



PECO ENERGY

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SUBJECT: Peach Bottom Atomic Power Station - Unit 2 & 3
Special Report for a Valid Failure of the E-4 Emergency Diesel
Generator on 7/6/94

REFERENCE: Peach Bottom Atomic Power Station Technical Specification
(Tech Spec) 4.9.A.1.2.L and M

This Special Report is submitted pursuant to the requirements of Tech Spec 4.9.A.1.2.M. This Surveillance Requirement requires reporting of all Emergency Diesel Generator (EDG) failures, valid or non valid, within 30 days. This report is required to include the information recommended in Regulatory Position C.3.b of Regulatory Guide (RG) 1.108 "Periodic Testing of Diesel Generator Units as Onsite Electric Power System at Nuclear Power Plants", Revision 1, August 1977.

On 7/6/94 at 0115 hours with Unit 2 at approximately 92 % power and Unit 3 at 100 % power, a Nuclear Plant Operator noticed during the performance of a routine Surveillance Test (ST) that the E-4 Emergency Service Water (ESW) EDG Cooling Outlet Valve (AO-330241D) failed to open per its design. Cooling water is provided to the EDG through the ESW Cooling Water Valve during diesel operation. The E-4 EDG was immediately shutdown. Troubleshooting was conducted which determined that the cause of the condition was a stuck solenoid valve (SV-330241D). The SV is normally energized to keep the valve closed when the diesel is off and to allow the valve to fail open (safe condition) under loss of electrical power. However, since the SV became stuck, the ESW valve air operator could not port its air, and the valve did not open when the diesel was started.

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The same SVs were verified to be operable on the other EDGs following discovery of the event. The SV on the E-4 EDG was replaced and successfully tested. The EDG was returned to an operable status at approximately 1630 hours. In addition, a TPA was installed on all four EDG SVs and the Emergency Core Cooling System Room Cooler SVs. This TPA placed the Air Operated Valves controlled by these type SVs in the open (fail safe) position to ensure that cooling water is provided to the associated equipment until a permanent resolution is implemented.

The cause of the event is due to the SV spuriously sticking. PECO Engineering had already been evaluating replacement valves prior to this event due to previous SV failures. It is expected that these type SVs will be replaced prior to the end of this year.

The E-4 EDG failure was classified as a valid failure using the guidance of RG 1.108, Revision 1, 1977. Because this occurrence was classified as a valid failure and is the first valid failure in the last 100 valid tests, the current surveillance testing interval will be maintained at once per 31 days which is in conformance with RG 1.108, Revision 1, Section C.2.d.

During the course of this event, the E-4 EDG was considered inoperable approximately 15 hours 15 minutes. If a design bases Loss of Coolant Accident / Loss of Offsite Power condition occurred with the E-4 EDG unavailable for service, the remaining EDGs were operable and would have provided adequate AC power to safety related loads.

If you have any questions or require additional information, please do not hesitate to contact us.

Sincerely,



GDE/GAJ:gaj

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