Docket Nos. 50-282
and 50-306

May 8, 1992

Mr. T. M. Parker, Manager
Nuclear Support Services
Northern States Power Company
414 Nicollet Mall
Minneapolis, Minnesota 55401

Dear Mr. Parker:

SUBJECT: PRAIRIE ISLAND NUCLEAR GENERATING PLANT, UNIT NOS. 1 AND 2 - AMENDMENT NOS. 98 AND 91 TO FACILITY OPERATING LICENSE NOS. DPR-42 AND DPR-60 (TAC NOS. M82590 AND M82591)

The Commission has issued the enclosed Amendment No. 98to Facility Operating License No. DPR-42 and Amendment No. 91 to the Facility Operating License No. DPR-60 for the Prairie Island Nuclear Generating Plant, Unit Nos. 1 and 2. The amendments consist of changes to the Technical Specifications in response to your application dated January 10, 1992.

The proposed amendments revise the Technical Specifications (TS), Section 4.13 in response to Generic Letter (GL) 90-09, "Alternative Requirements for Snubber Visual Inspection Intervals and Corrective Actions," which provides an alternate schedule for visual inspection of snubbers. The current snubber visual inspection schedule in TS Section 4.13.A is being replaced with a reference to a new TS Table TS 4.13-1 and the current snubber visual inspection acceptance criteria in TS Section 4.13.B are being revised per the guidance in Generic Letter 90-09.

The amendments also revise TS Section 4.13.C and associated Bases to remove the requirement that functional testing of snubbers be done during cold shutdown.

A copy of our related Safety Evaluation is also enclosed. The notice of issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

/s/

Armando Masciantonio, Project Manager
Project Directorate III-1
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

9205280171 920508
PDR ADOCK 05000282
P PDR

Enclosures:
1. Amendment No. 98 to DPR-42
2. Amendment No. 91 to DPR-60
3. Safety Evaluation

NRC FILE CENTER COPY

cc w/enclosures:
See next page

OFFICE	LA:PD3-1	PM:PD3-1	EMEB:NRR	OGC	D:PD3-1
NAME	MShuttleworth	AMasciantonio: jkd	JNorberg	MZOBLER	LMarsh
DATE	4/ 7/92	4/ 7/92	4/8/92	4/9/92	4/28/92

OFFICIAL RECORD COPY Document Name: C\WP\WPDOCS\PRAIRIE\82590-91.PI

190008

Mr. T. M. Parker
Northern States Power Company

Prairie Island Nuclear
Generating Plant

cc:

Gerald Charnoff, Esq.
Shaw, Pittman, Potts and Trowbridge
2300 N Street, N.W.
Washington, D.C. 20037

Mr. E. L. Watzl, Site General Manager
Prairie Island Nuclear Generating Plant
Northern States Power Company
Route 2
Welch, Minnesota 55089

Lisa R. Tiegel
Assistant Attorney General
Environmental Protection Division
Suite 200
520 Lafayette Road
St. Paul, Minnesota 55155

U.S. Nuclear Regulatory Commission
Resident Inspector's Office
1719 Wakonade Drive East
Welch, Minnesota 55089

Regional Administrator, Region III
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Mr. William Miller, Auditor
Goodhue County Courthouse
Red Wing, Minnesota 55066

Dr. Raymond Thron
Director of Environmental Health
Minneapolis Department of Health
925 SE Delaware Street
Minneapolis, Minnesota 55459-0040

DATED: May 8, 1992

AMENDMENT NO. 98 TO FACILITY OPERATING LICENSE NO. DPR-42-PRAIRIE ISLAND UNIT 1
AMENDMENT NO. 91 TO FACILITY OPERATING LICENSE NO. DPR-60-PRAIRIE ISLAND UNIT 2

Docket File
NRC & Local PDRs
PDIII-1 Reading
PI Plant File
B. Boger, 13/E/4
J. Zwolinski, 13/H/24
L. Marsh
M. Shuttleworth
A. Masciantonio
OGC-WF
D. Hagan, 3206 MNBB
G. Hill (8), P-137
Wanda Jones, MNBB-3701
C. Grimes, 11/F/23
ACRS (10)
GPA/PA
OC/LFMB
W. Shafer, R-III

cc: Plant Service list

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

NORTHERN STATES POWER COMPANY

DOCKET NO. 50-282

PRAIRIE ISLAND NUCLEAR GENERATING PLANT, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 98
License No. DPR-42

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Northern States Power Company (the licensee) dated January 10, 1992, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-42 is hereby amended to read as follows:

9205280174 920508
PDR ADOCK 05000282
P PDR

Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No.98, are hereby incorporated in the license The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective 30 days after its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

L. B. Marsh, Director
Project Directorate III-1
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 8, 1992

ATTACHMENT TO LICENSE AMENDMENT NO. 98

FACILITY OPERATING LICENSE NO. DPR-42

DOCKET NO. 50-282

Revise Appendix A Technical Specifications by removing the pages identified below and inserting the attached pages. The revised pages are identified by amendment number and contain marginal lines indicating the area of change

REMOVE	INSERT
TS - xii	TS - xii
TS - 4.13-1	TS - 4.13-1
TS - 4.13-2	TS - 4.13-2
TS - 4.13-3	TS - 4.13-3
-----	Table TS 4.13-1 Page 1 of 2
-----	Table Ts 4.13-1 Page 2 of 2
TS B 4.13-1	TS B 4.13-1

TECHNICAL SPECIFICATIONS

LIST OF TABLES

TS TABLE	TITLE
3.5-1	Engineered Safety Features Initiation Instrument Limiting Set Points
3.5-2	Instrument Operating Conditions for Reactor Trip
3.5-3	Instrument Operating Conditions for Emergency Cooling System
3.5-4	Instrument Operating Conditions for Isolation Functions
3.5-5	Instrument Operating Conditions for Ventilation Systems
3.5-6	Instrument Operating Conditions for Auxiliary Electrical System
3.9-1	Radioactive Liquid Effluent Monitoring Instrumentation
3.9-2	Radioactive Gaseous Effluent Monitoring instrumentation
3.14-1	Safety Related Fire Detection Instruments
3.15-1	Event Monitoring instrumentation - Process & Containment
3.15-2	Event Monitoring instrumentation - Radiation
4.1-1	Minimum Frequencies for Checks, Calibrations and Test of Instrument Channels
4.1-2A	Minimum Frequencies for Equipment Tests
4.1-2B	Minimum Frequencies for Sampling Tests
4.2-1	Special Inservice Inspection Requirements
4.4-1	Unit 1 and Unit 2 Penetration Designation for Leakage Tests
4.10-1	Radiation Environmental Monitoring Program (REMP) Sample Collection and Analysis
4.10-2	RFMP - Maximum Values for the Lower Limits of Detection
4.10-3	RFMP - Reporting Levels for Radioactivity Concentrations in Environmental Samples
4.12-1	Steam Generator Tube Inspection
4.13-1	Snubber Visual Inspection Interval
4.17-1	Radioactive Liquid Effluent Monitoring Instrumentation Surveillance Requirements
4.17-2	Radioactive Gaseous Effluent Monitoring instrumentation Surveillance Requirements
4.17-3	Radioactive Liquid Waste Sampling and Analysis Program
4.17-4	Radioactive Gaseous Waste Sampling and Analysis Program
5.5-1	Anticipated Annual Release of Radioactive Material in Liquid Effluents From Prairie Island Nuclear Generating Plant (Per Unit)
5.5-2	Anticipated Annual Release of Radioactive Nuclides in Gaseous Effluent From Prairie Island Nuclear Generating Plant (Per Unit)
6.1-1	Minimum Shift Crew Composition

4.13 SNUBBERS

Applicability

Applies to periodic testing and surveillance requirements of safety related hydraulic snubbers.

Objective

To verify the OPERABILITY of hydraulic snubbers.

Specification

The following surveillance requirements apply to all safety related snubbers. These requirements augment the inspections required by Section XI of the ASME Code.

A. As used in this specification, "type of snubber" shall mean snubbers of the same design and manufacturer, irrespective of capacity.

   Snubbers are categorized as "accessible" or "inaccessible" based on their accessibility for inspection during reactor operation. Each of these categories (inaccessible and accessible) may be inspected independently according to the schedule determined by Table TS.4.13-1.

   The visual inspection interval for each type of snubber shall be determined based upon the criteria provided in Table TS.4.13-1.

B. Visual inspections shall verify that (1) the snubber has no visible indications of damage or impaired OPERABILITY, (2) attachments to the foundation or supporting structure are functional, and (3) fasteners for the attachment of the snubber to the component and to the snubber anchorage are functional. Snubbers which appear inoperable as a result of visual inspections shall be classified as unacceptable and may be reclassified acceptable for the purpose of establishing the next visual inspection interval, provided that:

   a. The cause of the rejection is clearly established and remedied for that particular snubber and for other snubbers irrespective of type that may be generically susceptible; and

   b. The affected snubber is functionally tested in the as-found condition and determined OPERABLE per Specification 4.13.D.

   All hydraulic snubbers found connected to an inoperable common hydraulic fluid reservoir shall be counted as unacceptable for determining the next inspection interval. A review and evaluation shall be performed and documented to justify continued operation with an unacceptable snubber. If continued operation cannot be justified, the snubber shall be declared inoperable and the applicable action statement requirements shall be met.

C. Except as specified below, functional testing of snubbers shall be conducted at least once per 18 months. Ten percent of the total of each type snubber shall be functionally tested either in place or in a bench test. For each snubber that does not meet the functional test acceptance criteria in Specification 4.13.D below, an additional ten percent of that type of snubber shall be functionally tested until no more failures are found or all snubbers of that type have been tested.

The representative sample selected for functional testing shall include the various configurations, operating environments, and the range of size and capacity of the snubbers. Twenty-five percent of the sample shall include snubbers from the following three categories.

a. The first snubber away from a reactor vessel nozzle

b. Snubbers within five feet of heavy equipment (valve, pump. turbine, motor, etc.)

c. Snubbers within ten feet of the discharge of a safety/relief valve

Snubbers identified as "High Radiation Area" or "Difficult to Remove" are exempt from functional testing provided a justifiable basis for exemption is presented for Commission review; snubber life testing is performed to qualify snubber operability for all design conditions; or snubbers of the same type, configuration, and similar service have been tested for a ten year period and no failures have occurred. In such exempt cases, a qualitative test report shall be on file to substitute for the required functional testing.

In addition to the regular sample and specified re-sampling, snubbers which failed the previous functional test shall be retested during the next test period. If a spare snubber has been installed in place of a failed snubber, then both the failed snubber, if it is repaired and installed in another position, and the spare snubber shall be retested.

If any snubber selected for functional testing either fails to lockup or fails to move (i.e., frozen in place) the cause shall be evaluated and all snubbers subject to the same defect shall be functionally tested. This testing is in addition to the regular sample and specified re-samples.

D. Hydraulic snubber functional tests shall verify that:

a. Activation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression.

b. Snubber bleed, or release rate, where required, is within the specified range in compression or tension. For snubbers specifically required to not displace under continuous load, the ability of the snubber to withstand load without displacement shall be verified.

E. An engineering evaluation shall be performed for all components supported by inoperable snubbers. The purpose of this engineering evaluation shall be to determine if the components were adversely affected by the inoperable snubber(s) to ensure that the components remain capable of meeting the designed service.

F. The installation and maintenance records for each snubber shall be reviewed at least once every 18 months to verify that the indicated service life will not be exceeded prior to the next scheduled snubber service life review. If the indicated service life will be exceeded, the snubber service life shall be reevaluated or the snubber shall be replaced or reconditioned to extend its service life beyond the date of the next scheduled service life review. This re-evaluation, replacement, or reconditioning shall be indicated in the records.

TABLE TS.4.13-1

SNUBBER VISUAL INSPECTION INTERVAL

Population or Category (Notes 1 and 2)	Number of Unacceptable Snubbers		
	Column A Extend Interval (Notes 3 and 6)	Column B Repeat Interval (Notes 4 and 6)	Column C Reduce Interval (Notes 5 and 6)
1	0	0	1
80	0	0	2
100	0	1	4
150	0	3	8
200	2	5	13
300	5	12	25
400	8	18	36
500	12	24	48
750	20	40	78
1000 or greater	29	56	109

Note 1: The next visual inspection interval for a snubber population or category size shall be determined based upon the previous inspection interval and the number of unacceptable snubbers found during that interval. Snubbers may be categorized, based upon their accessibility during power operation, as accessible or inaccessible. These categories may be examined separately or jointly. However, that decision must be made and documented before any inspection and that decision shall be used as the basis upon which to determine the next inspection interval for that category.

Note 2: Interpolation between population or category sizes and the number of unacceptable snubbers is permissible. Use next lower integer for the value of the limit for Columns A, B or C if that integer includes a fractional value of unacceptable snubbers as determined by interpolation.

Note 3: If the number of unacceptable snubbers is equal to or less than the number in Column A, the next inspection interval may be twice the previous interval but not greater than 48 months.

Note 4: If the number of unacceptable snubbers is equal to or less than the number in Column B but greater than the number in Column A, the next inspection interval shall be the same as the previous interval.

Note 5: If the number of unacceptable snubbers is equal to or greater than the number in Column C, the next inspection interval shall be two-thirds of the previous interval. However, if the number of unacceptable snubbers is less than the number in Column C but greater than the number in Column B, the next interval shall be reduced proportionally by interpolation, that is, the previous interval shall be reduced by a factor that is one-third of the ratio of the difference between the number of unacceptable snubbers found during the previous interval and the number in Column B to the difference in the numbers in Columns B and C.

Note 6: All inspection intervals up to and including 48 months may be adjusted a maximum of plus or minus 25%.

4.13 SNUBBERS

Bases

The visual inspection frequency is based upon maintaining a constant level of snubber protection to systems. Therefore, the required inspection interval varies inversely with the observed snubber failures and is determined by the number of inoperable snubbers found during an inspection. Inspections performed before that interval has elapsed may be used as a new reference point to determine the next inspection. However, the results of such early inspections performed before the original required time interval has elapsed (nominal time less 25%) may not be used to lengthen the required inspection interval. Any inspection whose results require a shorter inspection interval will override the previous schedule.

When the cause of the rejection of a snubber is clearly established and remedied for that snubber and for any other snubbers that may be generically susceptible, and verified by inservice functional testing, that snubber may be exempted from being counted as inoperable. Generically susceptible snubbers are those which are of a specific make or model and have the same design features directly related to rejection of the snubber by visual inspection, or are similarly located or exposed to the same environmental conditions such as temperature, radiation, and vibration.

When a snubber is found inoperable, an engineering evaluation is performed, in addition to the determination of the snubber mode of failure, in order to determine if any safety-related component or system has been adversely affected by the inoperability of the snubber. The engineering evaluation shall determine whether or not the snubber mode of failure has imparted a significant effect or degradation on the supported component or system.

To provide assurance of snubber functional reliability, a representative sample of 10% of the installed snubbers will be functionally tested at 18 month intervals. Observed failures of these sample snubbers shall require functional testing of additional units.

The service life of a snubber is evaluated via manufacturer input and information through consideration of the snubber service conditions and associated installation and maintenance records (newly installed snubber, seal replaced, spring replaced, in high radiation area, in high temperature area, etc...). The requirement to monitor the snubber service life is included to ensure that the snubbers periodically undergo a performance evaluation in view of their age and operating conditions. These records will provide statistical bases for future consideration of snubber service life.

All safety-related snubbers installed or planned for use at Prairie Island are hydraulic snubbers. No mechanical snubbers are used.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

NORTHERN STATES POWER COMPANY

DOCKET NO. 50-306

PRAIRIE ISLAND NUCLEAR GENERATING PLANT, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 91
License No. DPR-60

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Northern States Power Company (the licensee) dated January 10, 1992, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-60 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 91, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective 30 days after its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

L. B. Marsh, Director
Project Directorate III-1
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 8, 1992

ATTACHMENT TO LICENSE AMENDMENT NO. 91

FACILITY OPERATING LICENSE NO. DPR-60

DOCKET NO. 50-306

Revise Appendix A Technical Specifications by removing the pages identified below and inserting the attached pages. The revised pages are identified by amendment number and contain marginal lines indicating the area of change

REMOVE	INSERT
TS - xii	TS - xii
TS - 4.13-1	TS - 4.13-1
TS - 4.13-2	TS - 4.13-2
TS - 4.13-3	TS - 4.13-3
---	Table TS 4.13-1 Page 1 of 2
---	Table Ts 4.13-1 Page 2 of 2
TS B 4.13-1	TS B 4.13-1

TECHNICAL SPECIFICATIONS

LIST OF TABLES

TS TABLE	TITLE
3.5-1	Engineered Safety Features Initiation Instrument Limiting Set Points
3.5-2	Instrument Operating Conditions for Reactor Trip
3.5-3	Instrument Operating Conditions for Emergency Cooling System
3.5-4	Instrument Operating Conditions for Isolation Functions
3.5-5	Instrument Operating Conditions for Ventilation Systems
3.5-6	Instrument Operating Conditions for Auxiliary Electrical System
3.9-1	Radioactive Liquid Effluent Monitoring Instrumentation
3.9-2	Radioactive Gaseous Effluent Monitoring instrumentation
3.14-1	Safety Related Fire Detection Instruments
3.15-1	Event Monitoring instrumentation - Process & Containment
3.15-2	Event Monitoring instrumentation - Radiation
4.1-1	Minimum Frequencies for Checks, Calibrations and Test of Instrument Channels
4.1-2A	Minimum Frequencies for Equipment Tests
4.1-2B	Minimum Frequencies for Sampling Tests
4.2-1	Special Inservice Inspection Requirements
4.4-1	Unit 1 and Unit 2 Penetration Designation for Leakage Tests
4.10-1	Radiation Environmental Monitoring Program (REMP) Sample Collection and Analysis
4.10-2	RFMP - Maximum Values for the Lower Limits of Detection
4.10-3	RFMP - Reporting Levels for Radioactivity Concentrations in Environmental Samples
4.12-1	Steam Generator Tube Inspection
4.13-1	Snubber Visual Inspection Interval
4.17-1	Radioactive Liquid Effluent Monitoring Instrumentation Surveillance Requirements
4.17-2	Radioactive Gaseous Effluent Monitoring instrumentation Surveillance Requirements
4.17-3	Radioactive Liquid Waste Sampling and Analysis Program
4.17-4	Radioactive Gaseous Waste Sampling and Analysis Program
5.5-1	Anticipated Annual Release of Radioactive Material in Liquid Effluents From Prairie Island Nuclear Generating Plant (Per Unit)
5.5-2	Anticipated Annual Release of Radioactive Nuclides in Gaseous Effluent From Prairie Island Nuclear Generating Plant (Per Unit)
6.1-1	Minimum Shift Crew Composition

4.13 SNUBBERS

Applicability

Applies to periodic testing and surveillance requirements of safety related hydraulic snubbers.

Objective

To verify the OPERABILITY of hydraulic snubbers.

Specification

The following surveillance requirements apply to all safety related snubbers. These requirements augment the inspections required by Section XI of the ASME Code.

A. As used in this specification, "type of snubber" shall mean snubbers of the same design and manufacturer, irrespective of capacity.

Snubbers are categorized as "accessible" or "inaccessible" based on their accessibility for inspection during reactor operation. Each of these categories (inaccessible and accessible) may be inspected independently according to the schedule determined by Table TS.4.13-1.

The visual inspection interval for each type of snubber shall be determined based upon the criteria provided in Table TS.4.13-1.

B. Visual inspections shall verify that (1) the snubber has no visible indications of damage or impaired OPERABILITY, (2) attachments to the foundation or supporting structure are functional, and (3) fasteners for the attachment of the snubber to the component and to the snubber anchorage are functional. Snubbers which appear inoperable as a result of visual inspections shall be classified as unacceptable and may be reclassified acceptable for the purpose of establishing the next visual inspection interval, provided that:

a. The cause of the rejection is clearly established and remedied for that particular snubber and for other snubbers irrespective of type that may be generically susceptible; and

b. The affected snubber is functionally tested in the as-found condition and determined OPERABLE per Specification 4.13.D.

All hydraulic snubbers found connected to an inoperable common hydraulic fluid reservoir shall be counted as unacceptable for determining the next inspection interval. A review and evaluation shall be performed and documented to justify continued operation with an unacceptable snubber. If continued operation cannot be justified, the snubber shall be declared inoperable and the applicable action statement requirements shall be met.

C. Except as specified below, functional testing of snubbers shall be conducted at least once per 18 months. Ten percent of the total of each type snubber shall be functionally tested either in place or in a bench test. For each snubber that does not meet the functional test acceptance criteria in Specification 4.13.D below, an additional ten percent of that type of snubber shall be functionally tested until no more failures are found or all snubbers of that type have been tested.

The representative sample selected for functional testing shall include the various configurations, operating environments, and the range of size and capacity of the snubbers. Twenty-five percent of the sample shall include snubbers from the following three categories.

a. The first snubber away from a reactor vessel nozzle

b. Snubbers within five feet of heavy equipment (valve, pump. turbine, motor, etc.)

c. Snubbers within ten feet of the discharge of a safety/relief valve

Snubbers identified as "High Radiation Area" or "Difficult to Remove" are exempt from functional testing provided a justifiable basis for exemption is presented for Commission review; snubber life testing is performed to qualify snubber operability for all design conditions; or snubbers of the same type, configuration, and similar service have been tested for a ten year period and no failures have occurred. In such exempt cases, a qualitative test report shall be on file to substitute for the required functional testing.

In addition to the regular sample and specified re-sampling, snubbers which failed the previous functional test shall be retested during the next test period. If a spare snubber has been installed in place of a failed snubber, then both the failed snubber, if it is repaired and installed in another position, and the spare snubber shall be retested.

If any snubber selected for functional testing either fails to lockup or fails to move (i.e., frozen in place) the cause shall be evaluated and all snubbers subject to the same defect shall be functionally tested. This testing is in addition to the regular sample and specified re-samples.

D. Hydraulic snubber functional tests shall verify that:

a. Activation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression.

b. Snubber bleed, or release rate, where required, is within the specified range in compression or tension. For snubbers specifically required to not displace under continuous load, the ability of the snubber to withstand load without displacement shall be verified.

E. An engineering evaluation shall be performed for all components supported by inoperable snubbers. The purpose of this engineering evaluation shall be to determine if the components were adversely affected by the inoperable snubber(s) to ensure that the components remain capable of meeting the designed service.

F. The installation and maintenance records for each snubber shall be reviewed at least once every 18 months to verify that the indicated service life will not be exceeded prior to the next scheduled snubber service life review. If the indicated service life will be exceeded, the snubber service life shall be reevaluated or the snubber shall be replaced or reconditioned to extend its service life beyond the date of the next scheduled service life review. This re-evaluation, replacement, or reconditioning shall be indicated in the records.

TABLE TS.4.13-1

SNUBBER VISUAL INSPECTION INTERVAL

Population or Category (Notes 1 and 2)	Number of Unacceptable Snubbers		
	Column A Extend Interval (Notes 3 and 6)	Column B Repeat Interval (Notes 4 and 6)	Column C Reduce Interval (Notes 5 and 6)
1	0	0	1
80	0	0	2
100	0	1	4
150	0	3	8
200	2	5	13
300	5	12	25
400	8	18	36
500	12	24	48
750	20	40	78
1000 or greater	29	56	109

Note 1: The next visual inspection interval for a snubber population or category size shall be determined based upon the previous inspection interval and the number of unacceptable snubbers found during that interval. Snubbers may be categorized, based upon their accessibility during power operation, as accessible or inaccessible. These categories may be examined separately or jointly. However, that decision must be made and documented before any inspection and that decision shall be used as the basis upon which to determine the next inspection interval for that category.

Note 2: Interpolation between population or category sizes and the number of unacceptable snubbers is permissible. Use next lower integer for the value of the limit for Columns A, B or C if that integer includes a fractional value of unacceptable snubbers as determined by interpolation.

Note 3: If the number of unacceptable snubbers is equal to or less than the number in Column A, the next inspection interval may be twice the previous interval but not greater than 48 months.

Note 4: If the number of unacceptable snubbers is equal to or less than the number in Column B but greater than the number in Column A, the next inspection interval shall be the same as the previous interval.

Note 5: If the number of unacceptable snubbers is equal to or greater than the number in Column C, the next inspection interval shall be two-thirds of the previous interval. However, if the number of unacceptable snubbers is less than the number in Column C but greater than the number in Column B, the next interval shall be reduced proportionally by interpolation, that is, the previous interval shall be reduced by a factor that is one-third of the ratio of the difference between the number of unacceptable snubbers found during the previous interval and the number in Column B to the difference in the numbers in Columns B and C.

Note 6: All inspection intervals up to and including 48 months may be adjusted a maximum of plus or minus 25%.

4.13 SNUBBERS

Bases

The visual inspection frequency is based upon maintaining a constant level of snubber protection to systems. Therefore, the required inspection interval varies inversely with the observed snubber failures and is determined by the number of inoperable snubbers found during an inspection. Inspections performed before that interval has elapsed may be used as a new reference point to determine the next inspection. However, the results of such early inspections performed before the original required time interval has elapsed (nominal time less 25%) may not be used to lengthen the required inspection interval. Any inspection whose results require a shorter inspection interval will override the previous schedule.

When the cause of the rejection of a snubber is clearly established and remedied for that snubber and for any other snubbers that may be generically susceptible, and verified by inservice functional testing, that snubber may be exempted from being counted as inoperable. Generically susceptible snubbers are those which are of a specific make or model and have the same design features directly related to rejection of the snubber by visual inspection, or are similarly located or exposed to the same environmental conditions such as temperature, radiation, and vibration.

When a snubber is found inoperable, an engineering evaluation is performed, in addition to the determination of the snubber mode of failure, in order to determine if any safety-related component or system has been adversely affected by the inoperability of the snubber. The engineering evaluation shall determine whether or not the snubber mode of failure has imparted a significant effect or degradation on the supported component or system.

To provide assurance of snubber functional reliability, a representative sample of 10% of the installed snubbers will be functionally tested at 18 month intervals. Observed failures of these sample snubbers shall require functional testing of additional units.

The service life of a snubber is evaluated via manufacturer input and information through consideration of the snubber service conditions and associated installation and maintenance records (newly installed snubber, seal replaced, spring replaced, in high radiation area, in high temperature area, etc...). The requirement to monitor the snubber service life is included to ensure that the snubbers periodically undergo a performance evaluation in view of their age and operating conditions. These records will provide statistical bases for future consideration of snubber service life.

All safety-related snubbers installed or planned for use at Prairie Island are hydraulic snubbers. No mechanical snubbers are used.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 98 AND 91 TO

FACILITY OPERATING LICENSE NOS. DPR-42 AND DPR-60

NORTHERN STATES POWER COMPANY

PRAIRIE ISLAND NUCLEAR GENERATING PLANT, UNIT NOS. 1 AND 2

DOCKET NOS. 50-282 AND 50-306

1.0 INTRODUCTION

By letter dated January 10, 1992, Northern States Power Company (NSP or the licensee) requested amendments to the Technical Specifications (TS) appended to Facility Operating License Nos. DPR-42 and DPR-60 for the Prairie Island Nuclear Generating Plant, Unit Nos. 1 and 2. The proposed amendments revise the TS, Section 4.13, in response to Generic Letter (GL) 90-09, "Alternative Requirements For Snubber Visual Inspection Intervals and Corrective Actions," which provides an alternate schedule for visual inspection of snubbers. The current snubber visual inspection schedule in TS Section 4.13.A is being replaced with a reference to a new TS Table TS 4.13-1 and the current snubber visual inspection acceptance criteria in TS Section 4.13.B are being revised per the guidance in GL 90-09.

The amendments also revise TS Section 4.13.C and associated Bases to remove the requirement that functional testing of snubbers be done during cold shutdown.

2.0 EVALUATION

The current schedule for visual inspection is based on the number of inoperable snubbers found during the previous visual inspection. Because the current schedule is based only on the number of inoperable snubbers found during the previous visual inspection, irrespective of the size of the snubber population, licensees having a large number of snubbers find that the visual inspection schedule is excessively restrictive. Some licensees have spent a significant amount of resources and have subjected plant personnel to unnecessary radiological exposure to comply with the visual examination requirements.

To alleviate this situation, the staff developed an alternate schedule for visual inspection in GL 90-09, that maintains the same confidence level as the existing schedule and generally will allow the snubber visual inspections and corrective actions to be performed during plant outages. In addition, the implementation of the proposed alternative schedule will allow for less frequent snubber inspections, provided the results of ongoing inspections

9205280179 920508
PDR ADOCK 05000282
P PDR

are favorable. The alternate inspection schedule is based on the number of unacceptable snubbers found during the previous inspection, the total snubber category size, and the previous inspection interval.

Because this line-item TS improvement will reduce future occupational radiation exposure and is highly cost-effective, the alternate inspection schedule is consistent with the Commission's policy statement on TS improvements.

The proposed changes to the Prairie Island TS are being implemented in response to GL 90-09 and are consistent with the guidance in GL 90-09. We, therefore, find the changes to TS Section 4.13 Objectives, 4.13.A and 4.13.B acceptable.

Current requirements in TS Section 4.13.C specify that functional testing of snubbers shall be conducted at least once per 18 months during cold shutdown. The proposed changes to Section 4.13.C and associated Bases delete the requirement that functional testing be performed only during cold shutdown and thereby provide additional flexibility in the functional testing of snubbers. Plant conditions for the performance of a specific snubber functional test should be established by the operability requirements for the supported systems. It may be in the best interest of ALARA and plant safety to test snubbers at conditions above cold shutdown or even at power, as long as the operability of the supported system is maintained or the action requirements in Section 3 of the TS are properly implemented. Under some circumstances, the removal of a snubber from service for functional testing may result in the voluntary entrance into TS action statements.

Prairie Island has implemented administrative controls for the voluntary entrance into a TS action statement for the purpose of performing maintenance activities. Those same controls would be implemented if the functional testing of a snubber results in the voluntary entrance into a TS action statement. The administrative controls specify that voluntary entrance into a TS action statement should be based on the premise that it will increase plant safety and require that it be authorized by plant management. The controls include recommendations intended to minimize the length of downtime and to maintain operability of redundant equipment.

The use of the administrative controls described above will provide adequate assurance that the removal of snubbers from service for functional testing will be properly evaluated and controlled, such that plant safety will not be adversely affected. We, therefore, find the changes to TS Section 4.13.C acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Minnesota State Official was notified of the proposed issuance of these amendments. The State Official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

These amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and change to the surveillance requirements. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding (57 FR 4490). Accordingly, these amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of these amendments.

5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: A. Masciantonio

Date: May 8, 1992