



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

NIAGARA MOHAWK POWER CORPORATION

ROCHESTER GAS AND ELECTRIC CORPORATION

CENTRAL HUDSON GAS AND ELECTRIC CORPORATION

NEW YORK STATE ELECTRIC AND GAS CORPORATION

LONG ISLAND LIGHTING COMPANY

DOCKET NO. 50-410

NINE MILE POINT NUCLEAR STATION, UNIT 2

FACILITY OPERATING LICENSE

License No. NPF-54

1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:
 - A. The application for a license filed by the Niagara Mohawk Power Corporation, acting on behalf of itself and as agent for Rochester Gas and Electric Corporation, Central Hudson Gas and Electric Corporation, New York State Electric and Gas Corporation, and Long Island Lighting Company (the licensees)*, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I, and all required notifications to other agencies or bodies have been duly made;
 - B. Construction of the Nine Mile Point Nuclear Station, Unit 2 (the facility) has been substantially completed in conformity with Construction Permit No. CPPR-112 and the application, as amended, the provisions of the Act, and the regulations of the Commission;
 - C. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the regulations of the Commission (except as exempted from compliance in Section 2.D. below);
 - D. There is reasonable assurance: (i) that the activities authorized by this operating license can be conducted without endangering the health

*Niagara Mohawk Power Corporation is authorized to act as agent for the other listed owners and has exclusive responsibility and control over the physical construction, operation and maintenance of the facility.

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and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I (except as exempted from compliance in Section 2.D. below);

- E. Niagara Mohawk Power Corporation is technically qualified to engage in the activities authorized by this license in accordance with the Commission's regulations set forth in 10 CFR Chapter I;
 - F. The licensees have satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations;
 - G. The issuance of this license will not be inimical to the common defense and security or to the health and safety of the public;
 - H. After weighing the environmental, economic, technical and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of Facility Operating License No. NPF-54, subject to the conditions for protection of the environment set forth in the Environmental Protection Plan attached as Appendix B, is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied; and
 - I. The receipt, possession, and use of source, byproduct and special nuclear material as authorized by this license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40 and 70.
2. Based on the foregoing findings regarding this facility, Facility Operating License No. NPF-54 is hereby issued to the Niagara Mohawk Power Corporation, Rochester Gas and Electric Corporation, Central Hudson Gas and Electric Corporation, New York State Electric and Gas Corporation, and Long Island Lighting Company (the licensees) to read as follows:
- A. This license applies to the Nine Mile Point Nuclear Station, Unit 2, a boiling water nuclear reactor, and associated equipment (the facility) owned by Niagara Mohawk Power Corporation, Rochester Gas and Electric Corporation, Central Hudson Gas and Electric Corporation, New York State Electric and Gas Corporation, and Long Island Lighting Company. The facility is located on the licensees' site on the southeast shore of Lake Ontario in the town of Scriba, Oswego County, New York, and is described in the Niagara Mohawk Power Corporation "Final Safety Analysis Report," as supplemented and amended, and in the Environmental Report, as supplemented and amended.
 - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses:
 - (1) Niagara Mohawk Power Corporation, pursuant to Section 103 of the Act and 10 CFR Part 50, to possess, use and operate the facility



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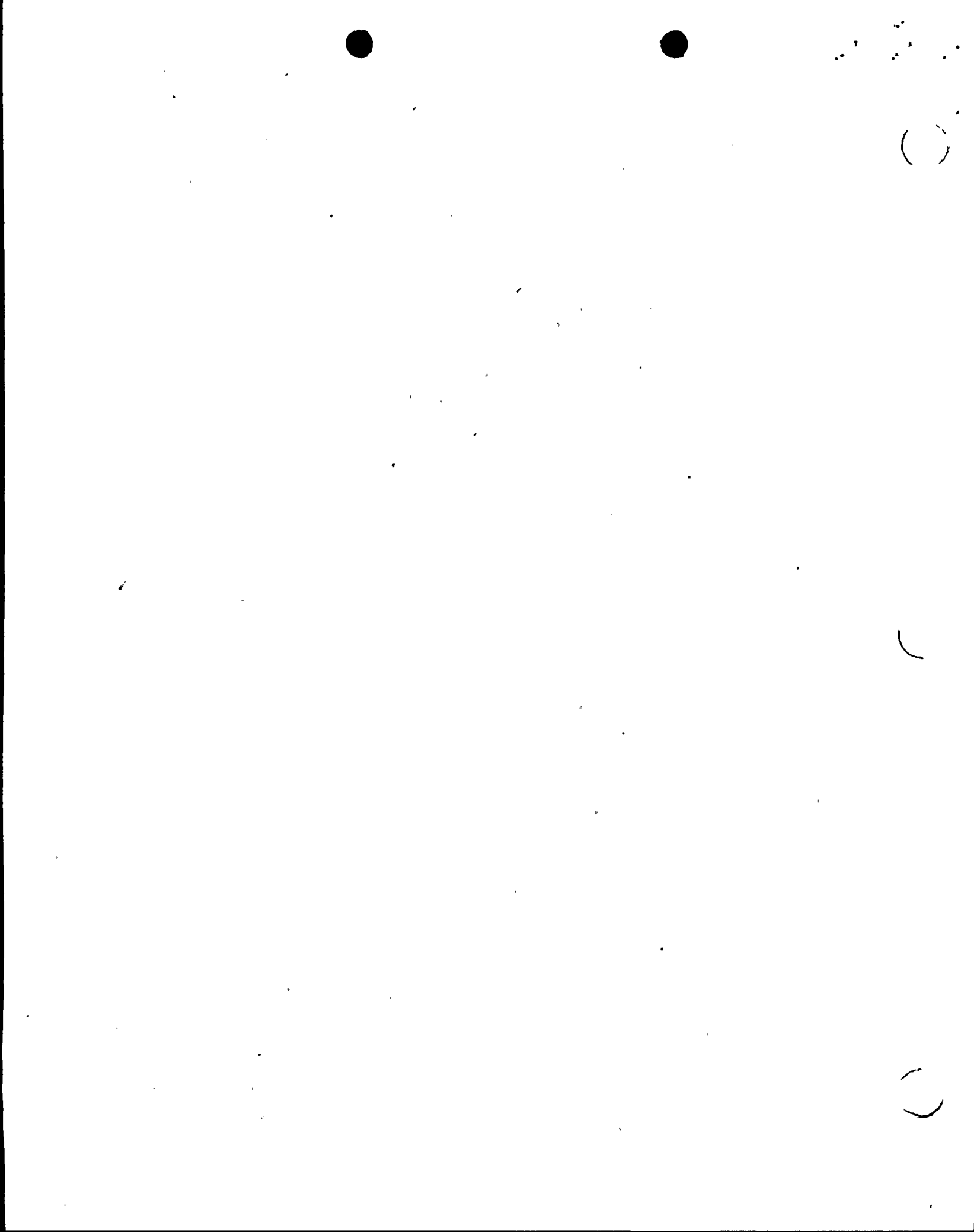
at the above designated location in Oswego County, New York, in accordance with the procedures and limitations set forth in this license;

- (2) Rochester Gas and Electric Corporation, Central Hudson Gas and Electric Corporation, New York State Electric and Gas Corporation, and Long Island Lighting Company, pursuant to Section 103 of the Act and 10 CFR Part 50, to possess the facility at the designated location in Oswego County, New York, in accordance with the procedures and limitations set forth in this license;
- (3) Niagara Mohawk Power Corporation, pursuant to the Act and 10 CFR Part 70, to receive, possess and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;
- (4) Niagara Mohawk Power Corporation, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (5) Niagara Mohawk Power Corporation, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use, in amounts as required, any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- (6) Niagara Mohawk Power Corporation, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

Niagara Mohawk Power Corporation is authorized to operate the facility at reactor core power levels not in excess of 3323 megawatts thermal (100 percent rated power) in accordance with the conditions specified herein and in Attachment 1 to this license.



The preoperational tests, startup tests, and other items identified in Attachment 1 to this license shall be completed as specified. Attachment 1 is hereby incorporated into this license. Pending Commission approval, this license is restricted to power levels not to exceed five percent of rated power (166 megawatts thermal).

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this license. Niagara Mohawk Power Corporation shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

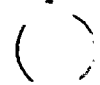
(3) Fuel Storage and Handling (Section 9.1, SSER 4)*

- a. Fuel assemblies, when stored in their shipping containers, shall be stacked no more than three containers high.
- b. When not in the reactor vessel, all fuel assemblies shall be in their shipping containers or storage racks in the New Fuel Vault or in the Spent Fuel Storage Facility except for the following:
 - i. No more than three assemblies shall be allowed above the refueling floor.
 - ii. No more than one fuel assembly shall be below the refueling floor outside the storage racks.
- c. The above four fuel assemblies shall maintain a minimum edge-to-edge spacing of twelve (12) inches from the shipping container array and approved storage rack locations.
- d. The New Fuel Storage Vault shall have no more than ten fresh fuel assemblies uncovered at any one time.

(4) Turbine System Maintenance Program (Section 3.5.1.3.10, SER)

Within three (3) years of the date of this license, Niagara Mohawk Power Corporation shall submit for NRC approval, a turbine system maintenance program based on the manufacturer's calculations of missile-generation probabilities. In addition, Niagara Mohawk Power Corporation shall conduct turbine-steam-valve maintenance (following initiation of power output) in accordance with NRC recommendations.

*The parenthetical notation following the title of many license conditions denotes the section of the Safety Evaluation Report (SER) and/or its supplements wherein the license condition is discussed.



(5) Inservice Testing of Pumps and Valves (Section 3.9.6, SER, SSER No. 3)

Pursuant to 10 CFR 50.55a(g)(6)(i) and for the reasons set forth in Section 3.9.6 of SSER No. 3, the relief identified in the Niagara Mohawk Power Corporation submittal dated November 27, 1985, requesting relief from certain pump and valve testing requirements of the 1980 Edition of ASME Code Section XI through Winter 1981 Addenda is granted for a period of no longer than two years from the date of issuance of this license or until a detailed review of the inservice testing program for pumps and valves, has been completed, whichever comes first.

(6) Inservice Inspection (Sections 5.2.4.3 and 6.6.3, SSER 5)

- a. Niagara Mohawk Power Corporation shall submit an inservice inspection program in accordance with 10 CFR 50.55a(g)(4) for staff review within nine months from the date of this license.
- b. Pursuant to 10 CFR 50.55(a)(3) and for the reasons set forth in Sections 5.2.4.3 and 6.6.3 of SSER No. 5, the relief identified in the Niagara Mohawk Power Corporation's submittal dated October 15, 1985, as revised by submittals dated January 24, May 9, and July 9, 1986, requesting relief from certain requirements of 10 CFR 50.55a(g) for the preservice inspection program, is granted.

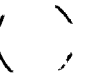
(7) Fire Protection (Section 9.5.1 SER, SSER Nos. 4 and 5)

Niagara Mohawk Power Corporation shall implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report for the facility through Amendment No. 27 and as described in submittals dated March 25, May 7 and 9, June 10 and 25, July 11 and 16, August 19 and 22, September 5, 12, and 23, October 10, 21, and 22, 1986, and as approved in the SER dated February 1985 (and Supplements 1 through 5) subject to the following provision:

Niagara Mohawk Power Corporation may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

(8) Initial Startup Test Program (Section 14, SER, SSER Nos. 4 and 5)

Any changes to the Initial Test Program described in Section 14 of the FSAR made in accordance with the provisions of 10 CFR 50.59 shall be reported in accordance with 50.59(b) within one month of such change.



(9) Operation of the Post-Accident Sampling System (PASS) (Section 9.3.2, SER)

Before exceeding five percent of rated power operation, Niagara Mohawk Power Corporation shall have installed and demonstrated the operability of the Post-Accident Sampling System.

(10) Operation with Reduced Feedwater Temperature (Section 15.1, SSER 4)

Niagara Mohawk Power Corporation shall not operate the facility with reduced feedwater temperature for the purpose of extending the normal fuel cycle. The facility shall not be operated with a feedwater heating capacity less than that required to produce a feedwater temperature of 400°F at rated steady state conditions unless analyses supporting such operations are submitted by the licensee and approved by the staff.

(11) Safety Parameter Display System (SPDS) (Section 18.2, SER)

Prior to startup following the first refueling outage, Niagara Mohawk Power Corporation shall have operational an SPDS that includes the revisions described in their letter of November 19, 1985. Prior to declaring the SPDS operational, adequate testing should be completed to assure that no safety concerns exist regarding the operation of the Nine Mile Point Nuclear Station, Unit No. 2 SPDS.

(12) TMI Item III.D.1.1, Initial Leak Test Results (Section 15.9.4, SSER 3)

In accordance with the schedule described in Niagara Mohawk Power Corporation's letter dated April 21, 1986, Niagara Mohawk Power Corporation shall submit, within two months after completing fuel loading, the initial leak test results for systems outside containment, with the exception of the Reactor Core Isolation Cooling (RCIC) System, along with descriptions of corrective maintenance performed as a direct result of the Niagara Mohawk Power Corporation's evaluation of the leakage program. The leak test results for the RCIC system shall be provided within five months after first exceeding five percent of rated power.

(13) Detailed Control Room Design Review (Section 18.1, SSER 5)

(a) Niagara Mohawk Power Corporation shall implement the activities remaining to complete the Detailed Control Room Design Review and correct all human engineering discrepancies (HEDs) in accordance with the schedule and commitments in letters from C. V. Mangan (NMPC) to E. G. Adensam (NRC) dated June 9, 1986, and August 4 and 21, 1986.



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- (b) Prior to startup following the first refueling outage, Niagara Mohawk Power Corporation shall provide the results of the reevaluation of normally lit and nuisance alarms for NRC review.
- (c) Prior to exceeding five percent of rated power operation, Niagara Mohawk Power Corporation shall complete temporary zone banding of meters in accordance with their August 1986 study. Prior to startup following the first refueling outage Niagara Mohawk Power Corporation shall complete permanent zone banding of meters in accordance with their August 1986 study.

(14) Main Steam Isolation Valves (Section 6.2.4, SSER 5)

In accordance with their letter of October 20, 1986, Niagara Mohawk Power Corporation shall meet the following commitments concerning the main steam isolation valves (MSIVs):

- (a) Confirmatory leak testing will be performed on all eight of the Nine Mile Point Nuclear Station Unit 2 MSIVs, in accordance with the test method for Type C tests discussed in 10 CFR Part 50, Appendix J, III.C, during the first outage following the 100 hour warranty run or within 30 days following the 100 hour warranty run, whichever is earlier. This test is in addition to, not in place of, any required Appendix J testing.
- (b) A prototype test program shall be completed on the MSIVs that will test the modified valve and actuator configuration similar to the MSIVs installed in Nine Mile Point Nuclear Station, Unit 2. The objectives of that program shall be as follows:
 - i) Verification of the mechanical integrity of the valve and the actuator for the expected operating and test cycles.
 - ii) Demonstration of valve leak tightness for the expected valve duty cycles.
 - iii) Demonstration of the ability to close the valve within the Technical Specification limits under normal operating pressure and temperature steam conditions.
 - iv) Verification of the conservatism of the between-the-seat leak test method as an alternative to across-the-valve seat leakage tests.
 - v) Provide baseline data for the evaluation of (1) the long term suitability of the valve and (2) potential design and material improvements.



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- (c) In addition, the prototype test report, which will address the confirmation of the valves' acceptability for the first operating cycle, shall be provided to the NRC by May 15, 1987.
- D. The facility requires exemptions from certain requirements of 10 CFR Part 50 and 10 CFR Part 70.
- i) An exemption from the criticality alarm requirements of 10 CFR Part 70.24 was granted in the Special Nuclear Materials License No. SNM-1895 dated November 27, 1985. This exemption is described in Section 9.1 of Supplement 4 to the SER. This previously granted exemption is continued in this operating license.
 - ii) Exemptions to certain requirements of Appendix J to 10 CFR Part 50 are described in Supplements 3, 4, and 5 to the SER. These include (a) an exemption from the requirement of Paragraph III.D.2(b)(ii) of Appendix J, exempting overall containment air lock leakage testing unless maintenance has been performed on the air lock (Section 6.2.6 of SSER 5)*; b) an exemption from the requirement of Paragraph III.C.3 of Appendix J, exempting main steam isolation valve measured leakage from the combined leakage rate limit of 0.6 La. (Section 6.2.6 of SSER 5); c) an exemption from Paragraph III of Appendix J, exempting the hydraulic control system for the reactor recirculation flow control valves from Type A and Type C leak testing (Section 6.2.6 of SSER 3); d) an exemption from Paragraph III.D.3 of Appendix J, exempting Type C testing on traversing incore probe system shear valves. (Section 6.2.6, SSER 4)
 - iii) An exemption to Appendix A to 10 CFR Part 50 exempting the Control Rod Drive (CRD) hydraulic lines to the reactor recirculation pump seal purge equipment from General Design Criterion (GDC) 55. The CRD hydraulic lines to the reactor recirculation pump seal purge equipment use two simple check valves for the isolation outside containment (one inside). (Section 6.2.4, SSER 3)
 - iv) A schedular exemption to GDC 2, Appendix A to 10 CFR Part 50, until the first refueling outage, to demonstrate the adequacy of the downcomer design under the plant faulted condition. This exemption permits additional analysis and/or modifications, as necessary, to be completed by the end of the first refueling outage. (Section 6.2.1.7.4, SSER 3)

*The parenthetical notation following the discussion of each exemption denotes the section of the Safety Evaluation Report (SER) and/or its supplements wherein the safety evaluation of the exemption is discussed.



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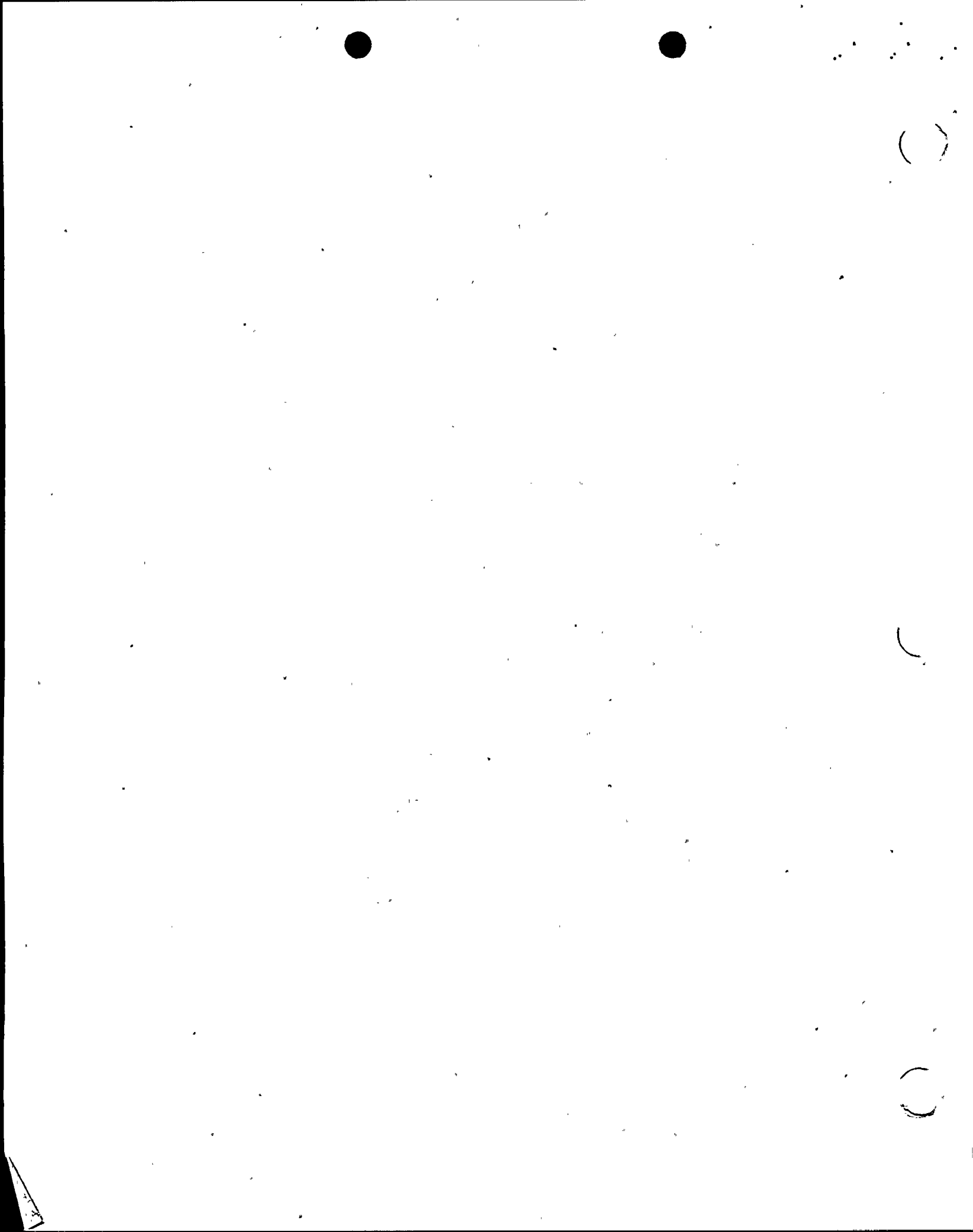
- v) Scheduling Exemptions to certain regulations as discussed in the applicable safety evaluations (referenced below) to allow deferral of the operability of certain systems as follows:
- a) Exemptions permitting completion of the DBA Recombiner System (Section 14.1, SSER 4), the Containment Atmospheric Monitoring System (Section 14.1, SSER 4), and the Reactor Coolant and ECCS Leak Detection System (Section 14.1, SSER 4) to be delayed until initial criticality.
 - b) Exemptions permitting completion of the Offgas System (Section 14.1, SSER 4) and the Electrical Hydraulic Control System (Section 14.1, SSER 4) to be delayed until both of the main steam isolation valves have been opened following plant startup.
- vi) A scheduling exemption to GDC 54 and GDC 55, Appendix A to 10 CFR Part 50 for the main steam isolation valves (MSIVs) until initial criticality and prior to operation in modes 1, 2, or 3. This exemption permits Niagara Mohawk Power Corporation to load fuel and to conduct startup tests up to criticality at Nine Mile Point Nuclear Station, Unit 2 before completing the modifications required to correct problems with the MSIV actuators and before completing installation and modifications to four of the valves (one in each line) to correct valve leakage problems (Section 6.2.4, SSER 5).
- vii) A scheduling exemption to GDC 17 and GDC 21, Appendix A to 10 CFR Part 50 and to 10 CFR 50.55a(h) for the Power Generation Control Complex (PGCC) until start-up following the "mini-outage", which is to occur within 12 months of commencing power operation, to complete the modifications described in Niagara Mohawk Power Corporation's letter of June 2, 1986 (NMP2L-0730). (Section 7.2.2.10, SSER 5)
- viii) A scheduling exemption to GDC 50, Appendix A to 10 CFR Part 50 to allow Niagara Mohawk Power Corporation until start-up following the "mini-outage", which is to occur within 12 months of commencing power operation, to install redundant fuses in circuits that use transformers for redundant penetration protection in accordance with their letter of August 29, 1986 (NMP2L 0860). (Section 8.4.2, SSER 5)

For the scheduling exemptions in iv), v), vi), vii), and viii) above, Niagara Mohawk Power Corporation, in accordance with their letter of October 31, 1986, shall certify that all systems, components and modifications have been completed to meet the requirements of the regulations for which the exemptions have been granted and shall provide a summary description of actions taken to assure the regulations have been met. This certification and summary shall be provided 10 days prior to the expiration of each exemption period as described above.



The exemptions set forth in this Section 2.D are authorized by law, will not present an undue risk to public health and safety, and are consistent with the common defense and security. These exemptions are hereby granted. The special circumstances regarding each exemption are identified in the referenced section of the safety evaluation report and the supplements thereto. The exemptions in ii) through viii) are granted pursuant to 10 CFR 50.12. With these exemptions, the facility will operate to the extent authorized herein, in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission.

- E. Niagara Mohawk Power Corporation shall fully implement and maintain in effect all provisions of the Commission-approved physical security, guard training and qualification, and safeguards contingency plans, including all amendments and revisions made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). These plans, which contain safeguards information protected under 10 CFR 73.21, are entitled: "Nine Mile Point Nuclear Station Unit 2 Physical Security Plan," with revisions submitted through February 19, 1986, "Nine Mile Point Nuclear Station Unit 2 Security Training and Qualification Plan," with revisions submitted through January 28, 1985, and "Nine Mile Point Unit 2 Safeguards Contingency Plan" (Chapter 8 of the Security Plan), with revisions submitted through January 26, 1983.
- F. Except as otherwise provided in the Technical Specifications or Environmental Protection Plan, Niagara Mohawk Power Corporation shall report any violations of the requirements contained in Section 2.C of this license in the following manner: initial notification shall be made within 24 hours to the NRC Operations Center via the Emergency Notification System with written followup within thirty days in accordance with the procedures described in 10 CFR 50.73(b), (c), and (e).
- G. The licensees shall have and maintain financial protection of such type and in such amounts as the Commission shall require in accordance with Section 170 of the Atomic Energy Act of 1954, as amended, to cover public liability claims.



H. This license is effective as of the date of issuance and shall expire at midnight on October 31, 2026.

FOR THE NUCLEAR REGULATORY COMMISSION



Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Enclosures:

1. Attachment 1
2. Appendix A - Technical Specifications (NUREG-1193)
3. Appendix B - Environmental Protection Plan

Date of Issuance: October 31, 1986



ATTACHMENT 1 TO LICENSE NO. NPF-54

This attachment identifies work items which must be completed to NRC's satisfaction and identifies required timing for their completion.

1. Prior to criticality:

a. Provide satisfactory engineering solutions, and preoperational and surveillance testing for the following outstanding construction deficiencies (10 CFR 50.55(e) reports).

- (1) 86-00-14 Minimum Voltage Requirement for 120 VAC and 125 VDC not met.
- (2) 86-00-18 Cracked MSIV roller bearings.
- (3) 86-00-19 Failure of MSIVs to close in required time.
- (4) 86-00-20 Failure of MSIVs to meet local leak rate test requirements.

