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June 5, 2009

L-PI-09-074
10 CFR 54

U S Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Prairie Island Nuclear Generating Plant Units 1 and 2
Dockets 50-282 and 50-306
License Nos. DPR-42 and DPR-60

Supplemental Information Regarding Application for Renewed Operating Licenses

By letter dated April 11, 2008, Northern States Power Company, a Minnesota Corporation, (NSPM) submitted an Application for Renewed Operating Licenses (LRA) for the Prairie Island Nuclear Generating Plant (PINGP) Units 1 and 2. On June 4, 2009, the NRC issued the Safety Evaluation Report With Open Items Related to the License Renewal of the Prairie Island Nuclear Generating Plant Units 1 and 2 (SER). The SER contained Open Item 2.1.4.1.2-01 related to the scoping of the PINGP Waste Gas Decay Tanks under 10 CFR 54.4. The PINGP response to Open Item 2.1.4.1.2-01 is provided in Enclosure 1.

As a separate matter, plant walkdowns and other activities have identified the need for additional minor changes to the LRA. These changes are provided in Enclosure 2.

The NSPM letter dated April 6, 2009 provided a response to RAI 3.3.2-8-1 regarding aging management of rubber hoses exposed to fuel oil or lubricating oil in the Diesel Generators and Support System. The response included License Renewal Commitment No. 43 to periodically replace the subject hoses in lieu of performing an Aging Management Review. It has since been determined that this commitment is also applicable to selected hoses on the 122 Diesel Driven Fire Pump. Accordingly, License Renewal Commitment No. 43 is being revised as noted below to incorporate the additional hoses. A complete listing of PINGP License Renewal Commitments, updated to reflect NSPM correspondence to date, is provided in Enclosure 3.

If there are any questions or if additional information is needed, please contact Mr. Eugene Eckholt, License Renewal Project Manager.

Summary of Commitments

This letter contains no new commitments. License Renewal Commitment No. 43 is revised as follows:

Preventive maintenance requirements will be implemented to require periodic

A133
NRR

replacement of rubber flexible hoses in the Diesel Generators and Support System and in the 122 Diesel Driven Fire Pump that are exposed to fuel oil or lubricating oil internal environments.

I declare under penalty of perjury that the foregoing is true and correct.
Executed on June 5, 2009.

Michael D. Wadley
Site Vice President, Prairie Island Nuclear Generating Plant Units 1 and 2
Northern States Power Company - Minnesota

Enclosures (3)

cc:

Administrator, Region III, USNRC
License Renewal Project Manager, Prairie Island, USNRC
Resident Inspector, Prairie Island, USNRC
Prairie Island Indian Community ATTN: Phil Mahowald
Minnesota Department of Commerce

Enclosure 1
Response to NRC SER Open Item 2.1.4.1.2-01

NRC SER Open Item 2.1.4.1.2-01: (SER Section 2.1.4.1.2 – 10 CFR 54.21(a) Classification of Waste Gas Decay Tank)

The staff has reviewed the applicant's response to RAI 2.1-1, Part A, and determined the applicant's position was not adequately justified. The elements of 10 CFR 54.4 (a)(1)(iii) that determine whether an SSC is within the scope of SSCs that must be considered for aging management are:

- The SSC is relied upon to function.
- The SSC functions during or following a design basis event.
- The SSC prevents or mitigates the consequences of the design basis accident.
- The consequences of the design basis accident could result in offsite exposures comparable to those referred to in 10 CFR 50.67(b)(2) or 10 CFR 100.11.

UFSAR Section 14.5.3.1, "Gas Decay Tank Rupture," states that a rupture of a gas decay tank is analyzed to define the limit of the hazard that could result from any malfunction in the gaseous radioactive waste disposal system. The UFSAR also states that the components of the waste gas system are not subjected to high pressures or stresses, they are a Class I design, and they are designed to standards such that a rupture or failure of the system is highly unlikely. The potential offsite exposures are listed in a table at the end of UFSAR Section 14.5.3 that also lists the limits of 10 CFR 100.11.

Thus, the components of the radioactive waste gas system are designed to and relied upon to prevent potential offsite exposures. These components function as a pressure boundary to prevent a rupture that could release the contents of the waste gas decay tanks. The postulated rupture of a waste gas decay tank has been evaluated as a design basis event in the Prairie Island UFSAR.

The offsite dose consequences of the gas decay tank rupture are comparable to those referred to in 10 CFR 100.11 in the sense that the calculated offsite exposures for all design basis accidents are compared to limits derived from those specified in 10 CFR 50.67(b)(2) or 10 CFR 100.11. Although the potential offsite dose consequences may be a small fraction of those referenced in 10 CFR 100.11, the comparison remains necessary to confirm the acceptability of the plant design. This contrasts with the offsite consequences of other routine operational events (e.g., effluent releases) that are compared to limits derived from other regulations.

Thus, the staff determined that the waste gas decay tanks should be included within the scope of license renewal in accordance with 10 CFR 54.4(a)(1)(iii). This is **SER Open Item 2.1.4.1.2-01.**

Enclosure 1
Response to NRC SER Open Item 2.1.4.1.2-01

NSPM Response to SER Open Item 2.1.4.1.2-01

The Waste Gas Decay Tanks have been reclassified as in scope for License Renewal under 10 CFR 54.4(a)(1). The LRA is hereby revised to reflect this reclassification as follows:

In LRA Section 2.3.3-20, Waste Disposal System, in the first full paragraph on Page 2.3-110, the last sentence, "A rupture of the waste gas decay tanks ... not within the scope of License Renewal," is deleted in its entirety.

In LRA Section 2.3.3-20, Waste Disposal System, under System Function Listing on Page 2.3-112, the following new function is added:

Code WD-06 The Waste Gas Decay Tanks and associated piping provide a pressure boundary to prevent an unexpected and uncontrolled release of radioactive gases to the atmosphere.	Cri 1	Cri 2	Cri 3				
			FP	EG	PTS	AT	SB
	X						

Comment: The Waste Gas Decay Tanks and associated piping are designed to maintain releases within 10 CFR 100.11 limits as defined by the PINGP current licensing basis, and therefore are within the scope of License Renewal per 10 CFR 54.4(a)(1).

In LRA Section 3.3.2.1.20, Waste Disposal System, under Environment on Page 3.3-30, the following new bullet is added:

- Nitrogen Gas (Internal)

In LRA Table 3.3.2-20, Auxiliary Systems - Waste Disposal System - Summary of Aging Management Evaluation, on Page 3.3-307, new line items are added as follows:

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG-1801 Volume 2 Line Item	Table 1 Item	Notes
Manifolds	Pressure Boundary	Carbon Steel	Wet Air/Gas (Int)	Loss of Material - Crevice Corrosion	Inspection of Internal Surfaces in Miscellaneous Piping & Ducting Components Program	VII.D-2	3.3.1-53	E, 301
Manifolds	Pressure Boundary	Carbon Steel	Wet Air/Gas (Int)	Loss of Material - General Corrosion	Inspection of Internal Surfaces in Miscellaneous Piping & Ducting Components Program	VII.D-2	3.3.1-53	E

Enclosure 1
Response to NRC SER Open Item 2.1.4.1.2-01

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG-1801 Volume 2 Line Item	Table 1 Item	Notes
Manifolds	Pressure Boundary	Carbon Steel	Wet Air/Gas (Int)	Loss of Material - Pitting Corrosion	Inspection of Internal Surfaces in Miscellaneous Piping & Ducting Components Program	VII.D-2	3.3.1-53	E
Manifolds	Pressure Boundary	Stainless Steel	Wet Air/Gas (Int)	Loss of Material - Crevice Corrosion	Inspection of Internal Surfaces in Miscellaneous Piping & Ducting Components Program	VII.H2-18	3.3.1-80	E, 320
Manifolds	Pressure Boundary	Stainless Steel	Wet Air/Gas (Int)	Loss of Material - Pitting Corrosion	Inspection of Internal Surfaces in Miscellaneous Piping & Ducting Components Program	VII.H2-18	3.3.1-80	E, 320
Piping / Fittings	Pressure Boundary	Carbon Steel	Nitrogen Gas (Int)	None	None	VII.J-23	3.3.1-97	A
Piping / Fittings	Pressure Boundary	Carbon Steel	Wet Air/Gas (Int)	Loss of Material - Crevice Corrosion	Inspection of Internal Surfaces in Miscellaneous Piping & Ducting Components Program	VII.D-2	3.3.1-53	E, 301
Piping / Fittings	Pressure Boundary	Carbon Steel	Wet Air/Gas (Int)	Loss of Material - General Corrosion	Inspection of Internal Surfaces in Miscellaneous Piping & Ducting Components Program	VII.D-2	3.3.1-53	E
Piping / Fittings	Pressure Boundary	Carbon Steel	Wet Air/Gas (Int)	Loss of Material - Pitting Corrosion	Inspection of Internal Surfaces in Miscellaneous Piping & Ducting Components Program	VII.D-2	3.3.1-53	E
Piping / Fittings	Pressure Boundary	Stainless Steel	Wet Air/Gas (Int)	Loss of Material - Crevice Corrosion	Inspection of Internal Surfaces in Miscellaneous	VII.H2-18	3.3.1-80	E, 320

Enclosure 1
Response to NRC SER Open Item 2.1.4.1.2-01

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG-1801 Volume 2 Line Item	Table 1 Item	Notes
					Piping & Ducting Components Program			
Piping / Fittings	Pressure Boundary	Stainless Steel	Wet Air/Gas (Int)	Loss of Material - Pitting Corrosion	Inspection of Internal Surfaces in Miscellaneous Piping & Ducting Components Program	VII.H2-18	3.3.1-80	E, 320
Tanks	Pressure Boundary	Carbon Steel	Wet Air/Gas (Int)	Loss of Material - Crevice Corrosion	Inspection of Internal Surfaces in Miscellaneous Piping & Ducting Components Program	VII.D-2	3.3.1-53	E, 301
Tanks	Pressure Boundary	Carbon Steel	Wet Air/Gas (Int)	Loss of Material - General Corrosion	Inspection of Internal Surfaces in Miscellaneous Piping & Ducting Components Program	VII.D-2	3.3.1-53	E
Tanks	Pressure Boundary	Carbon Steel	Wet Air/Gas (Int)	Loss of Material - Pitting Corrosion	Inspection of Internal Surfaces in Miscellaneous Piping & Ducting Components Program	VII.D-2	3.3.1-53	E

Enclosure 2
Additional LRA Changes

PVC Piping in Waste Disposal System

The Waste Disposal System uses PVC material for certain tanks and piping. PVC was identified as an installed material in LRA Section 3.3.2.1.20, Waste Disposal System, but was only listed in the associated Aging Management Evaluation table as a tank material. For completeness, the LRA is being revised to include the appropriate piping / fitting line items with PVC material in LRA Table 3.3.2-20.

In LRA Table 3.3.2-20, Auxiliary Systems - Waste Disposal System - Summary of Aging Management Evaluation, on Page 3.3-318, additional line items are added as follows:

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG-1801 Volume 2 Line Item	Table 1 Item	Notes
Piping / Fittings	Pressure Boundary	PVC	Plant Indoor Air - Uncontrolled (Ext)	Change in Material Properties - Ozone Exposure	External surfaces Monitoring Program			F
Piping / Fittings	Pressure Boundary	PVC	Plant Indoor Air - Uncontrolled (Ext)	Change in Material Properties - Ultraviolet Exposure	External surfaces Monitoring Program			F
Piping / Fittings	Pressure Boundary	PVC	Plant Indoor Air - Uncontrolled (Ext)	Cracking - Ozone Exposure	External surfaces Monitoring Program			F
Piping / Fittings	Pressure Boundary	PVC	Plant Indoor Air - Uncontrolled (Ext)	Cracking - Ultraviolet Exposure	External surfaces Monitoring Program			F
Piping / Fittings	Pressure Boundary	PVC	Raw Water (Int)	None	None			F, 313

Enclosure 2
Additional LRA Changes

Ventilation System Instrument Valves

As a result of walkdowns of several ventilation systems, it was noted that the associated information in LRA Section 3.3 did not fully account for the materials and environments of the installed flow instrumentation isolation valves. For completeness, the LRA is being revised to incorporate the appropriate additional materials and environments for valve bodies in the affected ventilation systems.

In LRA Section 3.3.2.1.1, Auxiliary and Radwaste Ventilation System, on Page 3.3-4 under Materials, the following bullet is added:

- Brass

In LRA Table 3.3.2-1, Auxiliary Systems - Auxiliary and Radwaste Area Ventilation System - Summary of Aging Management Evaluation, on Page 3.3-71, new line items are added as follows:

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG-1801 Volume 2 Line Item	Table 1 Item	Notes
Valve Bodies	Pressure Boundary	Brass	Plant Indoor Air - Uncontrolled (Ext)	None	None	VIII.I-2	3.4.1-41	A
Valve Bodies	Pressure Boundary	Brass	Plant Indoor Air - Uncontrolled (Ext)	Loss of Material - Boric Acid Wastage	Boric Acid Corrosion Program	VII.I-12	3.3.1-88	A
Valve Bodies	Pressure Boundary	Brass	Plant Indoor Air - Uncontrolled (Int)	None	None	VIII.I-2	3.4.1-41	A

In LRA Table 3.3.2-5, Auxiliary Systems - Control Room and Miscellaneous Area Ventilation System - Summary of Aging Management Evaluation, on Page 3.3-120, new line items are added as follows:

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG-1801 Volume 2 Line Item	Table 1 Item	Notes
Valve Bodies	Pressure Boundary	Brass	Plant Indoor Air - Uncontrolled (Int)	None	None	VIII.I-2	3.4.1-41	A
Valve Bodies	Pressure Boundary	Stainless Steel	Plant Indoor Air - Uncontrolled (Int)	None	None	VII.J-15	3.3.1-94	A

Enclosure 2
Additional LRA Changes

In LRA Section 3.3.2.1.14, Primary Containment Ventilation System, on Page 3.3-23 under Materials, the following bullet is added:

- Brass

In LRA Table 3.3.2-14, Auxiliary Systems - Primary Containment Ventilation System - Summary of Aging Management Evaluation, on Page 3.3-283, new line items are added as follows:

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG-1801 Volume 2 Line Item	Table 1 Item	Notes
Valve Bodies	Pressure Boundary	Brass	Plant Indoor Air - Uncontrolled (Ext)	None	None	VIII.I-2	3.4.1-41	A
Valve Bodies	Pressure Boundary	Brass	Plant Indoor Air - Uncontrolled (Ext)	Loss of Material - Boric Acid Wastage	Boric Acid Corrosion Program	VII.I-12	3.3.1-88	A
Valve Bodies	Pressure Boundary	Brass	Plant Indoor Air - Uncontrolled (Int)	None	None	VIII.I-2	3.4.1-41	A
Valve Bodies	Pressure Boundary	Brass	Primary Containment Air (Int)	None	None	VIII.I-2	3.4.1-41	A
Valve Bodies	Pressure Boundary	Stainless Steel	Plant Indoor Air - Uncontrolled (Ext)	None	None	VII.J-15	3.3.1-94	A
Valve Bodies	Pressure Boundary	Stainless Steel	Plant Indoor Air - Uncontrolled (Int)	None	None	VII.J-15	3.3.1-94	A
Valve Bodies	Pressure Boundary	Stainless Steel	Primary Containment Air (Int)	None	None	VII.J-15	3.3.1-94	A

Enclosure 3

Prairie Island Nuclear Generating Plant License Renewal Commitments

15 Pages

Enclosure 3
Prairie Island Nuclear Generating Plant License Renewal Commitments

The following table provides the list of commitments included in the Application for Renewed Operating Licenses (LRA) for Prairie Island Nuclear Generating Plant (PINGP) Units 1 and 2, as updated in subsequent correspondence.

The commitments in this list are anticipated to be the final commitments which will be confirmed in the NRC's Safety Evaluation Report (SER) for the renewed operating licenses. These commitments, as confirmed in the SER, will become effective upon NRC issuance of the renewed licenses. In addition, as stated in the LRA, the final commitments will be incorporated into the Updated Safety Analysis Report (USAR).

Commitment Number	Commitment	Implementation Schedule	Related LRA Section Number
1	Each year, following the submittal of the PINGP License Renewal Application and at least three months before the scheduled completion of the NRC review, NMC will submit amendments to the PINGP application pursuant to 10 CFR 54.21(b). These revisions will identify any changes to the Current Licensing Basis that materially affect the contents of the License Renewal Application, including the USAR supplements.	12 months after LRA submittal date and at least 3 months before completion of NRC review Annual Update was submitted by letter dated 4/13/09	1.4
2	Following the issuance of the renewed operating license, the summary descriptions of aging management programs and TLAAs provided in Appendix A, and the final list of License Renewal commitments, will be incorporated into the PINGP USAR as part of a periodic USAR update in accordance with 10 CFR 50.71(e). Other changes to specific sections of the PINGP USAR necessary to reflect a renewed operating license will also be addressed at that time.	First USAR update in accordance with 10 CFR 50.71(e) following issuance of renewed operating licenses	A1.0
3	An Aboveground Steel Tanks Program will be implemented. Program features will be as described in LRA Section B2.1.2.	U1 - 8/9/2013 U2 - 10/29/2014	B2.1.2
4	Procedures for the conduct of inspections in the External Surfaces Monitoring Program, Structures Monitoring Program,	U1 - 8/9/2013	B2.1.6

Enclosure 3
Prairie Island Nuclear Generating Plant License Renewal Commitments

Commitment Number	Commitment	Implementation Schedule	Related LRA Section Number
	Buried Piping and Tanks Inspection Program, and the RG 1.127 Inspection of Water-Control Structures Associated with Nuclear Power Plants Program will be enhanced to include guidance for visual inspections of installed bolting.	U2 - 10/29/2014	
5	A Buried Piping and Tanks Inspection Program will be implemented. Program features will be as described in LRA Section B2.1.8.	U1 - 8/9/2013 U2 - 10/29/2014	B2.1.8
6	The Closed-Cycle Cooling Water System Program will be enhanced to include periodic inspection of accessible surfaces of components serviced by closed-cycle cooling water when the systems or components are opened during scheduled maintenance or surveillance activities. Inspections are performed to identify the presence of aging effects and to confirm the effectiveness of the chemistry controls. Visual inspection of component internals will be used to detect loss of material and heat transfer degradation. Enhanced visual or volumetric examination techniques will be used to detect cracking. [Revised in letter dated 1/20/2009 in response to RAI 3.3.2-13-01]	U1 - 8/9/2013 U2 - 10/29/2014	B2.1.9
7	The Compressed Air Monitoring Program will be enhanced as follows: • Station and Instrument Air System air quality will be monitored and maintained in accordance with the instrument air quality guidance provided in ISA S7.0.01-1996. Particulate testing will be revised to use a particle size methodology as specified in ISA S7.0.01.	U1 - 8/9/2013 U2 - 10/29/2014	B2.1.10

Enclosure 3
Prairie Island Nuclear Generating Plant License Renewal Commitments

Commitment Number	Commitment	Implementation Schedule	Related LRA Section Number
	• The program will incorporate on-line dew point monitoring. [Revised in letter dated 2/6/2009 in response to Region III License Renewal Inspection]		
8	An Electrical Cable Connections Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program will be completed. Program features will be as described in LRA Section B2.1.11.	U1 - 8/9/2013 U2 - 10/29/2014	B2.1.11
9	An Electrical Cables and Connections Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program will be implemented. Program features will be as described in LRA Section B2.1.12.	U1 - 8/9/2013 U2 - 10/29/2014	B2.1.12
10	An Electrical Cables and Connections Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Used in Instrumentation Circuits Program will be implemented. Program features will be as described in LRA Section B2.1.13.	U1 - 8/9/2013 U2 - 10/29/2014	B2.1.13
11	The External Surfaces Monitoring Program will be enhanced as follows: • The scope of the program will be expanded as necessary to include all metallic and non-metallic components within the scope of License Renewal that require aging management in accordance with this program. • The program will ensure that surfaces that are inaccessible or not readily visible during plant operations will be inspected during refueling outages. • The program will ensure that surfaces that are	U1 - 8/9/2013 U2 - 10/29/2014	B2.1.14

Commitment Number	Commitment	Implementation Schedule	Related LRA Section Number
	inaccessible or not readily visible during both plant operations and refueling outages will be inspected at intervals that provide reasonable assurance that aging effects are managed such that the applicable components will perform their intended function during the period of extended operation. • The program will apply physical manipulation techniques, in addition to visual inspection, to detect aging effects in elastomers and plastics. • The program will include acceptance criteria (e.g., threshold values for identified aging effects) to ensure that the need for corrective actions will be identified before a loss of intended functions. • The program will ensure that program documentation such as walkdown records, inspection results, and other records of monitoring and trending activities are auditable and retrievable. [Revised in letter dated 2/6/2009 in response to RAI B2.1.14-1 Follow Up question]		
12	The Fire Protection Program will be enhanced to require periodic visual inspection of the fire barrier walls, ceilings, and floors to be performed during walkdowns at least once every refueling cycle. [Revised in letter dated 12/5/2008 in response to RAI B2.1.15-3]	U1 - 8/9/2013 U2 - 10/29/2014	B2.1.15
13	The Fire Water System Program will be enhanced as follows:	U1 - 8/9/2013 U2 - 10/29/2014	B2.1.16

Commitment Number	Commitment	Implementation Schedule	Related LRA Section Number
	• The program will be expanded to include eight additional yard fire hydrants in the scope of the annual visual inspection and flushing activities. • The program will require that sprinkler heads that have been in place for 50 years will be replaced or a representative sample of sprinkler heads will be tested using the guidance of NFPA 25, "Inspection, Testing and Maintenance of Water-Based Fire Protection Systems" (2002 Edition, Section 5.3.1.1.1). Sample testing, if performed, will continue at a 10-year interval following the initial testing.		
14	The Flux Thimble Tube Inspection Program will be enhanced as follows: • The program will require that the interval between inspections be established such that no flux thimble tube is predicted to incur wear that exceeds the established acceptance criteria before the next inspection. • The program will require that re-baselining of the examination frequency be justified using plant-specific wear rate data unless prior plant-specific NRC acceptance for the re-baselining was received. If design changes are made to use more wear-resistant thimble tube materials, sufficient inspections will be conducted at an adequate inspection frequency for the new materials. • The program will require that flux thimble tubes that cannot be inspected must be removed from service.	U1 - 8/9/2013 U2 - 10/29/2014	B2.1.18

Enclosure 3
Prairie Island Nuclear Generating Plant License Renewal Commitments

Commitment Number	Commitment	Implementation Schedule	Related LRA Section Number
15	The Fuel Oil Chemistry Program will be enhanced as follows: • Particulate contamination testing of fuel oil in the eleven fuel oil storage tanks in scope of License Renewal will be performed, in accordance with ASTM D 6217, on an annual basis. • One-time ultrasonic thickness measurements will be performed at selected tank bottom and piping locations prior to the period of extended operation.	U1 - 8/9/2013 U2 - 10/29/2014	B2.1.19
16	A Fuse Holders Program will be implemented. Program features will be as described in LRA Section B2.1.20.	U1 - 8/9/2013 U2 - 10/29/2014	B2.1.20
17	An Inaccessible Medium Voltage Cables Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program will be implemented. Program features will be as described in LRA Section B2.1.21	U1 - 8/9/2013 U2 - 10/29/2014	B2.1.21
18	An Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components Program will be implemented. Program features will be as described in LRA section B2.1.22. Inspections for stress corrosion cracking will be performed by visual examination with a magnified resolution as described in 10 CFR 50.55a(b)(2)(xxi)(A) or with ultrasonic methods. [Revised in letter dated 2/6/2009 in response to RAI B2.1.22-1 Follow Up question]	U1 - 8/9/2013 U2 - 10/29/2014	B2.1.22
19	The Inspection of Overhead Heavy Load and Light Load (Related to Refueling) Handling Systems Program will be enhanced as follows:	U1 - 8/9/2013 U2 - 10/29/2014	B2.1.23

Commitment Number	Commitment	Implementation Schedule	Related LRA Section Number
	• Program implementing procedures will be revised to ensure the components and structures subject to inspection are clearly identified. • Program inspection procedures will be enhanced to include the parameters corrosion and wear where omitted.		
20	A Metal-Enclosed Bus Program will be implemented. Program features will be as described in LRA Section B2.1.26.	U1 - 8/9/2013 U2 - 10/29/2014	B2.1.26
21	Number Not Used [Revised in letter dated 3/27/2009]		
22	Number Not Used [Revised in letter dated 4/13/2009]		
23	A One-Time Inspection Program will be completed. Program features will be as described in LRA Section B2.1.29.	U1 - 8/9/2013 U2 - 10/29/2014	B2.1.29
24	A One-Time Inspection of ASME Code Class 1 Small-Bore Piping Program will be completed. Program features will be as described in LRA Section B2.1.30.	U1 - 8/9/2013 U2 - 10/29/2014	B2.1.30

Enclosure 3
Prairie Island Nuclear Generating Plant License Renewal Commitments

Commitment Number	Commitment	Implementation Schedule	Related LRA Section Number
25	A. A PWR Vessel Internals Program will be implemented. Program features will be as described in LRA Section B2.1.32. B. An inspection plan for reactor internals will be submitted for NRC review and approval at least twenty-four months prior to the period of extended operation. [Revised in letter dated 5/12/2009]	A. U1 - 8/9/2013 U2 - 10/29/2014 B. U1 - 8/9/2011 U2 - 10/29/2012	B2.1.32
26	The Reactor Head Closure Studs Program will be enhanced to incorporate controls that ensure that any future procurement of reactor head closure studs will be in accordance with the material and inspection guidance provided in NRC Regulatory Guide 1.65.	U1 - 8/9/2013 U2 - 10/29/2014	B2.1.33
27	The Reactor Vessel Surveillance Program will be enhanced as follows: • A requirement will be added to ensure that all withdrawn and tested surveillance capsules, not discarded as of August 31, 2000, are placed in storage for possible future reconstitution and use. • A requirement will be added to ensure that in the event spare capsules are withdrawn, the untested capsules are placed in storage and maintained for future insertion.	U1 - 8/9/2013 U2 - 10/29/2014	B2.1.34
28	The RG 1.127, Inspection of Water-Control Structures Associated with Nuclear Power Plants Program will be enhanced as follows: • The program will include inspections of concrete and steel components that are below the water line at the	U1 - 8/9/2013 U2 - 10/29/2014	B2.1.35

Commitment Number	Commitment	Implementation Schedule	Related LRA Section Number
	Screenhouse and Intake Canal. The scope will also require inspections of the Approach Canal, Intake Canal, Emergency Cooling Water Intake, and Screenhouse immediately following extreme environmental conditions or natural phenomena including an earthquake, flood, tornado, severe thunderstorm, or high winds. • The program parameters to be inspected will include an inspection of water-control concrete components that are below the water line for cavitation and erosion degradation. • The program will visually inspect for damage such as cracking, settlement, movement, broken bolted and welded connections, buckling, and other degraded conditions following extreme environmental conditions or natural phenomena.		
29	A Selective Leaching of Materials Program will be completed. Program features will be as described in LRA B2.1.36.	U1 - 8/9/2013 U2 - 10/29/2014	B2.1.36
30	The Structures Monitoring Program will be enhanced as follows: • The following structures, components, and component supports will be added to the scope of the inspections: o Approach Canal o Fuel Oil Transfer House o Old Administration Building and Administration Building Addition o Component supports for cable tray, conduit, cable, tubing tray, tubing, non-ASME vessels,	U1 - 8/9/2013 U2 - 10/29/2014	B2.1.38

Commitment Number	Commitment	Implementation Schedule	Related LRA Section Number
	exchangers, pumps, valves, piping, mirror insulation, non-ASME valves, cabinets, panels, racks, equipment enclosures, junction boxes, bus ducts, breakers, transformers, instruments, diesel equipment, housings for HVAC fans, louvers, and dampers, HVAC ducts, vibration isolation elements for diesel equipment, and miscellaneous electrical and mechanical equipment items o Miscellaneous electrical equipment and instrumentation enclosures including cable tray, conduit, wireway, tube tray, cabinets, panels, racks, equipment enclosures, junction boxes, breaker housings, transformer housings, lighting fixtures, and metal bus enclosure assemblies o Miscellaneous mechanical equipment enclosures including housings for HVAC fans, louvers, and dampers o SBO Yard Structures and components including SBO cable vault and bus duct enclosures. o Fire Protection System hydrant houses o Caulking, sealant and elastomer materials o Non-safety related masonry walls that support equipment relied upon to perform a function that demonstrates compliance with a regulated event(s). • The program will be enhanced to include additional inspection parameters. • The program will require an inspection frequency of once		

Commitment Number	Commitment	Implementation Schedule	Related LRA Section Number
	every five (5) years for structures and structural components within the scope of the program. The frequency of inspections can be adjusted, if necessary, to allow for early detection and timely correction of negative trends. • The program will require periodic sampling of groundwater and river water chemistries to ensure they remain non-aggressive.		
31	A Thermal Aging Embrittlement of Cast Austenitic Stainless Steel (CASS) Program will be implemented. Program features will be as described in LRA Section B2.1.39.	U1 - 8/9/2013 U2 - 10/29/2014	B2.1.39
32	The Water Chemistry Program will be enhanced as follows: • The program will require increased sampling to be performed as needed to confirm the effectiveness of corrective actions taken to address an abnormal chemistry condition. • The program will require Reactor Coolant System dissolved oxygen Action Level limits to be consistent with the limits established in the EPRI PWR Primary Water Chemistry Guidelines." [Revised in letter dated 12/5/2008 in response to RAI B2.1.40-3]	U1 - 8/9/2013 U2 - 10/29/2014	B2.1.40
33	The Metal Fatigue of Reactor Coolant Pressure Boundary Program will be enhanced as follows: • The program will monitor the six component locations identified in NUREG/CR-6260 for older vintage Westinghouse plants, either by tracking the cumulative	U1 - 8/9/2013 U2 - 10/29/2014	B3.2

Commitment Number	Commitment	Implementation Schedule	Related LRA Section Number
	number of imposed stress cycles using cycle counting, or by tracking the cumulative fatigue usage, including the effects of coolant environment. The following locations will be monitored: o Reactor Vessel Inlet and Outlet Nozzles o Reactor Pressure Vessel Shell to Lower Head o RCS Hot Leg Surge Line Nozzle o RCS Cold Leg Charging Nozzle o RCS Cold Leg Safety Injection Accumulator Nozzle o RHR-to-Accumulator Piping Tee • Program acceptance criteria will be clarified to require corrective action to be taken before a cumulative fatigue usage factor exceeds 1.0 or a design basis transient cycle limit is exceeded. [Revised in letter dated 1/9/2009 in response to RAI 4.3.1.1-1]		
34	Reactor internals baffle bolt fatigue transient limits of 1835 cycles of plant loading at 5% per minute and 1835 cycles of plant unloading at 5% per minute will be incorporated into the Metal Fatigue of Reactor Coolant Pressure Boundary Program and USAR Table 4.1-8.	U1 - 8/9/2013 U2 - 10/29/2014	B3.2
35	NSPM will perform an ASME Section III fatigue evaluation of the lower head of the pressurizer to account for effects of insurge/outsurge transients. The evaluation will determine the cumulative fatigue usage of limiting pressurizer component(s) through the period of extended operation. The analyses will account for periods of both "Water Solid" and "Standard Steam Bubble" operating strategies. Analysis results will be	U1 - 8/9/2013 U2 - 10/29/2014	4.3.1.3

Commitment Number	Commitment	Implementation Schedule	Related LRA Section Number
	incorporated, as applicable, into the Metal Fatigue of Reactor Coolant Pressure Boundary Program. [Revised in letter dated 1/9/2009 in response to RAI 4.3.1.1-1]		
36	NSPM will complete fatigue calculations for the pressurizer surge line hot leg nozzle and the charging nozzle using the methodology of the ASME Code (Subsection NB) and will report the revised CUFs and CUFs adjusted for environmental effects at these locations as an amendment to the PINGP LRA. Conforming changes to LRA Section 4.3.3, "PINGP EAF Results," will also be included in that amendment to reflect analysis results and remove references to stress-based fatigue monitoring. [Added in letter dated 1/9/2009 in response to RAI 4.3.1.1-1]	April 30, 2009 Commitment closed by letter dated 4/28/09	4.3.3
37	NSPM will revise procedures for excavation and trenching controls and archaeological, cultural and historic resource protection to identify sensitive areas and provide guidance for ground-disturbing activities. The procedures will be revised to include drawings and illustrations to assist users in identifying culturally sensitive areas, and pictures of artifacts that are prevalent in the area of the Plant site. The revised procedures will also require training of the Site Environmental Coordinator and other personnel responsible for proper execution of excavation or other ground-disturbing activities. [Added in ER revision submitted in letter dated 3/4/2009]	8/9/2013	ER 4.16.1
38	NSPM will conduct a Phase I Reconnaissance Field Survey of the disturbed areas within the Plant's boundaries. In addition, NSPM will conduct Phase I field surveys of areas of known archaeological sites to precisely determine their boundaries.	8/9/2013	ER 4.16.2

Enclosure 3
Prairie Island Nuclear Generating Plant License Renewal Commitments

Commitment Number	Commitment	Implementation Schedule	Related LRA Section Number
	NSPM will use the results of these surveys to designate areas for archaeological protection. [Added in ER revision submitted in letter dated 3/4/2009]		
39	NSPM will prepare, maintain and implement a Cultural Resources Management Plan (CRMP) to protect significant historical, archaeological, and cultural resources that may currently exist on the Plant site. In connection with the preparation of the CRMP, NSPM will conduct botanical surveys to identify culturally and medicinally important species on the Plant site, and incorporate provisions to protect such plants into the CRMP. [Added in ER revision submitted in letter dated 3/4/2009]	8/9/2013	ER 4.16.2
40	NSPM will consult with a qualified archaeologist prior to conducting any ground-disturbing activity in any area designated as undisturbed and in any disturbed area that is described as potentially containing archaeological resources (as determined by the Phase I Reconnaissance Field Survey discussed in Commitment Number 38). [Added in ER revision submitted in letter dated 3/4/2009]	8/9/2013	ER 4.16.2
41	During the first refueling outage following refueling cavity leak repairs in each Unit (scheduled for refueling outages 1R26 and 2R26), concrete will be removed from the sump C pit to expose an area of the containment vessel bottom head. Visual examination and ultrasonic thickness measurement will be performed on the portions of the containment vessels exposed by the excavations. An assessment of the condition of exposed	U1 - 8/9/2013 U2 - 10/29/2014	B2.1.38

Commitment Number	Commitment	Implementation Schedule	Related LRA Section Number
	concrete and rebar will also be performed. Degradation observed in the exposed containment vessel, concrete or rebar will be entered into the Corrective Action Program and evaluated for impact on structural integrity and identification of additional actions that may be warranted. [Added in letter dated 4/6/09 in response to Follow Up RAI B2.1.38]		
42	During the two consecutive refueling outages following refueling cavity leak repairs in each Unit (scheduled for refueling outages 1R26 and 2R26), visual inspections will be performed of the areas where reactor cavity leakage had been observed previously to confirm that leakage has been resolved. The inspection results will be documented. If refueling cavity leakage is again identified, the issue will be entered into the Corrective Action Program and evaluated for identification of additional actions to mitigate leakage and monitor the condition of the containment vessel and internal structures. [Added in letter dated 4/6/09 in response to Follow Up RAI B2.1.38]	U1 - 8/9/2013 U2 - 10/29/2014	B2.1.38
43	Preventive maintenance requirements will be implemented to require periodic replacement of rubber flexible hoses in the Diesel Generators and Support System and in the 122 Diesel Driven Fire Pump that are exposed to fuel oil or lubricating oil internal environments. [Added in letter dated 4/6/09 in response to RAI 3.3.2-8-1] [Revised in letter dated 6/5/09]	U1 - 8/9/2013 U2 - 10/29/2014	Table 3.3.2-8