ATTACHMENT I TO IPN-92-041

PROPOSED TECHNICAL SPECIFICATION CHANGE

RELATED TO

BATTERY LOAD TESTING AND 24 MONTH OPERATING CYCLES

NEW YORK POWER AUTHORITY
INDIAN POINT 3 NUCLEAR POWER PLANT
DOCKET NO. 50-286
DPR-64

4. Each diesel generator shall be inspected and maintained following the manufacturer's recommendations for this class of stand-by service.

The above tests will be considered satisfactory if the required minimum safeguards equipment operates as designed.

B. Station Batteries

1. Every month the voltage of each cell, the specific gravity and temperature of a pilot cell in each battery and each battery voltage shall be measured and recorded.

2. Every 3 months each battery shall be subjected to a 24 hour equalizing charge, and the specific gravity of each cell, the temperature reading of every fifth cell, the height of electrolyte, and the amount of water added shall be measured and recorded.

3. At each time data is recorded, new data shall be compared with old to detect signs of abuse or deterioration.

4. At least once per 24 months each battery shall be subjected to a load test and a visual inspection of the plates.

Basis

The tests specified are designed to demonstrate that the diesel generators will provide power for operation of equipment. They also assure that the emergency generator system controls and the control systems for the safeguards equipment will function automatically in the event of a loss of all normal 480v AC station service power.

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The testing frequency specified will be often enough to identify and correct any mechanical or electrical deficiency before it can result in a system failure. The fuel supply is continuously monitored. An abnormal condition in these systems would be signaled without having to place the diesel generators themselves on test.

Each diesel generator has a continuous rating of 1750 kw and a 2000 HR rating of 1950 kw. Two diesels can power the minimum safeguards loads.

Station batteries will deteriorate with time, but precipitous failure is extremely unlikely. The surveillance specified is that which has been demonstrated over the years to provide an indication of a cell becoming unserviceable long before it fails. The periodic equalizing charge will ensure that the ampere-hour capability of the batteries is maintained.

The 24 month load test for each battery, together with the visual inspection of the plates, will assure the continued integrity of the batteries. The batteries are of the type that can be visually inspected, and this method of assuring the continued integrity of the battery is proven standard power plant practice.

Reference

FSAR, Section 8.2

Amendment No.

ATTACHMENT II TO IPN-92-041

SAFETY EVALUATION

RELATED TO

BATTERY LOAD TESTING AND 24 MONTH OPERATING CYCLES

TECHNICAL SPECIFICATION CHANGE

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Section I - Description of Change

Starting with cycle nine (that began in August, 1992), Indian Point 3 began operating on 24 month cycles, instead of the previous 18 month cycles. This application for amendment to the Indian Point 3 Technical Specifications proposes to change the frequency of battery load testing to accommodate operation with a 24 month operating cycle.

Section II - Evaluation of Change

Starting with cycle nine (that began in August, 1992), Indian Point 3 began operating on 24 month cycles, instead of the previous 18 month cycles. To avoid either an 18 month surveillance outage or an extended mid-cycle outage, changes are required to the system surveillance test intervals. In evaluating the extension of surveillance intervals to be consistent with the length of the operating cycle, the following factors were considered: the importance of the refueling tests (i.e., does on-line testing demonstrate operability, or are failures only being detected during the refueling tests?), past equipment performance (and the effect on system safety functions), and the burden of performing tests during power operation.

Station Battery Load Testing

The station batteries are normally maintained fully charged by their associated battery chargers. Periodically, an equalizing charge is performed, to ensure that all cells are equally charged. The purpose of the station battery load test is to determine the capacity of the batteries, and to assure that the cells and connections have not experienced excessive deterioration.

Station battery operability problems can be detected by on-line testing. On-line testing includes:

- Weekly visual inspections and voltage checks,
- Monthly checks of cell voltages, electrolyte level, electrolyte temperature, and pilot cell specific gravities, and
- A quarterly charging test to equalize charge and monitor for battery deterioration.

A review of surveillance test records from 1986 - 1990 showed satisfactory results for the battery capacity test. Additionally, a review of operating occurrence reports from 1985 to mid-1991 did not reveal cycle dependent problems with the station batteries. Please note that batteries 31 and 32 were recently replaced during the 1992 (cycle 8/9) refueling outage.

The station battery load test can safely be extended to accommodate the longer operating cycle because on-line testing and inspections provide assurance of the operability of the station battery, and a review of the test records and operating occurrence reports confirmed that the past performance of the batteries has been satisfactory. Additionally, industry standard IEEE 450-1987 recommends that performance tests of battery capacity be made within the first two years of service and then at five year intervals, until they show signs of degradation. The proposed battery capacity test interval for the IP3 station batteries is more frequent than that recommended by IEEE 450-1987.

Section III - No Significant Hazards Evaluation

Consistent with the requirements of 10 CFR 50.92, the enclosed application is judged to involve no significant hazards based on the following information:

(1) Does the proposed license amendment involve a significant increase in the probability or consequences of any accident previously evaluated?

Response:

The proposed change does not involve a significant increase in the probability or consequences of any accident previously analyzed. The change proposes extending the surveillance interval for battery load testing. The change does not involve any physical changes to the plant, nor does it alter the way any equipment functions. Other battery testing provides assurance of system operability. An evaluation of past equipment performance provides additional assurance that the longer surveillance intervals will not degrade system performance.

(2) Does the proposed license amendment create the possibility of a new or different kind of accident from any previously evaluated?

Response:

The proposed change does not create the possibility of a new or different kind of accident from any previously evaluated. The change proposes extending the surveillance interval for battery load testing. The change does not involve any physical changes to the plant, nor does it alter the way any equipment functions. Other battery testing provides assurance of system operability. An evaluation of past equipment performance provides additional assurance that the longer surveillance intervals will not degrade system performance.

(3) Does the proposed amendment involve a significant reduction in a margin of safety?

Response:

The proposed change does not involve a significant reduction in a margin of safety. The change proposes extending the surveillance interval for battery load testing. The change does not involve any physical changes to the plant, nor does it alter the way any equipment functions. Other battery testing provides assurance of system operability. An evaluation of past equipment performance provides additional assurance that the longer surveillance intervals will not degrade system performance.

Section IV - Impact of Change

This change will not adversely impact the following:

ALARA Program
Security and Fire Protection Programs
Emergency Plan
FSAR and SER Conclusions
Overall Plant Operations and the Environment

Section V - Conclusions

The incorporation of this change: a) will not increase the probability nor the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the Safety Analysis Report; b) will not increase the possibility for an accident or malfunction of a different type than any evaluated previously in the Safety Analysis Report; c) will not reduce the margin of safety as defined in the bases for any technical specification; d) does not constitute an unreviewed safety question; and e) involves no significant hazards considerations as defined in 10 CFR 50.92.

Section VI - References

1) IP3 SER
2) IP3 FSAR