# LICENSEE EVENT REPORT

	CONTROL BLOCK: [ ] [ ] [ ] (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)
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CON'T	HEPORT L G 0 5 0 - 0 2 7 7 7 0 0 9 0 7 8 3 8 1 0 0 7 8 3 0
0 2	During surveillance testing of E-3 diesel operators noted output power
0 3	was swinging and exhaust temp v s high. Investigation revealed that there
0 4	was a fire in the exhaust. Regining three diesels were operable. One unit
0 6	was shutdown and second unit was at low reactor power starting up from
0 6	extended maintenance outage. Tech. Spec. 3.5.F.1 requires that all diesels
0 7	be operable during unit operation or shutdown be
0 8	initiated within seven days.
0 0	SYSTEM CAUSE SUBCODE  CODE SUBCODE  E E 10  E 12  B 13  E N G I N E 14  COMPONENT CODE SUBCODE
1 0	LEH/RO REPORT YEAR OCCURRENCE REPORT TYPE NO. 10 2 1 20 27 20 20 20 20 30 31 31 31 31 31 31 31 31 31 31 31 31 31
111	reduction. The governor increased the fuel flow as a result. Excess fuel
112	ignited in the exhaust. One bolt of stationary blade had backed out and remaining
1 3	three bolts were sheared off. Stationary blading contacted turbines.
	Turbocharger was replaced and failed pieces are being analyzed.
10	FACILITY % POWER OTHER STATUS 30 METHOD OF DISCOVERY DESCRIPTION 32  C 20 0 0 0 20 U/3 less than 1% B 31 Operator observation
	CCTIVITY CONTENT  AMOUNT OF ACTIVITY 35  AND IN A  LOCATION OF RELEASE 36
44	O O O O O O O O O O O O O O O O O O O
1 18	PERSONNEL INJURIES NUMBER  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
1 9	TYPE DESCRIPTION S PDR ADDCK 05000277 PDR
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	NAME OF PREPARER M. J. Cooney PHONE (215) 81 1-5020

PHILADELPHIA ELECTRIC COMPANY

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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: Report Date:

83-021/3L-0

Event Date:

October 7, 1983 September 7, 1983

Facility:

Peacl 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.

### 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 turbocharges 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,

Superintendent

Nuclear Generation Division

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