

UNITED STATES NUCLEAR REGULATORY COMMISSION

NIAGARA MOHAWK POWER CORPORATION

DOCKET NO. 50-220

NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENT TO
FACILITY OPERATING LICENSE, PROPOSED NO SIGNIFICANT HAZARDS
CONSIDERATION DETERMINATION, AND OPPORTUNITY FOR HEARING

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of an amendment to Facility Operating License No. DPR-63 issued to Niagara Mohawk Power Corporation (the licensee) for operation of the Nine Mile Nuclear Station, Unit No. 1, located in Oswego County, New York.

The proposed amendment would change Sections 3.1.1b(1) and 4.1.1b(1) to allow operation with control rod 22-31 potentially uncoupled for the remainder of cycle 10, which is scheduled to end in September 1992. The proposed amendment specifies conditions under which control rod 22-31 may be operated and modifies existing surveillance requirements to require rod position verification by use of neutron instrumentation. Conforming changes would be made to the Bases.

Before issuance of the proposed license amendment, the Commission will have made findings required by the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations.

The Commission has made a proposed determination that the amendment request involves no significant hazards consideration. Under the Commission's regulations in 10 CFR 50.92, this means that operation of the facility in accordance with the proposed amendment would not (1) involve a significant



increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety. As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

The operation of Nine Mile Point Unit 1, in accordance with the proposed amendment, will not involve a significant increase in the probability or consequences of an accident previously evaluated.

The only accident evaluated in the Safety Analysis Report (SAR) which could be impacted by the withdrawal of potentially uncoupled control rod 22-31, is the Control Rod Drop Accident (CRDA). For the CRDA, the faulty control rod is assumed uncoupled from the CRD, (Control Rod Drive) that it sticks in an inserted position, that it does not follow the CRD during withdrawal, and then becomes unstuck and drops to the position of the withdrawn CRD. The other control rods and CRDs are assumed to operate properly and remain coupled for the duration of the accident. For control rod 22-31, because its coupling with the control rod drive cannot be confirmed, it must be assumed that they are uncoupled and could therefore potentially affect the CRDA analysis conclusions unless adequate restrictions and compensatory provisions are instituted to preclude such a possibility.

Above 20% of rated thermal power, a Niagara Mohawk calculation concludes that the consequences of a CRDA are negligible and no constraints on control rod sequences are required. Therefore, pursuant to Niagara Mohawk's calculation, the proposed amendment requires control rod 22-31 to remain inserted and not be withdrawn whenever rated thermal power is below 20%. When at greater than 20% rated thermal power, control rod 22-31 may be withdrawn up to position 46 with the requirement that its position be verified by neutron instrumentation (LPRM or TIP) response as the control rod is withdrawn. Although the current overtravel test data and friction test data indicates that control rod 22-31 is coupled, the adequacy of its coupling cannot be ascertained. The restriction on operation of CRD 22-31 to above position 46 provides additional conservatism that an inadvertent uncoupling by the postulated mechanism whereby the uncoupling rod is installed in the wrong hole in the CRD spud, does not occur. The existing Technical Specifications prohibit continued operation with any other uncoupled rod withdrawn. During the withdrawal of control rod 22-31 above 20% rated thermal power, neutron



instrumentation enables monitoring of the neutron flux in the vicinity of the control rod thereby verifying that the control rod blade tracks with the drive movement. This ensures that the rod is not sticking and separated from the CRD. If such verification cannot be accomplished, the proposed amendment requires that control rod 22-31 be fully inserted and valved out of service.

The compensatory actions of the proposed amendment assuring that the position of preaffected control rod 22-31 corresponds to the position of CRD 22-31, in conjunction with the proposed requirement for full insertion of CRD 22-31 when below 20% rated thermal power results in the probability and/or consequences of a CRDA not being increased by the proposed changes.

The operation of Nine Mile Point Unit 1, in accordance with the proposed amendment, will not create the possibility of a new or different kind of accident from any accident previously evaluated.

The possibility of an accident of a different type than previously evaluated has not been created by the proposed amendment. The most severe consequence of an improperly coupled control rod is the CRDA, and as was shown above, the CRDA analysis conclusions are unaffected by the proposed changes. The Niagara Mohawk calculation previously referenced addresses the possibility of equipment damage from scram loadings. Mechanism damage could occur during the deceleration phase of the scram stroke. If the rod were indeed uncoupled, it would continue to move upward and the velocity limiter would strike the bottom of the fuel support casting. However, analysis shows that although damage might occur to the velocity limiter or, upon rebound, to the spud and the lock plug, there is insufficient energy to dislodge the fuel support and fuel. Furthermore, the Niagara Mohawk calculation of possible deformation within the coupling assembly does not indicate any adverse scram performance for the rod. The Niagara Mohawk calculation concludes that the scram and insertion performance are not degraded nor are other reactivity control functions adversely affected. In fact, since the rod will be operated at a slightly inserted position for full withdrawal, it should have slightly better scram reactivity insertion characteristics.

With the proposed Technical Specification changes, it is therefore reasonable to conclude that operation with control rod 22-31 potentially uncoupled will not lead to any condition adverse to reactor safety and will therefore not create the possibility of a new or different kind of accident from any accident previously evaluated.

The operation of Nine Mile Point Unit 1, in accordance with the proposed amendment, will not involve a significant reduction in a margin of safety.



The proposed amendment does not involve a significant reduction in the margin of safety as the limiting event associated with an uncoupled control rod is the CRDA and all fuel limits stipulated in that analysis will be met when the compensatory measures included in the Technical Specification changes are implemented.

Therefore, based on the above evaluation, Niagara Mohawk has concluded that these changes do not involve significant hazards consideration.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

The Commission is seeking public comments on this proposed determination. Any comments received within thirty (30) days after the date of publication of this notice will be considered in making any final determination. The Commission will not normally make a final determination unless it receives a request for a hearing.

Written comments may be submitted by mail to the Rules and Directives Review Branch, Division of Freedom of Information and Publications Services, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and should cite the publication date and page number of this FEDERAL REGISTER notice. Written comments may also be delivered to Room P-223, Phillips Building, 7920 Norfolk Avenue, Bethesda, Maryland, from 7:30 a.m. to 4:15 p.m. Federal workdays. Copies of written comments received may be examined at the NRC Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555. The filing of requests for hearing and petitions for leave to intervene is discussed below.

By May 15, 1992 , the licensee may file a request for a hearing with respect to issuance of the amendment to the subject facility operating



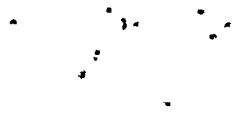
license and any person whose interest may be affected by this proceeding and who wishes to participate as a party in the proceeding must file a written request for a hearing and a petition for leave to intervene. Requests for a hearing and a petition for leave to intervene shall be filed in accordance with the Commission's "Rules of Practice for Domestic Licensing Proceedings" in 10 CFR Part 2. Interested persons should consult a current copy of 10 CFR 2.714 which is available at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555 and at the local public document room located at Reference and Documents Department, Penfield Library, State University of New York, Oswego, New York 13126. If a request for a hearing or petition for leave to intervene is filed by the above date, the Commission or an Atomic Safety and Licensing Board, designated by the Commission or by the Chairman of the Atomic Safety and Licensing Board, will rule on the request and/or petition; and the Secretary or the designated Atomic Safety and Licensing Board will issue a notice of hearing or an appropriate order.

As required by 10 CFR 2.714, a petition for leave to intervene shall set forth with particularity the interest of the petitioner in the proceeding, and how that interest may be affected by the results of the proceeding. The petition should specifically explain the reasons why intervention should be permitted with particular reference to the following factors: (1) the nature of the petitioner's right under the Act to be made party to the proceeding; (2) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (3) the possible effect of any order which may be entered in the proceeding on the petitioner's interest. The petition



should also identify the specific aspect(s) of the subject matter of the proceeding as to which petitioner wishes to intervene. Any person who has filed a petition for leave to intervene or who has been admitted as a party may amend the petition without requesting leave of the Board up to fifteen (15) days prior to the first prehearing conference scheduled in the proceeding, but such an amended petition must satisfy the specificity requirements described above.

Not later than fifteen (15) days prior to the first prehearing conference scheduled in the proceeding, a petitioner shall file a supplement to the petition to intervene which must include a list of the contentions which are sought to be litigated in the matter. Each contention must consist of a specific statement of the issue of law or fact to be raised or controverted. In addition, the petitioner shall provide a brief explanation of the bases of the contention and a concise statement of the alleged facts or expert opinion which support the contention and on which the petitioner intends to rely in proving the contention at the hearing. The petitioner must also provide references to those specific sources and documents of which the petitioner is aware and on which the petitioner intends to rely to establish those facts or expert opinion. Petitioner must provide sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact. Contentions shall be limited to matters within the scope of the amendment under consideration. The contention must be one which, if proven, would entitle the petitioner to relief. A petitioner who fails to file such a supplement which satisfies these requirements with respect to at least one contention will not be permitted to participate as a party.



Those permitted to intervene become parties to the proceeding, subject to any limitations in the order granting leave to intervene, and have the opportunity to participate fully in the conduct of the hearing, including the opportunity to present evidence and cross-examine witnesses.

If a hearing is requested, the Commission will make a final determination on the issue of no significant hazards consideration. The final determination will serve to decide when the hearing is held.

If the final determination is that the amendment request involves no significant hazards consideration, the Commission may issue the amendment and make it immediately effective, notwithstanding the request for a hearing. Any hearing held would take place after issuance of the amendment.

If the final determination is that the amendment request involves a significant hazards consideration, any hearing held would take place before the issuance of any amendment.

Normally, the Commission will not issue the amendment until the expiration of the 30-day notice period. However, should circumstances change during the notice period such that failure to act in a timely way would result, for example, in derating or shutdown of the facility, the Commission may issue the license amendment before the expiration of the 30-day notice period, provided that its final determination is that the amendment involves no significant hazards consideration. The final determination will consider all public and State comments received. Should the Commission take this action, it will publish in the FEDERAL REGISTER a notice of issuance and provide for opportunity for a hearing after issuance. The Commission expects that the need to take this action will occur very infrequently.



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A request for a hearing or a petition for leave to intervene must be filed with the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Docketing and Services Branch, or may be delivered to the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555, by the above date. Where petitions are filed during the last ten (10) days of the notice period, it is requested that the petitioner promptly so inform the Commission by a toll-free telephone call to Western Union at 1-(800) 325-6000 (in Missouri 1-(800) 342-6700). The Western Union operator should be given Datagram Identification Number 3737 and the following message addressed to Robert A. Capra: petitioner's name and telephone number, date petition was mailed, plant name, and publication date and page number of this FEDERAL REGISTER notice. A copy of the petition should also be sent to the Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and to Mark J. Wetterhahn, Esquire, Winston and Strawn, 1400 L Street, NW., Washington, DC 20005-3502, attorney for the licensee.

Nontimely filings of petitions for leave to intervene, amended petitions, supplemental petitions and/or requests for hearing will not be entertained absent a determination by the Commission, the presiding officer or the presiding Atomic Safety and Licensing Board that the petition and/or request should be granted based upon a balancing of the factors specified in 10 CFR 2.714(a)(1)(i)-(v) and 2.714(d).

For further details with respect to this action, see the application for amendment dated March 31, 1992, which is available for public inspection at



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the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555 and at the local public document room located at Reference and Documents Department, Penfield Library, State University of New York, Oswego, New York 13126.

Dated at Rockville, Maryland, this 7th day of April.

FOR THE NUCLEAR REGULATORY COMMISSION

Donald S. Brinkman

Donald S. Brinkman, Senior Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation



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April 7, 1992

Docket No. 50-220

Mr. B. Ralph Sylvia
Executive Vice President, Nuclear
Niagara Mohawk Power Corporation
301 Plainfield Road
Syracuse, New York 13211

Dear Mr. Sylvia:

SUBJECT: NINE MILE POINT NUCLEAR STATION, UNIT NO. 1, NOTICE OF CONSIDERATION
OF ISSUANCE OF AMENDMENT (TAC NO. M83065)

Enclosed is a copy of a "Notice of Consideration of Issuance of Amendment to Facility Operating License and Proposed No Significant Hazards Consideration Determination and Opportunity for Hearing" for your information. This notice relates to your application dated March 31, 1992, to allow operation with control rod 22-31 potentially uncoupled. This notice was published as an "Individual Notice" with a 30-day comment period rather than a "Biweekly Notice" in view of your request to expedite this amendment.

Sincerely,

Original Signed By:
Donald S. Brinkman, Senior Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosure:
As stated

cc w/enclosure:
See next page

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cc: Plant Service List

OFFICE	LA:PDI-1	PE:PDI-1	PM:PDI-1	D:PDI-1	
NAME	CSVogan <i>W</i>	DOudinot:pc	DBrinkman	RACapra	
DATE	4/7/92	4/7/92	4/7/92	4/7/92	1/92

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ENCLOSURE



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