ENCLOSURE

SEQUOYAH, WATTS BAR, BELLEFONTE, HARTSVILLE, PHIPPS BEND AND YELLOW CREEK NUCLEAR PLANTS - REPORTABLE CONDITION RELATED TO OEDC QA AUDIT M77-7

FINAL REPORT

I. Description of Condition

There are six subparts to this deficiency as described below. Each of these involves a failure to identify and control significant conditions adverse to quality. They are related to OEDC QA Audit M77-7, deficiencies 13, 15, and 17 (partial). These deficiencies have been found as a result of:

1. an OEDC QA audit on nonconformances,

2. followup investigation of that audit which uncovered additional deficiencies, and

3. a review of procedures undertaken as a part of OEDC organizational changes.

These actions spanned the entire scope of OEDC activities related to implementation of 10 CFR 50 Appendix B Criteria XV and XVI thereby providing assurance that additional significant deficiencies in this area do not exist. Other procedural deficiencies were uncovered by the audit and are being resolved. However, the items below are those considered to be reportable under 10 CFR 50.55(e).

A. Procurement Deficiencies (EN DES). The procedure for handling supplier nonconformances (EN DES QAP 5.3, redesignated EN DES-EP 5.44) did not specifically require determination and documentation of the cause of significant conditions adverse to quality, as required by 10 CFR 50 Appendix B Criterion XVI. However, EN DES QAP 1.10 (now EN DES-EP 2.02) did require that the cause be reported to NRC for those conditions judged reportable under 10 CFR 50.55(e).

B. Nonconformance Definition (EN DES). EN DES QAP 1.5 (now EP 1.26), which addressed "Design Nonconformance" and "Procurement Nonconformance," may not have covered all of the conditions adverse to quality as identified in 10 CFR 50 Appendix B Criteria XV and XVI. This situation involves adequacy of the terminology used in the procedure and whether personnel subject to the procedure used the procedure properly as a result.

C. Preoperational Testing (EN DES and P PROD). In some cases, conditions adverse to quality identified by preoperational tests were not documented and controlled in accordance with 10 CFR 50 Appendix B Criteria XV and XVI. This was due to insufficient procedures and inadequate implementation of existing procedures.

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Specifically, test deficiencies were not being reviewed for significance, and the cause was not being determined and documented in accordance with 10 CFR 50 Appendix B Criterion XVI.

D. Design Changes (EN DES). Certain conditions adverse to quality were being corrected by design changes but were not being documented and controlled in accordance with 10 CFR 50 Appendix B Criteria XV and XVI and EN DES QAP 1.5.

E. Audit Reports (OEDC). OEDC QA procedure QAS-QAP 3.1, OEDC QA Audits, did not contain provisions for reviewing each deficiency for significance and did not require identification and documentation of significant conditions adverse to quality identified during audits, in accordance with 10 CFR 50 Appendix B Criterion XVI.

F. Audit Reports (CONST). CONST QA procedure QAP 18.01, Auditing Construction Activities, did not contain provisions for reviewing each deficiency for significance and did not require identification and documentation of significant conditions adverse to quality identified during audits, in accordance with 10 CFR 50 Appendix B Criterion XVI.

II. Implications to Safety.

In the case of each subpart above, conditions adverse to safety were being identified and corrected in accordance with written procedure. However, since there were no requirements to determine cause, repetitive failures may have occurred, some of which might not have been identified and corrected thereby reducing the assurance of quality.

III. Causes of the Deficiency.

The root cause of all subparts was the failure, of the originator of the applicable procedures and the personnel performing the function, to recognize that, for all significant conditions adverse to quality, there were requirements beyond just identifying and correcting the condition.

A. Procurement Deficiencies (EN DES). The applicable procedure does not distinguish between significant and nonsignificant conditions in regard as to how these are handled.

B. Nonconformance Definition (EN DES). The applicable procedure was tailored to the requirements of 10 CFR 50.55(e) and did not fulfill all the requirements of 10 CFR 50 Appendix B.

C. Preoperational Testing (P PROD and EN DES). The applicable EN DES procedure did not specifically address the requirements of Criterion XVI nor provide specific

reference to EN DES QAP 1.5. Due to the deficiency in definition of nonconformance (discussed in I.B. above), EN DES preoperational test representatives and coordinators were not applying EN DES QAP 1.5 when deficiencies were found. Furthermore, personnel performing these functions were not aware of how 10 CFR 50 Appendix B Criteria XV and XVI applied to deficiencies identified as the result of preoperational tests.

D. Design Changes (EN DES). In some cases, personnel did not recognize the need to determine the cause of, and reportability of, significant conditions adverse to quality even though these conditions were being corrected.

E. Audit Reports (OEDC QA). QA personnel recognized the need (and had procedures) for the conducting and reporting of audits, following up on identified deficiencies, and documenting corrective actions. However, the need to review audit deficiencies for significance (and possible reporting under 10 CFR 50.55(e)) and the documenting of the cause of the deficiency were not recognized; therefore, procedures to implement these requirements were not developed.

F. Audit Reports (CONST). QA personnel recognized the need (and had procedures) for the conducting and reporting of audits, following up on identified deficiencies, and documenting corrective actions. However, the need to review audit deficiencies for significance (and possible reporting under 10 CFR 50.55(e)) and the documenting of the cause of the deficiency were not recognized; therefore, procedures to implement these requirements were not developed.

IV. Applicability to TVA Plants.

Subparts A (Procurement Deficiencies), B (Nonconfromance Definition), E (Audit Reports - OEDC), and F (Audit Reports - CONST) apply to all six plants, Sequoyah, Watts Bar, Bellefonte, Hartsville, Phipps Bend and Yellow Creek Nuclear Plants. Subpart C (Preoperational Testing) applies only to Sequoyah and Watts Bar since testing has not begun on the other plants. Subpart D (Design Changes) applies to all except Yellow Creek since changes to final design have not yet begun on that plant. Sequoyah, Watts Bar, Hartsville, Phipps Bend, and Bellefonte construction permits; and Yellow Creek has an LWA.

V. Proposed Corrective Action.

In general, proposed corrective action consists of:

(1) Familiarization of personnel with applicable requirements

(2) Preparation of new or revised procedures.

A. Procurement Deficiencies (EN DES).

Procedure EN DES-EP 1.26 has been modified and EN DES-EP 5.34 has been revised to require documentation of the cause of significant conditions adverse to quality. These changes cover the deficiency in EN DES-EP 5.44 noted in paragraph I.A of this report.

B. Nonconformance Definition (EN DES).

EN DES-EP 1.26 is being revised to more clearly define conditions to which the procedure applies. Estimated completion of the revision is by October 30, 1978.

C. Preoperational Testing (EN DES and P PROD).

1. Procedure EN DES-EP 6.01 is being revised and ID-QAP-1.1 has been modified to ensure that significant conditions adverse to quality are identified as such and controlled accordingly, in a timely manner. Estimated completion of the EN DES-EP 6.01 revision is by October 30, 1978.

2. Personnel supervising preoperational tests or serving as test representatives or coordinators (in regard to tests of safety-related systems) will be refamiliarized with the requirements of 10 CFR 50 Appendix B Criteria XV and XVI, before the beginning of preoperational testing.

D. Design Changes (EN DES).

Procedures EN DES-EP 4.02, 4.10, and 4.03 have been revised to require the identification and reporting of significant conditions adverse to quality which cause design changes.

E. Audit Reports (OEDC QA).

1. Procedures have been modified to identify and control significant deficiencies discovered during audits in accordance with 10 CFR 50 Appendix B Criterion XVI.

F. Audit Reports (CONST QA).

1. Procedures have been modified and implemented to identify and control significant deficiencies discovered during audits in accordance with 10 CFR 50 Appendix B Criterion XVI.

G. Additional Corrective Actions.

1. EN DES QA procedures have been modified to require that audit findings be reviewed for significance and controlled in accordance with 10 CFR 50 Appendix B Criterion XVI (this provides written procedures for what was normal practice).

2. NLS is making minor modifications to EN DES-EP 2.02 to provide for determination of reportability to NRC-OIE for all significant conditions adverse to quality.

All corrective actions will be completed by January 15, 1979.