



ENTERGY

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Vice President
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Grand Gulf Nuclear Station

August 15, 1994

U.S. Nuclear Regulatory Commission
Mail Station P1-137
Washington, D.C. 20555

Attention: Document Control Desk

SUBJECT: Grand Gulf Nuclear Station
Unit 1
Docket No. 50-416
License No. NPF-29
Reply To A Notice Of Violation For Failure
To Scram The Rod Specified By The Control
Rod Test Sequence
Report No. 50-416/93-12, dated 08/15/94
(GNRI-94/00171)

GNRO-94/00105

Gentlemen:

Entergy Operations, Inc. hereby submits the response to the Notice of Violation 50-416/94-12-01.

This violation involved the unplanned scram of a control rod by a licensed operator.

We share your concern over the importance of proper control of reactivity manipulations. As a result, we have conducted a detailed investigation to determine, in part, if broader management or process issues must be revisited.

Our investigation revealed several process/procedure problems which, had they been corrected, may have been sufficient to prevent the incorrect control rod scram. These problems are being corrected.

We also determined that the operator in question failed to apply appropriate self-verification techniques. As you know, for some time Grand Gulf has placed major emphasis on training and coaching intended to minimize the potential for human errors. Normally, we would have viewed this type of violation as an indication of a deficiency in our personnel error reduction training or management oversight. However, in this case the operator has been involved in previous similar mistakes, which are apparently attributable to personal performance issues. In addition to further counseling on the importance of attention to detail, the operator was removed from shift for two weeks, retrained and returned to shift with reasonable assurance that personal issues will not continue to negatively affect his performance. It is worthwhile to point out that, while the operator's performance will be closely monitored, he has since this event been instrumental in identifying on-shift problems such as isolation of an incorrect hydraulic control unit and an expired LCO. We expect these positive performance attributes to continue.

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Please let me know if we can provide additional information on this violation.

Yours truly,



CRH/RR/
attachment

cc:

Mr. R. H. Bernhard(w/a)
Mr. H. W. Keiser(w/a)
Mr. R. B. McGehee (w/a)
Mr. N. S. Reynolds (w/a)
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Notice of Violation 94-12-01

Technical Specification 6.8.1.c requires that written procedures be established, implemented, and maintained covering surveillance and test activities of safety related equipment. Step number 646 of Control Rod Movement Sequence 1-07-4500-A1-01 required that control rod 36-09 be scram-time tested in accordance with surveillance procedure 06-RE-SC11-V-0402, Revision 35, Control Rod Scram Testing.

Contrary to the above, on June 1, 1994, a Reactor Operator inadvertently readied and scrambled rod 36-05 at the Hydraulic Control Units (HCUs). This condition was immediately noticed by the Control Room RO via the full-in annunciator light for rod 36-05. Reactor Engineering verified that no abnormal core conditions existed and the rod was withdrawn back to its original full-out position. This event represents a licensed operator inadvertently performing an action resulting in an unplanned reactivity change caused by failure to self-verify.

I. Admission or Denial of the Alleged Violation

Entergy Operations, Inc. admits to this violation.

II. The Reason for the Violation, if Admitted

On June 1, 1994, plant personnel were performing control rod scram-time testing in conjunction with repair and replacement of the HCU Scram Solenoid Pilot Valves (SSPVs). Personnel were using approved plant procedures to accomplish the tasks. During the testing, all rods that did not meet the 'fast' criterion were reworked and retested. Scram-time testing was accomplished by scrambling individual rods from their full-out position (position 48). Rods that were at intermediate positions were to be appropriately withdrawn to their full-out positions prior to scram signal initiation. During the May 28 to June 3 evolution, all rods were to be scram-time tested due to slow observed scram times on several of them. The recent problems associated with SSPVs are discussed in LERs 94-006-00 and 94-006-01.

Since the required valve manipulations and the scrambling of individual rods have to be performed at the associated HCU in containment, this testing required coordination between control room personnel and operators in primary containment. All scheduled rod movements had been specified by Reactor Engineering personnel in accordance with approved plant procedures. A licensed Reactor Operator was coordinating the evolution. Other personnel needed to perform the test were a Reactor Operator to manipulate control rods from the control room panel, a Reactor Engineer to operate the Transient Analysis Recorder (TAR) and a Reactor Operator at the HCUs to insert the scram signal. The Reactor Operator coordinating the test, the Reactor Engineer and the Reactor Operator at the HCUs were in communication via phone headsets. The Reactor Engineer specified to the Reactor Operator in the control room which rod to scram next. The Reactor Operator coordinating the test would instruct the Reactor Operator at the HCUs to setup on the appropriate rod for testing. At the appropriate time the Reactor Engineer would be informed to start the TAR in order to record the scram data.

Step number 646 of Control Rod Movement Sequence 1-07-4500-A1-01 required that control rod 36-09 be scram-time tested in accordance with surveillance procedure 06-RE-SC11-V-0402, Revision 35, Control Rod Scram Testing. While moving to HCU 36-09, the Reactor Operator in the containment at the HCU was distracted when his headset cord became tangled. He subsequently moved to the end of the row of HCUs where he expected to find HCU 36-09 but readied and scrambled control rod 36-05.

Following the incident a Root Cause investigation was performed which identified the following root causes:

- Procedures: A written copy of the control rod test sequence was not available to the operators in containment to cross-check the selected rod prior to scram test switch actuation.
- Communication: Use of complete component numbers and phonetic alphabet was not accomplished as required by existing procedure.
- Management System: The policy for ensuring correct use of proper terminology and verbatim repeat back was not consistently applied during the activities immediately prior to this event in the control room and in containment.
- Inadequate Self-Verification/Checking: The operator in this event failed to recognize a situation that required self-checking (rod selection following a distraction) due to individual performance issues. This operator has been involved in previous performance problems related to inadequate self-checking.

III. Corrective Steps Which Have Been Taken and Results Achieved

- A written list of control rods to be scram-time tested will be made available locally at the HCUs when practical.
- A memo was issued from Operations Management to all licensed operators which identified several areas needing improvement which included Communications Practices such as:

When communicating between the HCU and the control room, use of the two letter alphabetic designator suffix for HCU is directed.

Use of the phonetic alphabet in conjunction with the two letter HCU suffix may have helped prevent this event.

- Continued reinforcement of proper communication techniques such as repeat backs
- Permanent labels were posted on the P680 panel to simplify identification of the HCU suffixes.

III. Corrective Steps Which Have Been Taken and Results Achieved (cont'd)

- The Reactor Operator was counseled on the importance of attention to detail and was removed from shift for two weeks, retrained and returned to shift. However, his performance will be closely monitored. Additionally, actions have been taken to address personal performance problems to provide reasonable assurance that personal issues will not negatively impact future performance.

V. Date of Full Compliance Will be Achieved

The aforementioned actions are scheduled to be completed by November 30, 1994.