

AUG 14 1992

official copy

Docket Nos. 50-390 and 50-391
License Nos. CPPR-91 and CPPR-92

Tennessee Valley Authority
ATTN: Dr. Mark O. Medford, Vice President
Nuclear Assurance, Licensing & Fuels
3B Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

Gentlemen:

SUBJECT: NOTICE OF VIOLATION
(NRC INSPECTION REPORT NOS. 50-390/92-18 AND 50-391/92-18)

This refers to the NRC inspection conducted by G. A. Walton on June 19 through July 16, 1992. The inspection included a review of activities authorized for your Watts Bar facility. At the conclusion of the inspection, the findings were discussed with those members of your staff identified in the enclosed report.

Areas examined during the inspection are identified in the report. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observation of activities in progress.

Based on the results of this inspection, certain of your activities appeared to be in violation of NRC requirements, as specified in the enclosed Notice of Violation (Notice). The violation described in the enclosed Notice involved failure to train personnel on the System Plant Acceptance Evaluation (SPAЕ) procedure prior to performing SPAЕ activities for System 211, 6.9 kV Shutdown Power. The NRC is concerned about this example because it involved the first SPAЕ completed in preparation for preoperational testing at Watts Bar. In addition, this example was identified by the NRC resident inspectors after reviews of the SPAЕ were conducted by personnel from the various Engineering disciplines.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. After reviewing your response to this Notice, including your 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 addition, inspection report 50-390,391/92-01 identified several examples of ineffective design control involving cable installation calculations. Your response to violation 390/92-01-03 indicated interim corrective actions were in place on April 20, 1992 and, based on your implementation of those interim of

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corrective actions, you released the administrative hold on cable installation calculations and allowed cable pulling to resume. As documented in paragraph 2.A of this report, cable pulling deficiencies continue to be found contrary to your interim corrective action. Recurring violations and ineffective corrective actions are of particular concern because the NRC expects licensees to learn from their past failures and to take effective corrective actions.

Please provide a revised response to our Notice of Violation 390/92-01-03 dated March 17, 1992. In your response, you should document the specific actions taken and the additional actions you plan to correct the apparent continuation of this violation.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and any reply 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. 96.511.

Should you have any questions concerning this letter, please contact us.

Sincerely,

(Original signed by J. Johnson)

Ellis W. Merschoff, Director
Division of Reactor Projects

Enclosures:

1. Notice of Violation
2. NRC Inspection Report

cc w/encls: (See page 3)

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cc w/encls:

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State of Tennessee

bcc w/encls: (See page 4)

- 2) In January 1992 the NRC performed an inspection to assess the licensee's work practices during the slow monitored restart. The results of that inspection were documented in IR 50-390,391/92-01. The inspection identified a violation of NRC requirements pertaining to deficient design controls for the installation of electrical cables. Several deficiencies were identified regarding deficient cable pull tension calculations. These included the failure to include two of three single conductor cables for calculating pull tension limits and that the calculations were incorrectly determined to be adequate by both the preparer and a reviewer. The licensee initiated PER WBPER920031 and Incident Investigation II-W-92-001. TVA responded to the NOV by letter dated April 20, 1992. Interim corrective controls on cable pull calculations required second-party verification by NE on pull tension calculations performed by field engineers. This action was to remain in place until a cable computer software program was issued.

The root cause was determined by the licensee to be inadequately trained/qualified field engineers performing calculations using a computer program.

- 3) On June 2, 1992, the licensee initiated SCAR WBSCA920041 to document incorrectly calculated maximum sidewall pressure pulling tension limits. The deficiencies were identified during a review of closed workplans to address generic concerns regarding cable pull tension calculations. Some of the workplans which contained these deficiencies were performed prior to the November 1991 construction restart. Two of 105 calculations issued since restart were determined to be deficient. The two calculations pertained to non-Class 1E cables.
- 4) On June 16, 1992, the licensee's QA organization's review of work performed since construction restart identified 16 examples of the licensee's failure to follow procedures in that the calculated minimum training radius failed to consider the maximum cable outside diameter. The calculated minimum training radii were based on the average cable outside diameter instead of the maximum outside diameter. This condition was documented in FIR WBFIR920047. The licensee's extent of condition evaluation of work performed since construction restart identified further examples of the failure to use the maximum cable outside diameter. These examples consisted of deficiencies associated with the following:

12 Workplans available for work
14 Workplans closed and in the vault
9 Workplans in work

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bcc w/encs:

E. W. Merschhoff, DRP/RII
J. R. Johnson, DRP/RII
K. P. Barr, DRP/RII
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G Walton
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Mr. [unclear]

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KB
KBarr
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RII:DRP
BW
B Wilson
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