

PHILADELPHIA ELECTRIC COMPANY

2301 MARKET STREET

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PHILADELPHIA, PA. 19101

(215) 841-4000

October 7, 1983

Docket No. 50-277

Dr. Thomas E. Murley
Region 1
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA 19406

Dear Dr. Murley:

This Licensee Event Report concerns the failure of one of the turbochargers on the E-3 diesel:

Reference:	Docket No. 50-277
Report No:	83-021/3L-0
Report Date:	October 7, 1983
Event Date:	September 7, 1983
Facility:	Peach Bottom Atomic Power Station, RD 1, Delta, PA 17314

Technical Specification Reference

Technical Specification 3.5.F.1 requires that "During any period when one diesel generator is inoperable, continued reactor operation is permissible only during the succeeding seven days unless such diesel generator is sooner made operable...".

Description of the Event

During surveillance testing of the E-3 diesel generator, operators noted that after approximately 15 minutes of operation the output power became erratic and the exhaust temperatures were indicating high. Prompt investigation discovered the presence of fire in the exhaust.

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Conditions Prior to the Occurrence

Unit 2 was shutdown for maintenance and Unit 3 was in the process of starting up after an extended maintenance outage with the reactor critical but less than one percent thermal power.

Cause of the Event

The investigation revealed that the stationary blading of one of the Elliot turbochargers had come in contact with the turbine severely damaging both. It is postulated that one of the bolts, found intact in the casing, had backed out fully. The remaining three bolts loosened allowing contact of the components which resulted in the shearing off of these bolts. The failure of the turbocharge caused a power reduction in response to which the governor increased the fuel flow. It is assumed that this excess fuel ignited in the exhaust.

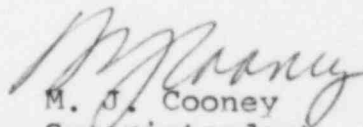
Corrective Actions

The damaged turbocharger was replaced. The second turbocharger for this diesel was also dismantled and inspected with no indications of similar problems or circumstances which could lead to this type of problem. Vendor representative indicated that this was a random failure.

Future Corrective Actions

Pieces of the failed turbocharger have been shipped to the manufacturer for analysis. Future action will be taken pending the results of these analyses.

Very truly yours,



M. J. Cooney
Superintendent
Nuclear Generation Division

cc: Mr. A. R. Blough, Site Inspector
Document Control Desk (NRC)