

**PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE**

PNO-II-08-007

This preliminary notification constitutes EARLY notice of events of possible safety or public interest significance. The information is as initially received without verification or evaluation, and is basically all that is known by Region II staff (Atlanta, Georgia) on this date.

**Facility:**

Tennessee Valley Authority  
Watts Bar Nuclear Plant  
Spring City, TN  
Docket/License No(s): 50-390/NPF-90

**Licensee Emergency Classification:**

- Notification of Unusual Event
- Alert
- Site Area Emergency
- General Emergency
- Not Applicable

SUBJECT: UNIT 1 SHUTDOWN DUE TO MAIN GENERATOR STATOR COOLING WATER LEAK

At 3:00 p.m., (EDT) on May 17, 2008, the licensee tripped the unit 1 reactor, from minimal load, to implement troubleshooting and repair activities on the main generator. Initial indications, on May 16, 2008, led the licensee to believe that a leak existed on the main generator stator cooling water system. This was evidenced by an increase in indicated stator temperature, hydrogen present in the stator water cooling system, and an apparent reduction in main generator hydrogen pressure. The licensee initially began lowering reactor power at three percent per hour with the intent of reducing main generator heat load to an allowable point with the degraded stator water cooling system. The planned power reduction was successful at reducing heat load to an allowable amount; however, shutdown of the main generator appeared inevitable and the licensee decided to take the unit off line to perform repairs. Initial estimates anticipate that the repairs could take greater than 72 hours depending on the source and severity of the needed repairs.

The Licensee notified Rhea County and the State of Tennessee.

The Resident Inspectors monitored the licensee's shutdown of the reactor plant and response to the event. Tennessee Valley Authority is responding to media inquires.

Region II received initial notification of this occurrence by telephone from the NRC resident inspector at the site. This information presented herein has been discussed with the licensee and is current as of 1:41 p.m. EDT on May 19, 2008.

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