



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 64 TO FACILITY OPERATING LICENSE NO. NPF-69
NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT NUCLEAR STATION, UNIT 2
DOCKET NO. 50-410

1.0 INTRODUCTION

By letter dated October 21, 1994, Niagara Mohawk Power Corporation (the licensee) submitted a request for changes to the Nine Mile Point Nuclear Station, Unit 2 (NMP-2), Technical Specifications (TSs). The requested changes would revise TS 4.8.1.1.2.a.8 to add a footnote which would permit performance of the 24-hour functional test of the emergency diesel generators (EDGs) during power operation. TS 4.8.1.1.2.a.8 currently requires that the 24-hour functional test of the EDGs be performed at least once per 18 months during shutdown; the proposed change would permit this testing to be performed during power operation provided the other two EDGs are operable. If either of the other two EDGs become inoperable, the test would be aborted. This change to TS 4.8.1.1.2.a.8 would provide testing flexibility and significant cost savings without a reduction in safety.

2.0 BACKGROUND

The emergency power system at NMP-2 is divided into three physically separate and electrically independent divisions designated divisions I, II, and III. Each division is equipped with a dedicated EDG and any two out of these three divisions has the capacity and capability to safely shut down the reactor in case of a loss-of-coolant accident (LOCA) or other design basis accident (DBA). The safety function of the EDGs is to supply AC electrical power to plant safety systems whenever the preferred AC power supply is unavailable.

3.0 EVALUATION

The licensee proposed an amendment to the EDG 24-hour functional test at NMP-2 to provide testing flexibility and cost savings. The licensee proposed to perform this test during power operation because of the system alignment during the test, and the EDG's ability to remain operable and available to perform its safety function of supplying emergency power.

During the 24-hour functional test at NMP-2, the EDG is loaded by paralleling with the offsite power system. However, only one EDG is paralleled to the offsite source at any one time. Should an accident occur while an EDG is under test, the accident signal overrides the test mode, returns the diesel to

9503140024 950307
PDR ADDCK 05000410
P PDR



standby operation, and the offsite power continues to energize the necessary loads. This function is tested once per cycle in accordance with TS 4.8.1.1.2.e.11. If the event involves a loss of offsite power, the EDG will be ready to supply the loads within the required time.

In the event of a loss-of-offsite power (LOOP) to the bus paralleled to the grid without an accident, the EDG being tested would automatically separate from the offsite source and a load shedding sequence would be initiated on the safety buses. The diesel would then be ready to supply all necessary loads. If a perturbation on the offsite source caused a failure of the EDG under test, the EDGs on the remaining divisions would be available to feed the loads due to the independence that is maintained between the divisions during testing.

At NMP-2 the diesel generators are paralleled to the grid during power operation to satisfy a monthly 1-hour TS surveillance requirement. There will be no difference between the system lineup for this monthly test of the diesel and the lineup of the diesel during the 24-hour functional test. The licensee will only perform the test during power operation provided that the other remaining diesel generators are operable. In addition, the NRC staff will require that the licensee verify that the remaining divisions have the necessary equipment operable to mitigate the consequences of DBA or LOOP, and have procedures with provisions to avoid paralleling EDGs to the offsite source during severe weather or unstable grid conditions.

The NRC staff concludes that although performance of the 24-hour EDG functional test during power is contrary to the NRC's Standard Technical Specifications, performance of this test during power operation is acceptable due to the followings provisions:

1. The EDGs are equipped with a feature that allows the EDGs to automatically switch from the test mode to the standby mode on the receipt of an accident signal. For example, if the EDG receives a accident signal while in the test mode (paralleled to the grid) the EDG has the capability to automatically disconnect from the offsite power system, return to the standby mode, and supply power to the necessary loads within the required time.
2. During the 24-hour test of an EDG, no other EDG is operated in parallel with the offsite power grid, and the remaining redundant divisions are supplied from a separate independent offsite source. This configuration assures that only one EDG is susceptible to grid perturbations and independent safe shutdown capability is maintained.
3. Assuming a LOOP and a single failure of an EDG, adequate capacity is available from the remaining EDGs to power the remaining divisions, and the remaining divisions will have the required equipment operable to mitigate the consequences of a DBA or LOOP.
4. The EDGs will not be paralleled to the offsite systems during severe weather or unstable grid conditions.



4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the New York State official was notified of the proposed issuance of the amendment. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes a surveillance requirement. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (59 FR 55875). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: M. D. Pratt

Date: March 7, 1995



12 1/2

12 1/2

1