ATTACHMENT A

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b. At least once per 92 days and within 7 days after a battery discharge with battery terminal voltage below 110 -volts, or battery overcharge with battery terminal voltage above 150 -volts, by verifying that:

1. The parameters in Table 3.8-1 meet the Category B limits.

2. There is no visible corrosion at either terminals or connectors, or the connection resistance of these items is less than 150 x 10^{-6} ohms, and

3. The average electrolyte temperature of every tenth cell of connected cells is above (60°F).

c. At least once per 18 months by verifying that:

1. The cells, cell plates, and battery racks show no visual indication of physical damage or abnormal deterioration,

2. The cell-to-cell and terminal connections are clean, tight, and coated with anti-corrosion material.

3. The resistance of each cell-to-cell and terminal connection is less than or equal to 150 x 10^{-6} ohms; and

4. The battery charger will supply at least (100) amperes at 140 -volts for at least (4) hours.

d. At least once per 18 months, during shutdown, by verifying that the battery capacity is adequate to supply and maintain in OPERABLE status all of the actual or simulated emergency loads for the 2-hour design duty cycle when the battery is subjected to a battery service test.[1]

e. At least once per 60 months, during shutdown, by verifying that the battery capacity is at least 80% of the manufacturer's rating when subjected to a performance discharge test. Once per 60-month interval, this performance discharge test may be performed in lieu of the battery service test.

f. At least once per 18 months, during shutdown, performance discharge tests of battery capacity shall be given to any battery that shows signs of degradation or has reached 85% of the service life expected for the application. Degradation is indicated when the battery capacity drops more than 10% of rated capacity from its average on previous performance tests, or is below 90% of the manufacturer's rating.

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[1] Load testing conducted pursuant to IEEE 450 1980 based on actual or simulated emergency loads will be performed at the 4th refueling outage and at 18-month intervals thereafter.

ATTACHMENT B

Safety Evaluation

Proposed Change Request No. 103 amends the Beaver Valley Power Station, Unit No. 1 Technical Specifications, Appendix A to require performance of a battery service test during the fourth refueling outage and every 18 months thereafter.

Description and Purpose of Change

Surveillance Requirement 4.8.2.3.2.d has been revised by adding note (1) to require performance of a battery service test during the fourth refueling outage and at 18-month intervals thereafter. To comply with the present specification, i.e. "verify that battery capacity is adequate to supply and maintain in operable status all of the actual or simulated emergency loads for the two-hour design duty cycle for the battery service test", the plant must be shutdown. Therefore, to continue plant operation, this test will be performed during the next refueling outage expected to begin in October 1984.

Basis

1. Is the probability of an occurrence or the consequence of an accident or malfunction of equipment important to safety as previously evaluated in the UFSAR increased? No

   Reason:

   The change is administrative in nature and does not physically change the station batteries or related components and does not affect the system description in UFSAR Section 8. Past discharge test results on the batteries at 8 hour-225 amp rates indicate that the batteries are OPERABLE.

2. Is the possibility for an accident or malfunction of a different type than previously evaluated in the UFSAR created? No

   Reason:

   The system operation will not be affected by the proposed change. Therefore, since this is an administrative change, the possibility for a different type of accident or malfunction than previously evaluated in the accident analysis of UFSAR Section 14 will not be created.

3. Is the margin of safety as defined in the basis for any Technical Specification reduced? No

Reason:

This change does not affect the margin of safety defined in Technical Specification Bases 3/4.8.1 or 3/4.8.2 A.C. Sources, D.C. Sources and Offsite Power. The battery capacity testing requirements will remain unchanged, therefore, the margin of safety will not be reduced.

4. Based on the above, is an unreviewed safety question involved? No.

Conclusion

The proposed change is administrative in nature and does not involve a physical change to plant safety-related systems, components or structures, will not increase the likelihood of a malfunction of safety-related equipment, increase the consequence of an accident previously analyzed, nor create the possibility of a malfunction different that previously evaluated in the UFSAR. The change is necessary to defer testing of the batteries at rates that are higher than those previously utilized and will require procurement of additional test equipment and procedure changes to facilitate the testing. A review of section 8.5.3 of the FSAR indicates that substantial margin is available in the safety factor applied to the original battery design specifications. Specifically, the two-hour battery cycle test assumes that:

- the battery charger is inoperable
- a 25% safety factor in the worst case loading
- a 24% safety factor in the final cell voltage and temperature

Based on the conservatism in the design and the existing margin to the manufacturer's capacity rating from previous test results (see Attachment 1), we conclude that deferring the test interval on a one-time basis is safe and is not a significant hazard pursuant to 10CFR50.92.

ATTACHMENT 1

Station Battery Capacity Test History

NO. 1	APPROXIMATELY A RATE OF 225 AMPS	
	2-10-76	97.8% of manufacturer's capacity
	3-6-82	95.3%
NO. 2	APPROXIMATELY A RATE OF 225 AMPS	
	2-10-76	98.4%
	3-2-81	98.12%
NO. 3	APPROXIMATELY A RATE OF 225 AMPS	
	10-24-75	*
	5-20-79	105.6%
	7-19-83	100.8%
NO. 4	APPROXIMATELY A RATE OF 225 AMPS	
	10-24-75	*
	5-22-79	94.8%
	8-5-83	91.25%

* Tests were only run for three hours at the eight-hour rate. At this time the % capacity was not obtainable.

Acceptance Criteria > 80% Capacity