



SUSQUEHANNA STEAM ELECTRIC STATION
 PO BOX 467, BERWICK, PA 18603

November 9, 1984

Dr. Thomas E. Murley
 Regional Administrator, Region 1
 U.S. Nuclear Regulatory Commission
 631 Park Avenue
 King of Prussia, PA 19406

SUSQUEHANNA STEAM ELECTRIC STATION
 SPECIAL REPORT - NON-VALID DIESEL FAILURE
 ER 100450 FILE 841-23
 PLAS-008

Docket No. 50-387
 License No. NPF-14

Dear Dr. Murley:

This special report documents the "D" Diesel Generator Non-Valid Failure as required by Regulatory Guide 1.108, Section C.3.b, and Technical Specification 4.8.1.1.3.

At 1010 on October 12, 1984, the "D" Diesel Generator exceeded the ten (10) second start time which is required by Technical Specifications. A successful start was made at 1025 on October 12, 1984, and a loaded one (1) hour run was completed. A start time exceeding ten (10) seconds was again observed at 1130 on October 15, 1984.

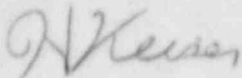
Instrumentation was installed on the "D" Diesel Generator to check various parameters, this included timing of the Fuel Rack Movement. At 1700 on October 15, 1984, the diesel was successfully started, and declared operable at 2000. Several subsequent diesel starts were monitored and the problem was determined to be the Safety Trip Fuel Oil Control Cylinder (USC-7) not venting. This cylinder is expanded when the diesel is shutdown, resulting in closed fuel racks. The venting problem was traced back to the sluggish response of the Safety Trip Control Valve (USCV-9) observed by instrumentation described above. This control valve is an air operated valve and will vent the Safety Trip Control Cylinder (USC-7) immediately upon a start signal. Parts were ordered and the USCV-9 valve was replaced with a new valve. The diesel was restarted satisfactorily in the required time.

This is a 'non-valid' failure since the Fuel Oil Control Cylinder (USC-7) is vented in the emergency mode by two (2) electrically operated solenoid valves, therefore, the Safety Trip Control Valve (USCV-9) is bypassed in the emergency mode. The degradation of the USCV-9 Control Valve was most likely caused by poor control air quality supplied from the starting air compressors. Air dryers are to be installed under PMR 82-761 during the first refueling outage to reduce the moisture problem.

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There are four (4) diesel failures in the last one-hundred (100) starts. The diesels are on a test interval of every three (3) days, per Regulatory Guide 1.108, Section C.2.d. Since this was a non-valid failure the test interval and number of diesel failures did not change.



H.W. Keiser
Superintendent of Plant-Susquehanna

RWS/pjg

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