



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

NIAGARA MOHAWK POWER CORPORATION

DOCKET NO. 50-220

NINE MILE POINT NUCLEAR STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 46  
License No. DPR-63

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Niagara Mohawk Power Corporation (the licensee) dated July 16, 1980 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;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Facility License No. DPR-63 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 46 are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

*dupl of  
8/080 30033*



3. This license amendment is effective as of the date of its issuance.

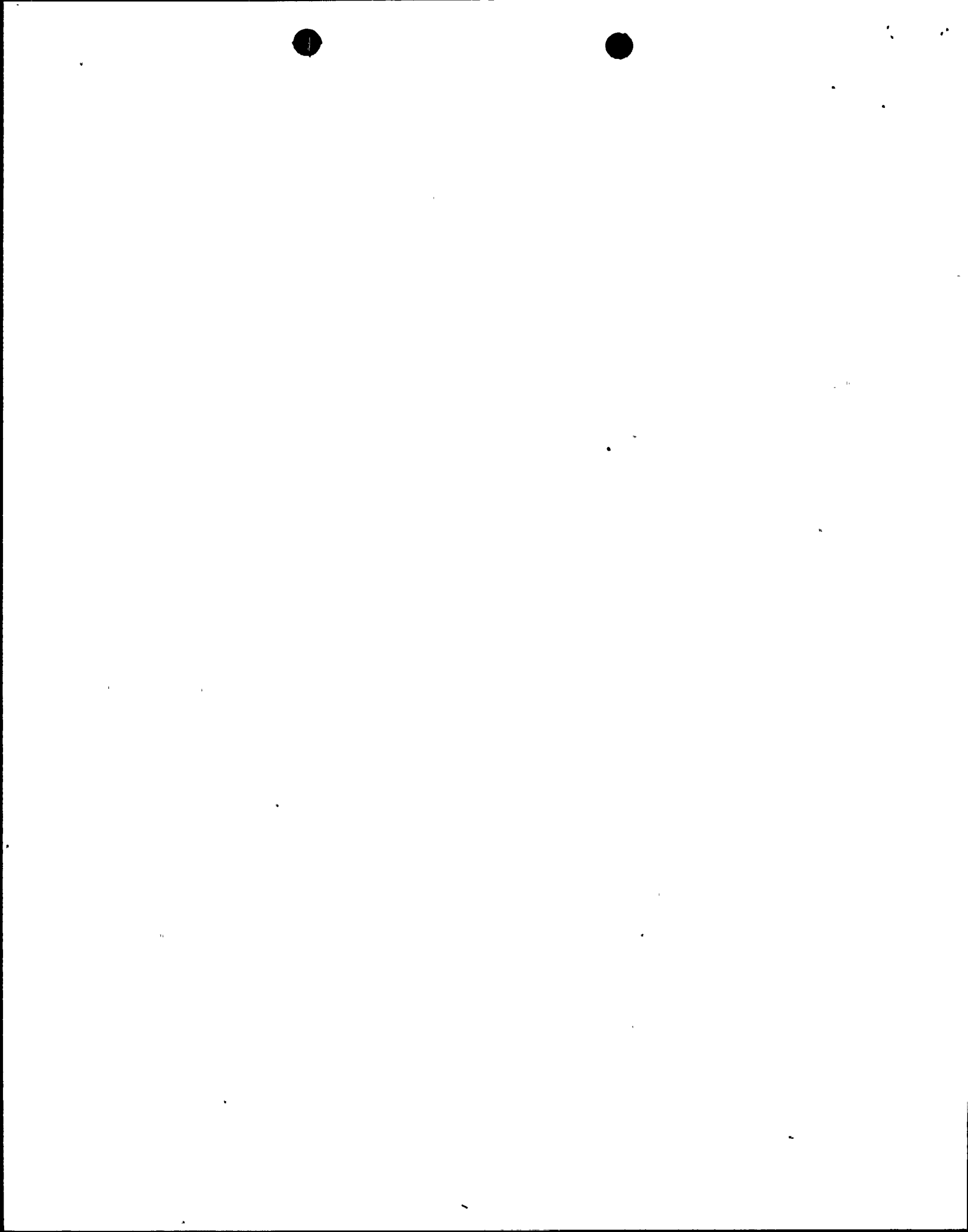
FOR THE NUCLEAR REGULATORY COMMISSION



Thomas A. Ippolito, Chief  
Operating Reactors Branch #2  
Division of Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: July 24, 1981



ATTACHMENT TO LICENSE AMENDMENT NO. 46

FACILITY OPERATING LICENSE NO. DPR-63

DOCKET NO. 50-220

Replace the following pages of the Appendix "B" Technical Specifications with the enclosed pages as indicated. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change.

Pages

4

5

7



## 2.0 LIMITING CONDITIONS FOR OPERATION

### 2.1 Thermal

#### 2.1.1 Maximum $\Delta T$

##### OBJECTIVE

The purpose of this Specification is to limit the thermal stress to the aquatic ecosystem by limiting the maximum  $\Delta T$  across the main condenser inlet and the screenwell discharge bay.

##### SPECIFICATION

Maximum  $\Delta T$  across the main condenser inlet and the screenwell discharge bay during normal Station operation shall be limited to 35°F. If during normal Station operation the  $\Delta T$  exceeds 35°F for eight consecutive hours, the cause of this deviation shall be investigated and positive action shall be taken to prevent any such deviation in the future. In addition, a report shall be submitted in accordance with Section 5.5.2.

##### MONITORING REQUIREMENT

The  $\Delta T$  across the main condenser inlet and the screenwell discharge bay shall be monitored and recorded once per hour. Two resistance temperature detectors (RTD) shall measure the temperature in each location. The RTD's shall be accurate to +1.0°F.

##### BASES

Lake studies and operating experience indicate that mortality of plankton, eggs, and larvae entrained in the condenser will not have a significant effect on the lake population of the species involved.<sup>2,3</sup> With the main condenser operating at design heat load and circulating water at 95% design flow, the condenser temperature rise should not exceed 36°F. Since the service water discharges downstream of the condenser outlet, the corresponding station cooling water temperature rise across the plant should not exceed 35°F.





1.2 Maximum Discharge Temperature

115F

1.3 Maximum BTU Per Hour

NOT APPLICABLE



## 2.1.5 Heat Treatment of Circulating Water System

### OBJECTIVE

To limit the thermal stress to the aquatic ecosystem by limiting the circulating water temperature increase over lake ambient temperature resulting from tempering and reverse flow procedures.

### SPECIFICATION

When the lake inlet temperature is between 32°F and 50°F, the discharge temperature shall not exceed the lake inlet temperature by more than 50°F, except during reverse flow operations. At no time during tempering, except during reverse flow operations, shall the discharge temperature exceed 85°F.

Following a flow reversal, the discharge temperature shall not exceed the lake inlet temperature by more than the following values:

- 70°F for the first hour following flow reversal
- 60°F for the second hour following flow reversal
- 50°F two hours following flow reversal and thereafter

### MONITORING REQUIREMENT

The discharge temperature shall be monitored and recorded hourly as provided in the Monitoring Requirement of Section 2.1.1.

### BASES

When lake temperature is less than 50°F, part of the discharge flow in the screenwell may be recirculated to the intake to maintain condenser inlet temperature between 40°F and 50°F. This procedure is known as "tempering". The maximum circulating water temperature rise due to tempering is 18°F and occurs when the lake temperature is 32°F. When this is added to the 35°F  $\Delta T$ , the maximum rise is 53°F over lake inlet temperature. Maintaining the condenser inlet temperature at no more than 50°F during tempering ensures that the discharge temperature will not exceed 85°F during tempering.

The amount of tempering is controlled by moving a gate in the screenwell, and is normally adjusted to maintain the optimal condenser inlet temperature of approximately 45°F. The gate can be adjusted to achieve this temperature within an error of approximately 5°F. This error includes minor tempering gate leakages which may be present at any time including when lake temperature is in excess of 50°F. This leakage is not considered tempering for the purpose of this specification.

