



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 62 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 November 14, 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 4.5.1.e.2.e) to reduce the leak rate test pressure for the Automatic Depressurization System (ADS) nitrogen receiving tanks from 385 psig to 365 psig.

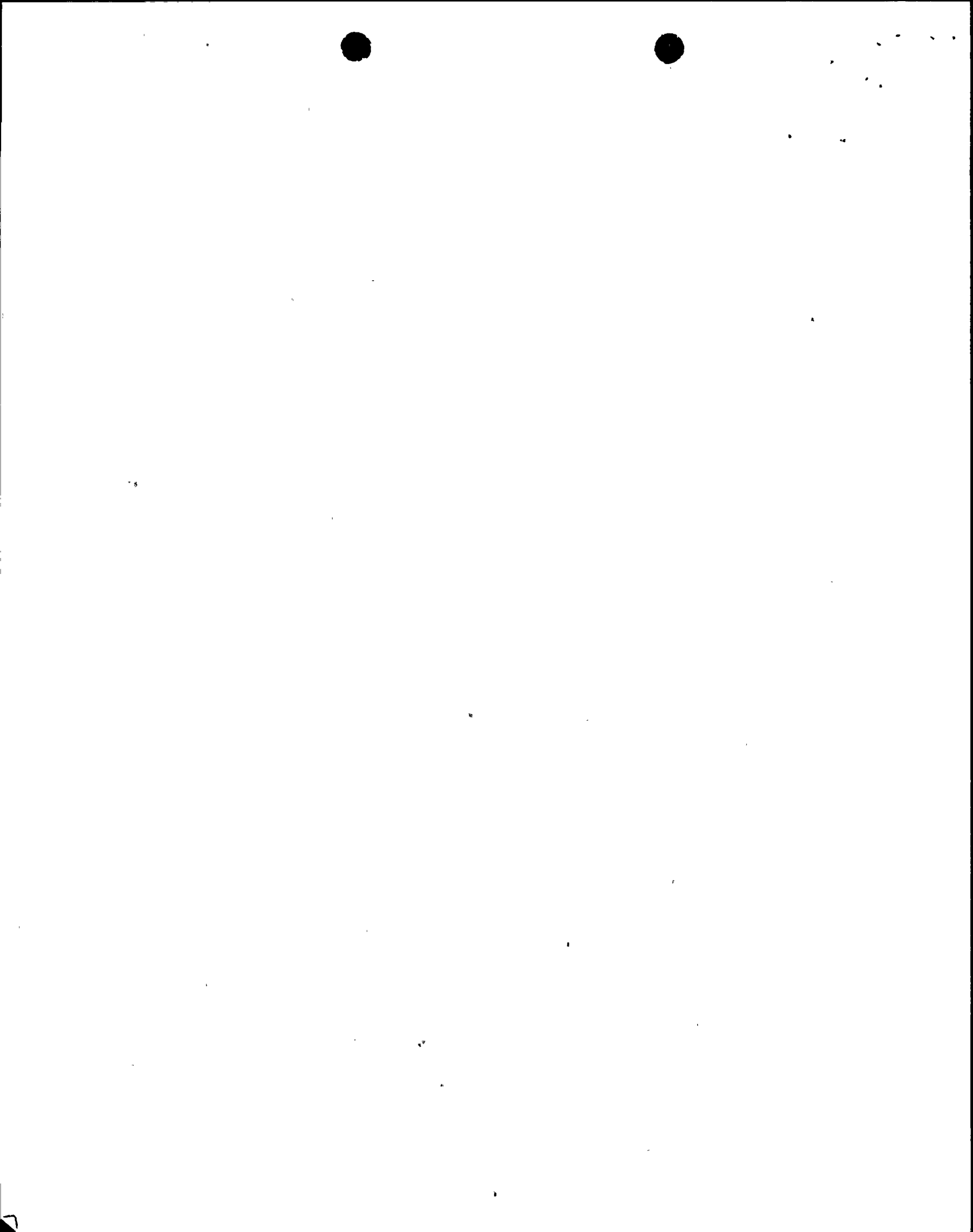
2.0 EVALUATION

The NMP-2 ADS is designed to provide automatic depressurization of the reactor coolant system (RCS) by activating (opening) 7 safety/relief valves (SRVs). The SRVs depressurize the RCS by venting steam from the reactor vessel to the suppression pool. The ADS is used if the high pressure core spray system cannot maintain reactor water level following a loss-of-coolant accident. The ADS reduces RCS pressure to permit flow from the low pressure core spray system and the low pressure coolant injection mode of the residual heat removal system to be injected into the core.

In the ADS mode, each of the ADS SRVs is opened by compressed nitrogen from its respective accumulator via a solenoid valve. Nitrogen is supplied to the accumulators from two nitrogen receiving tanks which are supplied from high-pressure nitrogen storage tanks located outside the reactor building. Two nitrogen receiving tanks are provided; one tank provides nitrogen to three ADS accumulators and associated ADS SRVs while the second tank provides nitrogen to four ADS accumulators and associated ADS SRVs.

The receiving tanks provide sufficient inventory of nitrogen to make up for allowable system leakage and to maintain the accumulators charged for 5 days (with one additional sustained SRV actuation during the 5 days) after initial actuation of the ADS without any makeup from the high-pressure nitrogen storage tanks provided the nitrogen receiver tanks are initially pressurized to at least 334 psig. TS 4.5.1.e.2.e) currently requires leak rate testing of the ADS accumulator pneumatic supply system with the ADS nitrogen receiving tanks at 385 psig to demonstrate the OPERABILITY (leakage rate within

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allowable system leakage) of the ADS. The specified leak test pressure of 385 psig was selected since this is the maximum pressure which can occur in the receiving tanks without exceeding the tanks' high pressure alarm setpoint of 380 psig plus 5 psig for instrument inaccuracies. The high pressure alarm is intended to alert the operator of an impending overpressure condition and tank relief valve lift. The tank overpressure protection scheme includes a rupture disk in series with and on the inlet side of the relief valve.

Previous surveillance tests have resulted in the bursting of several rupture disks installed in the receiving tanks overpressure protection scheme. The licensee consulted with the rupture disk manufacturer and determined that the subject rupture disks should not be operated at pressures in excess of 367 psig since at pressures approaching the burst pressure, plastic deformation occurs that can reduce the burst pressure of the rupture disk. Therefore, the licensee has proposed to reduce the test pressure for the receiving tanks to 365 psig. The licensee would also reduce the tanks' high pressure alarm setpoint to 360 psig so that the tanks' pressure should not exceed 365 psig (360 psig plus 5 psig for instrument inaccuracies). Reducing the test pressure for the tanks from 385 psig to 365 psig is not expected to have any significant effect on the licensee's ability to detect nitrogen leakage from the ADS accumulator pneumatic supply system.

The tanks' low pressure alarm setpoints (340 psig) would be unchanged. This setpoint ensures that the tanks will contain sufficient inventory of nitrogen to assure that the ADS SRVs will continue to be able to perform their design function.

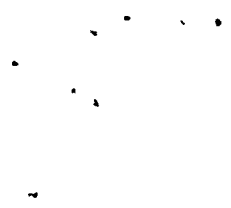
Based on the foregoing, we have concluded that the proposed change is acceptable.

3.0 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.

4.0 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 65817). 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.

5.0 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.

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Date: January 31, 1995

