APPENDIX A

NOTICE OF VIOLATION

Tennessee Valley Authority
Browns Ferry 1, 2, 3

Docket Nos. 259, 50-260, 50-296
License Nos. DPR-33, DPR-52, DPR-68

As a result of the inspection conducted on May 2-6, 1983, and in accordance with the NRC Enforcement Policy, 47 FR 9987 (March 9, 1982), the following violations were identified.

A. CFR 50, Appendix B, Criterion V requires activities affecting quality be prescribed by documented instructions, procedures or drawings and include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished.

Licensee Amendment Number 42 authorizes the increased fuel storage in accordance with the licensee application dated December 2, 1977, as supplemented by letters dated December 20, 1977, May 24, May 26, June 30, August 2, August 10, and September 1, 1978. The licensee's application commits to verifying at the reactor storage pool site, by use of a neutron source and neutron detectors prior to use, that a K effective of the spent fuel high density storage rack shall be less than or equal to 0.95.

1. Contrary to the above, this requirement was not met in that TI 14, Special Nuclear Materials Control and Accountability System, did not require that the acceptance criterion of certification of fuel storage racks be verified prior to use.

2. Also, the requirement for conformance with the license application was not met in that on April 24, 1983, 130 fuel bundles were loaded into high density fuel rack #8 (per drawing C5445-E-102) in the Unit 1 fuel pool prior to conducting the required testing.

This is a Severity Level IV Violation (Supplement 1) applicable to Unit 1.

B. 10 CFR 50, Appendix B, Criterion XIV, as implemented by TVA Topical Report TR75-1, Section 17.2.14, requires that measures shall be established to indicate by the use of markings, such as tags, labels, or other suitable means, the status of inspections and tests performed upon individual items of the nuclear power plant. These measures shall provide for the identification of items which have satisfactorily passed required inspections and tests, where necessary to preclude inadvertent bypassing of such inspections and tests.

Contrary to the above, this requirement was not met in that tag boards used on the refuel floor and in the control room during refueling operations were not marked to indicate that eight high density fuel racks installed in the

Unit 1 fuel pool were unqualified (boral testing not done as required) for fuel storage. Unqualified high density fuel rack #8 (per drawing C5445-E-102) was used for fuel storage of 130 bundles on April 24, 1983. Additionally, no plant procedures identified the eight high density fuel racks as unqualified for fuel storage.

This is a Severity Level IV Violation (Supplement 1) applicable to Units 1, 2 and 3.

C. 10 CFR, Appendix B, Criterion II and the accepted QA program, Section 17.2.2, requires that a training and indoctrination program to assure that personnel responsible for performing quality affecting activities are instructed as to the purpose, scope and implementation of the quality assurance program. The program shall provide for indoctrination and training of personnel performing activities affecting quality as necessary to assure that suitable proficiency is achieved and maintained.

Contrary to the above, this requirement was not met in that a review of QC inspector training and indoctrination as related to fuel handling operations determined that the training was inadequate. Two QC inspectors on April 22, 1983, incorrectly verified that nine fuel bundles were properly placed in the high density fuel rack. A survey of several QC inspectors' knowledge in this area indicated the majority (6 of 8) of QC inspectors were unable to properly determine fuel location requirements when given the location sequence as designated on the fuel transfer forms. Discussions with QC personnel indicated that the fuel transfer form data configuration was not presented during the formal class training for fuel handling certification. The QC inspectors are required to verify location and orientation of fuel bundles when moved from the core to the spent fuel pool as required by TI 14.

This is a Severity Level IV Violation (Supplement 1) applicable to Units 1, 2 and 3.

D. Technical Specification 6.3.A.2 requires that detailed written procedures, including applicable checkoff lists, covering refueling operations shall be adhered to.

Contrary to the above, this requirement was not met in that:

1. TI 14, attachment B1, Fuel Assembly Transfer Form, requires that the fuel handling operator sign for fuel movement, verification of location and orientation during inter-fuel-pool transfers. Nine bundles were transferred in accordance with Field Change 1 to the Unit 1 unload fuel transfer form on April 22, 1983, without proper verification signoffs, (steps 1-9).

2. A review of the official copy of the fuel assembly transfer form indicated that for steps 14-39 (the movement of 26 fuel bundles) no operator verification signoffs for fuel bundle location and orientation were completed.

3. The shift engineer is required to review completed fuel movement data sheets. No shift engineer review was indicated for the movement of bundles steps 14-26 on April 22, 1983.

4. TI 14 requires that fuel bundles be placed in the spent fuel pool in the specified sequence of row-rack-column for location purposes. Five different operators on nine different fuel movement operations placed fuel bundles in the wrong location in the Unit 1 spent fuel pool. The operators placed the fuel in rack-row-column sequence vice the procedural requirements.

5. Fuel movement operations from the Unit 1 core to the Unit 1 fuel pool require that the fuel handling operator signoff on the fuel transfer form to verify location and orientation of the fuel bundle moved. TI 14 requires a first party signoff be made by the fuel handling operator. During a review of the fuel transfer forms and discussions with plant personnel, the inspector noted that the operators do not sign off on the fuel transfer forms as required by TI 14. Instead, the shift engineer initials for the operator on the fuel transfer form and then the shift engineer signs the form for overall shift engineer review. No indication is on the form to indicate the shift engineer was signing for the operator, i.e., "by", "for".

   This is a Severity Level IV Violation (Supplement 1) applicable to Unit 1.

E. T.S. 6.8.3 requires that a licensed senior operator be in direct charge of the reactor refueling operation.

   Contrary to the above, two Senior Reactor Operators failed to detect the mislocation of fuel bundles in the fuel storage rack and numerous omissions of proper verification signoffs. This failure indicates a lack of control of the refueling operation.

   This is a Severity Level IV Violation (Supplement 1) applicable to Unit 1.

Pursuant to the provisions of 10 CFR 2.201, you are hereby required to submit to this office within thirty days of the date of this Notice, a written statement or explanation in reply, including: (1) admission or denial of the alleged violations; (2) the reasons for the violations if admitted; (3) the corrective steps which have been taken and the results achieved; (4) corrective steps which will be taken to avoid further violations; and (5) the date when full compliance will be achieved. Consideration may be given to extending your response time for good cause shown.

Date: JUL 13 1983