

Docket Nos. 50-282  
50-306

JUL 09 1976

Northern States Power Company  
ATTN: Mr. L. O. Mayer, Manager  
Nuclear Support Services  
414 Nicollet Mall - 8th Floor  
Minneapolis, Minnesota 55401

Gentlemen:

In response to items 19, 20, 21 and 22 of your request dated May 24, 1974 and your request dated February 17, 1976, the Commission has issued the enclosed Amendment Nos. 11 and 5 to Facility Operating License Nos. DPR-42 and DPR-60 for Units 1 and 2 of the Prairie Island Nuclear Generating Plant.

The amendments consist of changes in the Technical Specifications that (1) revise the design objectives for systems controlling radioactive effluents in Section 3.9 in response to your request of May 24, 1974, (2) revise the environmental samples, sample locations and sampling frequencies and the Radiation Environmental Monitoring Program in response to your request of February 17, 1976, and (3) correct administrative oversights contained in Amendments 9 and 4 issued by us on January 23, 1976, and other previously issued amendments. This completes our action on your May 24, 1974 request since other items were authorized by Amendment No. 6 (to License DPR-42) issued October 25, 1974.

Our evaluation of the potential for environmental impact on plant operation as a result of the above item (1) is set forth in the enclosed Environmental Impact Appraisal and Negative Declaration. As required by 10 CFR Part 51, copies of the Negative Declaration are being filed with the Office of the Federal Register for publication. Items (2) and (3) above are insignificant from the standpoint of environmental impact so they do not require, pursuant to Section 51.5(d)(4), an environmental impact statement, Negative Declaration, nor Environmental Impact Appraisal.

OFFICE ➤						
SURNAME ➤						
DATE ➤						

JUL 09 1976

Copies of the related Safety Evaluation and the Federal Register Notice also are enclosed.

Sincerely,

Original Signed by:  
Dennis L. Ziemann

Dennis L. Ziemann, Chief  
Operating Reactors Branch #2  
Division of Operating Reactors

Enclosures:

1. Amendment No. 11 to License DPR-42
2. Amendment No. 5 to License DPR-60
3. Negative Declaration
4. Environmental Impact Appraisal
5. Safety Evaluation
6. Notice

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See next page

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*rec'd 7/9/76*  
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JUL 09 1976

Northern States Power Company

- 3 -

cc w/enclosures:

Gerald Charnoff, Esquire  
Shaw, Pittman, Potts and  
Trowbridge  
1800 M Street, N. W.  
Washington, D. C. 20036

Mr. Steve J. Gadler  
2120 Carter Avenue  
St. Paul, Minnesota 55108

Sandra S. Gardebring, Esquire  
Special Assistant Attorney General  
Minnesota Pollution Control Agency  
1935 W. County Road B2  
Roseville, Minnesota 55113

The Environmental Conservation  
Library  
Minneapolis Public Library  
300 Nicollet Mall  
Minneapolis, Minnesota 55401

Mr. Bernard Cranum  
Area Director  
Bureau of Indian Affairs  
U. S. Department of Interior  
831 Second Avenue, South  
Minneapolis, Minnesota 55401

Mr. John E. Davidson  
Goodhue County Board of Commissioners  
321 West Third Street  
Red Wing, Minnesota 55066

cc w/enclosures and cy of NSPCo  
filings dated 5/8/75 and 2/17/76:  
Mr. Norman M. Clapp, Chairman  
Public Service Commission of  
Wisconsin  
Hill Farms State Office Building  
Madison, Wisconsin 53702

Warren H. Lawson, M. D.  
Secretary and Executive Officer  
State Department of Health  
University Campus  
Minneapolis, Minnesota 55440

Dr. Neill Thomasson (AW-459)  
Chief, Energy Systems Analysis Branch  
Office of Radiation Programs  
Environmental Protection Agency  
401 M Street S. W.  
Washington, D. C. 20460

Chief, Radiation and Noise Section  
U. S. Environmental Protection Agency  
230 S. Dearborn Street  
Chicago, Illinois 60604

NORTHERN STATES POWER COMPANY

DOCKET NO. 50-282

PRAIRIE ISLAND NUCLEAR GENERATING PLANT UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 11  
License No. DPR-42

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The applications for amendment by the Northern States Power Company (the licensee) dated May 24, 1974 and February 17, 1976, comply 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. After weighing the environmental aspects involved, the issuance of this license 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.
3. This license amendment is effective as of its date of issuance except for the air particulate monitoring which will become effective 120 days after issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Original Signed by:

Dennis L. Ziemann

Dennis L. Ziemann, Chief  
Operating Reactors Branch #2  
Division of Operating Reactors

Attachment:

Changes to the  
Technical Specifications

Date of Issuance:

JUL 09 1976

OFFICE →					
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NORTHERN STATES POWER COMPANY

DOCKET NO. 50-306

PRAIRIE ISLAND NUCLEAR GENERATING PLANT UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 5  
License No. DPR-60

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The applications for amendment by the Northern States Power Company (the licensee) dated May 24, 1974 and February 17, 1976, comply 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. After weighing the environmental aspects involved, the issuance of this license 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.
3. This license amendment is effective as of its date of issuance except for the air particulate monitoring which will become effective 120 days after issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Original Signed by:  
Dennis L. Ziemann  
Dennis L. Ziemann, Chief  
Operating Reactors Branch #2  
Division of Operating Reactors

Attachment:  
Changes to the

Technical Specifications

OFFICE >					
Date of Issuance:	JUL 07 1976				
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ATTACHMENT TO LICENSE AMENDMENT NOS. 11 AND 5  
FACILITY OPERATING LICENSE NOS. DPR-42 AND DPR-60  
DOCKET NOS. 50-282 AND 50-306

Replace the following pages of the Technical Specifications contained in Appendix A of the above-indicated licenses with the attached pages bearing the same numbers, except as otherwise indicated. The changed areas on the revised pages are reflected by a marginal line.

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### 3.9 RADIOACTIVE EFFLUENTS

#### Applicability

Applies to the controlled release of all liquid and gaseous wastes discharged from the plant which may contain radioactive materials.

#### Objective

To establish conditions for the release of liquid and gaseous wastes containing radioactive materials and to assure that all such releases are within the concentration limits specified in 10CFR Part 20 and as low as practicable.

#### Design Objectives

To assure that the releases of radioactive material in liquid and gaseous wastes (above background) to unrestricted areas meet the as-low-as-practicable concept, the following design objectives shall apply as indicated in Specifications 3.9A and 3.9B.

##### 1. Liquid Releases

- a. The annual total quantity of radioactive materials in liquid waste, excluding tritium and dissolved gases, will be less than 5 curies for each unit.
- b. The annual average concentration of radioactive materials in liquid waste, prior to dilution in the Mississippi River, excluding tritium and dissolved gases, will not exceed  $2 \times 10^{-8}$   $\mu\text{Ci/ml}$ .
- c. The annual average concentration of tritium in liquid waste, prior to dilution in the Mississippi River, will not exceed  $5 \times 10^{-6}$   $\mu\text{Ci/ml}$ .

## 2. Gaseous Releases

- a. Averaged over a yearly interval, the release rate of radioactive isotopes, from both units except halogen and particulate isotopes with half lives greater than 8 days, discharged from the plant, will be limited as follows:

$$\sum_i \frac{Q_i}{(\text{MPC})_i} \leq 1300 \text{ m}^3/\text{sec}$$

where  $Q_i$  is the annual controlled release rate (Ci/sec) of radio-isotope  $i$  and  $(\text{MPC})_i$  ( $\mu\text{Ci}/\text{ml}$ ) is defined for radioisotope  $i$  in column 1, Table II of Appendix B to 10CFR20.

- b. Averaged over a yearly interval, the release rate of halogen and other particulate radioisotopes with half lives longer than eight days, discharged from the plant including sources from the atmospheric steam dump, will be limited as follows:

$$\sum \frac{Q_i}{(\text{MPC})_i} \leq 67 \text{ m}^3/\text{sec}$$

where  $Q_i$  and  $(\text{MPC})_i$  are as defined as above.

## 3. Atmospheric Steam Dump

The amount of I-131 released per steam dump will be less than 1.1 millicuries and the total amount of I-131 released per year will be less than 4.2 millicuries.

## Specifications

### A. LIQUID RELEASES

#### 1. Release Quantities and Concentrations of Radioactive Materials in Liquid Waste

- a. If the experienced release of radioactive materials in liquid wastes, within a three-month period, is such that these quantities, if continued at the same release rate for a year, would exceed twice the design objectives, the following actions shall be taken.

- (1) An investigation to identify the causes for such release rates shall be made.
  - (2) A program to reduce such release rates to the design objectives shall be defined and initiated.
  - (3) These actions shall be reported to the Commission in writing within 30 days.
- b. The rate of release of radioactive materials in liquid waste from the plant shall be controlled such that the instantaneous concentration of radioactivity in liquid waste prior to release to the Mississippi River does not exceed the values listed in 10 CFR Part 20, Appendix B, Table II, Column 2.

## 2. Treatment and Monitoring

- a. The equipment installed in the liquid radioactive waste system shall be maintained and operated to process, as a minimum, all liquids prior to their discharge when the radioactivity, exclusive of tritium and noble gases, released during any three-month period exceeds 1.25 curies for either unit.

- (1) An investigation to identify the causes for such release rates shall be made.
- (2) A program to reduce such release rates to the design objectives shall be defined and initiated.
- (3) These actions shall be reported to the Commission in writing within 30 days.

- b. The rate of release of radioactive materials in gaseous waste from the plant (except halogen and particulate radioisotopes with half lives greater than 8 days) shall be controlled such that the maximum release rate averaged over any one-hour period shall not exceed:

$$\sum_i \frac{Q_i}{(MPC)_i} = 1.1 \times 10^5 \text{ m}^3/\text{sec}$$

- c. Wind speed and direction shall be continuously recorded on site.

- d. The radioactive gas contained in the gaseous waste system shall not be deliberately discharged to the environment during unfavorable wind conditions. For the purposes of this specification, unfavorable wind conditions are defined as wind from 5° west of north to 45° east of north at 10 miles per hour or less.

2. Treatment and Monitoring

- a. During releases of radioactivity gaseous waste from the gaseous waste decay tanks to the auxiliary building exhaust stack, the following conditions shall be met:
- (1) The effluent monitor and the stack sampling devices for halogens and particulates shall be operable. The normal response of the effluent monitor shall be verified by comparison with the pre-release sample analysis. The monitor shall be tested prior to any release of radioactive gas from a decay tank and shall be calibrated at refueling intervals. The calibration procedure shall consist of exposing the detector to a referenced calibration source in a controlled reproducible geometry. The source and geometry shall be referenced to the original monitor calibration which provides the applicable calibration curves.
  - (2) The gaseous waste from the decay tanks shall be filtered through the high efficiency particulate air filters and the charcoal adsorber provided.
- b. (1) During normal conditions of plant operation, radioactive gaseous waste from the waste gas system shall be provided a minimum holdup of 60 days except for low radioactivity gaseous waste resulting from purge and fill operations associated with refueling and reactor startup.
- (2) The maximum activity to be controlled in one gas decay tank shall not exceed 65,000 curies of Xe-133 equivalent.

the atmospheric steam dump is greater than twice the design objectives, the following actions shall be taken.

- (1) An investigation to identify the causes for such releases shall be made.
- (2) A program to reduce such releases to the design objectives shall be initiated.
- (3) These actions shall be reported to the Commission in writing within 30 days.

## 2. Monitoring

- a. The I-131 activity in the steam and water on the secondary side of each steam generator shall be determined as required in Specification Table TS.4.1-2B, Item 8.
- b. Each time the atmospheric steam dump is used, the total amount of steam and water released shall be determined and the total amount of I-131 released shall be calculated based on the most recent activity measurements of the secondary steam and water.
- c. If the total amount of I-131 released in one steam dump is greater than twice the design objective, the milk from dairy cows grazing in the downwind area shall be analyzed for a period of 5 days following the release. The downwind area shall include the 22-1/2-degree sector of a circle having its center at the plant and a 2-mile radius. The I-131 in the milk shall be determined each day following the dump, using instrumentation with a minimum I-131 detection limit of 1.5 pCi/l.
- d. If the amount of I-131 exceeds 10 pCi/l, all milk produced at this location shall not be released for consumption until the I-131 concentration is below the detection limit.

Basis

It is expected that the releases of radioactive materials in liquid waste will be kept within the design objective levels and will not exceed on an instantaneous basis the concentration limits specified in 10 CFR Part 20. These levels provide reasonable assurance that the resulting annual exposure to the whole body or any organ of an individual will not exceed 5 millirems per year. At the same time, the licensee is permitted the flexibility of operation, compatible with considerations of health and safety, to assure that the public is provided a dependable source of power under unusual operating conditions which may temporarily result in releases higher than the design objective levels but still within the concentration limits specified in 10 CFR Part 20. It is expected that using this operational flexibility under unusual operating conditions, the licensee shall exert every effort to keep levels of radioactive material in liquid wastes as low as practicable and that annual releases will not exceed a small fraction of the annual average concentration limits specified in 10 CFR Part 20. <sup>(1)</sup>

Liquid radwaste leaving the plant is mixed with cooling tower blowdown flow (150 cfs) before entering the discharge canal where it is further mixed with water (860 cfs at low river flow) entering the canal from Sturgeon Lake. This total dilution flow of 1010 cfs (452,00 gpm) results in a dilution factor of  $2.2 \times 10^{-6}$  min/gal which applies at the point of discharge to the main flow of the Mississippi River. The volume of liquid discharged, the actual dilution flow, and analysis of the proportional composite sample provide the basis <sup>(2)</sup> for reporting the quantity and concentration of activity released.

The operating manual will identify all equipment installed in the liquid waste handling and treatment systems and will specify detailed procedures for operating and maintaining this equipment.

It is expected that the releases of radioactive materials in gaseous waste will be kept within the design objective levels and will not exceed 10 millirems per year at the site boundary. At the same time, the licensee is permitted the flexibility of operation, compatible with considerations of health and safety, to assure that the public is provided a dependable source of power under unusual operation conditions which may temporarily

result in releases higher than the design objective levels but still within the concentration limits specified in 10 CFR Part 20. It is expected that using this operational flexibility under unusual operating conditions, the licensee will exert every effort to keep levels of radioactive material in gaseous wastes as low as practicable and that annual releases will not exceed a small fraction of the annual average concentration limits specified in 10 CFR Part 20. These efforts will include consideration of releases during meteorological conditions that result in most favorable diffusion in the atmosphere.

The design objectives have been developed taking into account a combination of system variables including fuel failures, primary system leakage and the performance of radioisotope removal mechanisms.

The noble gas release rate stated in the objectives is based on the AEC staff's X/Q value from the annual meteorological data. The dispersion factor used,  $1.5 \times 10^{-5}$  sec/m<sup>3</sup> at 800 m, NW, is conservative and controls the release rate to a small fraction of 10 CFR Part 20 requirements at the site restricted area boundary (<10 mrem per year). (3)

The maximum one-hour release rate limits the dose rate at the site boundary to less than 2 mrem/hour even during periods of unfavorable meteorology ( $X/Q = 3.1 \times 10^{-4}$  sec/m<sup>3</sup>). (3)

The maximum activity in a waste gas decay tank is specified as 65,000 curies of Xe-133 equivalent based on a postulated rupture that allows all of the contents to escape to the atmosphere. (4) This specification limits the maximum offsite dose to well below the limits of 10 CFR 100 ( $X/Q = 9.8 \times 10^{-4}$  sec/m<sup>3</sup>). (5)

The cooling towers at Prairie Island are located to the south of the plant and are within the 50°-arc described in this specification. At low wind, velocities (below 10 mph) the gaseous activity released from the gaseous radwaste system could be at or near ground level near the cooling towers and remain long enough to be drawn into the circulating water in the tower. This specification minimizes the possibility of releases from the gaseous radwaste system from entering the river from tower scrubbing.

The I-131 and particulate release rates (including the atmospheric steam dump) stated in the gaseous design objectives limit the dose to an infant's thyroid via the forage-cow-milk pathway to 15 mrem/yr at the nearest dairy cow location (2.2 miles SSE). Annual average  $X/Q = 6.5 \times 10^{-7} \text{ sec/m}^3$ . For steam dumps use short term (50 percentile)  $X/Q = 1.6 \times 10^{-5} \text{ sec/m}^3$ .

References:

- (1) "Safety Evaluation Report" (SER), by AEC Directorate of Licensing, September 28, 1972, Section 11.0.
- (2) FES p. V-26.
- (3) SER, Section 2.3.
- (4) FSAR, Section 14.2.3.
- (5) SER, Section 15.0.

TABLE TS.3.9-1

RADIOACTIVE LIQUID WASTE SAMPLING AND ANALYSIS (6)A. Waste Tank Releases

Sampling Frequency	Type of Activity Analysis	Sensitivity of Analysis (5)
Each Batch	Gross Beta, gamma	$10^{-7}$ $\mu$ Ci/ml
One Batch/Month	Dissolved noble gases (7)	$10^{-5}$ $\mu$ Ci/ml
Weekly Proportional Composite (1)	Ba-140, La-140, I-131	$10^{-6}$ $\mu$ Ci/ml
Monthly Proportional Composite (1)	Gamma emitters	$10^{-6}$ $\mu$ Ci/ml (2)
	H-3	$10^{-5}$ $\mu$ Ci/ml
	Gross alpha	$10^{-7}$ $\mu$ Ci/ml
	Sr-89, Sr-90	$10^{-8}$ $\mu$ Ci/ml

B. Secondary Plant Blowdown and Leakage Releases (3)

Sampling Frequency	Type of Activity Analysis	Sensitivity of Analysis (5)
Weekly	Gross beta, gamma	$10^{-7}$ $\mu$ Ci/ml
	Ba-140, La-140, I-131	$10^{-6}$ $\mu$ Ci/ml
One Sample/Month	Dissolved noble gases (7)	$10^{-5}$ $\mu$ Ci/ml
Monthly Proportional Composite (4)	Gamma emitters	$10^{-6}$ $\mu$ Ci/ml
	H-3	$10^{-5}$ $\mu$ Ci/ml
	Gross alpha	$10^{-7}$ $\mu$ Ci/ml
	Sr-89, SR-90	$10^{-8}$ $\mu$ Ci/ml

Notes: See next page

4. Type A, tests will be considered to be satisfactory if the acceptance criteria delineated in Appendix J, Section III.A are met.
5. Type B and C tests will be considered to be satisfactory if the combined leakage rate of all components subjected to Type B and C tests does not exceed 60% of  $L_a$  and if the following conditions are met.
  - a. For pipes connected to systems that are in the ABSVZ (Designated ABSVZ in Table TS.4.4-1) the total leakage past isolation valves shall be less than 0.1 weight percent per 24 hours at pressure  $P_a$ .
  - b. For pipes connected to systems that are exterior to both the shield building and the ABSVZ (designated EXTERIOR in Table TS.4.4-1) the total leakage past isolation valves shall be less than 0.01 weight percent per 24 hours at pressure  $P_a$ .
  - c. For airlocks, the leakage shall be less than the design leakage reported in "Supplement No. 1 to Unit 1 Reactor Containment Building Integrated Leak Rate Test-June, 1973", dated June 6, 1974.
6. The retest schedules for Type A, B, and C tests will be in accordance with Section III-D of Appendix J. Each shield building shall be retested in accordance with the Type A test schedule for its containment. The auxiliary building special ventilation zone shall be retested in accordance with the Type A test schedule for Unit 1 containment.
7. Type A, B and C tests will be in accordance with Section V of Appendix J. Inspection and reporting requirements of each shield building test shall be the same as for Type A tests. The auxiliary building special ventilation zone shall have the same inspection and reporting requirements as for the Type A tests of Unit 1.

#### 4.10 RADIATION ENVIRONMENTAL MONITORING PROGRAM

##### Applicability

Applies to the periodic monitoring and recording of radioactive effluents found in the plant environs.

##### Objective

To provide for measurement of radiation levels and radioactivity in the site environs on a continuing basis.

##### Specification

- A. The radiation environmental monitoring program described in Table TS.4.10-1 shall be conducted.
- B. A census of animals producing milk for human consumption shall be conducted at the beginning and at the middle of the grazing season to determine their location and number with respect to the site. The census shall be conducted under the following conditions:
  1. Within a 1-mile radius from the plant site or within the 15 mrem/yr isodose line,<sup>1/</sup> whichever is larger, enumeration by a door-to-door or equivalent counting technique.
  2. Within a 5-mile radius for cows and a 15-mile radius for goats, enumeration by using referenced information from county agricultural agents or other reliable sources.

If it is learned from this census that animals are present at a location which yields a calculated thyroid dose greater than from previously sampled animals, the new location shall be added to the surveillance program as soon as practicable. The sampling location having the lowest calculated dose may then be dropped from the surveillance program at the end of the grazing season during which the census was conducted. Also, any location from which milk can no longer be obtained may be dropped from the surveillance program after notifying the NRC in writing that milk-producing animals are no longer present at that location.

- C. Deviations are permitted from the required sampling schedule if specimens are unobtainable due to hazardous conditions, seasonal unavailability or to malfunction of automatic sampling equipment. If the latter, every effort shall be made to complete corrective action prior to the end of the next sampling period. All deviations from the sampling schedule shall be described in the annual report.

<sup>1/</sup> Dose should be calculated using models and assumptions presented in Regulatory Guide 1.42, June 1973.

Basis

The preoperational program of environmental monitoring described in Section 2.11 of the FSAR was conducted for more than two years before initial plant startup. The types of samples, the number and distribution of collection sites, and the types of analyses specified, will provide data which compared with preoperational data will verify the effectiveness of plant effluent control and indicate any measurable changes in the environmental radioactivity due to plant operation.

TABLE TS.4.10-1

(Page 1 of 4)

PRAIRIE ISLAND NUCLEAR GENERATING PLANT  
RADIATION ENVIRONMENTAL MONITORING PROGRAM  
SAMPLE COLLECTION AND ANALYSIS

<u>Type of Sample</u>	<u>Type of Analysis</u>	<u>Collection Site</u>	<u>Collection Frequency</u>
Mississippi River Water	GS (M)	1 Sample upstream within 1000 ft of intake canal 1 Sample downstream at Fed. Lock & Dam # 3.	Monthly composite of weekly samples (water & ice condit- ions permitting)
	$^3\text{H}$ (Q) $^{89,90}\text{Sr}$ (Q)		Quarterly composite of monthly composite
Drinking Water	GB, GS (M)	1 Sample from the City of Red Wing water supply	Monthly composite of weekly samples
	$^3\text{H}$ (Q)		Quarterly composite of monthly composite
Well Water	GS, $^3\text{H}$	3 Samples from wells within 5 miles of plant site including Federal Lock and Dam No. 3 supply. 1 Sample from a well greater than 10 miles away	Quarterly
	GS $^{90}\text{Sr}$	1 Sample upstream of plant 1 Sample downstream of plant	Semi-annually (when available)
River Bottom Sediment	GS $^{90}\text{Sr}$	1 Sample from the shoreline at a recreational area	Semi-annually (when available)
Shoreline sedi- ment	GS $^{90}\text{Sr}$	1 Sample from the shoreline at a recreational area	Semi-annually (when available)
Periphyton or Macroinvertebrates	GS, $^{89,90}\text{Sr}$	1 Sample upstream of plant 1 Sample downstream of plant	Semi-annually (when available)

TABLE TS.4.10-1  
(Page 2 of 4)

<u>Type of Sample</u>	<u>Type of Analysis</u>	<u>Collection Site</u>	<u>Collection Frequency</u>
Aquatic Vegetation	GS	1 Sample upstream of plant 1 Sample downstream of plant	Semi-annually (when available)
Fish (1 sample each of two game specie)	GS	2 Samples upstream of plant 2 Samples downstream of plant	Semi-annually (when available, water & ice conditions permitting)
Milk	<sup>131</sup> I, <sup>137</sup> Cs,* 89, <sup>90</sup> Sr**	1 Sample at the offsite dairy farm having the highest X/Q 3 Samples from dairy farms calc- ulated to have doses from <sup>131</sup> I > 1 mrem./yr 1 Sample from 10-20 mile location	Monthly
Topsoil	GS <sup>90</sup> Sr	From 6 air sampling locations, and from 5 fields in the vicinity of the plant.	Once every 3 years
Natural Vegetation	GS, <sup>131</sup> I	1 Sample from field having highest X/Q (same as for milk) 1 Sample from a field downwind of the plant (within 2 miles) 1 Sample from 10-20 mile location (Same as for milk)	Semi-annually

\*Performed only on X/Q and Control Samples

\*\*Analyzed to a sensitivity of 0.4 pCi/liter

TABLE TS.4.10-1 (Pg 2 of 4)

TABLE TS.4.10-1  
(Page 3 of 4)

<u>Type of Sample</u>	<u>Type of Analysis</u>	<u>Collection Site</u>	<u>Collection Frequency</u>
Cultivated Crops			
Leafy green vegetable	$^{131}\text{I}$	1 Sample from nearest garden 1 Sample from 10-20 mile location	Annually (at harvest, if available)
Corn	GS	1 Sample from highest X/Q farm 1 Sample from 10-20 mile location	Annually (at harvest, if available)
Air (Particulates)	GB, GS(M)	2 locations in different sectors having the highest calculated ground level concentrations 1 location near residence having highest X/Q value 1 location near closest community 2 locations within 9-20 miles	Weekly
Air (Radioiodine)	$^{131}\text{I}$	1 location near residence having highest X/Q value 1 location near closest community 1 location within 10-20 miles	Weekly

TABLE TS.4.10-1 (Pg 3 of 4)

TABLE TS.4.10-1  
(Page 4 of 4)

<u>Type of Samples</u>	<u>Type of Analysis</u>	<u>Collection Site</u>	<u>Collection Frequency</u>
Air (TLD)	Gamma dose	2 dosimeters at each air particulate sampling location	Quarterly

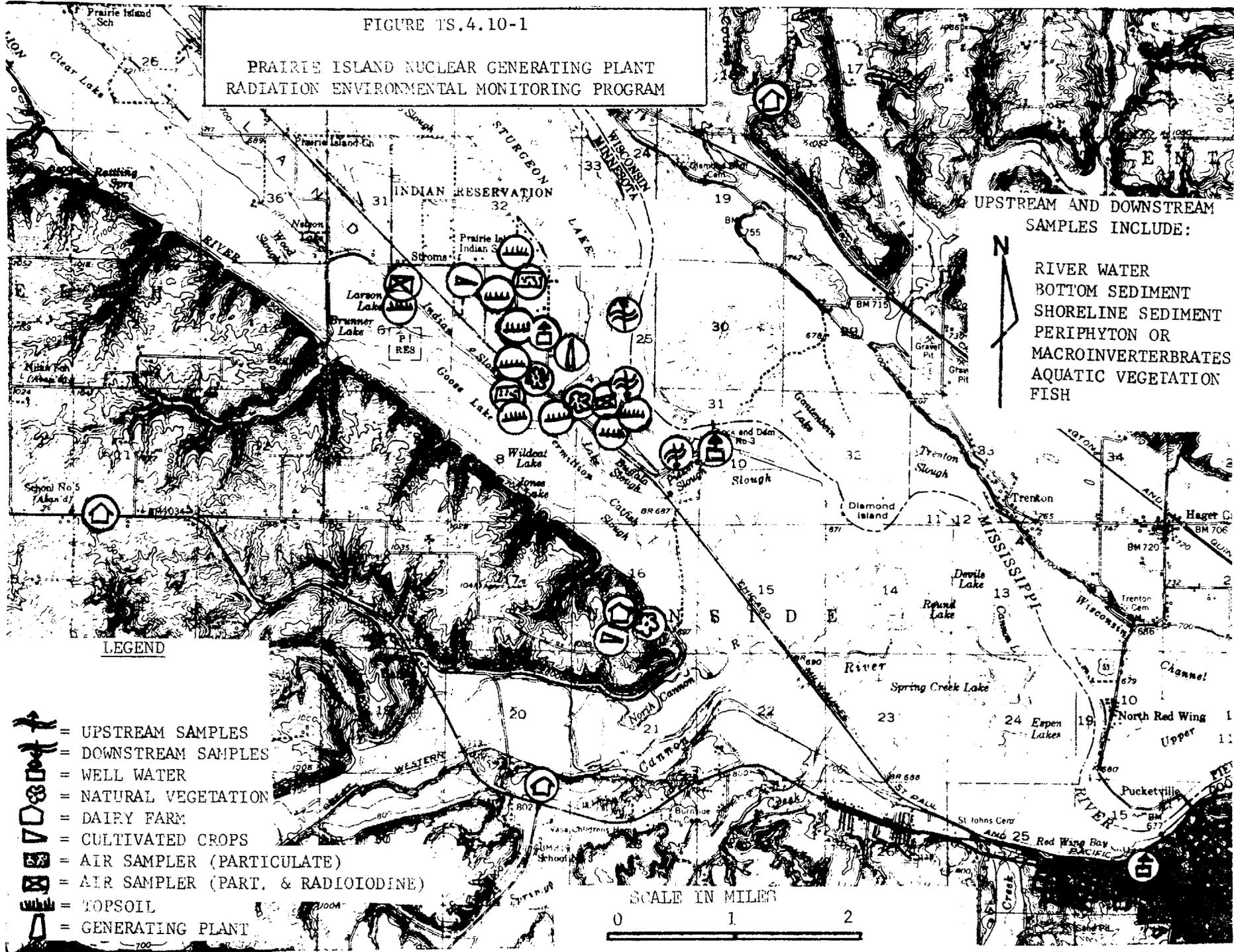
**Coding System**

- GB - Gross beta
- GS - Gamma scan
- M - Monthly
- Q - Quarterly

TABLE TS.4.10-1 (Pg 4 of 4)

FIGURE TS.4.10-1

PRAIRIE ISLAND NUCLEAR GENERATING PLANT  
RADIATION ENVIRONMENTAL MONITORING PROGRAM



UPSTREAM AND DOWNSTREAM  
SAMPLES INCLUDE:

- RIVER WATER
- BOTTOM SEDIMENT
- SHORELINE SEDIMENT
- PERIPHYTON OR  
MACROINVERTEBRATES
- AQUATIC VEGETATION
- FISH

LEGEND

- = UPSTREAM SAMPLES
- = DOWNSTREAM SAMPLES
- = WELL WATER
- = NATURAL VEGETATION
- = DAIRY FARM
- = CULTIVATED CROPS
- = AIR SAMPLER (PARTICULATE)
- = AIR SAMPLER (PART. & RADIOIODINE)
- = TOPSOIL
- = GENERATING PLANT

SCALE IN MILES

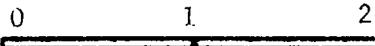
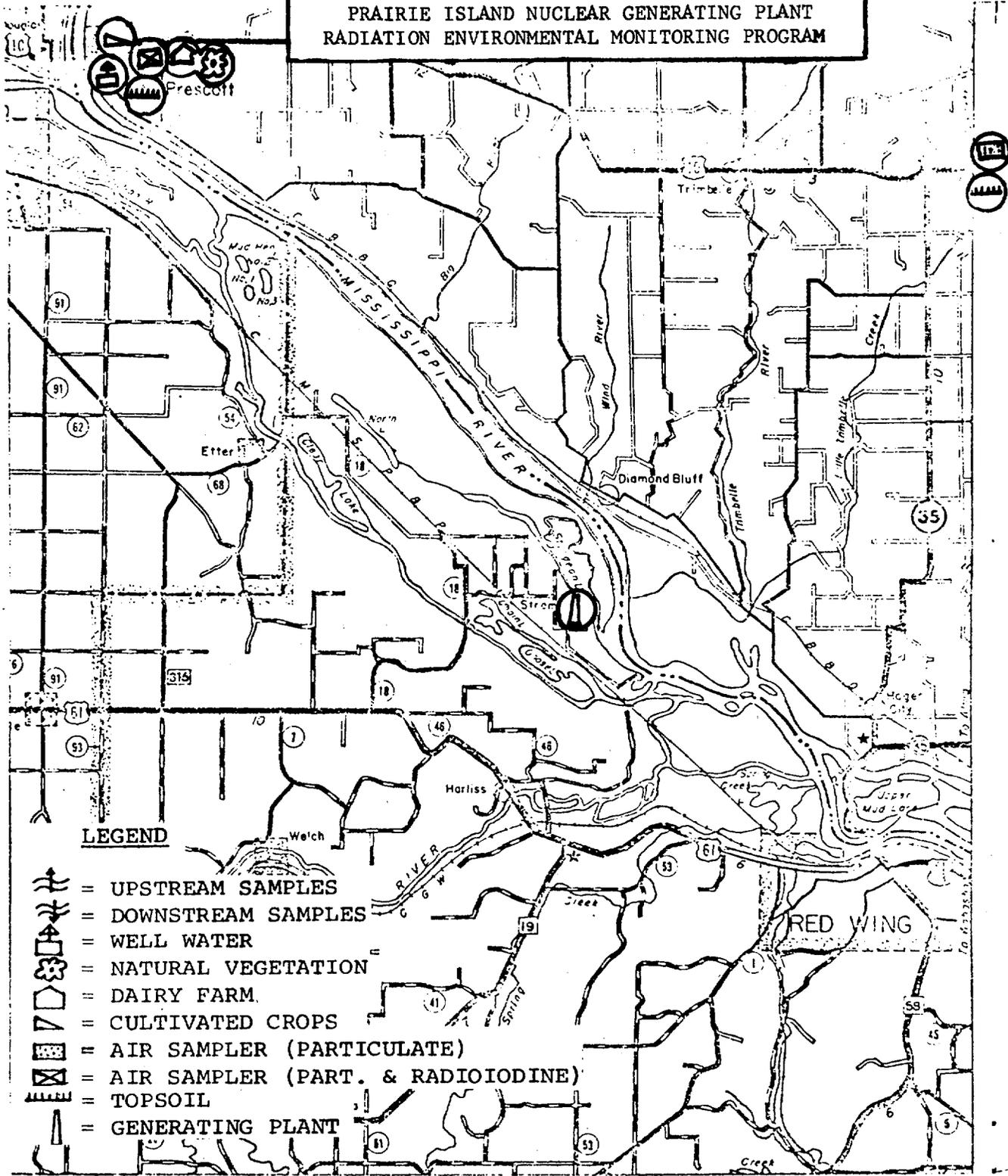


FIG. TS.4.10-1

FIG. TS.4.10-2

FIGURE TS.4.10-2  
PRAIRIE ISLAND NUCLEAR GENERATING PLANT  
RADIATION ENVIRONMENTAL MONITORING PROGRAM



- LEGEND**
- = UPSTREAM SAMPLES
  - = DOWNSTREAM SAMPLES
  - = WELL WATER
  - = NATURAL VEGETATION
  - = DAIRY FARM
  - = CULTIVATED CROPS
  - = AIR SAMPLER (PARTICULATE)
  - = AIR SAMPLER (PART. & RADIOIODINE)
  - = TOPSOIL
  - = GENERATING PLANT

0 1 2 3 4 5 6 7 8 9 10  
SCALE IN MILES

5. Acceptance Limits

(a) Definitions

Imperfection is an exception to the dimensions, finish, or contour required by drawing or specification. A detectable imperfection has a wall penetration >20% of the nominal tube wall thickness.

Defect is an imperfection that extends partly through the tube wall. The minimum acceptable remaining wall thickness at a defect is 50% of the nominal tube wall thickness.

Plugging limit is the imperfection depth at or beyond which plugging of the tube must be performed to make the steam generator operable. The plugging limit is less than the defect that results in the minimum acceptable wall thickness by an amount equal to the allowance for localized corrosion.

Plugging criteria are those calculational and analytical procedures used to arrive at the plugging limit. These criteria shall be submitted for approval by the Commission prior to use.

- (b) If in the inspection performed under Specification 4.12.A.2 less than 10% of the tubes inspected have detectable wall penetration (>20%) and no tube exceeds the plugging limit, plant operation may resume.
- (c) If in the inspections performed under Specification 4.12.A.3 less than 10% of the total tubes inspected have detectable wall penetration (>20%) and no more than three tubes exceed the plugging limit, plant operation may resume after required corrective measures have been taken.
- (d) If in the inspections performed under Specification 4.12.A.3 more than 10% of the total tubes inspected have detectable wall penetration (>20%) or more than three of the tubes inspected exceed the plugging limit, the situation shall be reported in accordance with Specifications 4.12.C.2.

TS 4.12-5

- (e) If in the inspections performed under Specification 4.12.A.3 one or more of the tubes inspected has a defect for which the remaining wall thickness is less than the minimum acceptable wall thickness, the situation shall be reported in accordance with Specifications 4.12.C.3 for resolution and approval of the proposed remedial action.

B. Corrective Measures

Tubes shall be plugged prior to resumption of unit operation if they contain (a) imperfections exceeding the plugging limit, or (b) through-the-wall cracks detected during plant operation or during the water leakage test subsequent to tube plugging.

C. Reports

1. The results of these steam generator tube inservice inspections shall be included in the Operating Report for the period in which this inspection was completed.
2. Reports required by Specification 4.12.A.5(d) shall include:
  - (a) The number and extent of tubes inspected
  - (b) The location and percent of wall thickness penetration for each indication of an imperfection.
  - (c) Identification of all tubes that are plugged.
  - (d) Determination of and bases for the date of the next inservice inspection, including an allowance for localized corrosion based on that unit's previous steam generator tube inspections and secondary water treatment.
3. Reports required by Specification 4.12.A.5(e) shall include information in Specification 4.12.C.2 and planned investigations to determine the cause of the event and corrective measures to prevent recurrence.

UNITED STATES NUCLEAR REGULATORY COMMISSION

NEGATIVE DECLARATION

REGARDING PROPOSED CHANGES TO THE  
TECHNICAL SPECIFICATIONS OF LICENSES DPR-42 AND DPR-60

PRAIRIE ISLAND NUCLEAR GENERATING PLANT UNIT NOS. 1 AND 2

DOCKET NOS. 50-282 AND 50-306

The U. S. Nuclear Regulatory Commission (the Commission) is considering the issuance of amendments to Facility Operating License Nos. DPR-42 and DPR-60 issued to Northern States Power Company for operation of the Prairie Island Nuclear Generating Plant Unit Nos. 1 and 2 located in Goodhue County, Minnesota. The amendments will be effective as of their date of issuance except for the air particulate monitoring which will become effective 120 days after issuance.

The amendments would revise the design objectives (Limiting Conditions of Operation) in the Technical Specifications relating to radioactive effluents in accordance with the licensee's application for amendment dated May 24, 1974.

The Commission has prepared an environmental impact appraisal for the proposed changes on the above subject and has concluded that an environmental impact statement for this particular action is not warranted because there will be no environmental impact attributable to the proposed action other than that which has already been predicted and described in the Commission's Final Environmental Statement for Prairie Island Nuclear Generating Plant Unit Nos. 1 and 2 published in the Federal Register on May 21, 1973 (38 FR 13394).

The environmental impact appraisal is available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C., and at The Environmental Conservation Library of the Minneapolis Public Library, 300 Nicollet Mall, Minneapolis, Minnesota 55401. A copy may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Operating Reactors.

Dated at Bethesda, Maryland, this

JUL 09 1976

FOR THE NUCLEAR REGULATORY COMMISSION

Original Signed by:  
Dennis L. Ziemann

Dennis L. Ziemann, Chief  
Operating Reactors Branch #2  
Division of Operating Reactors

OFFICE ➤						
SURNAME ➤						
DATE ➤						



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

ENVIRONMENTAL IMPACT APPRAISAL BY THE DIVISION OF OPERATING REACTORS

SUPPORTING AMENDMENTS TO DPR NOS. 42 AND 60

NORTHERN STATES POWER COMPANY

PRAIRIE ISLAND NUCLEAR GENERATING PLANT UNIT NOS. 1 AND 2

1. Description of the Proposed Action

By letter dated May 24, 1974, the Northern States Power Company (the licensee) proposed to change the Appendix A Technical Specifications for the Prairie Island Nuclear Generating Plant Unit Nos. 1 and 2 (PINGP).

The majority of the proposed changes of the May 24, 1974 request were approved and issued as Change No. 6 to the Technical Specifications on October 25, 1974. Included in the May 24, 1974 license amendment request were a number of proposed changes to Section 3.9 "Radioactive Effluents," which were not acted upon (items 19 through 22 of Exhibit A of the submittal of May 24, 1974). These items were intended to revise the radioactive effluent design objectives related to airborne radioiodines and dissolved radioactive gases in liquid effluents. The PINGP design objectives were based on the design objectives (limiting conditions for operation) set forth in the originally proposed Appendix I to 10 CFR Part 50 as published in the Federal Register (36 F.R. 11113) on June 9, 1971. Extensive rulemaking action has taken place since the initial publication of proposed Appendix I resulting in changes to the design objectives. On February 20, 1974 the (AEC) staff issued its Concluding Statement of Position of the Regulatory Staff on Appendix I (Docket RM-50-2) which recommended design objectives less stringent for airborne radioiodines and dissolved radioactive gases in liquid effluents than initially proposed. On May 5, 1975 the NRC published Appendix I. The rule, as amended on September 4, 1975, has design objectives for systems controlling airborne radioiodines and dissolved radioactive gases similar to those stated in the staff's Concluding Statement on Appendix I (RM-50-2). Appendix I technical specifications for radioactive effluents are presently being developed and will be issued for the PINGP when complete. In the interim, the licensee proposes that the PINGP radioactive effluent design objectives for systems controlling radioiodines and dissolved radioactive gases be revised from the June 9, 1971 proposed Appendix I design objectives to the more recently proposed design objectives stated in staff's Concluding Statement on Appendix I (RM-50-2). These

revised Technical Specifications will result in plant operation with radioactive effluent limiting conditions for operation (design objectives) which are consistent with those in use or proposed for other operating reactor plants.

By letter dated June 4, 1976, the licensee provided additional information pursuant to Appendix I to 10 CFR 50. Until we have completed our detailed evaluation of the information for the PINGP to determine conformance with the requirements of Appendix I to 10 CFR Part 50, we would impose requirements in Appendix B to the Technical Specifications that implement the dose design objectives contained in the Concluding Statement of the Regulatory Staff on Appendix I (RM 50-2), dated February 20, 1974. These numerical values are somewhat more restrictive than those contained in Appendix I and will assure that releases of radioactive material in effluents will be as low as reasonably achievable in conformance with 10 CFR Part 50.34a. After we complete our evaluation of the information provided by the licensee, we intend to revise the Technical Specifications to reflect the requirements of Appendix I.

## 2. Environmental Impact of the Proposed Action

The revised radioactive effluent limiting conditions for operation for airborne radioiodines and dissolved gases in liquid effluents will not significantly change the quantities or type of radioactivity discharged to the environment from the Prairie Island Nuclear facility because no change in presently installed plant equipment is proposed. Consequently, radioactive effluents and their environmental impact will not be appreciably different from those described in the Final Environmental Impact Statement issued for the PINGP in May 1973. The revised interim limiting conditions for operation are based on the as-low-as-practicable (ALAP) releases of radioactivity from light water nuclear power plants as presented in the (AEC) staff's Concluding Statement on Appendix I (RM-50-2) and Final Environmental Statement on ALAP Light Water Reactor Effluents (WASH 1258). Until the Prairie Island design objectives are updated to the issued Appendix I design objectives, these interim limiting conditions for operation (similar to other operating reactors) will keep releases of radioactive materials in effluents to levels considered as-low-as-reasonably-achievable based on the current numerical guidance set forth in Appendix I to 10 CFR Part 50. It should be noted that only the design objectives of the limiting conditions for operation have been revised without changing the release limits for radioactive materials which are based on 10 CFR Part 20 concentration limits for radioactive materials in unrestricted areas.

3. Conclusion and Basis for Negative Declaration

On the basis of the foregoing analysis, it is concluded that there will be no significant environmental impact attributable to the proposed action other than has already been predicted and described in the Final Environmental Statement for Prairie Island issued in May 1973. The Commission has further concluded that no environmental impact statement for the proposed action need be prepared and that a negative declaration to this effect is appropriate.

Date: JUL 08 1976



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NOS. 11 AND 5 TO FACILITY  
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

INTRODUCTION

By letters dated May 24, 1974 and February 17, 1976, the Northern States Power Company (the licensee) proposed to change the Appendix A Technical Specifications for the Prairie Island Nuclear Generating Plant Unit Nos. 1 and 2 (PINGP). The majority of the changes proposed in the May 24, 1974 letter were approved and issued as Change No. 6 to the Technical Specifications on October 25, 1974. Included in the May 24, 1974 license amendment request were a number of proposed changes to Section 3.9 "Radioactive Effluents", which were not acted upon (items 19 through 22 of Exhibit A of the May 24, 1974 submittal). In addition there are certain administrative oversights contained in Amendments 9 and 4 issued on January 23, 1976, and certain administrative corrections to update the Technical Specifications.

The proposed changes in Section 3.9 involve the interim revision of the design objectives for the radioactive systems controlling effluent releases to update them to be consistent with the Concluding Statement of Position of the Regulatory Staff on Appendix I (Docket RM-50-2). Technical Specifications are currently being developed for radioactive effluents according to Appendix I of 10 CFR Part 50 published on May 5, 1975. These new technical specifications will be issued for the PINGP when completed.

The proposed change dated February 17, 1976, involves changes in environmental samples, sample locations and sampling frequencies which are contained in Section 4.10 "Radiation Environmental Monitoring Program".

DISCUSSION

The proposed changes in Section 3.9 involve interim changes to the design objectives for systems controlling radioactive effluents. The PINGP design objectives were based on design objectives (limiting conditions for operation)

set forth in the originally proposed Appendix I to 10 CFR Part 50 as published in the Federal Register (36 F.R. 11113) on June 9, 1971). Extensive rulemaking action has taken place since the initial publication of proposed Appendix I resulting in changes to the design objectives. On February 20, 1974 the (AEC) staff issued its Concluding Statement of Position of the Regulatory Staff on Appendix I (Docket RM-50-2) which recommended design objectives less stringent for airborne radioiodines and dissolved radioactive gases in liquid effluents than initially proposed. On May 5, 1975 the NRC published Appendix I. The rule, as amended on September 4, 1975, has design objectives for systems controlling airborne radioiodines and dissolved radioactive gases similar to those stated in the staff's Concluding Statement on Appendix I (RM-50-2). Appendix I technical specifications for radioactive effluents are presently being developed and will be issued for the PINGP when complete. In the interim, the licensee proposes that the PINGP radioactive effluent design objectives for systems controlling radioiodines and dissolved radioactive gases be revised from the June 9, 1971 proposed Appendix I design objectives to the more recently proposed design objectives stated in staff's Concluding Statement on Appendix I (RM-50-2). These revised Technical Specifications will result in plant operation with radioactive effluent limiting conditions for operation (design objectives) which are consistent with those in use or proposed for other operating reactor plants.

By letter dated June 4, 1976, the licensee provided additional information pursuant to Appendix I to 10 CFR 50. Until we have completed our detailed evaluation of the information for the PINGP to determine conformance with the requirements of Appendix I to 10 CFR Part 50, we would impose requirements in Appendix B to the Technical Specifications that implement the dose design objectives contained in the Concluding Statement of the Regulatory Staff on Appendix I (RM 50-2), dated February 20, 1974. These numerical values are somewhat more restrictive than those contained in Appendix I and will assure that releases of radioactive material in effluents will be as low as reasonably achievable in conformance with 10 CFR Part 50.34a. After we complete our evaluation of the information provided by the licensee, we intend to revise the Technical Specifications to reflect the requirements of Appendix I.

The proposed changes in Section 4.10 involve changes in sample types, sample locations and sampling frequencies in the radioactive environmental monitoring program. These changes are for the purpose of updating the monitoring program to accommodate experience and changes in regulatory guidance.

The corrections involve correcting clerical errors, redundancies and other administrative type changes.

### EVALUATION

The proposed changes in Section 3.9 involve changing the design objectives for radioactive effluents. This change updates the Technical Specifications to meet newer regulatory requirements. This amounts to an increase in the design objectives for halogens and other particulate isotopes with half-lives greater than 8 days. With this change we will require a cow census (Section 4.10) which was not previously required. The cow census will assure that the monitoring program will be adjusted as the location of cows is changed. The proposed change results in radioactive effluent design objective which are compatible with Appendix I to 10 CFR Part 50.

The proposed changes in Section 4.10 involve changing samples, sample frequencies and sampling locations. The proposed changes would revise requirements which were found to be impractical and update the monitoring program to include more current regulatory guidance. Based on our review of the program we find that the changes would result in providing equivalent or better information on radioactivity releases than the existing program.

### ENVIRONMENTAL CONSIDERATION

Our evaluation of the potential for environmental impact as a result of changing the design objectives for systems controlling radioactive effluents is contained in the Environmental Impact Appraisal and Negative Declaration that are being issued with this Safety Evaluation.

Our evaluation of the potential for environmental impact as a result of changing the program for environmental samples, sample locations and sampling frequencies and as a result of corrections to previously made administrative errors has revealed that these actions do not authorize a change in the effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that these items involve actions which are insignificant from the standpoint of environmental impact and pursuant to Section 51.5(d)(4) that an environmental statement, negative declaration or environmental impact appraisal need not be prepared for this item.

### CONCLUSION

We have concluded, based on the considerations discussed above, that: (1) because the changes do not involve a significant increase in the probability or consequences of accidents previously considered and do not involve a significant decrease in a safety margin, the changes do not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Date: JUL 09 1976

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NOS. 50-282 AND 50-306

NORTHERN STATES POWER COMPANY

NOTICE OF ISSUANCE OF AMENDMENTS TO FACILITY  
OPERATING LICENSES

Notice is hereby given that the U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment Nos. 11 and 5 to Facility Operating License Nos. DPR-42 and DPR-60, issued to the Northern States Power Company (the licensee), which revised Technical Specifications for operation of Unit Nos. 1 and 2 of the Prairie Island Nuclear Generating Plant (the facility) located in Goodhue County, Minnesota. The amendments are effective as of their date of issuance.

The amendments revise the Technical Specifications for the facility to (1) change the design objectives for the systems controlling radioactive effluents, (2) change the environmental samples, sample locations, and sample frequencies specified in the Radiation Environmental Monitoring Program, and (3) correct administrative oversights contained in previously issued amendments to the licenses.

The applications for amendments comply with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendments. Prior public notice of these amendments was not required since the amendments do not involve a significant hazards consideration.

In connection with the approval of item (1) above, the Commission has issued a Negative Declaration and Environmental Impact Appraisal. In connection with the approval of items (2) and (3) above, the Commission has determined that they will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4) an environmental statement, negative declaration or environmental impact appraisal need not be prepared.

For further details with respect to these actions, see (1) the applications for amendments dated May 24, 1974 (and letter related thereto dated May 8, 1975) and February 17, 1976, (2) Amendment Nos. 11 and 5 to License Nos. DPR-42 and DPR-60, respectively, (3) the Commission's concurrently issued related Safety Evaluation, and (4) the Commission's Negative Declaration dated **JUL 09 1976** which is also being published in the FEDERAL REGISTER and associated Environmental Impact Appraisal. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C. and at The Environmental Conservation Library of the Minneapolis Public Library, 300 Nicollet Mall, Minneapolis, Minnesota 55401. A copy of items (2), (3) and (4) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Operating Reactors.

FOR THE NUCLEAR REGULATORY COMMISSION

Original Signed by:  
Dennis L. Ziemann

Dennis L. Ziemann, Chief  
Operating Reactors Branch #2  
Division of Operating Reactors

**JUL 09 1976**

UNITED STATES NUCLEAR REGULATORY COMMISSION

NEGATIVE DECLARATION

REGARDING PROPOSED CHANGES TO THE  
TECHNICAL SPECIFICATIONS OF LICENSES DPR-42 AND DPR-60

PRAIRIE ISLAND NUCLEAR GENERATING PLANT UNIT NOS. 1 AND 2

DOCKET NOS. 50-282 AND 50-306

The U. S. Nuclear Regulatory Commission (the Commission) is considering the issuance of amendments to Facility Operating License Nos. DPR-42 and DPR-60 issued to Northern States Power Company for operation of the Prairie Island Nuclear Generating Plant Unit Nos. 1 and 2 located in Goodhue County, Minnesota. The amendments are effective as of their date of issuance except for the air particulate monitoring which will become effective 120 days after issuance.

The amendments would revise the design objectives (Limiting Conditions of Operation) in the Technical Specifications relating to radioactive effluents in accordance with the licensee's application for amendment dated May 24, 1974.

The Commission has prepared an environmental impact appraisal for the proposed changes on the above subject and has concluded that an environmental impact statement for this particular action is not warranted because there will be no environmental impact attributable to the proposed action other than that which has already been predicted and described in the Commission's Final Environmental Statement for Prairie Island Nuclear Generating Plant Unit Nos. 1 and 2 published in the Federal Register on May 21, 1973 (38 FR 13394).

OFFICE ➤					
SURNAME ➤					
DATE ➤					

set forth in the originally proposed Appendix I to 10 CFR Part 50 as published in the Federal Register (36 F.R. 11113) on June 9, 1971). Extensive rulemaking action has taken place since the initial publication of proposed Appendix I resulting in changes to the design objectives. On February 20, 1974 the (AEC) staff issued its Concluding Statement of Position of the Regulatory Staff on Appendix I (Docket RM-50-2) which recommended design objectives less stringent for airborne radioiodines and dissolved radioactive gases in liquid effluents than initially proposed. On May 5, 1975 the NRC published Appendix I. The rule, as amended on September 4, 1975, has design objectives for systems controlling airborne radioiodines and dissolved radioactive gases similar to those stated in the staff's Concluding Statement on Appendix I (RM-50-2). Appendix I technical specifications for radioactive effluents are presently being developed and will be issued for the PINGP when complete. In the interim, the licensee proposes that the PINGP radioactive effluent design objectives for systems controlling radioiodines and dissolved radioactive gases be revised from the June 9, 1971 proposed Appendix I design objectives to the more recently proposed design objectives stated in staff's Concluding Statement on Appendix I (RM-50-2). These revised Technical Specifications will result in plant operation with radioactive effluent limiting conditions for operation (design objectives) which are consistent with those in use or proposed for other operating reactor plants. By letter dated June 4, 1976, the licensee provided additional information pursuant to Appendix I to 10 CFR Part 50. Until we have completed our detailed evaluation of the information for the PINGP to determine conformance with the requirements of Appendix I to 10 CFR Part 50, we would impose requirements in Appendix B to the Technical Specifications that implement the dose design objectives contained in the Concluding Statement of the Regulatory Staff on Appendix I (RM 50-2), dated February 20, 1974. These numerical values are somewhat more restrictive than those contained in Appendix I and will assure that releases of radioactive material in effluents will be as low as reasonably achievable in conformance with 10 CFR Part 50.34a. After we complete our evaluation of the information provided by the applicants, we intend to revise the Technical Specifications to reflect the requirements of Appendix I.

The proposed changes in Section 4.10 involve changes in sample types, sample locations and sampling frequencies in the radioactive environmental monitoring program. These changes are for the purpose of updating the monitoring program to accommodate experience and changes in regulatory guidance.

The corrections involve correcting clerical errors, redundancies and other administrative type changes.

revised Technical Specifications will result in plant operation with radioactive effluent limiting conditions for operation (design objectives) which are consistent with those in use or proposed for other operating reactor plants. By letter dated June 4, 1976, the licensee provided additional information pursuant to Appendix I to 10 CFR Part 50. Until we have completed our detailed evaluation of the information for the PINGP to determine conformance with the requirements of Appendix I to 10 CFR Part 50, we would impose requirements in Appendix B to the Technical Specifications that implement the dose design objectives contained in the Concluding Statement of the Regulatory Staff on Appendix I (RM 50-2), dated February 20, 1974. These numerical values are somewhat more restrictive than those contained in Appendix I and will assure that releases of radioactive material in effluents will be as low as reasonably achievable in conformance with 10 CFR Part 50.34a. After we complete our evaluation of the information provided by the applicants, we intend to revise the Technical Specifications to reflect the requirements of Appendix I.

## 2. Environmental Impact of the Proposed Action

The revised radioactive effluent limiting conditions for operation for airborne radioiodines and dissolved gases in liquid effluents will not significantly change the quantities or type of radioactivity discharged to the environment from the Prairie Island Nuclear facility because no change in presently installed plant equipment is proposed. Consequently, radioactive effluents and their environmental impact will not be appreciably different from those described in the Final Environmental Impact Statement issued for the PINGP in May 1973. The revised interim limiting conditions for operation are based on the as-low-as-practicable (ALAP) releases of radioactivity from light water nuclear power plants as presented in the (AEC) staff's Concluding Statement on Appendix I (RM-50-2) and Final Environmental Statement on ALAP Light Water Reactor Effluents (WASH 1258). Until the Prairie Island design objectives are updated to the issued Appendix I design objectives, these interim limiting conditions for operation (similar to other operating reactors) will keep releases of radioactive materials in effluents to levels considered as-low-as-reasonably-achievable based on the current numerical guidance set forth in Appendix I to 10 CFR Part 50. It should be noted that only the design objectives of the limiting conditions for operation have been revised without changing the release limits for radioactive materials which are based on 10 CFR Part 20 concentration limits for radioactive materials in unrestricted areas.



not authorize a significant change in effluent types or quantities, an increase in power level, or a change in the facility and will not result in a significant impact on the human environment.

Noticing Concurrences:

Date:

1. M. Grotenhuis *JG* 3/23/76
2. D. L. Ziemann *DZ* 3/24/76
3. K. R. Goller *KRG* 3/24/76
4. OELD (G. Lewis) *G. Lewis* 4/6/76