

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

October 19, 1983

83 OCT 27 AIO: 49

WBRD-50-390/83-35
WBRD-50-391/83-35

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:

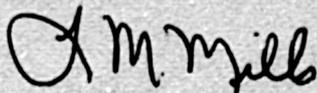
**WATTS BAR NUCLEAR PLANT UNITS 1 AND 2 - NO ISOLATION CAPABILITY FOR AIR INTAKES
FOR THE POSTACCIDENT SAMPLING FACILITY - WBRD-50-390/83-35, WBRD-50-391/83-35 -
REVISED FINAL REPORT**

The subject deficiency was initially reported to NRC-OIE Inspector P. E. Fredrickson on May 17, 1983 in accordance with 10 CFR 50.55(e) as NCR GEN NEB 8303. Our first interim report and final report were submitted on June 15 and August 19, 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

8311010295 831019
PDR ADOCK 09000390
S PDR

OFFICIAL COPY

IE 27
||

1983-TVA 50TH ANNIVERSARY

An Equal Opportunity Employer

ENCLOSURE

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2
NO ISOLATION CAPABILITY FOR AIR INTAKES
FOR THE POSTACCIDENT SAMPLING FACILITY
NCR GEN NEB 8303
WBRD-50-390/83-35, WBRD-50-391/83-35
10 CFR 50.55(e)
REVISED FINAL REPORT

Description of Deficiency

The postaccident sampling facility (PASF), located inside the auxiliary building secondary containment enclosure (ABSCE), has an outside air intake duct that has no safety-related isolation capabilities and is seismic category 1(L). This deficiency occurred because the interface between the PASF Environmental Control System (ECS) and the ABSCE was not addressed in design criteria WB-DC-40-41.

Safety Implications

Failure of this duct during a safe shutdown earthquake (SSE) would render the auxiliary building gas treatment system (ABGTS) incapable of maintaining the ABSCE at $-1/4$ " water gauge pressure with respect to the atmosphere following a radiological release because of the increased inleakage of air. Breaching the ABSCE and jeopardizing the ABGTS could result in accident offsite doses in excess of 10 CFR 100 limits.

Corrective Action

TVA will install safety-grade, redundant isolation valves on the PASF ECS outside air supply duct. The duct will be requalified as seismic category I from the air intake up to and including the isolation valves. Engineering Change Notice (ECN) 3957 has been issued to accomplish this work. Design Criteria WB-DC-40-41 has been revised per Design Input Memorandum (DIM) WB-40-41-2 to include the following requirements:

- (1) The installation and operation of the PASF ECS must not compromise the capability of the ABGTS to perform its safety-related function.
- (2) PASF ductwork must not violate the integrity of the ABSCE.
- (3) All safety-related valves or dampers required to satisfy (1) and (2) above must close automatically in response to an auxiliary building isolation signal and their positions must be annunciated in the main control room by indication lights.

All drawing revisions are complete. All necessary construction work will be completed by November 14, 1983.

TVA has determined that the ABSCE design concept is not applicable to other TVA construction permit (CP) plants. Therefore, this condition will not occur at any other CP plants and the corrective action taken will prevent recurrence. Also, during the preop test TVA-9A "ABGTS," an extensive survey to identify ABSCE leakage sources will be conducted. Any similar deficiencies will be detected during this survey. Periodic surveillance tests will identify any future leakage sources which might develop.