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June 6, 1994

10 CFR Part 2  
Appendix C

U S Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555

FRAIRIE ISLAND NUCLEAR GENERATING PLANT  
Docket Nos. 50-282 License Nos. DPR-42  
50-306 DPR-60

Response to Notice of Violation  
NRC Inspection Report Nos. 282/94003(DRP) and 306/94003(DRP)  
Identification and Correction of Conditions Adverse to Quality

Your letter of May 6, 1994, which transmitted Inspection Report Nos. 282/94003(DRP) and 306/94003(DRP), requested a response to a violation. Our response to Violation A is included as an attachment to this letter. No response was required for Violation B.

Our commitments are indicated in italics in the attachment to this letter.

Please contact Jack Leveille (612-388-1121, Ext. 4662) if you have any questions related to our response to the subject inspection report.

Roger O Anderson  
Director  
Licensing and Management Issues

c: Regional Administrator III, NRC  
Senior Resident Inspector, NRC  
NRR Project Manager, NRC  
J E Silberg

Attachment: Response to Notice of Violation

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## RESPONSE TO NOTICE OF VIOLATION

### STATEMENT OF VIOLATION A

Criterion XVI of 10 CFR 50, Appendix B, states, in part, that measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected. In the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective action taken to preclude repetition.

Contrary to the above, the licensee's corrective actions to preclude repetition of removing safeguards heat removal equipment from service without addressing the operability of the parent system (a significant condition adverse to quality) were inadequate as demonstrated by the removal from service of safeguards unit cooler No. 102 on March 8, 1994, without declaring the parent system (480V safeguards bus No. 120) inoperable.

This is a Severity Level IV Violation (Supplement I).

### Response to Violation A

#### Background

A detailed description and background for the violation can be found in NRC Inspection Report No. 50-282/94003.

The following information is provided relating to the complexity of implementing the changes associated with the essential support equipment and its relationship to the Technical Specification Limiting Conditions for Operation.

The implementation of Technical Specification LCO's on essential support ventilation equipment for systems, structures or components (SSC) required to be operable by Technical Specifications has evolved over several years. In the past, engineering judgement was deemed appropriate in determining whether a support system was or was not required for equipment operability and functional capability. The plant's position was that the room temperature determined the operability of the SSC. The position was judged acceptable due to the plant's northern climate, limited time with the support equipment out of service, and experience with room heatup rates.

Due to open items identified by the Design Basis Reconstitution efforts and initiatives related to the SBO rule, significant engineering analysis has been performed to determine heatup rates for the rooms that house the SSCs. Conservative assumptions used in the analyses envelope all worst case conditions for the SSC rooms. The results of the analyses in some cases showed that operability of the essential support equipment was not required to maintain the parent SSC operable. Other cases showed that the

essential support equipment operability is required for SSC operability.

Subsequently, equipment configuration and hence heat loads in the SSC rooms have changed due to the work associated with the electrical system upgrade and implementation of the SBO rule. The SSC rooms were again analyzed as stated above with results significantly different than the original analysis due to reduced heat input in some rooms, and due to adding equipment more sensitive to elevated temperature in other rooms.

Other complicating and competing factors in the essential support systems issue include Independent Plant Evaluation identified flood issues, recently identified High Energy Line Break issues and compensatory procedure revisions. Each of these may require supplemental or compensatory measures, complicating the assumptions for the analyses.

#### Reason for the violation

The primary reason for the violation is that the importance and the impact of issues regarding equipment heat removal systems and their effect on operability was not adequately communicated to plant personnel. The requirements were different than past practice and the change was not captured and adequately translated into procedures for all plant groups to implement.

A secondary reason for the violation is the practice of using an Operations Daily Order for communicating LCO requirements to personnel outside of the Operations department. This practice was not recognized as being inappropriate for the situation.

#### Corrective steps that have been taken and the results achieved

The following corrective actions were taken following the event:

1. The current Operations Daily Order (of 2/11/94) on operability considerations for equipment heat removal essential support systems was distributed to engineering personnel and Maintenance Supervisors on 3/9/94.
2. The WRAC-E and WRAC-M positions were added to the Operations Committee on 3/9/94. These are positions that are charged with authorizing work on critical SSC's.

No further incidents have occurred associated with the essential support equipment. Multiple work orders associated with the essential support ventilation systems have been successfully completed.

#### Corrective steps that will be taken to avoid further violations

The following corrective actions will be taken to prevent recurrence:

1. Switches for unit coolers that support operability requirements of

safeguards equipment will be labeled.

Scheduled completion date: 7/1/94

2. Administrative instructions governing work control will be revised to include reference to essential support equipment operability.

Scheduled completion date: 9/1/94

3. Instructions for control of supplemental information will be revised to establish criteria for each method used to inform plant personnel of changes relating to or caused by commitments, unresolved items, newly identified information, etc. This information will be made available for use by all site personnel.

Scheduled completion date: 10/1/94

4. Heat load analyses will be completed for determining the required actions for equipment heat removal operability requirements.

Scheduled completion date: 10/1/94

5. Normal operating procedures will be revised to include operability requirements of heat removal equipment.

Scheduled completion date: 10/1/94

6. Specific training on equipment heat removal issues, including operability impact on parent equipment will be conducted for Operations and engineering personnel.

Scheduled completion date: 12/31/94

Date when full compliance will be achieved

Prairie Island was in full compliance when the Bus 120 Room Unit Cooler was returned to service on March 8, 1994, fifteen minutes after it was initially turned off.