

Doc/Doc B
(6-102)

May 21, 1992

Docket No. 50-306
License No. DPR-60
EA 92-067

Northern States Power Company
ATTN: Mr. L. R. Eliason
Vice President, Nuclear
Generation
414 N. St. Louis Mall
Minneapolis, Minnesota 55401

Dear Mr. Eliason:

SUBJECT: PRAIRIE ISLAND NUCLEAR GENERATING PLANT - UNIT 2
NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL
PENALTY - \$12,500
(NRC INSPECTION REPORT NO. 50-306/92006(DRP))

This refers to the special safety inspection conducted during the period of February 20 through March 30, 1992, at the Prairie Island Nuclear Generating Plant, Unit 2. The inspection includes a review of the circumstances surrounding the interruption of shutdown cooling during reduced inventory operations on February 20, 1992.

The report documenting this inspection was sent to you by letter dated April 10, 1992. During this inspection a violation of NRC requirements was identified. An Augmented Inspection Team (AIT) conducted the initial NRC review of this event and its findings are documented in Inspection Report No. 50-306/92005 sent to you by letter dated March 17, 1992. An enforcement conference was held on April 21, 1992, to discuss the violation, its cause, and your corrective actions. The report summarizing the conference was sent to you by letter dated April 30, 1992. The event was reported via the Emergency Notification System on February 20, 1992, and a Licensee Event Report was submitted to the NRC by letter dated March 23, 1992.

On February 20, 1992, Prairie Island Unit 2 was in cold shutdown for a scheduled refueling and maintenance outage. Reactor Coolant System (RCS) temperature was being maintained at

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

9205270098 920521
PDR ADOCK 05000306
Q PDR

250048

1/1
JEH

May 21, 1992

approximately 135 degrees Fahrenheit as indicated on the core exit thermocouples. Water was being drained from the RCS to establish conditions for removing steam generator manways and installing steam generator nozzle dams in preparation for eddy current testing. RCS water level was allowed to decrease below the level necessary for continued operation of the inservice residual heat removal (RHR) pump, making it necessary to shut off the pump and interrupt operation of the RHR system. Makeup water to the RCS was added in accordance with procedures, and the standby RHR pump was placed in service for shutdown cooling. Although one core exit thermocouple reached 221.5 degrees Fahrenheit, the maximum calculated average RCS temperature remained below 171 degrees Fahrenheit, which represented an approximate increase of 36 degrees Fahrenheit as the result of the 22 minute event.

The NRC recognizes that the actual impact of the event on plant nuclear safety was minimal. However, while the sudden increase in temperature did not have significant consequences, the conditions which allowed this event to occur are cause for significant regulatory concern. Specifically, interruptions of shutdown cooling have been of particular concern to the NRC staff over the past few years because it has been recognized that such situations provide the potential for adverse impact on the safety of the nuclear reactor when plant systems, that might normally be available to mitigate such situations, are not required to be operable. The root causes for the event were fully discussed in the AIT report and during the enforcement conference.

One violation with three examples is described in the enclosed Notice of Violation (Notice). The violation involves an inadequate procedure for RCS reduced inventory operation. The root cause of the violation was plant management's over-reliance on engineering experience in the control room to provide detailed guidance to the operators for RCS reduced inventory operations rather than providing an adequate procedure. This violation represents a significant regulatory concern because, as discussed above, any unexpected loss of shutdown cooling can lead to situations in which nuclear safety can be compromised. Better training, planning, and command and control could have prevented this event. It was also of concern that the operators continued the drain down in spite of indications that should have caused questioning of whether the instruments were properly monitoring the situation. Therefore, in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," (Enforcement Policy) 10 CFR Part 2, Appendix C (1992), this violation has been categorized at Severity Level III.

May 21, 1992

The staff recognizes that immediate corrective action was taken when the violation was identified. We also understand that you will develop a new procedure to support reduced inventory operations while keeping the RCS intact, validate this new procedure on a simulator prior to its use, and review the adequacy of all other critical evolution procedures. In addition, at the enforcement conference you discussed a number of other actions that were being considered including hardware changes designed to preclude a repetition of this event.

To emphasize the need for adequate procedures for reduced inventory operations, I have been authorized after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Reactor Regulation, Regional Operations and Research to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) in the amount of \$12,500 for the Severity Level III violation described in the Notice. The base value of a civil penalty for a Severity Level III violation is \$50,000.

The civil penalty adjustment factors in the Enforcement Policy were considered. The base civil penalty was mitigated by 25 percent for identification. Although the event was self-disclosing, you demonstrated initiative in identifying the root cause of the violation. The base civil penalty was mitigated by 50 percent for the corrective actions, discussed above, that you have initiated or plan to implement. Additionally, the base civil penalty was mitigated by 100 percent for your good past performance. However, the base civil penalty was escalated by 100 percent due to the fact that you had prior opportunities to identify the inadequate procedure. NRC and industry notices have been extensive regarding the loss of shutdown cooling. For example, Generic Letter 88-17 was issued, in part, in response to the April 1987 Diablo Canyon loss of decay heat removal event, to emphasize the safety significance that the NRC places on partial loss of shutdown cooling events and loss of control of reactor vessel level during mid-loop operation. The NRC also sent copies of that Generic Letter to every individual licensed operator to reemphasize that point. In addition, Northern States Power was aware of the October 1991 Vogtle loss of decay heat removal event. While you did provide some additional training in response to the notice that was received, that notice should have caused you to more fully evaluate and enhance your procedures and training. The other factors in the enforcement policy were considered, and no further adjustment to

May 21, 1992

the base civil penalty was considered appropriate. Therefore, based on the above, the base civil penalty has been decreased by 75 percent.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your responses will be placed in the NRC Public Document Room.

The responses directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, Public Law No. 96-511.

Sincerely,

Original signed by
A. Bert Davis

A. Bert Davis
Regional Administrator

Enclosure: Notice of Violation and Proposed
Imposition of Civil Penalty

SEE DISTRIBUTION NEXT PAGE

RIII
RWD
DeFayette/db
05/19/92

RIII
[Signature]
Greenman
05/19/92

D:OE
(Rec'd via FAX)
JLieberman
05/13/92

DEDR
JSniezek
05/15/92

RIII
CJP
Papariello
05/19/92

RIII
[Signature]
Davis
05/20/92

May 21, 1992

DISTRIBUTION

cc w/enclosure:

E. L. Watzl, Site Manager,
Prairie Island Site

M. Sellman, Plant Manager
DCD/DCB (RIDS)

OC/LFDCB

Resident Inspector, RIII
Prairie Island

Resident Inspector, RIII
Monticello

John W. Ferman, Ph.D.,
Nuclear Engineer, MPCA
State Liaison Officer, State
of Minnesota

Prairie Island, LPM, NRR
Robert M. Thompson, Administrator
Wisconsin Division of Emergency
Government

J. Lieberman, Office of Enforcement
J. Goldberg, Office of General Counsel
J. Partlow, Office of Nuclear Reactor
Regulation

DISTRIBUTION

SECY
CA
JConieczek, DED.
LChandler, OGC
TMurley, NRR
Enforcement Coordinators
RI, RII, RIV, RV
FIngram, GPA/PA
DWilliams, OIG
BHayes, OI
EJordan, AEOD
JLuehman, OE
Day File
EA File
DCS
RAO:RIII
SLO:RIII
PAO:RIII
IMS:RIII