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L-PI-03-001

January 6, 2003

NRC Bulletin 2001-01  
NRC Bulletin 2002-01  
NRC Bulletin 2002-02

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

**PRAIRIE ISLAND NUCLEAR GENERATING PLANT**  
Docket Nos. 50-282 License Nos. DPR-42

**Response to:**

**NRC Bulletin 2001-01, "Circumferential Cracking of Reactor Pressure Vessel  
Head Penetration Nozzles"**

**NRC Bulletin 2002-01, "Reactor Pressure Vessel Head Degradation and Reactor  
Coolant Pressure Boundary Integrity"**

**NRC Bulletin 2002-02, "Reactor Pressure Vessel Head and Vessel Head  
Penetration Nozzle Inspection Programs"**

All three of the subject Bulletins have required responses for 30 days after subsequent outages, as follows:

BL 2001-01

5. Addressees are requested to provide the following information within 30 days after plant restart following the next refueling outage:
- a. a description of the extent of VHP nozzle leakage and cracking detected at your plant, including the number, location, size, and nature of each crack detected;
  - b. if cracking is identified, a description of the inspections (type, scope, qualification requirements, and acceptance criteria), repairs, and other corrective actions you have taken to satisfy applicable regulatory requirements. This information is requested only if there are any changes from prior information submitted in accordance with this bulletin.

A088  
A095  
A094

BL 2002-01

2. *Within 30 days after plant restart following the next inspection of the reactor pressure vessel head to identify any degradation, all PWR addressees are required to submit to the NRC the following information:*
- A. *the inspection scope (if different than that provided in response to Item 1.D.) and results, including the location, size, and nature of any degradation detected,*
  - B. *the corrective actions taken and the root cause of the degradation.*

BL 2002-02

- (2) *Within 30 days after plant restart following the next inspection of the RPV head and VHP nozzles to identify the presence of any degradation, all PWR addressees are requested to provide:*
- A. *the inspection scope and results, including the location, size, extent, and nature of any degradation (e.g., cracking, leakage, and wastage) that was detected; details of the NDE used (i.e., method, number, type, and frequency of transducers or transducer packages, essential variables, equipment, procedure and personnel qualification requirements, including personnel pass/fail criteria); and criteria used to determine whether an indication, "shadow," or "backwall anomaly" is acceptable or rejectable.*
  - B. *the corrective actions taken and the root cause determinations for any degradation found.*

In response to these Bulletins, Prairie Island notes the following with respect to the inspection conducted during the past Unit 1 refueling outage:

Prairie Island Unit 1 was shutdown for refueling in November 2002 and the vessel head was inspected per the commitment made in response to Bulletin 2001-01. A qualified and certified VT-2 visual examiner and the reactor vessel integrity program engineer conducted the examination (although the examination itself was not a VT-2 examination). Prior to the inspection, the inspectors reviewed EPRI Technical Report 1006899, "Visual Examination for Leakage of PWR Reactor Head Penetrations on Top of RPV Head, Revision 1 of 1006296, Includes Fall 2001 Inspection Results." A Region III NRC Inspector, who was on site conducting an inspection per Temporary Instruction 2515/150, witnessed the examination.

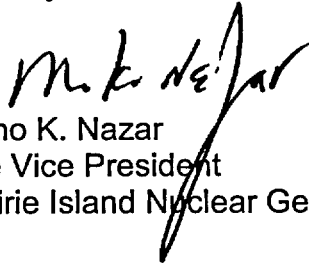
The visual examination was performed through the four rectangular view ports in the stainless steel mirror insulation on the vessel head. The inspection of the top surface of the head was performed using mirrors and artificial light through each of the four view ports, with the head in its "as-found" condition. The circumference of each of the Alloy 600 penetration tubes was examined where they interface with the head. Additionally,

100% of the carbon steel base metal surface that would be subject to boric acid corrosion was inspected.

Only loose dirt and small metallic debris were found on the head, some having accumulated on the uphill sides of the penetration tubes. These materials were easily discriminated from the boric acid residues that would constitute an indication of a leak. Additionally, it was determined that these materials could not mask a leak.

In this letter we have made no new Nuclear Regulatory Commission commitments. Please contact Jeff Kivi (651-388-1121) if you have any questions related to this letter.

I declare under penalty of perjury that the foregoing is true and correct. Executed on January 6, 2003.



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Prairie Island Nuclear Generating Plant

c: Regional Administrator - Region III, NRC  
Senior Resident Inspector, NRC  
NRR Project Manager, NRC