APPENDIX A

NOTICE OF VIOLATION

Tennessee Valley Authority
Sequoyah, Watts Bar, Bellefonte,
Hartsville, Phipps Bend and
Yellow Creek

License No. DPR-77CPPR-73, CPPR-91,
CPPR-92, CPPR-122, CPPR-123, CPPR-150,
CPPR-151, CPPR-152, CPPR-153, CPPR-162,
CPPR-163, CPPR-172 and CPPR-173,

Based on the NRC inspection July 7-11, 1980, certain of your activities were apparently not conducted in full compliance with NRC requirements as indicated below. These items have been categorized as described in correspondence to you dated December 31, 1974.

A. As required by 10 CFR 50, Appendix B, Criterion V, as implemented by Hartsville, Phipps Bend and Yellow Creek SARs and Topical Report Section 17.1A.5 which states in part, "Activities affecting quality shall be prescribed by documented instructions, procedures, and drawings, ... and shall be accomplished in accordance with these instructions, procedures, ..." Quality Assurance Procedure MO-QAP No. 3.1, defines the method of reporting and documenting OEDC audit findings. By procedure, audit deficiencies are to be recorded on form TVA 22008 and reviewed for significant conditions adverse to quality per OEDC QAI-4.

Contrary to the above, audit findings for OEDC QA audits numbered M78-6, M78-21 and MR79-7 were reported/documented as conclusions and recommendations rather than as deficiencies and consequently not evaluated for significance.

This is an infraction applicable to licensee numbers CPPR-150, CPPR-151, CPPR-152, CPPR-153, CPPR-162, CPPR-163, CPPR-172 and CPPR-173.

B. As required by 10 CFR 50, Appendix B, Criterion V, as implemented by Hartsville, Phipps Bend and Yellow Creek SARs and Topical Report Section 17.1A.5 which states in part, "Activities affecting quality shall be prescribed by documented instructions, procedures, and drawings, ... and shall be accomplished in accordance with these instructions, procedures, ..." The subject SARs and Topical Report impose ANSI N45.2.12, Draft 3, Revision 4, on the licensee. ANSI N45.2.12, Draft 3, Revision 4, Paragraph 3.4.2 requires that, "applicable elements of the quality assurance program be audited at least annually or at least once within the life of the activity, whichever is shorter." IE's position is that all elements (engineering branches and design project groups) within EN DES Division which perform quality related activities are to be audited against all applicable Appendix B criterion on an annual basis.

Contrary to the above, Engineering Procedure EN DES EP 1.29 for handling internal EN DES audits does not provide assurance that all elements of the EN DES organization are audited against applicable Appendix B criterion on an annual basis nor is there evidence that this requirement has been met.

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This is an infraction applicable to licensee numbers CPPR-150, CPPR-151, CPPR-152, CPPR-153, CPPR-162, CPPR-163, CPPR-172 and CPPR-173

C. As required by 10 CFR 50, Appendix B, Criterion V, and as implemented by TVA's accepted QA program which require that activities affecting quality shall be prescribed by documented instructions, procedures or drawings and shall be accomplished in accordance with these instructions, procedures or drawings. TVA has committed to implementing ANSI N45.2.11, which requires that within a design organization, methods shall provide for traceability of the sources of design information and its flow through the design process to the point where it is included as part of an identifiable design document. EN DES Procedure EP 3.03, Section 4.1 states in part, "prepare calculations ... with sources of information referenced".

Contrary to the above, the following examples were identified where sources of information were not referenced in the design documents. (1) Calculations for Bellefonte typical supports used in the alternate criteria analysis for seismic supports did not reference the drawings of the typicals used in the supporting of the pipe. (2) Sequoyah's typical supports used in the alternate criteria analyses did not reference the design parameters used in the calculations.

This is a deficiency. This deficiency is applicable to license numbers DPR-77, CPPR-73, CPPR-122 and CPPR-123 only.

D. As required by Criterion V of Appendix B to 10 CFR 50, and as implemented by Phipps Bend and Hartsville PSAR Sections 17.1A.5 which states in part, "Activities affecting quality shall be prescribed by documented instructions, procedures or drawings ... and shall be accomplished in accordance with these instructions, procedures, or drawings." EN DES Procedure Numbers EP 4.04 and 4.25 require that design drawings be checked to verify that all pertinent design information is included on the drawings.

Contrary to the above, the 180-day concrete compressive strengths required by design criteria for missile shielding was not noted on Hartsville drawing numbers 4YE5422Y7-01 and 4YE6422Y7-01 and Phipps Bend drawing number 4YO422Y7-01. This omission was not detected by the checker of the drawings.

This is an infraction applicable to license numbers CPPR-150, CPPR-151, CPPR-152, CPPR-153, CPPR-162 and CPPR-163 only.

E. As required by Criterion V of Appendix B to 10 CFR 50, and as implemented by Phipps Bend and Hartsville PSAR Sections 17.1A.5 which states in part, "Activities affecting quality shall be prescribed by documented instructions, procedures or drawings ... and shall be accomplished in accordance with these instructions, procedures, or drawings." EN DES Procedure EP 1.14 requires completed calculations to be microfilmed in order to meet the record storage requirements of ANSI N45.2.9 for quality records.

Contrary to the above, completed calculations for the stability analysis of the Hartsville and Phipps Bend ESW spray pond slopes have not been microfilmed. These records were stored on open shelves not meeting the storage requirements of the procedure or ANSI N45.2.9.

This is a deficiency applicable to license numbers CPPR-150, CPPR-151, CPPR-152, CPPR-153, CPPR-162 and CPPR-163 only.

F. As required by Criterion V of Appendix B to 10 CFR 50, and as implemented by Sequoyah and Watts Bar FSAR Sections 17.1A.5, by Bellefonte, Hartsville and Phipps Bend PSAR Sections 17.1A.5 and TVA Topical Report TR-75-1A Section 17.1A.5, "Activities affecting quality shall be prescribed by documented instructions, procedures or drawings ... and shall be accomplished in accordance with these instructions, procedures, or drawings." EN DES Procedures EP 1.14, 1.16, 1.26, 1.28, 3.03, 3.08, 4.04 and 4.25 are the measures (procedures) for control of design activities in the Engineering Design Division. EN DES EP 1.02 requires branch engineering procedures to be prepared to provide written instructions for QA related activities which are unique to that branch.

Contrary to the above:

1. The Geologic Services Group in the Civil Engineering and Design Branch in EN DES has not implemented EN DES Procedures EP 1.14, 1.16, 1.26, 1.28, 3.03, 3.08, 4.04 and 4.25.

2. No written procedures have been prepared to cover QA related activities unique to the Geologic Services Group

This is an infraction.

G. As required by 10 CFR 50, Appendix B, Criterion V, and as implemented by Topical Report TVA-TR-75-1A, Section 17.1A.5, which states in part, "Activities affecting quality shall be prescribed by documented instructions, procedures, ... and shall be accomplished in accordance with these instructions, procedures ...." TVA EN DES Procedure EP 4.25, R3, requires that the originating organization of a drawing designate with the letter "Q" that some element of the depicted design must conform with 10 CFR 50, Appendix B, or other documented regulatory requirement. For Yellow Creek, Procedure EO 4.25, R3, requires that the "Q" designation be placed in the drawing title block.

Contrary to the above, drawing 5RM0804-RU-70, which is the electrical bill of material applicable to Class 1E embedded conduit installations in the reactor building auxiliary area (Class I structure), was issued without the required "Q" designation in the title block.

This is a deficiency applicable to license numbers CPPR-172 and CPPR-173 only.

H. As required by 10 CFR 50, Appendix B, Criterion XVIII, as implemented by Section 17.1A.18 of pertinent TVA nuclear plant SARs and Topical Report envoking engineering procedures EN DES-EP 5.34 and QEB-EP 24.67 states in part, "A comprehensive system of planned and periodic audits shall be carried out to verify compliance with all aspects of the quality assurance program and to determine the effectiveness of the program."

Contrary to the above, discussions with responsible QEB audit personnel and examination of vendor audits and evaluation indexes performed to date revealed that no preaward surveys, regularly scheduled audits nor evaluation indexes had been conducted by TVA on EDS and Teledyne contracted design services. Further discussions indicated there may be other procured services that TVA may not be auditing at this time.

This is an infraction.