

**TENNESSEE VALLEY AUTHORITY**

CHATTANOOGA, TENNESSEE 37401  
400 Chestnut Street Tower II

October 17, 1983 **OCT 19 09:19**

**WBRC-50-390/83-12**

U.S. Nuclear Regulatory Commission  
Region II  
Attn: Mr. James P. O'Reilly, Regional Administrator  
101 Marietta Street, NW, Suite 2900  
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

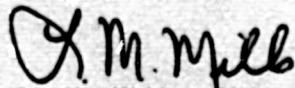
**WATTS BAR NUCLEAR PLANT UNIT 1 - DRAWINGS ISSUED UNDER ECN 2104 WITHOUT  
ADDING FLEXIBLE HOSES - WBRC-50-390/83-12 - REVISED FINAL REPORT**

The subject deficiency was initially reported to NRC-OIE Inspector T. Heatherly on March 14, 1983 in accordance with 10 CFR 50.55(e) as NCR WBN SWP 8318. Interim reports were submitted on April 11 and June 16, 1983. Our final report was submitted on September 2, 1983. Enclosed is our revised final report.

If you have any questions, please get in touch with R. H. Shell at FTS 858-2688.

Very truly yours,

TENNESSEE VALLEY AUTHORITY



L. M. Mills, Manager  
Nuclear Licensing

**Enclosure**

cc: Mr. Richard C. DeYoung, Director (Enclosure)  
Office of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Records Center (Enclosure)  
Institute of Nuclear Power Operations  
1100 Circle 75 Parkway, Suite 1500  
Atlanta, Georgia 30339

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## ENCLOSURE

KATTS BAR NUCLEAR PLANT UNIT 1  
DRAWINGS ISSUED UNDER ECN 2104 WITHOUT ADDING FLEXIBLE HOSES  
NCR WBN SWP 8318  
WBRD-50-390/83-12  
10 CFR 50.55(e)  
REVISED FINAL REPORT

### Description of Deficiency

During an overall drawing review of the piping systems analyzed under TVA's alternate analysis program, it was found that a 1-inch and a 3/4-inch nitrogen supply line were not provided with the required flexible hose assemblies for attachment to the outside of the steel containment vessel (SCV) penetration.

The flexible hose assemblies were to have been added under TVA ECN 2104 as a result of NCR CEB 79-23 to allow for the design basis accident (DBA) movement of the SCV. Although flexible hose assemblies were procured and delivered to the plant for this application, an oversight in design resulted in the assemblies not being shown on the physical piping drawings. As a result, the two lines were rigidly attached to the outside of SCV penetration X-39A and X-39B.

This deficiency was caused by inadequate checking to ensure that the changes required by the ECN were completely implemented on the issued drawings.

### Safety Implications

Since the piping, as installed, had not been analyzed and could have been inadequate, it could possibly fail during a DBA which would result in a breach of containment integrity and possible leakage of radioactive fission products in excess of 10 CFR 100 limits.

### Corrective Action

TVA ECN 3781 has been issued to install the required flexible hose assemblies. The applicable revised drawings have been issued and all required construction work will be accomplished by November 15, 1983.

In addition, TVA ECN 2104 has been thoroughly reviewed to ensure that all required changes have been made.

To prevent recurrence of this type deficiency, TVA Division of Engineering Design (EN DES) Engineering Procedures (EPs) 4.21 and 4.25 will be revised to add an item to the checklist for design review of detailed construction drawings requiring the review to ensure that the issued drawings accurately implement the scope of the applicable change documents. These revisions will be completed by October 31, 1983.

All EN DES personnel are receiving additional training in TVA EPs related to checking under the EN DES EP Training Program instituted by TVA's Manager of EN DES on February 26, 1982.