

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTIES

Tennessee Valley Authority
Browns Ferry
Units 1, 2, and 3

Docket Nos. 50-259, 50-260, and 50-296
License Nos. DPR-33, DPR-52, and DPR-68
EA 86-56

As a result of the inspections conducted during the periods August 12-16, 1985; August 21 - September 30, 1985; October 26 - December 31, 1985; and January 1-31, 1986, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1986), the Nuclear Regulatory Commission proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended, (Act), 42 U.S.C. 2282, PL 96-295, and 10 CFR 2.205. The violations and the associated civil penalties are set forth below:

I. Violations Assessed Civil Penalties

- A. Technical Specification 5.6, Seismic Criteria, specifies that station Class I structures and systems are designed to withstand a design basis earthquake. 10 CFR Part 50, Appendix B, Criterion III, Design Control, requires that measures be established to assure that applicable requirements are correctly translated into specifications, drawings, procedures, and instructions and that these measures include provisions to assure that appropriate quality standards are specified and included in design documents. These design control measures must also provide for verifying or checking the adequacy of the design.

Contrary to the above, as of the NRC inspection conducted August 12 - 16, 1985, design discrepancies existed that indicated that some of the cable tray supports in areas of the Control Bay, Diesel Generator and Reactor Buildings, station Class I structures or systems, were not adequately designed to withstand a design basis earthquake and may not have been able to perform their intended function during a seismic event. In addition, a number of design calculations used to qualify many of the typical cable tray supports were not checked or verified.

This is a Severity Level III violation (Supplement I).
(Civil Penalty - \$50,000)

- B. 10 CFR Part 50, Appendix B, Criterion XVI, Corrective Action, requires that measures be established to assure that conditions adverse to quality are promptly identified and corrected. The identification of the significant condition adverse to quality, the cause of the condition, and the corrective action taken must be documented and reported to the appropriate levels of management.

Contrary to the above, the licensee failed to take adequate measures to assure conditions adverse to quality were promptly identified and corrected in the following circumstances:

1. On February 18, 1981, the licensee identified a significant condition adverse to quality and initiated Corrective Action

8
12



Report (CAR) 81-035 that addressed overfilled cable trays and cable penetrations in the cable spreading rooms. Various actions were taken from February 1981 until July 1985, none of which succeeded in correcting the overloaded condition of the cable trays.

2. The licensee discovered on August 14, 1985, that the corrective action taken in response to a previous Notice of Violation (Inspection Report 50-259, 50-260, 50-296/84-23) had not been accomplished. Mechanical Maintenance Instruction (MMI)-6 implements the Browns Ferry Technical Specification surveillance requirement 4.9.A.1.d for routine diesel generator inspections. The licensee committed in response to the NOV to revise MMI-6 to include, by October 5, 1984, the manufacturer's inspections/maintenance recommendations given in Electro-Motive Division Maintenance Instruction MI-1742, Revision E; Scheduled Maintenance Program 999 System Generating Plants. The recommended six and twelve year maintenance intervals were neither included in the revised instruction nor was an evaluation performed to determine whether or not the intervals should have been included in the instruction.
3. A Notice of Violation (Inspection Report 50-259, 50-260, and 50-296/85-05) involved incorrect service mounting of the diesel generator battery racks. The licensee responded to the Notice of Violation and indicated that the battery racks were seismically qualified. During battery rack maintenance on April 20, 1985, four foundation mounting studs were broken that were replaced by April 22, 1985. A metallurgical evaluation was requested by the licensee to evaluate the failure mechanism of the four studs. The evaluation revealed that the stud material was unacceptable for welding; thus, the battery racks were seismically unqualified. Corrective action was not taken and the condition was not reported to appropriate levels of management until September 24, 1985, when the diesel generators were declared inoperable.
4. During the inspection conducted October 26 - November 20, 1985, it was found that the licensee had not taken action to correct a significant condition adverse to quality. The FSAR, Section 8.5.5, specifies that maintenance on the diesel generators be conducted in accordance with manufacturer's recommendations. A vendor diesel generator newsletter (Power Pointer) dated November 28, 1979, indicated that any viscous crankshaft vibration damper bearing with a 1969 or earlier serial number should be removed from service immediately and returned to the manufacturer due to potential for failure. However, the licensee never acted upon the newsletter although this type of damper was installed in the plant diesel generators. In addition, notwithstanding the FSAR, the licensee has no program to review vendor recommended equipment modifications to assure diesel reliability.
5. An emergency design change request (DCR 2675) was written in 1981 for the replacement of the diesel generator turbocharger drive gears. The turbocharger drive gears were known to be inadequate



for no load/light load operations and failure could occur if the engine was operated in excess of 200 hours at less than 20 percent load. Although this condition adverse to quality had been corrected by the Sequoyah Nuclear Plant (Supplement 2, NUREG-0011, August 6, 1980), as of the time of the inspection on October 26 - November 20, 1985, the change had not been implemented by Browns Ferry. The replacement was completed on April 6, 1986.

This is a Severity Level III violation (Supplement I).
(Civil Penalty - \$50,000)

- C. 10 CFR Part 50, Appendix B, Criterion V, Instructions, Procedures and Drawings, requires that activities affecting quality be prescribed by documented instructions, procedures, or drawings of a type appropriate to the circumstances and that these activities be accomplished in accordance with these instructions, procedures, or drawings.

Contrary to the above, the licensee failed to prescribe adequate instructions, procedures, or drawings to implement such instructions, procedures, or drawings in the following circumstances:

1. During surveillance testing on November 19, 1985, the licensee discovered that the 250 volt DC control power to the 4160 volt shutdown board "A" was not connected per Plant Drawing 0106D8860. The electrical supply cables for the normal control power supply (250 volt DC shutdown board "A" battery) and the alternate control power supply (250 volt DC battery board "2" to the Unit 2 battery) were reversed. This wiring error resulted in control power being supplied from a 30 minute rated source in lieu of the required 3-hour rated source. This condition may have existed since 1973.
2. During the inspection conducted November 21 - December 31, 1985:
 - a. The licensee discovered that the Units 1 and 2 diesel generators oil pressure switches PS-82-29 A, B, C, and D (MB-3) were not functional. The oil line connection block was not ported (drilled out) in accordance with Plant Drawing 45N767-4 for the oil line connecting the pressure switches. This prevented the pressure switches from functioning as a backup to the speed sensor to prevent engagement of the number two bank of air start motors if oil pressure was not maintained after the diesel started.
 - b. The NRC discovered that Plant Operating Instruction OI-82 for the diesel generators was not appropriate to the circumstances because it did not address the function of the Low Low Lube Oil Pressure Light. Because there was no oil pressure to the pressure switch when the engines were running, no oil pressure in the sensing line should have caused illumination of the Low Low Lube Oil Pressure Light next to the emergency stop button on the diesel generator control board in the control room. However, all four of the lights in both units were not functional.

3. Plant Instruction SMI 192.2, Local Power Range Monitor (LPRM) Maintenance Instruction, was inappropriate to the circumstances for the LPRM changeout conducted in Unit 2 on November 20, 1985. The instruction did not address the abnormal operation for a LPRM changeout with a LPRM tip broken in the LPRM tool or a LPRM stuck behind a source pin rack. Continued operation resulted in the "hot" tip of the LPRM breaking the water surface of the spent fuel pool, creating excessive radiation levels in the area and an unnecessary radiation hazard to personnel.
4. The licensee failed to ensure that design drawings referenced the correct design specifications. On October 22, 1985, the licensee discovered four design drawings (730E918, Engineered Safeguards; 73730E915, Reactor Protection System; 730E930, Core Spray; and 730E927, Primary Containment Isolation) referenced design specification 22A1421 which is not applicable to Browns Ferry instead of the correct specification 22A2809. This specification defines the criteria for the separation and identification of reactor safeguards electrical equipment.

This is a Severity Level III violation (Supplement I).
(Civil Penalty - \$50,000)

II. Violation Not Assessed a Civil Penalty

10 CFR 50.59(a) allows the holder of a license to make changes in the facility as described in the Final Safety Analysis Report (FSAR) without prior Commission approval unless it involves a change to the Technical Specifications or is an unreviewed safety question. An unreviewed safety question is created if the consequences of an accident or the malfunction of the equipment important to safety previously evaluated in the FSAR may be increased.

10 CFR 50.59(b) requires that the licensee maintain records of changes in the facility to the extent that such changes constitute changes in the facility as described in the FSAR. These records shall include a written safety evaluation which provides the bases for the determination that the change does not involve an unreviewed safety question.

Contrary to the above, the licensee changed the facility as described in the FSAR without having determined whether the change involved an unreviewed safety question. On November 25, 1985, the licensee changed the acceptable closure time of secondary containment isolation dampers from two seconds as specified in Section 5.3.4.2 of the FSAR to ten seconds. Although the licensee performed an analysis, it did not determine whether the change involved an unreviewed safety question. The change was implemented by the licensee through an internal memorandum pending a change to the FSAR to be submitted as part of the routine annual update per 10 CFR 50.71.

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

Pursuant to 10 CFR 2.201, Tennessee Valley Authority is hereby required to submit to the Director, Office of Inspection and Enforcement, U.S. Nuclear Regulatory



Notice of Violation

- 5 -

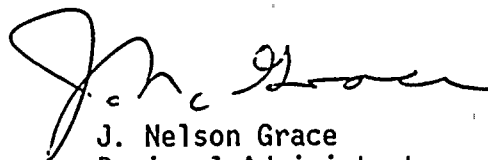
Commission, Washington, D.C. 20555, with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region II, 101 Marietta Street, N.W., Suite 2900, Atlanta, Georgia 30323, within 30 days of the date of this Notice a written statement or explanation including for each violation: (1) admission or denial of the alleged violation, (2) the reasons for the violation if admitted, (3) the corrective steps which have been taken and the results achieved, (4) the corrective steps which will be taken to avoid further violations, and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, the Director, Office of Inspection and Enforcement, may issue an order to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, the response shall be submitted under oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, Tennessee Valley Authority may pay the civil penalties in the amount of One Hundred Fifty Thousand Dollars (\$150,000) for the violation, or may protest imposition of the civil penalties in whole or in part by a written answer. Should Tennessee Valley Authority fail to answer within the time specified, the Director, Office of Inspection and Enforcement, will issue an order imposing the civil penalties in the amount proposed above. Should Tennessee Valley Authority elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalties, such answer may: (1) deny the violations listed in this Notice in whole or in part, (2) demonstrate extenuating circumstances, (3) show error in this Notice, or (4) show other reasons why the penalties should not be imposed. In addition to protesting the civil penalties in whole or in part, such answer may request remission or mitigation of the penalties.

In requesting mitigation of the proposed penalties, the five factors addressed in Section IV(B) of 10 CFR Part 2, Appendix C, should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201 but may incorporate by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of Tennessee Valley Authority is directed to the other provisions of 10 CFR 2.205 regarding the procedure for imposing civil penalties.

Upon failure to pay the penalties due, which has been subsequently determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalties, unless compromised, remitted, or mitigated may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282.

FOR THE NUCLEAR REGULATORY COMMISSION


J. Nelson Grace
Regional Administrator

Dated at Atlanta, Georgia
this 8 day of September 1986

