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October 25, 1989
Fort St. Vrain
Unit No. 1
P-89393

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

Docket No. 50-267

SUBJECT: NRC INSPECTION REPORT 89-16

REFERENCE: NRC Letter, Milhoan to Crawford, dated September 26, 1989 (G-89337)

Dear Sirs:

This letter is in response to the Notice of Violation received as a result of the inspection conducted by Messrs. R. E. Farrell, H. D. Chaney, R. P. Mullikin, and P. W. Michaud during the period of July 16 through August 31, 1989 (See Reference). The following response is hereby submitted:

Reactor Engineers Working Beyond Technical Specification Limits Without Proper Documentation

The licensee's TS AC 7.1.1.2.b.8.b states, in part, "An individual should not be permitted to work more than 16 hours in any 24-hour period."

The licensee's TS AC 7.1.1.2.b.9 states, in part, "Authorized deviations to the working hour guidelines shall be documented and available for review by the Nuclear Regulatory Commission."

Contrary to the above, on August 2, 1989, the senior resident inspector entered the Control Room at approximately 4-4:30 a.m. and found four reactor engineers working on a safety-related test of the reactor core. These engineers had been working since approximately 7 a.m. the previous day, and there was no documented authorization for these individuals to work beyond TS limits.

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This is a Severity Level IV violation. (Supplement I.D) (267/8916-01).

1. The Reason For The Violation If Admitted

The violation is admitted.

RT-500 testing was initiated on August 1, 1989, to confirm that operation at higher core Δ Pvalues will not cause primary flow/temperature fluctuations due to column or region instability. RT-500 testing confirms the effectiveness of installed Region Constraint Devices in limiting column/region movement and preventing flow induced fluctuations. Operation at a higher core ΔP is desirable in order to effectively cool high power regions and comply with LCO 4.1.7. The RT-500 test consists of gradual power increases with individual region flows uniformly reduced resulting in a higher core Δ P.

The testing is normally staffed with a test crew of one Reactor Engineer, one General Atomics (GA) Test Engineer, and two Reactor Operators. During RT-500 testing, the Reactor Engineer's main function is to collect data and monitor reactor flow and temperature parameters for indications of abnormal performance. The Reactor Engineer also works with the Reactor Operator regarding reactor power and flow adjustments in order to achieve or sustain specified test conditions for data collection purposes. Requested adjustments are consistent with normal operator performance expectations. The Reactor Operator thoroughly understands expected plant response due to these adjustments. All safety systems, alarms, and Technical Specification limits are monitored and acknowledged by the Reactor Operator throughout the testing.

On August 1, 1989, only one qualified GA Test Engineer was available to participate in RT-500 testing. Multiple shift coverage for the necessary qualified test personnel was not required because the test had been scheduled to last only 8 hours. Verbal approval to exceed working hour limitations was obtained but was not formally documented in accordance with Station policy. The test was initiated at 2200 on August 1, 1989, with two Reactor Engineers, the Reactor Support Supervisor, the GA Test Engineer, and two Reactor Operators. Additional personnel were only involved in the test for the purposes of training and gaining experience. Delays due to plant conditions caused the test to last much longer than was expected. After several delays, the test was terminated at 1220, August 2, due to a circulator trip. Although actual testing only lasted approximately 14 1/2 hours, the Reactor Engineers, Reactor Support Supervisor, and GA Test Engineers exceeded 16 hours of work in a 24 hour period including their normal work day on August 1.

2. The Corrective Steps Which Have Been Taken And The Results Achieved

Technical Specification working hour limitations apply to "plant staff who perform safety-related functions (e.g., Senior Reactor Operator, Reactor Operators, Auxiliary Operators, Health Physics Technicians, and key maintenance personnel)." In order to conservatively apply the Technical Specification guidelines, station policy requires that essentially all plant personnel obtain prior documented approval before working beyond the specified limitations. Although verbal approval had been obtained, this approval was not documented prior to exceeding the policy limits.

Following discussions with the personnel involved, the appropriate documentation was prepared, including the basis for exceeding the working hour guidelines.

3. The Corrective Steps Which Will Be Taken To Avoid Further Violations

The personnel involved were instructed to obtain documented approval prior to exceeding working hour limitations, as required by station policy. Personnel were also instructed to thoroughly review the necessity of exceeding these limitations and consider the need for compensatory measures if the limits must be exceeded.

If you have any questions, please contact Mr. M. H. Holmes at (303) 480-6960.

Sincerely,

A. Clegg Crawford
Vice President
Nuclear Operations

ACC:MAJ/bhb

cc: Regional Administrator, Region IV
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