



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS  
WASHINGTON, DC 20555 - 0001**

October 15, 2009

MEMORANDUM TO: Harold Ray, Chairman  
Plant License Renewal Subcommittee

FROM: Christopher L. Brown, Senior Staff Engineer */RA/*  
Reactor Safety Branch – A  
ACRS

SUBJECT: THE MINUTES OF THE MEETING OF THE SUBCOMMITTEE ON  
PLANT LICENSE RENEWAL REGARDING PRAIRIE ISLAND  
NUCLEAR GENERATING PLANT, UNITS 1 AND 2 ON JULY 7, 2009,  
IN ROCKVILLE, MARYLAND

The minutes of the subject meeting were certified on October 7, 2009, as the official record of the proceedings of that meeting. A copy of the certified minutes is attached.

Attachments: Certification Letter  
Minutes

cc w Attachments: Prairie Island Nuclear Generating Plant, Units 1 and 2 License Renewal  
Subcommittee Members

cc w/o Attachments: E. Hackett  
C. Santos  
S. Duraiswamy



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October 15, 2009

MEMORANDUM TO: Christopher L. Brown, Senior Staff Engineer  
Reactor Safety Branch – A  
ACRS

FROM: Harold Ray, Chairman,  
Plant License Renewal Subcommittee

SUBJECT: CERTIFICATION OF THE SUBCOMMITTEE ON PLANT LICENSE  
RENEWAL REGARDING PRAIRIE ISLAND NUCLEAR GENERATING  
PLANT, UNITS 1 AND 2 ON JULY 7, 2009, IN ROCKVILLE,  
MARYLAND

I hereby certify, to the best of my knowledge and belief, that the minutes of the subject meeting on July 7, 2009, are an accurate record of the proceedings for that meeting.

/RA/ 10/7 /2009  
H. Ray Date  
Plant License Renewal Subcommittee Chairman

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS  
MINUTES OF THE MEETING OF THE SUBCOMMITTEE ON PLANT LICENSE RENEWAL  
REGARDING PRAIRIE ISLAND GENERATING PLANT, UNITS 1 AND 2  
ON JULY 7, 2009, IN ROCKVILLE, MARYLAND

**INTRODUCTION**

On June 7, 2009, the ACRS Subcommittee on Plant License Renewal held a meeting regarding Prairie Island Generating Plant (PINGP), Units 1 and 2 in Room T-2B3, 11545 Rockville Pike, Rockville, Maryland. The purpose of the meeting was to discuss the PINGP application for license renewal and NRC staff's safety evaluation report (SER) with open items. In addition to the NRC staff, representatives from Northern States Power, a Minnesota Corporation, (NSPM), (the PING operator and the licensee) made presentations to the Committee. The meeting was convened at 8:30 a.m. and adjourned at 11:32 a.m.

**ATTENDEES**

ACRS Members

Harold Ray, Subcommittee Chairman  
Mario Bonaca, Member  
Said Abdel-Khalik , Member  
William Shack, Member  
John Sieber, Member  
J. Sam Armijo, Member  
Dana Power, Member  
Otto Maynard, Member  
John Stetkar, Member  
John. Barton (Consultant)

NRC Staff

B. Holian	S. Lee
R. Plasse	D. Nguyen
S. Sheldon	C. Yang
R. Li	B. Lehman
J. Dozer	C. Douit
H. Asher	G. Cheruvenki
D. Mills	Z. Xi
E. Wong	M. McConnell
T. Morgon	E. Smith
R. Auluck	B. Rogers
J. Daily	J. Davis

NSPM Staff (Xcel Energy)

M. Wadley	C. Bumberger
L. Gunderson	R. Pearson
J. Ritter	S. Marty
P. Lindberg	T. Downing
G. Eckholt	J. Ruether
K. Albrecht	S McCall
S. Skoyen	

## Other Attendees

J. Gorman, Dominion Engineering  
P. Atken, Dominion Engineering  
M. Hotchkiss, Dominion Engineering  
C. Beck, Next Era Energy  
J. Hesser, Arizona Public Service  
L. Sharp, Pacific Gas & Electric  
T. Grebel, Pacific Gas & Electric  
A. Krainik, Arizona Public Service  
K. Makeig, ATL  
D. Naus, ORNL  
G. Ritz, FENOC

The presentation slides and handouts used during the meeting are attached to the meeting transcripts. The presentations to the Subcommittee are summarized below.

### **OPENING REMARKS BY CHAIRMAN RAY**

Chairman Ray convened the meeting by introducing the ACRS members present. Chairman Ray stated that the purpose of the meeting was to review the PINGP Units 1 and 2 license renewal application, the draft SER with open items and associated documents. He stated that the Subcommittee would hear presentations from representatives of the Office of Nuclear Reactor Regulation (NRR), and the applicant, NSPM. He said the Subcommittee would gather information, analyze relevant issues and facts, and formulate proposed position and action, as appropriate, for deliberation by the Full Committee. The rules for participation in the meeting were announced as part of the notice of the meeting previously published in the Federal Register.

### **DISCUSSION OF AGENDA ITEMS**

#### Staff Introduction

Mr. Brian Holian, Director of Division of License Renewal in NRR, gave a brief introduction and introduced the principal staff members present. He then called upon the applicant's presenter, Mr. Mike Wadley, Site Vice President to begin the applicant's presentation.

#### Applicant Presentation

Mr. Gene Eckholt introduced the NSPM team present at the meeting to support their presentation to ACRS Subcommittee then turned the presentation back over to Mr. Wadley. Mr. Wadley started his presentation by describing the general information related to plant location, design, plant status, and licensing/operating history. Mr. Eckholt described the license renewal (LR) project and development of the license renewal applications. Mr. Eckholt stated that there were 36 regulatory commitments that were identified with respect to LR. Mr. Skoyen described the commitments, aging management programs and implementation activities. He also discussed the SER open items. Mr. Skoyen stated that the first open item related to the PWR vessel internals program and that Prairie Island has subsequently submitted a plant-specific vessel internals program to the NRC. The submittal is currently under review by NRC staff. Mr. Skoyen described the second open item, which relates to the waste gas decay tanks. Mr. Skoyen indicated that in the LR application these tanks were not in the scope of LR. Mr. Skoyen stated that after discussions with the staff, NSPM agreed with the staff and subsequently re-classified these tanks as in-scope. The third SER open item related to reviewing the past refueling cavity leakage. Mr. Skoyen and Mr. Wadley described and explained their permanent repair plan and method so as to eliminate future refueling cavity leakage. Regarding long term aging management, Mr. Skoyen described that monitoring areas

that previously exhibited leakage for the next two outages after the repairs are completed is currently in their corrective action program. It was indicated that NSPM would continue general monitoring for new leakage using the structures monitoring program per ASME Section 1 IWE program for the remainder of plant life.

#### NRC Staff Presentation

Mr. Richard Plasse, the NRR License Renewal Project Manager for PINGP, provided an overview of the staff's license renewal review. Mr. Plasse provided the status of the three SER open items. One of the open items discussed by Mr. Plasse was related to water seepage from the refueling cavity into the containment sumps. Mr. Stu Sheldon, Region III team member for the license renewal inspection at PINGP briefly described the inspections conducted by the regional staff. Mr. Sheldon stated that no issues within the scoping aspect of the inspection were identified. Mr. Sheldon also stated that the applicant was very conservative in its scoping decisions. The inspection team did identify a few minor material condition issues that were subsequently entered into the applicant's corrective action program. Mr. Sheldon further described the plant walkdowns, the staff interviews, and the inspection team's reviews of operating experience during the inspections. Mr. Sheldon stated that the tribal counsel president of the Prairie Island Indian community came and observed the regional staff inspections.

#### **COMMENTS AND OBSERVATIONS FROM THE SUBCOMMITTEE MEMBERS**

Consultant Barton expressed concern with the time taken by the licensee to effectively address the leakage of borated water from the refueling cavity. He noted that the leakage has been a problem during refuelings for many years and that the relatively simple repair now planned, and the inspection to identify any damage due to the leakage, should have been implemented much earlier. He stated that he has a concern with the decision finally to do something with the refueling cavity leak that has been going on for years and years without really understanding what damage has been going on for years as a result of the leakage. Consultant Barton commented that you don't wait 30-something years before you decide to make the correction. Consultant Barton stated that the correction that the applicant was going to do for the cavity leakage is relatively simple.

Member Stetkar commented on the limited inspection for corrosion that was planned for the three condensate storage tanks.

Member Armijo requested to see the staff's final evaluation of the root cause analysis to make sure that the NRC staff agrees with the applicant on the source of the cavity leakage. The applicant will address this issue during Full Committee.

Member Powers stated that a potentially generic issue was identified in this application. It concerns the potential for electrical cables to be damaged by exposure to freeze/thaw cycles. This is similar to the recognized concern with potential damage due to exposure to wet/dry cycles. Neither the staff nor the applicant responded to Dr. Powers' concern.

Member Maynard commented that no applicant has provided a good presentation on what they are doing relative to water in the plant vaults and their understanding and justification for the inspection frequencies. Member Maynard also commented that NRC needs to come to a resolution on what is required in license renewal regarding station blackout scoping, although it did not apply to PINGP, since they added the equipment to the scope of license renewal.

Chairman Ray commented that it was unsatisfactory that there is not more clarity around the significance of borated water leakage to structures. Chairman Ray commented that regarding ferrous components, borated water is identified as a large concern, particularly if it is at elevated temperatures; however, at lower temperatures in concrete rebar, or a different environment, we should have a better understanding of its significance.

Chairman Ray further commented on and summarized the following issues/items:

1. The decision to perform UT inspection of the bottom thickness of only 1 of 3 condensate storage tanks. The tanks are non-safety-related, and their integrity is not viewed as a significant safety issue. But, the applicant's conclusion that only 1 tank needs to be inspected to assure that no unacceptable degradation exists on all 3 tanks is not adequately supported.
2. What action would be taken if degradation is found in the 1 condensate storage tank inspected is not stated.
3. There is a potential generic issue related to freezing and thawing of electrical cables. Also, direct-buried cables should be assumed to be exposed to moisture in situ.
4. The reasons for prolonged leakage from the refueling canal were questioned, as well as the adequacy of the corrective action and root cause analysis.

**SUBCOMMITTEE DECISIONS AND ACTIONS**

Following the staff and applicant presentations and discussions, Chairman Ray asked members if they had additional issues and concerns that needed to be discussed. Members were asked for their overall observations from the presentations. Other than those issues described above, no additional issues were identified. He then adjourned the meeting.

**BACKGROUND MATERIALS PROVIDED TO THE SUBCOMMITTEE**

1. Memorandum from David Wrona to Edwin M. Hackett, dated June 4, 2009 (ML091030159).
2. NRC Staff Audit Summary Report, dated April 21, 2009 (ML090850009).
3. NRC Inspection Report 05000282 and 306/2009006, dated March 27, 2009 (ML090860804).
4. Letter from Nuclear Management Co LLC to NRC, Prairie Island, Units 1 and 2 - Application for License Renewal, dated April 11, 2008 (ML081130666).

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NOTE:

Additional details of this meeting can be obtained from a transcript of this meeting available in the NRC Public Document Room, One White Flint North, 11555 Rockville Pike, Rockville, MD, (301) 415-7000, downloading or view on the Internet at <http://www.nrc.gov/reading-rm/doc-collections/acrs/> can be purchased from Neal R. Gross and Co., 1323 Rhode Island Avenue, NW, Washington, D.C. 20005, (202) 234-4433 (voice), (202) 387-7330 (fax), [nrgross@nealgross.com](mailto:nrgross@nealgross.com) (e-mail).