

LIMITING CONDITIONS FOR OPERATION

3.9.A

SURVEILLANCE REQUIREMENTS

4.9.A (Cont'd)

- b. Once per operating cycle the condition under which the diesel generator is required will be simulated and a test conducted to demonstrate that it will start and accept the emergency load within the specified time sequence. The results shall be logged.
- c. Once a month the quantity of diesel fuel available shall be logged.
- d. Once a month a sample of diesel fuel shall be checked for quality. The quality shall be within the acceptable limits specified in Table 1 of ASTM D975-68 and logged.
- e. Each diesel generator shall be given an annual inspection in accordance with instructions based on the manufacturer's recommendations.

2. Unit Batteries

- a. Every week the specific gravity, the voltage and temperature of the pilot cell and overall battery voltage shall be measured and logged.
- b. Every three months the measurements shall be made of voltage of each cell to nearest 0.1 Volt, specific gravity of each cell, and temperature of every fifth cell. These measurements shall be logged.
- c. The station batteries shall be subjected to a performance test every third refueling outage and a service test during the other refueling outage. In lieu of the performance test every third refueling outage, any battery that shows "signs of degradation or has reached 85% of its service life" shall be subjected to an annual performance test.

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LIMITING CONDITIONS FOR OPERATION

SURVEILLANCE REQUIREMENTS

3.9.A.

4.9.A (Cont'd)

The service test need not be performed on the refueling outage during which the performance test was conducted. The specific gravity and voltage of each cell shall be determined after the discharge and logged.

3. Swing Buses

- a. Every two months the swing buses supplying power to the Low Pressure Coolant Injection System (LPCIS) valves shall be tested to assure that the transfer circuits operate as designed.

4.9 BASES (Cont'd.)

Periodic tests between refueling outages verify the ability of the diesel generator to run at full load and the core and containment cooling pumps to deliver full flow. Periodic testing of the various components, plus a functional test one-a-cycle, is sufficient to maintain adequate reliability.

Although station batteries will deteriorate with time, utility experience indicates there is almost no possibility of precipitous failure. The type of surveillance described in this specification is that which has been demonstrated over the years to provide an indication of a cell becoming irregular or unserviceable long before it becomes a failure. In addition, the checks described also provide adequate indication that the batteries have the specified ampere hour capability.

The station batteries shall be subjected to a performance test every third refueling outage and a service test during the other refueling outages. This testing frequency complies with the testing requirements of the Institute of Electrical and Electronics Engineers (IEEE) Standard 450 (1975), "Recommended Practice for Maintenance, Testing and Replacement of Large Lead Storage Batteries," and Regulatory Guide 1.129, Revision 1 (February 1978), "Maintenance, Testing and Replacement of Large Lead Storage Batteries for Nuclear Power Plants."

A performance test determines the ability of the battery to meet a specified discharge rate and duration based on the manufacturer's rating. A service test proves the capability of the battery to deliver the design requirements of the dc systems; i.e., supply and maintain in operable status all of the actual emergency loads for the design basis accident. A performance test is the most severe test because the cycling on the battery at manufacturer's rating shortens the service life of the battery. A service test is performed at design load instead of manufacturer's ratings.

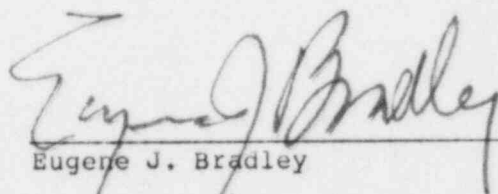
The diesel fuel oil quality must be checked to ensure proper operation of the diesel generators. Water content should be minimized because water in the fuel could contribute to excessive damage to the diesel engine.

When it is determined that some auxiliary electrical equipment is out-of-service, the increased surveillance required in Section 4.5.F is deemed adequate to provide assurance that the remaining equipment will be operable.

The test interval for the Emergency Service Water System, plus the ESW booster pumps, Emergency Cooling Tower fans, and pump room fans associated with the ESW pumps is deemed adequate to provide assurance that the equipment will be operable based on good engineering judgment and system redundancy, plus the additional testing accomplished when the diesel generators are tested. Pump flow tests during normal operation will be performed by measuring the shut-off head.

CERTIFICATE OF SERVICE

I certify that service of the foregoing Application was made upon the Commonwealth of Pennsylvania, by mailing a copy thereof, via first-class mail, to Thomas R. Gerusky, Director, Bureau of Radiological Protection, P. O. Box 2063, Harrisburg, PA 17120, all this 12th day of April, 1984.

A handwritten signature in cursive script, reading "Eugene J. Bradley", written over a horizontal line.

Eugene J. Bradley

Attorney for
Philadelphia Electric Company