

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

PHONE (205) 729-0867

NRC USE ONLY

LER SUPPLEMENTAL INFORMATION

BFRO-50- 259 / 83009 Technical Specification Involved 3.9.A

Reported Under Technical Specification 6.7.2.a.(9) * Date Due NRC 3/9/83

Event Narrative:

Unit 1 was in end-of-cycle coastdown at 94-percent power; unit 2 was in a refueling outage; unit 3 was operating normally at 99-percent power. TVA Engineering Design performed an analysis on the Browns Ferry emergency diesel-generator engine coolers using procurement specifications and a cooling water (EECW) flow rate of 200 gallons per minute per cooler. This analysis indicated that the engine cooling water temperature might exceed the 190°F "Hot Engine" alarm setpoint when the EECW (river water) temperature exceeds 76°F. This analysis was compared to recent test data and it was concluded that while this 76°F maximum EECW temperature was much too conservative, the possibility exists that the coolers may not be capable of maintaining the engine jacket water below the 190°F alarm setpoint under the following conditions: diesel generator at full power, coolers fouled to the procurement specification maximum fouling factor of 0.002, EECW temperature at the 95°F design maximum specified by the FSAR, and EECW flow rate set at 200 gallons per minute per

* Previous Similar Events:

NONE

Retention: Period - Lifetime; Responsibility - Document Control Supervisor

*Revision: JRP

Event Narrative (Continued)

cooler. This creates the potential for violation of Technical Specifications 3.9.A and 3.9.B. Jacket water temperatures above the alarm setpoint cause the diesel generators to become inoperable and the unit to be shutdown, or if already shutdown, to remain in cold shutdown.

A request has been submitted to the manufacturer, Bruce GM Diesel, Inc., to raise the "Hot Engine" alarm setpoint to 200°F. This is the setpoint prescribed for the Hartsville/Phipps Bend HPCS diesels, which are of similar design and size. The possibility of raising the EECW flow rate to the coolers is also being investigated, and test data is being carefully analyzed. Further testing is planned for the near future to determine a more realistic maximum allowable EECW temperature for the current configuration. Current EECW (river) temperature is about 50°F. There was no effect on public health and safety. Sufficient corrective action will be taken and a follow-up report issued before river temperature reaches a point where diesel operability will be impaired.