



PRAIRIE ISLAND COALITION

March 13, 1996

William T. Russell, Director
Office of Nuclear Reactor Regulation
Mail Stop 12 G18
U.S. Nuclear Regulatory Commission
Washington, DC 20555
Tel: (301) 415-1270
Fax: (301) 415-8333

Dear Mr. Russell:

The Prairie Island Coalition (PIC) and Nuclear Information & Resource Service (NIRS), hereafter referred to as "Petitioners," are in receipt of your March 1, 1996, response to our February 19, 1996, letter. That letter was an addendum to our June 5, 1995 petition under 10 CFR 2.206 regarding significant safety issues at Northern States Power Co.'s (NSP) Prairie Island Nuclear Generating Facility, including degrading steam generator tubes.

In the February 19th addendum, the Petitioners demanded that NSP's Prairie Island Unit 1 NOT be allowed to return to operation until a full-length inspection of *all* its steam generator tubes was conducted, employing the Zetec Plus Point Probe and any state-of-the-art eddy current probe for corrosive cracking. The addendum has been filed due to accelerated and new types of tube degradation, including free span cracking, in steam generators at reactors similar to those at Prairie Island.

In the March 1st response to our addendum, you failed to address the most significant public health and safety issue facing the nuclear industry today - circumferential cracking of nuclear steam generator tubes. Your response indicated that the occurrences of free span cracking at other reactors were axially oriented and discovered with the bobbin coil probe. But the NRC and nuclear utilities operating pressurized water reactors in the U.S. have known for years that the bobbin coil probe is not effective at finding circumferential cracking. As you also know, state-of-the-art eddy current probes, like the Zetec Plus Point Probe, *are* effective at finding circumferential cracking. Currently, NSP only uses state-of-the-art eddy current probes on 3% of the length of the steam generator tubes.

Axial *and* circumferential cracking are occurring within the tube support plate and the tube sheet region of steam generators. If axially oriented cracking is occurring along the free spans, it would be logical to expect that circumferentially oriented cracking is as well. Thus testing the full length of steam generator tubes with a state-of-the-art eddy current probe to find out would be prudent to ensure public health and safety.

At a February 27th NRC meeting, you told the Commissioners that recent inspections at plants similar to Prairie Island are turning up "many more cracking indications than were anticipated" and that the number of cracking indications in steam generator tubes at a given plant commonly "will jump from the tens in one outage, to the hundreds -- or thousands -- in the next outage." Executive Director of Operations, James Taylor, told the Commissioners that, "unfortunately, new forms of degradation are appearing." Your associate director, Ashok Thadnai, indicated that NRC staff does not have confidence in how degraded steam

generator tubes will behave in accident scenarios involving high temperature and pressure. He said that steam generators form a significant portion of the reactor coolant pressure boundary and current plant technical specifications "are not sufficient in addressing new forms of degradation." You indicated that steam generator tubes are currently the "weak link" during accident conditions.

From comments at Commission briefings on January 31st and February 27th of this year, NRC staff clearly understands that a steam generator crisis is affecting the nuclear industry and public health and safety. This is also evident in your call for enforcement actions against utilities in cases where cracked tubes were missed during inspections. You stated, "we had concerns that some licensees were not using adequate inspections." But your March 1st response to our petition addendum takes a totally different approach. You assured the Petitioners that the bobbin coil probe, a steam generator tube test that is not adequate at finding circumferential cracking, is good enough. This is an apparent contradiction in enforcement and testing requirements and, given its implications, is unacceptable.

Degradation in steam generator tubes is increasing at an alarming rate throughout the global nuclear power industry - including NSP's Prairie Island Nuclear Generating Station. Despite this crisis being out-lined in the Petitioners June 5, 1995, filing under 10 CFR 2.206 and the experience of many utilities' outage reports, the NRC has allowed NSP to place shareholder profit over public health and safety. Prairie Island Unit 2, in June of 1995, and now Unit 1 on March 3, 1996, have been refueled, maintained, and brought back into operation without adequately testing the full length of the steam generator tubes for circumferential cracking.

Since the NRC is not requiring NSP to take measures to absolutely prevent catastrophic steam generator tube events at Prairie Island, even when NRC knows the potential exists, isn't this setting up a situation in which a catastrophic release of radionuclides into the environment is inevitable? Isn't this putting the public's health and safety at unnecessary risk?

Requested Action

The occurrence and types of steam generator tube cracking have become increasingly unpredictable. The Petitioners contend that NSP did not employ adequate testing of the full-length of its Prairie Island Unit 1 and 2 steam generator tubes.

The Petitioners hereby:

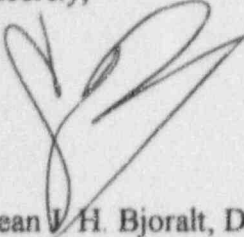
- Respectfully demand that NRC require NSP to place Prairie Island Units 1 and 2 in mid-cycle outages to inspect the full-length of the steam generator tubes with the Zetec Plus Point Probe and any state-of-the-art eddy current test capable of finding circumferentially oriented cracking.

If the above mid-cycle, full-length testing is not performed, the Petitioners hereby:

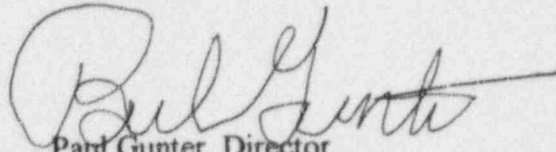
- Respectfully demand that the NRC hold an informal public hearing, that is accessible to affected Prairie Island, Minnesota, and Wisconsin residents, to explain why NRC feels that full-length inspections, employing state-of-the-art eddy current probes, are not needed for NSP's degrading Prairie Island nuclear steam generator tubes. The hearing should be held on a weekday evening or a weekend at a location in the vicinity of the reactors; the Red Wing Public Library for instance. Notice of the hearing should be released to the following news outlets at least 2 weeks prior to the date of the meeting; Associated Press - Minnesota, Minneapolis Star Tribune, St. Paul Pioneer Press, Red Wing Republican Eagle, Lake City Graphic, Winona Daily News, Pierce County Herald, and the Rochester Post Bulletin.

Your timely response to this letter and consideration of the requests is greatly appreciated. If you or other NRC staff have any questions, please contact Shean Bjoralt at PIC or Paul Gunter at NIRS.

Sincerely,



Shean V. H. Bjoralt, Director
Communications and Logistics
Prairie Island Coalition
212 N. 3rd Avenue #350
Minneapolis, MN 55401
Tel: (612) 333-5807, Fax: (612) 333-2326



Paul Gunter, Director
Reactor Watchdog Project
Nuclear Information & Resource Service
1424 - 16th Street NW #404
Washington, DC 20036
Tel: (202) 328-0002, Fax: (202) 462-2183

cc: Shirley Jackson, Chair - NRC
Russ Bywater, Acting Prairie Island Project Manager - NRC
Leo Norton, Office of the Inspector General - NRC
Senator Paul Wellstone
Curtis Campbell, Sr., President - Prairie Island Tribal Council
Joseph B. Campbell, Chair - Prairie Island Environmental Protection Committee
Minnesota Attorney General

Transmitted to Mr. Russell via fax on March 13, 1996; hard copy post marked March 13, 1996.

April 26, 1996

MEMORANDUM TO: Rules Review and Directives Branch
Division of Freedom of Information and Publications Services
Office of Administration

FROM: Office of Nuclear Reactor Regulation

SUBJECT: Prairie Island - 2.206 Acknowledgement Letter

One signed original of the *Federal Register* Notice identified below is attached for your transmittal to the Office of the Federal Register for publication. Additional conformed copies (5) of the Notice are enclosed for your use.

- ☐ Notice of Receipt of Application for Construction Permit(s) and Operating License(s).
- ☐ Notice of Receipt of Partial Application for Construction Permit(s) and Facility License(s): Time for submission of Views on Antitrust matters.
- ☐ Notice of Consideration of Issuance of Amendment to Facility Operating License. (Call with 30-day insert date).
- ☐ Notice of Receipt of Application for Facility License(s); Notice of Availability of Applicant's Environmental Report; and Notice of Consideration of Issuance of Facility License(s) and Notice of Opportunity for Hearing.
- ☐ Notice of Availability of NRC Draft/Final Environmental Statement.
- ☐ Notice of Limited Work Authorization.
- ☐ Notice of Availability of Safety Evaluation Report.
- ☐ Notice of Issuance of Construction Permit(s).
- ☐ Notice of Issuance of Facility Operating License(s) or Amendment(s).
- ☐ Order.
- ☐ Exemption.
- ☐ Notice of Granting Exemption.
- ☐ Environmental Assessment.
- ☐ Notice of Preparation of Environmental Assessment.
- ☒ Receipt of Petition for Director's Decision Under 10 CFR 2.206.
- ☐ Issuance of Final Director's Decision Under 10 CFR 2.206.
- ☐ Other: _____

DOCKET NO. 50-282/00-306

Attachment(s): As stated

Contact: C. Hawes/C. Jamerson
Telephone: 415-1340

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