

July 1, 1997

Nuclear Regulatory Commission
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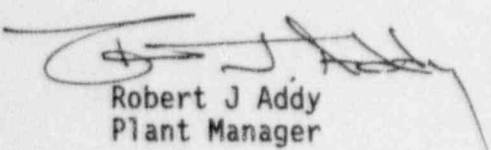
DOCKET 50-155 - LICENSE DPR-6 - BIG ROCK POINT PLANT - REPLY TO A NOTICE OF VIOLATION - NRC INSPECTION REPORT 97004.

During a routine NRC inspection completed on April 29, 1997, one violation of NRC requirements was identified and forwarded by letter dated June 10, 1997.

The violation involves two examples of failure to follow procedures relating to working clearances and protective tagging.

Consumers Energy Company agrees with the violation as stated.

Pursuant to the direction provided in the report, find attached a Reply to the Notice of Violation. The proposed corrective actions are intended to address the concerns identified by the violation, and to prevent recurrence of the violation.


Robert J Addy
Plant Manager

CC: Administrator, Region III, USNRC
NRC Resident Inspector - Big Rock Point

ATTACHMENT

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ATTACHMENT

CONSUMERS ENERGY COMPANY
BIG ROCK POINT PLANT
DOCKET 50-155

REPLY TO A NOTICE OF VIOLATION
INSPECTION REPORT 97004

Submitted July 1, 1997

NOTICE OF VIOLATION

Consumers Energy
Big Rock Point Nuclear Plant

Docket No. 50-155
License No. DPR-6

During an NRC inspection conducted from March 13, 1997, through April 29, 1997, one violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600, the example is listed below:

1. Technical Specification (TS) 6.8.1 requires that written procedures be established, implemented, and maintained for all structures, systems, components, and safety actions defined in the Big Rock Point Quality List. These procedures shall meet or exceed the requirements of ANSI N18.7, as endorsed by CPC-2A, "Quality Program Description for Operational Nuclear Power Plants."

CPC-2A, Section 5.2 states, in part, administrative and maintenance general procedures are used to control activities affecting the quality of safety related structures, systems, and components.

Administrative Procedure (AP) 3.2.1.1, "Performance of Maintenance," Revision 16, Step 5.2.1.f requires that the repair person must ensure he has proper working clearance, if required, prior to beginning work."

Maintenance General Procedure (MGP) 39, "Motor Operated Valve Post-Maintenance Testing," Revision 16, Step 3.0.k requires that, personnel protective tagging be requested and obtained for work to be performed in this procedure and, Step 5.2.1 requires that the motor operated valve feeder breaker is ensured open.

Contrary to the above, on two occasions, procedures were not followed in that the required working clearances and protective tagging were not obtained by workers prior to performing work activities:

- A. On March 6, 1997, following failure of the tone relay control panel for the 138 KV line varistors, an electrician did not obtain the required tagging and clearances prior to testing the amplidyne controller. As a result, the varistors were damaged by high voltage.
- B. On March 17, 1997, maintenance workers were involved in meggering the main steam isolation valve MO-7050 motor without the required personnel protective tagging and with the MOV DC feeder breaker closed.

This is a Severity Level IV violation (Supplement I).

Consumers Energy Company's response is provided below.

Violation 50-155/97004-01aI. Reason for the violation.

The cause of the event was determined to be inadequate worker knowledge and practices resulting in personnel unknowingly working on energized equipment.

Two Field Maintenance Services (FMS) electricians were assigned to functionally check and visually inspect 480 VAC breaker 052-2A24. Part of the functional test requires the motor starter contactor to the amplidyne motor generator set to be exercised to verify that the contacts properly change state. Normal power supply for the amplidyne motor generator contactor is 125 VDC.

This was a preventative maintenance task that was inappropriately processed as not requiring protective tagging. The work planner and work control center personnel did not review the task adequately to determine tagging requirements.

While performing the task, the electricians were under the false assumption that the control circuitry for the motor contactor was 120 VAC. Furthermore, they incorrectly assumed that their test instrument, a digital multi-meter, would indicate DC voltage while on the AC voltage scale. Subsequently, a 120 VAC test power source was manually induced into the station 125 VDC system. Power from the 120 VAC test source sought the nearest neutral or ground potential which in turn went through varistors (surge protectors) on the "Emmet Direct and Permissive Audio Tone Transfer Device", located in the station control room. The varistors overheated, creating smoke in the station control room.

II. The corrective steps that have been taken and the results achieved.

Management stopped all work on electrical equipment. Management then conducted meetings with the appropriate Big Rock Point staff to discuss their expectations which encompassed walkdowns of the job to validate the job scope, prejob briefing content, and how to proceed with work orders that are designated as "no tagging required".

An evaluation was performed to determine whether other solid state devices in the 125 VDC System were affected by the event. The evaluation concluded that the tone relay equipment was the only solid state device affected.

III. The corrective steps that will be taken to avoid recurrence.

Administrative Procedure 2.1.4.1, Personnel Protective Tagging Conventions, will be revised by September 1, 1997, to incorporate lessons learned from processing work orders that do not require tagging. All work orders are reviewed by the work control center personnel to verify that protective tagging is not required.

IV. The date when the facility will be in full compliance.

The facility is currently in full compliance.

Violation 50-155/97004-01b

I. Reason for the violation.

The cause of this event was a failure by the tagging delegate (Maintenance Supervisor) to communicate the release of tagging to the appropriate maintenance personnel who were involved with the job. Also, inadequacies in the work control process allowed the Person in Charge (PIC)/Delegate to release tagging without reviewing the status of the WO(s) with the shift supervisor.

Following repairs to the Main Steam Isolation Valve, MO-7050, post maintenance testing was being conducted on the motor operator. Work on this valve had been in progress since March 11th.

On March 15th motor operated valve testing was completed. The shift supervisor asked the maintenance supervisor if he could release tagging and, the maintenance supervisor responded that he could and he signed the working clearance release. However, the maintenance supervisor didn't adequately convey to the shift supervisor that the work was not complete, and that procedure MGP-39, Motor Operated Valves Post Maintenance Testing, required meggering of the motor. Tagging was cleared by operations on March 16th, 1997.

The following day maintenance workers attempted to complete the task by meggering the motor, but did not verify that protective tagging was in place or that the breaker was open. A ground alarm was received in the control room when the repairmen attempted to megger the motor.

II. The corrective steps that have been taken and the results achieved.

Immediate Corrective Action:

The job was stopped, and the event was discussed with the maintenance crew and operations. The maintenance manager disciplined the maintenance supervisors and repairworkers in accordance with established company policy.

The Plant Site Manager directed the Maintenance Department and the Work Control Center Group to conduct a Standdown Meeting on March 20, 1997. The purpose of the meeting was to discuss the event, and to develop actions which would ensure the safety of plant personnel and to prevent these events in the future. This is the same meeting that is discussed previously in Violation 50-155/97004-01a. As a result of this meeting, the following changes to the work control process and worker practices have been initiated.

1. The use of BRP Form 173, Permission to Work Under PIC's Working Clearance, was extended to include all maintenance personnel involved in the work. Previously, this form was only used by the PIC.
2. Repairworkers are required to verify tagging each work day.
3. Repairworkers are required to check electrical circuits dead before beginning work on equipment.
4. The Work Control Center (WCC) will issue and control the Work Orders (WO) each work day. At the end of the work day all work orders will be returned to the WCC. Work orders will be reissued by the WCC.

5. WCC personnel will verify personnel protective tagging requirements for each work order.

Completed Corrective Action:

Administrative Procedure 2.1.4.1, Personnel Protective Tagging Conventions, was revised to require a review of the status of the WO(s) associated with the Switching and Tagging Order(s) between the PIC/Delegate and the Shift Supervisor/Work Control Center prior to signing the release for tagging.

III. The corrective steps that will be taken to avoid recurrence.

The corrective actions to prevent recurrence have been implemented.

IV. The date when the facility will be in full compliance.

The facility is currently in full compliance.