

- c. The specific gravity, for each cell, is greater than or equal to 1.190 when corrected to 77°F. The electrolyte temperature of every fifth cell (Diesel; every fourth cell) shall be recorded for surveillance review.
3. At least once each 24 months, the following tests will be performed.
  - a. Battery service test demonstrating the battery's capacity to supply the design duty cycle loads.
  - b. Battery low voltage annunciators are verified to pick up at 115 volts  $\pm$  1 volt and to reset at 125 volts  $\pm$  1 volt (Diesel; 112 volts  $\pm$  1 volt.
4. Demonstrate the battery capacity is at least 80% of the manufacturer's rating when subjected to a performance discharge test.

Performance tests shall be performed at 5 year intervals until the battery capacity is less than 90 percent of the manufacturer's rating. Subsequent performance tests will be provided each refueling outage.

**Basis:** The biweekly tests of the diesel generators are primarily to check for failures and deterioration in the system since last use. The manufacturer has recommended the two week test interval, based on experience with many of their engines. One factor in determining this test interval (besides checking whether or not the engine starts and runs) is that the lubricating oil should be circulated through the engine approximately every two weeks. The diesels should be loaded to at least 20% of rated power until engine and generator temperatures have stabilized (about one hour). The minimum 20% load will prevent soot formation in the cylinders and injection nozzles. Operation up to an equilibrium temperature ensures that there is no over-heat problem. The tests also provide an engine and generator operating history to be compared with subsequent engine-generator test data to identify and correct any mechanical or electrical deficiency before it can result in a system failure.

9004230139 900411  
PDR ADOCK 05000219  
P PDR