TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

September 17, 1980

Mr. James P. O'Reilly, Director
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Region II - Suite 3100
101 Marietta Street
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2 - EMERGENCY GAS TREATMENT SYSTEM FIRE PROTECTION SYSTEM - NCR WBN NEB 8011 - FINAL REPORT

The subject condition was initially reported to NRC-OIE Inspector F. S. Cantrell on August 18, 1980, in accordance with 10 CFR 50.55(e). Enclosed is our final report.

If you have any questions, please get in touch with D. L. Lambert at FTS 857-2581.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. M. Mills, Manager
Nuclear Regulation and Safety

Enclosure
cc: Mr. Victor Stello, Director (Enclosure)
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, DC 20555

B019
S 1/1

8009250273

5

An Equal Opportunity Employer

ENCLOSURE
WATTS BAR NUCLEAR PLANT UNITS 1 AND 2
EMERGENCY GAS TREATMENT SYSTEM FIRE PROTECTION SYSTEM
NCR WBN NEB 8011
10 CFR 50.55(e)
FINAL REPORT

Description of Condition

The emergency gas treatment system (EGTS) at Watts Bar Nuclear Plant was supplied with an automatic open head water spray system. The purpose of the spray system is to extinguish a fire in the charcoal adsorbers and the spray nozzles are directed at the charcoal beds for this reason. The present system has open nozzles and is automatically initiated and therefore an inadvertent initiation would apply water to the charcoal and degrade the charcoal beds, thereby seriously impairing the EGTS. The EGTS was manufactured by the Mine Safety Appliance Company, and it came as a unit complete with the fire protection system. The TVA procurement specifications did not specify the type of suppression system nozzles to be used.

There are two trains of EGTS which are common to both units.

Safety Implications

Had this condition gone uncorrected, an inadvertent initiation of the fire protection system would have inhibited the EGTS from performing its intended safety function. This condition would then adversely affect the safety of the plant.

Correction Action

The open head spray nozzles will be replaced by closed head water spray nozzles. Closed head nozzles are the type with a heat-actuated element, and they do not allow water to pass unless the element has operated. The closed heads will prevent water from spraying the charcoal beds in the event of an inadvertent initiation. The closed heads will be installed before fuel loading.