

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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

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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 and the combined leakage rate shall be less than 0.60 La.

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III.

By letter dated December 12, 1991, NMPC requested a schedular exemption for Nine Mile Point Nuclear Station Unit No. 1 from the requirements set forth in 10 CFR Part 50, Appendix J, for four shutdown cooling isolation valves (38-01, 38-02, 38-12, and 38-13) and four emergency condenser condensate return line valves (39-03, 39-04, 39-05, and 39-06). Specifically, NMPC requested temporary relief from the requirement that leakage of these eight valves be included in the 0.60 La acceptance criteria for the Type B and Type C tests, for the period up to and including NMP1's 1994 refueling outage.

Appendix J to 10 CFR Part 50 was published on February 14, 1973, subsequent to the licensing of NMP1. The licensee has, in the past, not included the eight valves in the containment Leak Test Program, because they were not viewed as containment isolation valves under design accident conditions. However, the NRC staff's safety evaluation dated May 6, 1988, determined that these valves should be included in the Appendix J program and be local leak rate tested.

By letters dated June 23, 1988, and November 22, 1988, NMPC requested a schedular exemption from certain requirements of Appendix J, regarding leak testing of the emergency condenser condensate return line valves and the shutdown cooling isolation valves, respectively. NMPC stated that in order to leak test these valves a number of system changes would be necessary. The check valves, which were not designed for low pressure testing, may need to be replaced if they cannot be repaired or modified to consistently meet the required leakage rate. Additionally, leak-tight test block valves and test taps may need to be installed in order to perform appropriate Appendix J



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tests. NMPC requested relief until the next refueling outage, which was scheduled for 1990, to make the necessary system changes. However, due to NMP1's extended time out of service, the next refueling outage was rescheduled to 1992. The NRC staff granted the temporary exemption on October 17, 1988, for the emergency condenser condensate return line valves and on August 29, 1989, for the shutdown cooling isolation valves.

The NMP1 reactor vessel is currently scheduled to be drained during the 1994 refueling outage in order to perform inspections and modifications. The Appendix J modifications, if performed during the 1992 outage, would also require the vessel to be drained. Therefore, NMPC has requested an extension to the schedular exemption so that the Appendix J modifications may be included with the inspections and modifications of the reactor vessel currently scheduled for 1994.

IV.

The licensee's submittal restated the information that had been provided by letters dated June 23, 1988, and November 22, 1988, and concluded that the information would remain valid for the extended time period. This information formed the basis for the NRC staff's evaluations dated October 17, 1988, and August 29, 1989. Because the information provided on December 12, 1991, has not changed, the evaluations prepared by the NRC staff are still valid and extending the exemption would not cause undue risk to the public health and safety.

The NRC staff believes that special circumstances exist that warrant extending the approved exemption. A chemical decontamination of the reactor vessel significantly reduces radiation exposure to those individuals working



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in the area where the decontamination has taken place but there is a certain exposure to personnel performing the chemical decontamination. Therefore, the anticipated exposure to personnel must be greater than the exposure associated with the chemical decontamination.

The exposure associated with the Appendix J modifications currently scheduled for the 1992 refueling outage does not support a chemical decontamination of the reactor vessel. However, if this activity is combined with inspections and modifications currently scheduled for the 1994 outage, then a chemical decontamination of the reactor vessel can be supported. This would result in reducing the overall dose to licensee personnel when compared to the same work performed over two outages without a chemical decontamination of the reactor vessel.

Another advantage to deferring the Appendix J modifications to 1994 would be that the reactor vessel would only need to be drained once. The reactor vessel is currently scheduled to be drained during the 1994 outage to perform inspections and modifications. The Appendix J modifications require the vessel to be drained. Deferring these modifications until 1994 will reduce the volume of radwaste generated since the additional draining of the vessel will be avoided.

By letter dated January 27, 1992, NMPC committed to perform a water test on the emergency condenser condensate return isolation valves' penetration and each shutdown cooling isolation valve during NMP1's 1992 refueling outage to ensure that leakage does not exceed 5 gpm. If the 5 gpm limit is exceeded, actions will be taken to reduce leakage to less than 5 gpm. These water tests



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will confirm that the subject valves have not degraded to a point that could result in an unacceptable increase in the risk to the public health and safety.

V.

On the basis of the above evaluation, the NRC staff concludes that the requested extension to the temporary, scheduler exemption from the Type C testing requirements of Appendix J to 10 CFR Part 50 for emergency condenser condensate return line valves 39-03, 39-04, 39-05, and 39-06 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 delay for the period from the 1992 refueling outage up to and including the next refueling outage for NMP1. The valves will then be included in the 0.6 La acceptance criteria for Type B and C tests at the conclusion of the 1994 refueling outage.

For these reasons, the Commission has determined that, pursuant to 10 CFR 50.12, the exemption requested by the licensee's letter dated December 12, 1991, 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)(ii).

Pursuant to 10 CFR 51.32, the Commission has determined that granting of this Exemption will have no significant impact on the environment (January 23, 1992, 57 FR 2791). A copy of the licensee's request for exemption and supporting documentation is available for public inspection at the Commission's Public Document Room, 2120 L Street, Washington, DC 20555 and at the Reference and Documents Department, Penfield Library, State University of



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New York, Oswego, New York 13126. Copies may be obtained upon written request to the U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Director, Division of Reactor Projects - I/II.

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 20 day of March 1992



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March 20, 1992

New York, Oswego, New York 13126. Copies may be obtained upon written request to the U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Director, Division of Reactor Projects - I/II.

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 20th day of March 1992

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