



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION IV

611 RYAN PLAZA DRIVE, SUITE 600
ARLINGTON, TEXAS 76011-8064

APR 4 1994

Dockets: 50-313; 50-368
Licenses: DPR-51; NPF-6
EA 94-033

Entergy Operations, Inc.
ATTN: J. W. Yelverton, Vice President
Operations, Arkansas Nuclear One
Route 3, Box 137G
Russellville, Arkansas 72801

SUBJECT: NOTICE OF VIOLATION (NRC INSPECTION REPORT NO. 50-313/94-12;
50-368/93-12)

This is in reference to the inspection conducted February 2-9, 1994, at Unit 1 of the Arkansas Nuclear One (ANO) nuclear power plant. This inspection was conducted to review the circumstances leading up to Entergy Operations, Inc.'s discovery on January 31, 1994, that a steam generator level transmitter had been inoperable for more than 2 days, rendering one train of the ANO Unit 1 emergency feedwater system technically inoperable and requiring the plant to shut down to make repairs. Entergy Operations described this incident in Licensee Event Report 94-001 submitted to the NRC on February 25, 1994. A report documenting the results of our inspection was issued on March 1, 1994. On March 8, 1994, you and other Entergy Operations, Inc. representatives attended an enforcement conference in the NRC's Arlington, Texas office to discuss NRC's preliminary conclusion that significant violations of NRC requirements had occurred. This conference was open to public observation.

The violations in the enclosed Notice of Violation involve: (1) a failure to operate the plant in accordance with the Technical Specifications in that the plant was at power for approximately 74 hours with one train of the emergency feedwater system technically inoperable; and (2) multiple failures on the part of NRC-licensed operators to recognize this condition when recording instrument readings on plant logs. The NRC acknowledges that these violations did not threaten the safety of the plant for reasons that are discussed below. However, as discussed during the enforcement conference, these violations are a significant regulatory concern given the vital role of licensed operators and the fact that both the log-taking process and the process relied upon by Entergy Operations to detect log-taking errors, i.e., the supervisory review of plant logs broke down, resulting in the failure to detect a condition that ultimately required a plant shutdown. The NRC is most concerned that 15 different licensed individuals on five different shifts failed to recognize this out-of-specification condition as a condition affecting the operability of an emergency feedwater train.

The root cause of these violations appears to have been inattention to detail on the part of operating personnel, both on the part of control board reactor operators in recording instrument readings and on the part of shift

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supervisory personnel in reviewing logs for accuracy. In addition, operators appear to have become complacent regarding the abnormal readings because they believed the problem with the steam generator level transmitter had been appropriately dispositioned, i.e., a work request had been written.

The NRC commends Entergy Operations personnel for taking prompt action to comply with the appropriate Technical Specification action statement and bringing the plant to hot shutdown once this problem was recognized, and for taking both prompt and broad-based corrective actions to address the underlying weaknesses that led to this condition. In addition to making repairs to the level transmitter, your corrective actions included, but were not limited to, enhancements to log-taking practices, improvements to the channel check logs, discussions with ANO Unit 1 and 2 personnel regarding this event and management expectations, enhancements to methods for addressing log-taking errors, and the formation of a task force to address improving human performance.

Notwithstanding the NRC's regulatory concerns about the performance of licensed personnel, the NRC acknowledges that the actual safety significance of this condition was low. Although the malfunction with level transmitter LT-2622 could have affected automatic control of one of two emergency feedwater flowpaths following an emergency feedwater actuation signal, the second flowpath, using the motor-driven pump, was operable. In addition, the NRC recognizes that operators were directed by procedure and trained to verify emergency feedwater actuation and exercise manual control if automatic control is inoperable.

Based on the regulatory significance of this matter, the violations in the enclosed Notice of Violation have been classified in the aggregate as a Severity Level III problem in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," (Enforcement Policy) 10 CFR Part 2, Appendix C, Supplement I. In accordance with the Enforcement Policy, a civil penalty is considered for a Severity Level III problem. In this case, a civil penalty was given serious consideration because of the number of opportunities your licensed operators had to identify the matters that were in issue here. However, I have been authorized, after consultation with the Director, Office of Enforcement, not to propose a civil penalty in this case based on the application of the civil penalty adjustment factors discussed in Section VI.B.2 of the Enforcement Policy. This determination was based on the following considerations: (1) the out-of-specification transmitter was ultimately recognized by Entergy Operations personnel; (2) Entergy Operations took both prompt and comprehensive corrective action; and (3) ANO's performance in plant operations has been good, as documented in NRC Systematic Assessment of Licensee Performance reports. The remaining civil penalty adjustment factors were considered but no further adjustments were deemed appropriate.

Entergy Operations, Inc. is required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing its response. In its response, Entergy Operations, Inc. should document the

specific actions taken and any additional actions it plans to prevent recurrence. After reviewing Entergy Operations' response to this Notice, including its proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be placed in the NRC Public Document Room. The responses directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, Pub. L. No. 96-511.

Sincerely,

for John M. Callan
L. J. Callan
Regional Administrator

Enclosure: Notice of Violation

cc w/Enclosure:

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Entergy Operations, Inc.

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bcc w/enclosure:

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