

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of )  
NIAGARA MOHAWK POWER CORPORATION )  
Nine Mile Point Nuclear Station )  
Unit No. 1 )

Docket No. 50-220

EXEMPTION

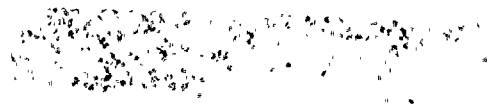
I.

Niagara Mohawk Power Corporation (NMPC or the licensee) is the holder of Facility Operating License No. DPR-63, which authorizes operation of Nine Mile Point Nuclear Station Unit No. 1 (the facility or NMP1), at a steady-state reactor power level not in excess of 1850 megawatts thermal. The facility is a boiling water reactor located at the licensee's site in Oswego County, New York. The license provides among other things, that it is subject to all rules, regulations and Orders of the U.S. Nuclear Regulatory Commission (the Commission or NRC) now or hereafter in effect.

II.

Appendix J to 10 CFR Part 50 requires that primary reactor containments shall meet certain containment leakage test requirements. Among these are the requirements that containment isolation valves receive local leak rate tests (Type C) and the results of all of the Type C tests are to be added to the results of the Type B tests (i.e., containment penetrations) and the combined

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leakage rate shall be less than 0.60 La (maximum allowable containment leakage at calculated peak containment internal pressure during a design basis accident).

### III.

By letter dated July 9, 1992, NMPC requested a revision to a schedular exemption which had been issued to NMPC on March 20, 1992. The March 20, 1992, schedular exemption had combined and extended, until startup from the fall 1994 refueling outage, two schedular exemptions issued to NMPC on October 17, 1988, and August 29, 1989. The October 17, 1988, August 29, 1989, and March 20, 1992, exemptions had provided NMP1 with temporary relief from the leakage requirements of 10 CFR Part 50, Appendix J for eight containment isolation valves (shutdown cooling isolation valves 38-01, 38-02, 38-12, and 38-13 and emergency condenser condensate return line valves 39-03, 39-04, 39-05, and 39-06). Extension of the exemptions from the 1992 refueling outage to the 1994 refueling outage was determined acceptable in the March 20, 1992, exemption. As was noted in the October 17, 1988, August 29, 1989, and March 20, 1992, exemptions, these valves will require modifications or replacements to meet the leakage requirements of 10 CFR Part 50, Appendix J.

The licensee's July 9, 1992, letter (1) requested that two emergency condenser condensate return line valves (39-05 and 39-06) be deleted from the March 20, 1992, exemption since these valves will be tested prior to startup to ensure their compliance with the leakage requirements of 10 CFR Part 50, Appendix J, and (2) provided a revised basis for the requested exemption for the two emergency condenser condensate return line check valves (39-03 and



39-04). Due to the duration of the forced outage which began on May 1, 1992, the refueling outage previously scheduled to begin in the fall of 1994 has been rescheduled to begin in early 1995. Therefore, the licensee's July 9, 1992, letter also requested that the duration of the exemption for the shutdown cooling isolation valves (38-01, 38-02, 38-12, and 38-13) and the emergency condenser condensate return line check valves (39-03 and 39-04) be extended until startup from the refueling outage now scheduled to begin in early 1995.

#### IV.

The licensee's July 9, 1992, letter provided a revised basis for the exemption issued on March 20, 1992. The March 20, 1992, exemption combined and extended the October 17, 1988, and August 29, 1989, exemptions until startup from the 1994 refueling outage. The evaluations prepared by the NRC staff for the October 17, 1988, and August 29, 1989, exemptions were still valid; therefore, extension of these exemptions was determined to not cause undue risk to the public health and safety. Furthermore, it was determined that these extensions would reduce occupational exposures and the volume of radwaste to be generated. Occupational exposures would be reduced by delaying the modifications until the 1994 refueling outage when a chemical decontamination of the reactor coolant system will be performed. Radwaste volumes will be minimized by delaying the modifications until the 1994 refueling outage since only a single drain down of the reactor vessel will then be required.

The forced outage which began on May 1, 1992, due to thermal stress cracking in the emergency condenser condensate return line valves, required



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access to these valves. The licensee expedited delivery of replacement check valves for the 39-03 and 39-04 check valves. However, testing of the replacement check valves at the vendor's facility determined that the replacement valves would not meet system design specifications. As a result, replacement check valves meeting 10 CFR Part 50, Appendix J leakage requirements and system design specifications are not available for installation. Therefore, check valves 39-03 and 39-04 were removed from the emergency cooling system, repaired to restore them to original design standards, and reinstalled in the emergency cooling system. Since these check valves were not designed for low pressure testing, they will require future modifications or replacements to meet the leakage requirements of 10 CFR Part 50, Appendix J.

The licensee also obtained access to valves 39-05 and 39-06 during the forced outage. These valves were refurbished during the forced outage to ensure that the summation of leakage from these valves and other containment penetrations will meet the leakage requirements of 10 CFR Part 50, Appendix J. Therefore, these two valves (39-05 and 39-06) have been deleted from the March 20, 1992, exemption.

The basis on which the NRC staff granted the March 20, 1992, exemption extension was to allow the modifications to the valves to be performed coincident with reactor coolant system decontamination and reactor vessel drain down during the 1994 refueling outage. Although access to the emergency condenser condensate return line check valves was obtained during the forced outage which began on May 1, 1992, the same check valves (not designed for low pressure testing) were reinstalled after repairs were made since suitable





replacement check valves are not available. Additional time is required to obtain suitable replacement check valves.

As a result of component cracking due to thermal fatigue discovered during the forced outage which began on May 1, 1992, the licensee has installed additional thermocouples to monitor the emergency condenser condensate return lines to determine the root cause of the thermal cracking. Analysis of data collected during the remainder of the current fuel cycle will not be completed in time to support resolution of this issue (possible relocation of the check valves or installation of a different type of valve) prior to the January 1993 refueling outage. Delaying modifications to resolve the thermal fatigue issue and delaying installation of valves which will meet the leakage requirements of 10 CFR Part 50, Appendix J will permit both issues to be resolved in a single modification which is expected to result in an occupational exposure saving of 50-75 person-rem. Therefore, since the exemption would provide only temporary relief from the testing requirements of Appendix J to 10 CFR Part 50 and since NMPC has made good faith efforts to comply with the leak testing requirements, the NRC staff believes that special circumstances exist that warrant extending the current exemption until startup from the 1995 refueling outage.

Other information provided in the licensee's submittals for the October 17, 1988, August 29, 1989, and March 20, 1992, exemptions remains valid.

V.

On the basis of the above evaluation, the NRC staff concludes that the requested revision to and extension of the temporary, schedular exemption from



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the Type C testing requirements of Appendix J to 10 CFR Part 50 for emergency condenser condensate return line valves 39-03 and 39-04 and shutdown cooling isolation valves 38-01, 38-02, 38-12, and 38-13 is justified and should be granted. The technical basis supports a revision to and extension of the March 20, 1992, exemption until restart of NMP1 from the 1995 refueling outage. The valves will then be included in the 0.6 La acceptance criteria for Type B and C tests.

For these reasons, the Commission has determined that, pursuant to 10 CFR 50.12, the revision to the exemption requested by the licensee's letter dated July 9, 1992, as discussed above, is authorized by law, will not present an undue risk to the public health and safety, and is consistent with the common defense and security and that special circumstances are present as set forth in 10 CFR 50.12(a)(2)(v).

Pursuant to 10 CFR 51.32, the Commission has determined that granting of this Exemption will have no significant impact on the environment (July 21, 1992, 57 FR 32238).

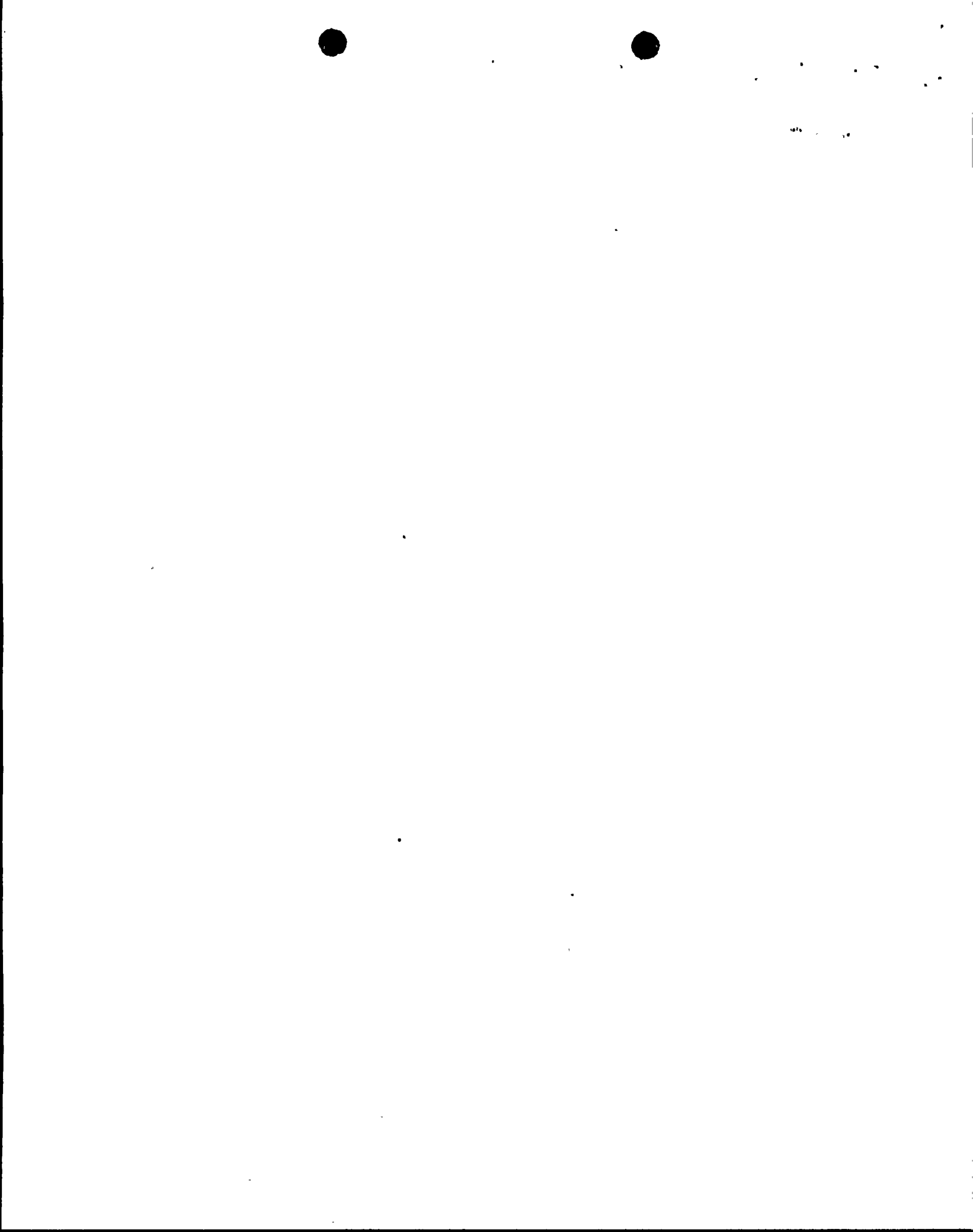
This exemption is effective upon issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Steven A. Varga, Director  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland,  
this 24th day of July 1992



the Type C testing requirements of Appendix J to 10 CFR Part 50 for emergency condenser condensate return line valves 39-03 and 39-04 and shutdown cooling isolation valves 38-01, 38-02, 38-12, and 38-13 is justified and should be granted. The technical basis supports a revision to and extension of the March 20, 1992, exemption until restart of NMP1 from the 1995 refueling outage. The valves will then be included in the 0.6' La acceptance criteria for Type B and C tests.

For these reasons, the Commission has determined that, pursuant to 10 CFR 50.12, the revision to the exemption requested by the licensee's letter dated July 9, 1992, as discussed above, is authorized by law, will not present an undue risk to the public health and safety, and is consistent with the common defense and security and that special circumstances are present as set forth in 10 CFR 50.12(a)(2)(v).

Pursuant to 10 CFR 51.32, the Commission has determined that granting of this Exemption will have no significant impact on the environment (July 21, 1992, 57 FR 32238).

This exemption is effective upon issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by:

Steven A. Varga, Director  
 Division of Reactor Projects - I/II  
 Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland,  
 this 24th day of July 1992

\*See previous concurrence

OFFICE	PDI-1:LA	PDI-1:PM <i>DAH</i>	SPLB*	OGC*	PDI-1:D
NAME	CVOGAN <i>CV</i>	DBRINKMAN:av1	CMcCRACKEN		RCAPRA <i>RGE</i>
DATE	7/23/92	7/23/92	07/17/92	07/21/92	7/23/92
OFFICE	ADRI <i>JAC</i>	DRPE:D			
NAME	JCalvo	SVarga			
DATE	7/23/92	7/23/92	/ /	/ /	/ /



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Mr. B. Ralph Sylvia

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July 24, 1992

only temporary relief from the leak testing requirements of Appendix J to 10 CFR Part 50 and that NMPC has made good faith efforts to comply with the leak testing requirements.

The Exemption has been forwarded to the Office of the Federal Register for publication.

Sincerely,

Original signed by:

Robert A. Capra, Director  
Project Directorate I-1  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Enclosure:  
Exemption

cc w/enclosure:  
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\*See previous concurrence

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NAME	JCalvo	SVarga			
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