



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 43 TO FACILITY OPERATING LICENSE NO. DPR-63

NIAGARA MOHAWK POWER CORPORATION

NINE MILE POINT NUCLEAR STATION, UNIT NO. 1

DOCKET NO. 50-220

1.0 Introduction

By letter dated October 15, 1980 the Niagara Mohawk Power Corporation (licensee) proposed changes to the Technical Specifications (TS) appended to Facility Operating License No. DPR-63. The proposed changes were submitted in response to a July 7, 1980 request by the NRC staff which was intended to strengthen the provisions for assuring continued operability of the control rod drive system during reactor operation. A subsequent letter dated April 1, 1981 proposed additional changes to the TSs in support of modifications being made to the control rod drive scram discharge system at Nine Mile Point 1 during the spring 1981 refueling outage. These changes are necessary before plant operation with the modified system.

2.0 Discussion

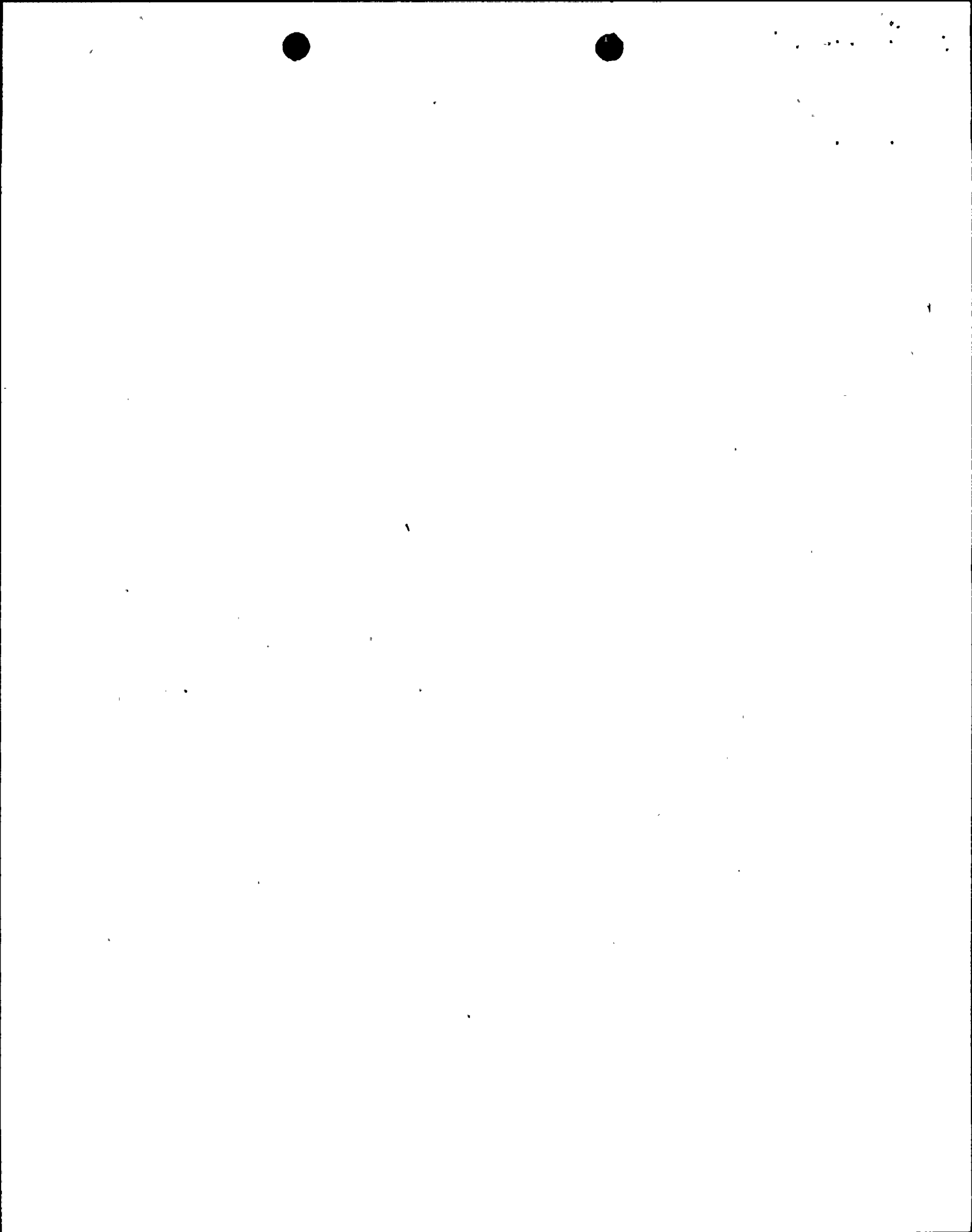
2.1 Scram Discharge Volume Limit Switches and Valves

Our letter of July 7, 1980 requested all operating BWR licensees to propose TS changes that would provide surveillance requirements for scram discharge volume (SDV) vent and drain valves and LCO/surveillance requirements for the RPS scram and control rod block scram discharge volume limit switches on instrument volume level. Model Standard Technical Specifications (STS) were included as guidance to the licensees in an enclosure to the July 7 letter. This request was generated as a result of events at operating BWR's involving common cause failures of SDV limit switches and SDV drain valve operability.

2.2 Scram Discharge Volume Modifications

Our letter dated December 9, 1980 forwarded the staff's Generic Safety Evaluation Report (SER) regarding the BWR Scram Discharge System to all BWR licensees. The SER provided design criteria for SDV modifications proposed as the result of the Browns Ferry 3 partial scram event of June 28, 1980. Certain BWRs were determined to have insufficient drainage

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capability between the scram discharge volume and the instrument volume (IV). Subsequently, these licensees received Orders dated January 9, 1981 requiring interim measures to support continued operation until such time as the SDV-IV hydraulic coupling improvement modifications were completed.

The Niagara Mohawk Power Corporation filed a request for modification of the Order for Nine Mile Point Nuclear Station, Unit No. 1, on February 6, 1981. A modified Order was issued on March 31, 1981 which permitted the installation of permanent modifications to improve the hydraulic coupling between the scram discharge volume and the scram level instrumentation in lieu of the temporary measures otherwise required to be in place by April 9, 1981. As a result of the required system modifications, the licensee found it necessary to request TS changes in advance of return to power operation post-refueling. The licensee's letter dated April 1, 1981 proposed the necessary TS changes.

3.0 Evaluation

3.1 SDV Vent & Drain Valves

We required periodic surveillance testing on the scram discharge volume drain and vent valves to verify operability. The licensee's proposal provided the requested surveillance requirements. The licensee's proposal further imposed limiting conditions for operation (LCO's) with bases on the SDV vent/drain valves which we find acceptable. We find that the licensee's submittal of October 15, 1980 exceeds our minimum requirements and is, therefore, acceptable.

3.2 IV Level Limit Switches

We required LCO's and periodic surveillance testing on the Reactor Protection System scram level switches and the control rod block level switches. The licensee's response indicated that, with the exception of the monthly instrument channel test on the scram discharge volume water level scram bypass, the Model STS requirements were covered by the present Technical Specifications.

We have reviewed the current specifications (LCO 3.6.2, Tables 3.6.2a, 4.6.2a, 3.6.2g) and determined that adequate provisions are in place for the installed level instrumentation. We also agree that the current (refueling interval) test frequency for the SDV water level bypass function is adequate and a monthly test is not required. A future revision



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to the Standard Technical Specification will reflect this change. Based on this review, we conclude that no changes are necessary to satisfy our request.

3.3 Scram Discharge Volume Modifications

By Order dated March 31, 1981, the licensee was allowed the option of installing permanent modifications to improve the SDV-IV hydraulic coupling, provided that: (1) the modifications are installed prior to power operation after April 9, 1981, (2) the modifications meet Design Criterion 1 in the staff's generic SER, and (3) appropriate Technical Specification changes are approved prior to power operation after April 9, 1981. The licensee's letter of April 1, 1981 proposed to: (1) include LCO/surveillance for the SDV vent/drain valves as reactor coolant system isolation valves, and (2) revise the setpoint for the high SDV water level scram.

The licensee is modifying the scram discharge system vent and drain lines to provide redundant air operated valves to insure isolation capability. This appears to be consistent with the intent of Safety Criterion 2 in the staff's Generic SER and will be subject to a post-implementation design verification by the NRC. The proposed Technical Specifications include LCO/surveillance requirements for the SDV vent/drain valves as a subset of the reactor coolant system isolation valves, and are acceptable.

The licensee is modifying the Instrument Volume by replacing a portion of the 2 inch drain line with 8 inch pipe. This modification will be subject to a post-implementation design review by the NRC to verify conformance with Functional Criterion 1 and Design Criterion 1 in the staff's Generic SER. The proposed Technical Specifications revise the scram level setpoint to conform to the modified instrument volume, and are acceptable.

4.0 Environmental Consideration

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.



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5.0 Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: May 13, 1981



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