

April 18, 2001

Mr. J. Sorensen  
Site Vice-President  
Prairie Island Nuclear Generating Plant  
Nuclear Management Company, LLC  
1717 Wakonade Drive East  
Welch, MN 55089

SUBJECT: PRAIRIE ISLAND NUCLEAR GENERATING PLANT - NOTICE OF  
ENFORCEMENT DISCRETION (NOED), NOED NO. 01-3-002  
(TAC NO. MB1710)

Dear Mr. Sorensen:

By letter dated April 13, 2001, the Prairie Island Nuclear Generating Plant (PINGP) staff requested that the Nuclear Regulatory Commission (NRC) staff exercise discretion not to enforce compliance with the required shutdown of Unit 2 contained in PINGP's Technical Specification (TS) Limiting Condition for Operation (LCO) 3.7., "Auxiliary Electrical Systems," Section 3.7.B. Following your written request, the information documented in your letter was discussed in a telephone conference call between PINGP and the NRC staff on April 13 at 2:30 p.m. CDT. On April 16 you submitted a revised NOED request and a follow-up telephone conference was conducted at approximately 7:30 a.m. CDT the same day to discuss current plant status and the changes to the April 13 written request. This letter documents the results of the telephone conversations on April 13 and on April 16 when we orally granted this NOED. The principal NRC participants in these conference calls are listed in the enclosure to this letter.

During the April 13 conference call, your staff stated that on April 9, 2001, at 9:30 a.m. the Unit 2, Train B, (D6) emergency diesel generator (EDG) was taken out-of-service in order to perform a 24-hour surveillance test run required to be conducted every 18 months by TS 4.6.A.3.c. This placed Unit 2 in a 7-day LCO for continued operation as specified by TS 3.7.B.1. During the conduct of that test, it was observed that the crankcase pressure was increasing on one of the two EDG engines and the decision was made to stop the test so that the EDG engine could be inspected. A boroscopic inspection revealed that one of the EDG engine cylinders was scored and allowing engine blow-by which resulted in the increased crankcase pressure. This problem was determined to only affect the one cylinder. Your estimate of the time to complete the necessary repairs and complete all required testing indicated that these actions might not be completed prior to the expiration of the 7-day LCO. This meant that Unit 2 would no longer be in compliance with the requirements of TS 3.7.B.1. TS 3.7.B would then require Unit 2 to be placed in the hot shutdown condition within the next 6 hours and be in the cold shutdown condition within the following 30 hours. As a result, the PINGP staff requested that an NOED be issued pursuant to the NRC's policy regarding exercise of discretion for an operating facility, set out in Section VII.c, of the "General Statement of Policy and Procedures for NRC Enforcement Actions" (Enforcement Policy) in NUREG-1600, and be effective for the period April 16, 2001, at 9:30 a.m. until April 19, 2001, at 9:30 a.m.

Your staff indicated in the request for enforcement discretion that, based on your safety assessment and risk evaluation, the 3-day extension of the 7-day LCO for the D6 EDG would not be a detriment to the public's health and safety. This was based on the low likelihood during the 3-day extension of either a Unit 2 design basis accident concurrent with an independent failure of the D5 EDG or a loss of offsite power concurrent with an independent failure of the D5 EDG and a loss of the ability to cross-tie the Unit 2 safeguards busses to either D1 or D2, the Unit 1 EDGs. Your staff's evaluation concluded that the risk incurred due to continued plant operation during the additional 3-day extension of the 7-day D6 EDG LCO was very low. The Incremental Core Damage Probability (ICDP) to Unit 2 over this time period from the baseline level (no maintenance condition) was approximately  $9.5E-8$ , including all other planned equipment unavailability during this time. Finally, the request also indicated that while you could not quantify the risk of shutting down, you believed that qualitatively, a shutdown of Unit 2 with the D6 EDG out-of-service was less desirable than continued operation during the 3-day extension allowed by the NOED. This was based on the following three factors:

- While shutting down a unit is an operational event for which the plant was designed and which can successfully be completed, a unit shutdown does involve some risk.
- Safeguards AC power is required for power operation, hot shutdown, and cold shutdown conditions.
- The inoperability of the D6 EDG reduces the number of redundant sources of safeguards AC power available at cold shutdown when decay heat removal depends on the safeguards AC-powered residual heat removal system.

Your staff proposed the following compensatory measures to be implemented throughout the duration of the NOED: the remaining conditions of TS 3.7.B would be complied with; risk-critical equipment identified through a probabilistic risk analysis (PRA) was added to the protected equipment list and no work will be conducted on this equipment beyond critical emergent maintenance; no planned work will be conducted in the switchyard beyond critical emergent work necessary to ensure immediate-term reliability; access to the switchyard will be maintained by the Unit 2 Shift Supervisor; the switchyard, D5 EDG room, Unit 2 emergency AC switchgear rooms, D1 and D2 EDG rooms, and the Unit 1 emergency 4 kV switchgear rooms will be posted to restrict access for the period of the NOED; no non-essential testing or maintenance will be conducted on plant equipment (e.g., the Unit 2 reactor protection system, feedwater pumps, etc.) that could result in a Unit 2 transient, power reduction, or trip; if the Unit 2 configuration changes unexpectedly during the period of the NOED, the evaluation of risk-critical equipment will be revised and the protected equipment list updated accordingly; and the on-shift operating crews will be briefed on the importance of specific actions from the Risk Assessment so that if the plant Emergency Operating Procedures lead them to perform any of these actions, they will be aware of the importance of successful completion. Additionally, the Xcel Energy system dispatchers were contacted to verify that the grid conditions were stable and were expected to remain so for the period of the NOED.

Your staff stated that the NOED request had been reviewed and approved by the PINGP Operations Committee.

Although the NRC does not have a plant specific risk analysis for shutdown, we did perform a qualitative evaluation of this issue which determined that the risk of continued operations for the additional 3-day period of the NOED did not result in increased risk over shutting down with one EDG inoperable. Based on this qualitative evaluation, the NRC accepted your staff's safety rationale, combined with compensatory actions, as an adequate basis for this NOED. Additionally, the NRC used the following factors in our decision: (1) an independent NRC assessment that was consistent with your staff's conclusion that the ICDP is less than the guideline of 5E-7 identified in Regulatory Guide 1.177, "An Approach for Plant-Specific, Risk-Informed Decisionmaking: Technical Specifications;" (2) your staff's use of the Maintenance Rule (a)(4) risk program that analyzed plant configuration risk throughout the period of D6 unavailability; and (3) the protection of components or trains considered to be risk important to maintain defense-in-depth mitigation capabilities and also required to support a determination of acceptability of proposed permanent allowed outage time (AOT) changes meeting the 5E-7 ICDP guideline in RG 1.177. While the NRC staff review of the supporting evaluation was not of the detail that would be required for a permanent change, the request, evaluation, and results are consistent with AOT extension guidelines and indicate that this requested one-time AOT extension is acceptable. The NRC staff also accepted the proposed duration of the NOED based on the time to complete the D6 EDG testing and inspection. Prior to the granting of the NOED, the NRC resident inspectors verified that the majority of the compensatory actions had been put in place as stated. During subsequent sampling inspections of your staff's compensatory actions, the resident inspectors identified that some of the signs to restrict access to certain Unit 1 areas had not been posted as committed to in the NOED request. Your staff immediately posted those areas following our identification of this issue.

Both units of PINGP are currently operating at full power. In order to avoid the transient associated with a Unit 2 plant shutdown, the NRC staff concluded that the requested NOED should be authorized. Based on considerations discussed in the previous paragraphs, the NRC staff concluded that Criterion 1 of Section B.2 and the applicable criteria in Section C.4 of NRC Manual Chapter 9900, "Technical Guidance, Operation - Notice of Enforcement Discretion," were satisfied. Criterion 1 of Section B.2 states that for an operating plant, the NOED is intended to avoid an undesirable transient as a result of forcing compliance with the license and, thus, minimizes the potential safety consequences and operational risks.

On the basis of the NRC staff's evaluation of your staff's request, we have concluded that an NOED is warranted because we are clearly satisfied that this action involves no safety impact, is consistent with the enforcement policy and NRC staff guidance, and has no adverse impact on public health and safety. Therefore, it is our intention to exercise discretion not to enforce compliance with TS 3.7.B for the period from 9:30 a.m. CDT on April 16, 2001, until 9:30 a.m. on April 19, 2001, unless a Unit 2 shutdown occurs prior to that time. If a Unit 2 shutdown occurs, the PINGP will be required to be in compliance with all TS prior to startup.

J. Sorensen

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As stated in the Enforcement Policy, action will be taken, to the extent that violations were involved, for the root cause that led to the noncompliance for which this NOED was necessary.

Sincerely,

**/RA/**

Geoffrey E. Grant, Director  
Division of Reactor Projects

Docket No. 50-306  
License No. DPR-60

Enclosure: As Stated

cc w/encl: Plant Manager, Prairie Island  
M. Wadley, Chief Nuclear Officer  
Site Licensing Manager  
Nuclear Asset Manager  
J. Malcolm, Commissioner, Minnesota  
Department of Health  
State Liaison Officer, State of Wisconsin  
Tribal Council, Prairie Island Indian Community  
J. Silberg, Esquire  
Shawn, Pittman, Potts, and Trowbridge  
A. Neblett, Assistant Attorney General  
Office of the Attorney General  
S. Bloom, Administrator  
Goodhue County Courthouse  
Commissioner, Minnesota Department  
of Commerce

J. Sorensen

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Sincerely,

/s/Geoffrey E. Grant

Geoffrey E. Grant, Director  
Division of Reactor Projects

Docket No. 50-306  
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cc w/encl: Plant Manager, Prairie Island  
M. Wadley, Chief Nuclear Officer  
Site Licensing Manager  
Nuclear Asset Manager  
J. Malcolm, Commissioner, Minnesota  
Department of Health  
State Liaison Officer, State of Wisconsin  
Tribal Council, Prairie Island Indian Community  
J. Silberg, Esquire  
Shawn, Pittman, Potts, and Trowbridge  
A. Neblett, Assistant Attorney General  
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of Commerce

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Principal NRC Staff Members Granting NOED NO. 01-3-002

April 13, 2001, conference call:

Geoffrey Grant, Director, Division of Reactor Projects, Region III  
S. Singh Bajwa, Director, Project Directorate III, Division of Licensing and Project Management, NRC Office of Nuclear Reactor Regulation (NRR)  
Claudia Craig, Chief, Section 1, Project Directorate III, Division of Licensing and Project Management, NRR  
Roger Lanksbury, Chief, Branch 5, Division of Reactor Projects, Region III  
Cornelius Holden, Chief, Electrical Engineering Section, Electrical and Instrumentation and Controls Branch, Division of Engineering, NRR  
Steve Dinsmore, Acting Chief, Safety Programs Section, Probabilistic Safety Assessment Branch, Division of Systems, Safety, and Analysis, NRR  
Steve Ray, Prairie Island Senior Resident Inspector, Region III  
Mike Parker, Senior Reactor Analyst, Division of Reactor Safety, Region III  
T. J. Kim, Project Manager, Section 1, Project Directorate III, Division of Licensing and Project Management, NRR  
Om Chopra, Electrical Engineer, Electrical Engineering Section, Electrical and Instrumentation and Controls Branch, Division of Engineering, NRR.

April 16, 2001, conference call:

Geoffrey Grant, Director, Division of Reactor Projects, Region III  
S. Singh Bajwa, Director, Project Directorate III, Division of Licensing and Project Management, NRR  
Roger Lanksbury, Chief, Branch 5, Division of Reactor Projects, Region III  
Steve Dinsmore, Risk and Reliability Analyst, Safety Programs Section, Probabilistic Safety Assessment Branch, Division of Systems, Safety, and Analysis, NRR  
Steve Ray, Prairie Island Senior Resident Inspector, Region III  
Mike Parker, Senior Reactor Analyst, Division of Reactor Safety, Region III  
Sonia Burgess, Senior Reactor Analyst, Division of Reactor Safety, Region III  
T. J. Kim, Project Manager, Section 1, Project Directorate III, Division of Licensing and Project Management, NRR  
Om Chopra, Electrical Engineer, Electrical Engineering Section, Electrical and Instrumentation and Controls Branch, Division of Engineering, NRR.

Enclosure