion of any new buildings in Test 1028 (PA System Audibility Test).

Please contact us if you have any questions or wish further information concerning this matter.



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