



Northern States Power Company

414 Nicollet Mall
Minneapolis, Minnesota 55401-1927
Telephone (612) 330-5500

October 21, 1998

Point Source Compliance Section
Division of Water Quality
Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, MN 55155

Attention: Mary Hayes

**PRAIRIE ISLAND NUCLEAR GENERATING PLANT
NPDES Permit No. MN0004006
Monthly Discharge Monitoring Reports**

In accordance with Part I.D.2. of the subject NPDES permit, we are submitting our Discharge Monitoring Reports for discharges 701M, 010, 011, 012, 013, 014, 015, 016, 017, 018, 019, 021, 022, 023 and 030 at the Prairie Island Nuclear Generating Plant. These reports cover the period September 1, 1998 through September 30, 1998. We are also submitting the Bromine/Chlorine Monthly Supplemental Report and the Circulating Water Total Phosphorous Report for the month of September.

As noted in the Circulating Water Total Phosphorous Report, the addition of the descaler was stopped on September 5 and will not resume until December. Correspondingly, the total phosphorus monitoring conducted weekly while adding descaler has been temporarily discontinued until its addition resumes.

Please note that the flows reported for discharges 022 and 023 include a total of both outfalls.

In accordance with Part I.C.5.e. of the subject NPDES permit, we are also submitting the records of the daily maximum, minimum, and average temperatures for the monitoring locations of the expanded temperature monitoring system. The Lock and Dam Pier 2 monitoring was operating incorrectly from September 1 to September 16. The problem was due to a bias from air temperature resulting from the thermocouple installation and the lowering river level. The problem had occurred in August as discussed in the attached October 13 cover letter for a corrected Discharge 701M Monitoring Report for August. The problem has been corrected. Some other data gaps or errors on the computer printout of the daily summaries from various locations of the expanded temperature monitoring system were entered or corrected manually from available data retrieved from the system. Backup monitoring and reporting is utilized when a particular monitor is out of service.

File Copy
PI Lab

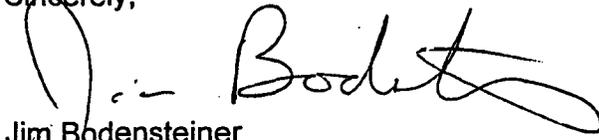
Page Two

A plant status report of the continuous chlorination/bromination treatment program is included with the Bromine/Chlorine Monthly Supplemental Report and provides a summary of September operation including the monthly demand result; an assessment of the improvement in supply ordering to eliminate interruptions; and a statement on the quarterly bacteria testing.

Enclosed is the plant's summary of cooling tower operations in September. The summary includes a discussion of the loss of fish discovered and reported to the MPCA and the DNR on September 16. The fish had been stranded in the #122 cooling tower basin after the tower was shutdown.

If you have any questions, please call me at 330-6625.

Sincerely,



Jim Bodensteiner
Senior Environmental Analyst

Enclosures

c: Terry Coss
Steve Enger (DNR)
Mark Gruber
Gary Kollé
Gerald Joachim
Katherine Logan (MPCA Rochester)
Tom Verbout
Ken Mueller
ERAD Record Center

w:jib/rpts/mpraire

NNNN SSSSSSPPPPPPPPPPP Northern States Power Company
NN NN SSS PPP Prairie Island Nuclear Generating Plant
NN NN SSSS PPPPPPP 1717 Wakonade Drive East
NN NN SSS PPP Welch, Minnesota 55089
NN NNSSSSSS PPP (651)-388-1121

DATE OCTOBER 01, 1998

NAME JIM BODENSTEINER
ADDRESS NSP ERAD

SUBJECT: SEPTEMBER COOLING TOWER OPERATIONS

At 2006 September 8th #122 tower was shutdown for the year. River temperatures remained well below 78 degrees at this time. Early on the 10th fans on #121 tower were turned off in preparation for turning off the tower possibly later in the week. A late summer heatwave prevented us from turning off the tower although the river temperature remained below 78 degrees.

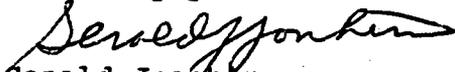
On September 16th Ken Mueller confirmed that 25 to 40 catfish had been trapped in #122 tower basin when it was turned off and died when the water evaporated away. Around 0900 on the 16th a call was made to the MINN DNR(Mr. Enger) and MPCA(Mary Hayes) informing them of the small fishkill in the tower basin. After the next tower shutdown the basin will be checked for fish and an attempt will be made to remove any trapped fish.

At 1406 on the 23rd #123 tower was turned off for the year. No fish were observed in the basin. The plant delta temp remained in the 3.5 to 4.0 degree range and river temperature remained below 78 degrees the rest of September.

Cooling tower status on October 1st: #122 and #123 towers off, #121 tower running with 0 fans and #124 tower running with 7 fans.

Please contact me at Ext. 4440 if additional information is needed. Thank you.

Sincerely yours,


Gerald Joachim
Senior Radiation Protection Specialist

NNNN SSSSSPPPPPPPPPP Northern States Power Company
NN NN SSS PPP Prairie Island Nuclear Generating Plant
NN NN SSS PPPPPPP 1717 Wakonade Drive East
NN NN SSS PPP Welch, Minnesota 55089
NN NNSSSSSSS PPP (612)-388-1121

DATE OCTOBER 01, 1998

NAME JIM BODENSTEINER
ADDRESS NSP ERAD

SUBJECT: CONTINUOUS CHLORINATION/BROMINATION

We operated in the continuous bromination mode the entire month of September with only minor system problems. The ordering process improvement continued to eliminate the shutdowns due to low levels in storage tanks.

The bromine river demand completed on September 29th had results of 0.84 ppm which is a significant decrease from the August value. The decrease was most likely caused by decreasing river temperature.

The quarterly bacteria testing on the service water system showed slightly positive results on Unit 2 service water. On September 26th we reduced the daily chlorine injection significantly because of decreasing river temperature.

Please contact me at Ext. 4440 if additional information is needed.
Thank you.

Sincerely yours,

Gerald Joachim
Senior Radiation Protection Specialist

PRAIRIE ISLAND CIRC WATER TOTAL PHOSPHOROUS CONCENTRATION (PPB)

	INLET	OUTLET
SEPTEMBER 07	250	278
		278
SEPTEMBER 14	263	241
		235
SEPTEMBER 21	227	222
		218

The UNIT 2 descaler pump was running at 14.0 gallons per day until September 5th when it was turned off because of low level in storage tank. It will remain off through at least the refueling outage in mid December. Weekly sampling has been suspended until the injection is restarted possibly late December.

SEPTEMBER 1998

	Bromine Kgrs / day	Chlorine Kgrs / day	Time mins. / day	U-1 Residual	U-2 Residual	Outfall Residual
1	33.6	58.0	1440	0.10	0.13	<0.001
2	16.8	60.6	1440	0.13	0.15	<0.001
3	28.0	60.6	1440	0.11	0.14	<0.001
4	28.0	60.6	1440	0.12	0.14	<0.001
5	22.4	55.4	1440	0.12	0.13	<0.001
6	16.8	60.3	1440	0.14	0.10	<0.001
7	39.1	50.0	1440	0.14	0.16	<0.001
8	33.6	38.9	1440	0.12	0.14	<0.001
9	22.4	79.5	1440	0.16	0.16	<0.001
10	11.2	60.7	1440	0.13	0.13	<0.001
11	11.2	60.7	1440	0.12	0.14	<0.001
12	28.0	57.5	1440	0.13	0.11	<0.001
13	28.0	60.2	1440	0.13	0.12	<0.001
14	33.6	58.8	1440	0.10	0.13	<0.001
15	33.6	72.0	1440	0.12	0.14	<0.001
16	22.4	48.6	1440	0.13	0.14	<0.001
17	22.4	59.4	1440	0.10	0.13	<0.001
18	33.6	59.4	1440	0.09	0.13	<0.001
19	22.4	44.1	1440	0.12	0.15	<0.001
20	33.6	60.8	1440	0.12	0.13	<0.001
21	22.4	58.0	1440	0.13	0.15	<0.001
22	33.6	62.4	1440	0.15	0.16	<0.001
23	22.4	56.4	1440	0.17	0.16	<0.001
24	22.4	59.3	1440	0.20	0.23	<0.001
25	22.4	59.3	1440	0.12	0.16	<0.001
26	33.6	29.2	1440	0.09	0.06	<0.001
27	22.4	27.2	1440	0.08	0.09	<0.001
28	33.6	31.1	1440	0.07	0.08	<0.001
29	28.0	32.8	1440	0.06	0.06	<0.001
30	28.0	32.8	1440	0.05	0.05	<0.001
31						

PERMITTEE NAME/ADDRESS:

NSP-PRAIRIE ISLAND PLANT
414 NICOLLET MALL
MINNEAPOLIS MN 55401

NSP-PRAIRIE ISLAND PLANT
WELCH MN 55089

ATTN: MR. MICHAEL HESTICK

WASTEWATER TREATMENT
DISCHARGE MONITORING REPORT

MN0004006
PERMIT #

010 M
OUTFALL #

Combined Effl frm 011 to 02
(SUBR 05)
F - FINAL
MAJOR



MONITORING PERIOD						
YEAR	MO.	DAY	TO	YEAR	MO.	DAY
98	09	01		98	09	30

*** NO DISCHARGE ***

PARAMETER		QUANTITY			CONCENTRATION				FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS		
PLANT CAPACITY FACT, PERCENT OF CAPACITY 00180 1 0 0	SAMPLE MEASUREMENT	*****	*****		*****	97.2	*****	(23)	Cont MEAS	NEASRD
	PERMIT REQUIREMENT	*****	*****	***	*****	REPORT MD AVG	*****	PER-CENT		
EFFLUENT GROSS VALUE PH 00400 1 0 0	SAMPLE MEASUREMENT	*****	*****		8.2	*****	8.6	(12)	1/7 GRAB	WEEKLY GRAB
	PERMIT REQUIREMENT	*****	*****	***	6.0	*****	9.0	MD MIN		
OXIDANTS, TOTAL RESIDUAL 34044 A 0 0	SAMPLE MEASUREMENT	*****	*****		*****			(19)	ONCE/ GRAB DISCHG	
	PERMIT REQUIREMENT	*****	*****	***	*****	OPTIONAL MD AVG	.05	DAILY MX		
OXIDANTS, TOTAL RESIDUAL 34044 1 0 0	SAMPLE MEASUREMENT	*****	*****		*****			(19)	CONTINCONTIN	UOUS
	PERMIT REQUIREMENT	*****	*****	***	*****	REPORT MD AVG	.04	MX DA AV		
OXIDANTS RELEASED, TOTAL RESIDUAL 34046 A 0 0	SAMPLE MEASUREMENT	*****	*****		*****			(19)	ONCE/ GRAB DISCHG	
	PERMIT REQUIREMENT	*****	*****	***	*****	OPTIONAL MD AVG	.2	DAILY MX		
OXIDANTS RELEASED, TOTAL RESIDUAL 34046 1 0 0	SAMPLE MEASUREMENT	*****	*****		*****	<0.001	<0.001	(19)	30/30 CAL	CONTINCONTIN
	PERMIT REQUIREMENT	*****	*****	***	*****	REPORT MD AVG	.001	MX DA AV		
EFFLUENT GROSS VALUE FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 1 0 0	SAMPLE MEASUREMENT	*****	*****		23160	772		(03)	cont EST	
	PERMIT REQUIREMENT	*****	*****	***	REPORT MD TOTAL	REPORT AVERAGE	OPTIONAL DAILY MX	MGD		

Send white copy with supplemental DMR form by 21st day of month following reporting period to:
MINNESOTA POLLUTION CONTROL AGENCY
520 LAFAYETTE ROAD
ST. PAUL, MINNESOTA 55155
ATTN: W.Q. POINT SOURCE COMPLIANCE

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

D.A. Schuelke

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

10-8-98
DATE

SIGNATURE OF CHIEF OPERATOR

DATE

CERTIFICATION #

IF NEW

COMMENTS:

1)EFL:no floatg solids,foam or film 2)See Part I.C.6 for flow restrictions 3)See Part I.C.5 for thermal limitations 4)Amount and Time of Chlorine and/or Bromine continuous and/or intermittent application shall be recorded daily and submitted with the monthly DMRs in addition to the values reported on this DMR.

PERMITTEE NAME ADDRESS:

NSP-PRAIRIE ISLAND PLANT
414 NICOLLET MALL
MINNEAPOLIS MN 55401

WASTEWATER TREATMENT
DISCHARGE MONITORING REPORT

MN0004006 PERMIT #
701 M
OUTFALL #

Miss R Imdtly Blw Lock 8
(SUBR 05) 12345
F - FINAL
MAJOR



NSP-PRAIRIE ISLAND PLANT
WELCH MN 55089

MONITORING PERIOD						
YEAR	MO.	DAY	TO	YEAR	MO.	DAY
98	09	01		98	09	30

*** NO DISCHARGE ***

ATTN: MR. MICHAEL HESTICK

PARAMETER	SAMPLE MEASUREMENT	QUANTITY			CONCENTRATION			FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM		
TEMPERATURE, WATER DEG. FAHRENHEIT 00011 6 N 0 DOWNSTREAM MONITOR	SAMPLE MEASUREMENT	*****	*****		72.3	76.4	79.3	(15)	Cont MEAS
	PERMIT REQUIREMENT	*****	*****	****	REPORT MO MIN	86.0 MX DA AV	REPORT MO MAX	DEG.F	CONTINUOUS
TEMPERATURE, WATER DEG. FAHRENHEIT 00011 7 N 0 INTAKE FROM STREAM	SAMPLE MEASUREMENT	*****	*****		67.8	73.5	77.1	(15)	Cont MEAS
	PERMIT REQUIREMENT	*****	*****	****	REPORT	REPORT	REPORT	DEG.F	CONTINUOUS
TEMP. DIFF. BETWEEN SAMP. & UPSTRM DEG.F 00018 6 N 0 DOWNSTREAM MONITOR	SAMPLE MEASUREMENT	*****	*****			2.9		(15)	
	PERMIT REQUIREMENT	*****	*****	****	OPTIONAL MO MIN	5.0 MO AVG	OPTIONAL MO MAX	DEG.F	CONTINUOUS
	SAMPLE MEASUREMENT								
	PERMIT REQUIREMENT								
	SAMPLE MEASUREMENT								
	PERMIT REQUIREMENT								
	SAMPLE MEASUREMENT								
	PERMIT REQUIREMENT								
	SAMPLE MEASUREMENT								
	PERMIT REQUIREMENT								

Send white copy with supplemental DMR form by 21st day of month following reporting period to:
MINNESOTA POLLUTION CONTROL AGENCY
520 LAFAYETTE ROAD
ST. PAUL, MINNESOTA 55155
ATTN: W.O. POINT SOURCE COMPLIANCE

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

Dr. Schuller
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT
DATE 10-8-98
SIGNATURE OF CHIEF OPERATOR _____ DATE _____ CERTIFICATION # IF NEW

COMMENTS:
1) See Permit Part I, C.5. for Thermal Restrictions. 2) Notify MPCA & MDNR when winter temp GE 43F.
3) Use 70IN to summarize NOV-MAR days when river temp is GT 43F. 4) Parameter 00018 is Delta T=Tribe-Tintk
5) MIN=LOW DLY MAX IN MONTH 6) AVG=Monthly average of daily maximum 7) MAX=HIGH DLY MAX IN MONTH
PQ00592-03 MPCA DMR 04/25/95 00234/980408-0905 PAGE 1

PERMITTEE NAME/ADDRESS:

NSP-PRAIRIE ISLAND PLANT
414 NICOLLET MALL
MINNEAPOLIS MN 55401

NSP-PRAIRIE ISLAND PLANT
WELCH MN 55089

ATTN: MR. MICHAEL HESTICK

WASTEWATER TREATMENT
DISCHARGE MONITORING REPORT

MN0004006
PERMIT #

011 M
OUTFALL #

Steam Generator Blowdown Discharge
(SUBR 05) 1234
F - FINAL
MAJOR



MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
98	09	01		98	09	30

*** NO DISCHARGE ***

PARAMETER		QUANTITY			CONCENTRATION				FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS		
SOLIDS, TOTAL SUSPENDED 00530 1 0 0	SAMPLE MEASUREMENT	0	0	(01)	ND	ND	ND	(19)	1/30	GRAB
	PERMIT REQUIREMENT	65.3 MD AVG	217.0 MD MAX	KG/ DAY	45.0 MX WK AV	30.0 MD AVG	100.0 MD MAX	MG/L	ONCE/ MONTH	GRAB
FLOW, IN CONDUIT DR THRU TREATMENT PLANT 50050 1 0 0	SAMPLE MEASUREMENT	*****	*****		0.570	0.019		(03)	1/30	Est
	PERMIT REQUIREMENT	*****	*****	****	REPORT MD TOTAL	REPORT AVERAGE	OPTIONAL DAILY MX	MGD	ONCE/ MONTH	ESTIMA
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									

Send white copy with supplemental DMR form by 21st day of month following reporting period to:
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520 LAFAYETTE ROAD
ST. PAUL, MINNESOTA 55155
ATTN: W.Q. POINT SOURCE COMPLIANCE

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

Michael Hestick
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

10-8-98
DATE

SIGNATURE OF CHIEF OPERATOR

DATE

CERTIFICATION #

IF NEW

COMMENTS:

1) EFL: no floatg solids, foam or film

PERMITTEE NAME ADDRESS:

NSP PRAIRIE ISLAND PLANT
414 NICOLLET MALL
MINNEAPOLIS MN 55401

WASTE WATER TREATMENT
DISCHARGE MONITORING REPORT

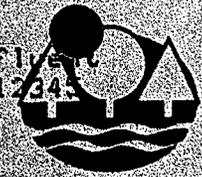
MN0004006

012 M

PERMIT #

OUTFALL #

Radwaste Treatment Effluent
(SUBR 05) 12345
F - FINAL
MAJOR



NSP-PRAIRIE ISLAND PLANT
WELCH MN 55089

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
98	09	01		98	09	30

FROM

TO

*** NO DISCHARGE ***

ATTN: MR. MICHAEL HESTICK

PARAMETER	SAMPLE MEASUREMENT	QUANTITY			CONCENTRATION			FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM		
SOLIDS, TOTAL SUSPENDED		<0.1	<0.1	(01)	0.2	0.2	0.2	(19)	GRAB
00530 1 0 0	PERMIT REQUIREMENT	26.0	86.9	KG/DAY	45.0	30.0	100.0		ONCE/ GRAB
EFFLUENT GROSS VALUE		MO AVG	MO MAX	DAY	MX WK AV	MO AVG	MO MAX	MG/L	MONTH
FLOW, IN CONDUIT OR THRU TREATMENT PLANT	SAMPLE MEASUREMENT	*****	*****		0.150	0.005		(03)	Est
50050 1 0 0	PERMIT REQUIREMENT	*****	*****	****	REPORT	REPORT	OPTIONAL		ONCE/ ESTIM
EFFLUENT GROSS VALUE				****	MO TOTAL	AVERAGE	DAILY MX	MGD	MONTH
	SAMPLE MEASUREMENT								
	PERMIT REQUIREMENT								
	SAMPLE MEASUREMENT								
	PERMIT REQUIREMENT								
	SAMPLE MEASUREMENT								
	PERMIT REQUIREMENT								
	SAMPLE MEASUREMENT								
	PERMIT REQUIREMENT								
	SAMPLE MEASUREMENT								
	PERMIT REQUIREMENT								

Send white copy with supplemental DMR form by 21st day of month following reporting period to:
MINNESOTA POLLUTION CONTROL AGENCY
520 LAFAYETTE ROAD
ST. PAUL, MINNESOTA 55155
ATTN: W.Q. POINT SOURCE COMPLIANCE

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

[Signature]
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT
DATE: 10-8-98

SIGNATURE OF CHIEF OPERATOR
DATE: _____

CERTIFICATION # IF NEW

COMMENTS:
1)EFL: no floatg solids, foam or film

PERMITTEE NAME/ADDRESS:

NSP-PRAIRIE ISLAND PLANT
414 NICOLLET MALL
MINNEAPOLIS MN 55401

WASTEWATER TREATMENT
DISCHARGE MONITORING REPORT

MN0004006
PERMIT #

013 M
OUTFALL #

Neutralizer + Resin Rinse Discharge
(SUBR 05)
F - FINAL
MAJOR



NSP-PRAIRIE ISLAND PLANT
WELCH MN 55089

MONITORING PERIOD						
YEAR	MO.	DAY	TO	YEAR	MO.	DAY
98	09	01		98	09	30

*** NO DISCHARGE ***

ATTN: MR. MICHAEL HESTICK

PARAMETER		QUANTITY			CONCENTRATION				FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS		
SOLIDS, TOTAL SUSPENDED 00530 1 0 0	SAMPLE MEASUREMENT	0.8	5.4	(01)	15.2	11.0	26.0	(19)	11/30	GRAB
	PERMIT REQUIREMENT	97.9 MO AVG	326.0 MO MAX	MG/ DAY	45.0 MX WK AV	30.0 MO AVG	100.0 MO MAX		ONCE/ MONTH	GRAB
EFFLUENT GROSS VALUE FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 1 0 0	SAMPLE MEASUREMENT	*****	*****		0.390	0.013		(03)	11/30	Est
	PERMIT REQUIREMENT	*****	*****	****	REPORT MO TOTAL	REPORT AVERAGE	OPTIONAL DAILY MX	MGD	ONCE/ MONTH	ESTIMA
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									

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520 LAFAYETTE ROAD
ST. PAUL, MINNESOTA 55155
ATTN: W.Q. POINT SOURCE COMPLIANCE

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

Michael Hestick
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

10-8-98
DATE

SIGNATURE OF CHIEF OPERATOR

DATE

CERTIFICATION #

IF NEW

COMMENTS:

1)EFL: no floatg solids, foam or film

PERMITTEE NAME/ADDRESS:

NSP PRAIRIE ISLAND PLANT
414 NICOLLET MALL
MINNEAPOLIS MN 55401

WASTEWATER TREATMENT
DISCHARGE MONITORING REPORT

MN0004006
PERMIT #

014 M
OUTFALL #

Unit 1 Turbine Bldg Sump
(SUBR 05) 12345
F - FINAL
MAJOR



NSP-PRAIRIE ISLAND PLANT
WELCH MN 55089

MONITORING PERIOD						
YEAR	MO.	DAY	TO	YEAR	MO.	DAY
98	09	01		98	09	30

*** NO DISCHARGE !!! ***

ATTN: MR. MICHAEL HESTICK

PARAMETER		QUANTITY			CONCENTRATION			FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM		
SOLIDS, TOTAL SUSPENDED 00530 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		ND	ND	ND	(19)	1/30 GRAB
	PERMIT REQUIREMENT	*****	*****	****	45.0 MX WK AV	30.0 MO AVG	100.0 MO MAX	MG/L	ONCE / GRAB MONTH
OIL AND GREASE FREON EXTR-GRAV METH 00556 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		*****	1	1	(19)	1/30 GRAB
	PERMIT REQUIREMENT	*****	*****	****	*****	10.0 MO AVG	15.0 MO MAX	MG/L	ONCE / GRAB MONTH
FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		3,960	0.132		(03)	1/7 EST
	PERMIT REQUIREMENT	*****	*****	****	REPORT MO TOTAL	REPORT AVERAGE	OPTIONAL DAILY MX	MGD	WEEKLY ESTIMA
	SAMPLE MEASUREMENT								
	PERMIT REQUIREMENT								
	SAMPLE MEASUREMENT								
	PERMIT REQUIREMENT								
	SAMPLE MEASUREMENT								
	PERMIT REQUIREMENT								

Send white copy with supplemental DMR form by 21st day of month following reporting period to:
MINNESOTA POLLUTION CONTROL AGENCY
520 LAFAYETTE ROAD
ST. PAUL, MINNESOTA 55155
ATTN: W.O. POINT SOURCE COMPLIANCE

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

[Signature]

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

10-8-98
DATE

SIGNATURE OF CHIEF OPERATOR

DATE

CERTIFICATION #

IF NEW

COMMENTS:

1) EFL: no floatg solids, foam or film

PERMITTEE NAME/ADDRESS:

NSP-PRAIRIE ISLAND PLANT
414 NICOLLET MALL
MINNEAPOLIS MN 55401

WASTEWATER TREATMENT
DISCHARGE MONITORING REPORT

MN0004006
PERMIT #

015 M
OUTFALL #

Unit 2 Turbine Bldg Sump
(SUBR 05) 12345
F - FINAL
MAJOR



NSP-PRAIRIE ISLAND PLANT
WELCH MN 55089

MONITORING PERIOD						
YEAR	MO.	DAY	TO	YEAR	MO.	DAY
98	09	01		98	09	30

*** NO DISCHARGE !!! ***

ATTN: MR. MICHAEL HESTICK

PARAMETER		QUANTITY			CONCENTRATION				FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS		
SOLIDS, TOTAL SUSPENDED 00530 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		14.0	14.0	14.0	(19)	1/30	GRAB
	PERMIT REQUIREMENT	*****	*****	****	45.0 MX WK AV	30.0 MD AVG	100.0 MD MAX	MG/L	ONCE / MONTH	GRAB
OIL AND GREASE FREDN EXTR-GRAV METH 00556 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		*****	ND	ND	(19)	1/30	GRAB
	PERMIT REQUIREMENT	*****	*****	****	*****	10.0 MD AVG	15.0 MD MAX	MG/L	ONCE / MONTH	GRAB
FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		0.390	0.013		(03)	1/7	Est
	PERMIT REQUIREMENT	*****	*****	****	REPORT MD TOTAL	REPORT AVERAGE	OPTIONAL DAILY MX	MGD	WEEKLY	ESTIMA
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									

Send white copy with supplemental DMR form by 21st day of month following reporting period to:
MINNESOTA POLLUTION CONTROL AGENCY
520 LAFAYETTE ROAD
ST. PAUL, MINNESOTA 55155
ATTN: W.Q. POINT SOURCE COMPLIANCE

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

Michael Hestick
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT
DATE: 09-8-98

SIGNATURE OF CHIEF OPERATOR
DATE: _____ CERTIFICATION # IF NEW

COMMENTS:

1)EFL:no floatg solids,foam or film

PERMITTEE NAME/ADDRESS:

NSP PRAIRIE ISLAND PLANT
414 NICOLLET MALL
MINNEAPOLIS MN 55401

WASTEWATER TREATMENT
DISCHARGE MONITORING REPORT

MN0004006
PERMIT #

016 M
OUTFALL #

Metal Cleaning Effluent
(SUBR 05)
F - FINAL
MAJOR



NSP-PRAIRIE ISLAND PLANT
WELCH MN 55089

MONITORING PERIOD						
YEAR	MO.	DAY	TO	YEAR	MO.	DAY
98	09	01		98	09	30

FROM

TO

*** NO DISCHARGE ***

ATTN: MR. MICHAEL HESTICK

PARAMETER		QUANTITY			CONCENTRATION			FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM		
SOLIDS, TOTAL SUSPENDED 00530 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT			(01)				(19)	
	PERMIT REQUIREMENT	MD AVG	MD MAX	KG/ DAY	45.0 MX WK AV	30.0 MD AVG	100.0 MD MAX	MG/L	ONCE/ GRAB BATCH
OIL AND GREASE FREDN EXTR-GRAV METH 00556 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT			(01)	*****			(19)	
	PERMIT REQUIREMENT	MD AVG	MD MAX	KG/ DAY	*****	10.0 MD AVG	15.0 MD MAX	MG/L	ONCE/ GRAB BATCH
COPPER, TOTAL (AS CU) 01042 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT			(01)	*****			(19)	
	PERMIT REQUIREMENT	MD AVG	MD MAX	KG/ DAY	*****	1.0 MD AVG	1.0 MD MAX	MG/L	ONCE/ GRAB BATCH
IRON, TOTAL (AS FE) 01045 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT			(01)	*****			(19)	
	PERMIT REQUIREMENT	MD AVG	MD MAX	KG/ DAY	*****	1.0 MD AVG	1.0 MD MAX	MG/L	ONCE/ GRAB BATCH
FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****					(03)	
	PERMIT REQUIREMENT	*****	*****	**** ****	REPORT MD TOTAL	REPORT AVERAGE	OPTIONAL DAILY MX	MGD	ONCE/ ESTIMA BATCH
	SAMPLE MEASUREMENT								
	PERMIT REQUIREMENT								
	SAMPLE MEASUREMENT								
	PERMIT REQUIREMENT								

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MINNESOTA POLLUTION CONTROL AGENCY
520 LAFAYETTE ROAD
ST. PAUL, MINNESOTA 55155
ATTN: W.O. POINT SOURCE COMPLIANCE

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

[Signature]
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

10-8-98
DATE

SIGNATURE OF CHIEF OPERATOR

DATE

CERTIFICATION #

IF NEW

COMMENTS:

1) EFL: no floatg solids, foam or film

PERMITTEE NAME/ADDRESS:

NSP-PRAIRIE ISLAND PLANT
414 NICOLLET MALL
MINNEAPOLIS MN 55401

WASTEWATER TREATMENT
DISCHARGE MONITORING REPORT

MN0004006
PERMIT #

017 M
OUTFALL #

Unit 1 Condensate Blowdown
(SUBR 05) 12345
F - FINAL
MAJOR



NSP-PRAIRIE ISLAND PLANT
WELCH MN 55089

MONITORING PERIOD						
YEAR	MO.	DAY	TO	YEAR	MO.	DAY
98	09	01		98	09	30

*** NO DISCHARGE ***

ATTN: MR. MICHAEL HESTICK

PARAMETER		QUANTITY			CONCENTRATION				FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS		
SOLIDS, TOTAL SUSPENDED	SAMPLE MEASUREMENT	0	0	(01)	ND	ND	ND	(19)	1/30	GRAB
	PERMIT REQUIREMENT	28.4	94.6	KG/DAY	45.0	30.0	100.0		ONCE/MONTH	GRAB
EFFLUENT GROSS VALUE FLOW, IN CONDUIT OR THRU TREATMENT PLANT	SAMPLE MEASUREMENT	*****	*****		0,180	0,006		(03)	1/30	EST
	PERMIT REQUIREMENT	*****	*****	***	REPORT	REPORT	OPTIONAL		ONCE/MONTH	ESTIMA
EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT				MO TOTAL	AVERAGE	DAILY MX	MGD		
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									

Send white copy with supplemental DMR form by 21st day of month following reporting period to:
MINNESOTA POLLUTION CONTROL AGENCY
520 LAFAYETTE ROAD
ST. PAUL, MINNESOTA 55155
ATTN: W.O. POINT SOURCE COMPLIANCE

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

DA Schuecke
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT
DATE 10-8-98

SIGNATURE OF CHIEF OPERATOR
DATE _____ CERTIFICATION # IF NEW

COMMENTS:

- 1) EFL: no floatg solids, foam or film
- 2) TSS kg/day values equal the sum for 017 and 018.

PERMITTEE NAME ADDRESS:

NSP PRAIRIE ISLAND PLANT
414 NICOLLET MALL
MINNEAPOLIS MN 55401

WASTEWATER TREATMENT
DISCHARGE MONITORING REPORT

MN0004006

018 M

PERMIT #

OUTFALL #

Unit 2 Condensate Blowdown
(SUBR 05)
F - FINAL
MAJOR



NSP-PRAIRIE ISLAND PLANT
WELCH MN 55089

MONITORING PERIOD						
YEAR	MO.	DAY	TO	YEAR	MO.	DAY
98	09	01		98	09	30

*** NO DISCHARGE ***

ATTN: MR. MICHAEL HESTICK

PARAMETER		QUANTITY			CONCENTRATION				FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS		
SOLIDS, TOTAL SUSPENDED 00530 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	0	0	(01)	ND	ND	ND	(19)	1/30	GRAB
	PERMIT REQUIREMENT	28.4 MO AVG	94.6 MO MAX	KG/ DAY	45.0 MX WK AV	30.0 MO AVG	100.0 MO MAX	MG/L	ONCE/ MONTH	GRAB
FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		0.570	0.019		(03)	1/30	Est.
	PERMIT REQUIREMENT	*****	*****	*** ****	REPORT MO TOTAL	REPORT AVERAGE	OPTIONAL DAILY MX	MGD	ONCE/ MONTH	ESTIM.
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									

Send white copy with supplemental DMR form by 21st day of month following reporting period to:
MINNESOTA POLLUTION CONTROL AGENCY
520 LAFAYETTE ROAD
ST. PAUL, MINNESOTA 55155
ATTN: W.Q. POINT SOURCE COMPLIANCE

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

DA Schuech

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

10-8-98
DATE

SIGNATURE OF CHIEF OPERATOR

DATE

CERTIFICATION #

IF NEW

COMMENTS:

- 1) EFL: no floatg solids, foam or film
- 2) TSS kg/day values equal the sum for 017 and 018.

PERMITTEE NAME/ADDRESS:

NSP-PRAIRIE ISLAND PLANT
414 NICOLLET MALL
MINNEAPOLIS MN 55401

NSP-PRAIRIE ISLAND PLANT
WELCH MN 55089

ATTN: MR. MICHAEL HESTICK

WASTEWATER TREATMENT
DISCHARGE MONITORING REPORT

MN0004006 PERMIT #
019 0
OUTFALL #

MONITORING PERIOD
FROM YEAR 98 MO 07 DAY 01 TO YEAR 98 MO 09 DAY 30

Misc Plant Floor Drains Chg
(SUBR 05) 12345
F - FINAL
MAJOR



*** NO DISCHARGE ***

PARAMETER		QUANTITY			CONCENTRATION				FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS		
SOLIDS, TOTAL SUSPENDED 00530 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		8.1	8.1	8.1	(19)	1/4TR GRAB	
	PERMIT REQUIREMENT	*****	*****	***	45.0 MX WK AV	30.0 MO AVG	100.0 MO MAX	MG/L	QTRLY GRAB	
OIL AND GREASE FREON EXTR-GRAV METH 00556 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		*****	ND	ND	(19)	1/4TR GRAB	
	PERMIT REQUIREMENT	*****	*****	***	*****	10.0 MO AVG	15.0 MO MAX	MG/L	QTRLY GRAB	
FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		0.368	0.004		(03)	1/4TR Est	
	PERMIT REQUIREMENT	*****	*****	***	REPORT QTR/TOTAL	REPORT AVERAGE	OPTIONAL DAILY MX	MGD	QTRLY ESTIMA	
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									

Send white copy with supplemental DMR form by 21st day of month following reporting period to:
MINNESOTA POLLUTION CONTROL AGENCY
520 LAFAYETTE ROAD
ST. PAUL, MINNESOTA 55155
ATTN: W.Q. POINT SOURCE COMPLIANCE

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

Michael Hestick

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

10-8-98
DATE

SIGNATURE OF CHIEF OPERATOR

DATE

CERTIFICATION #

IF NEW

COMMENTS:

1) EFL: no floatg solids, foam or film

PERMITTEE NAME AND ADDRESS:

NSP PRAIRIE ISLAND PLANT
414 NICOLLET MALL
MINNEAPOLIS MN 55401

WASTEWATER TREATMENT
DISCHARGE MONITORING REPORT

MN0004006

021 M

PERMIT #

OUTFALL #

Heating System Blowdown Dischg
(SUBR 05) 12345
F - FINAL
MAJOR



NSP-PRAIRIE ISLAND PLANT
WELCH MN 55089

MONITORING PERIOD							
FROM	YEAR	MO.	DAY	TO	YEAR	MO.	DAY
	98	09	01		98	09	30

*** NO DISCHARGE ***

ATTN: MR. MICHAEL HESTICK

PARAMETER		QUANTITY			CONCENTRATION			FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM		
SOLIDS, TOTAL SUSPENDED 00530 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT			(01)				(19)	
	PERMIT REQUIREMENT	9.1 MO AVG	30.3 MO MAX	KG/ DAY	45.0 MX WK AV	30.0 MO AVG	100.0 MO MAX	MG/L	ONCE / CRAB MONTH
FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****					(03)	
	PERMIT REQUIREMENT	*****	*****	**** ****	REPORT MO TOTAL	REPORT AVERAGE	OPTIONAL MO MAX	MGD	ONCE / ESTIM. MONTH
	SAMPLE MEASUREMENT								
	PERMIT REQUIREMENT								
	SAMPLE MEASUREMENT								
	PERMIT REQUIREMENT								
	SAMPLE MEASUREMENT								
	PERMIT REQUIREMENT								
	SAMPLE MEASUREMENT								
	PERMIT REQUIREMENT								

Send white copy with supplemental DMR form by 21st day of month following reporting period to:
MINNESOTA POLLUTION CONTROL AGENCY
520 LAFAYETTE ROAD
ST. PAUL, MINNESOTA 55155
ATTN: W.O. POINT SOURCE COMPLIANCE

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D.A. Schuelch
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT
DATE 10-8-98
SIGNATURE OF CHIEF OPERATOR _____ DATE _____ CERTIFICATION # IF NEW

COMMENTS:

PERMITTEE NAME/ADDRESS:

NSP-PRAIRIE ISLAND PLANT
414 NICOLLET MALL
MINNEAPOLIS MN 55401

WASTEWATER TREATMENT
DISCHARGE MONITORING REPORT

MN0004006
PERMIT #

022 M
OUTFALL #

Unit 1 Plant Cooling Wt. Dischg
(SUBR 05)
12345
F - FINAL
MAJOR



NSP-PRAIRIE ISLAND PLANT
WELCH MN 55089

MONITORING PERIOD						
YEAR	MO.	DAY	TO	YEAR	MO.	DAY
98	09	01		98	09	30

*** NO DISCHARGE ***

ATTN: MR. MICHAEL HESTICK

PARAMETER		QUANTITY			CONCENTRATION				FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS		
OXIDANTS, TOTAL RESIDUAL 34044 A 0 0	SAMPLE MEASUREMENT	*****	*****		*****		0.20	(.19)	30/30	GRAB
	PERMIT REQUIREMENT	*****	*****	****	*****	OPTIONAL MD AVG	2.0 DAILY MX	MG/L	ONCE/	GRAB DISCHG
DISINFECT. PRCS CMPLT FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 8 0 0	SAMPLE MEASUREMENT	*****	*****		735	24.5		(.03)	30/30	Est
	PERMIT REQUIREMENT	*****	*****	****	REPORT MD TOTAL	REPORT AVERAGE	OPTIONAL MD MAX	MGD	CONTINUED	ESTIMATED
OTHER TRT. PRCS CMPLT	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									

Send white copy with supplemental DMR form by 21st day of month following reporting period to:
MINNESOTA POLLUTION CONTROL AGENCY
520 LAFAYETTE ROAD
ST. PAUL, MINNESOTA 55155
ATTN: W.Q. POINT SOURCE COMPLIANCE

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

D.A. Schuelke

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

10-8-98
DATE

SIGNATURE OF CHIEF OPERATOR

DATE

CERTIFICATION #

IF NEW

COMMENTS:

NOTE: FLOW IS A TOTAL OF OUTFALLS 022 & 023

PERMITTEE NAME/ADDRESS:

NSP PRAIRIE ISLAND PLANT
414 NICOLLET MALL
MINNEAPOLIS MN 55401

WASTEWATER TREATMENT
DISCHARGE MONITORING REPORT

MN0004006

023 M

PERMIT #

OUTFALL #

Unit 2 Plant Cooling Wtr Chg
(SUBR 05) 12345
F - FINAL
MAJOR



NSP-PRAIRIE ISLAND PLANT
WELCH MN 55089

FROM

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
98	09	01		98	09	30

*** NO DISCHARGE ***

ATTN: MR. MICHAEL HESTICK

PARAMETER		QUANTITY			CONCENTRATION				FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS		
OXIDANTS, TOTAL RESIDUAL 34044 A 0 0 DISINFECT, PRCS CMPLT	SAMPLE MEASUREMENT	*****	*****		*****		0.23	(19)	30/30	GRAB
	PERMIT REQUIREMENT	*****	*****	****	*****	OPTIONAL MD AVG	2.0	DAILY MX	MG/L	DNCE/ GRAB DISCHG
FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 B 0 0 OTHER TRT, PRCS CMPLT	SAMPLE MEASUREMENT	*****	*****		735	24.5		(03)	30/30	ESR
	PERMIT REQUIREMENT	*****	*****	****	REPORT MD TOTAL	REPORT AVERAGE	OPTIONAL MD MAX	MGD		CONTIN ESTIM/ UOUS
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									

Send white copy with supplemental DMR form by 21st day of month following reporting period to: MINNESOTA POLLUTION CONTROL AGENCY 520 LAFAYETTE ROAD ST. PAUL, MINNESOTA 55155 ATTN: W.Q. POINT SOURCE COMPLIANCE

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

W. H. Schuelch
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

10-8-98
DATE

SIGNATURE OF CHIEF OPERATOR

DATE

CERTIFICATION #

IF NEW

COMMENTS:

NOTE: FLOW IS A TOTAL OF OUTFALLS 022 & 023

PERMITTEE NAME/ADDRESS:

NSP-PRAIRIE ISLAND PLANT
414 NICOLLET MALL
MINNEAPOLIS MN 55401

WASTEWATER TREATMENT
DISCHARGE MONITORING REPORT

MN0004006
PERMIT #

030 M
OUTFALL #

Intake Screen Rkwh+Fish Retn
(SUBR 05)
F - FINAL
MAJOR



NSP-PRAIRIE ISLAND PLANT
WELCH MN 55089

MONITORING PERIOD						
YEAR	MO.	DAY	TO	YEAR	MO.	DAY
98	09	01		98	09	30

*** NO DISCHARGE ***

ATTN: MR. MICHAEL HESTICK

PARAMETER		QUANTITY			CONCENTRATION				FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS		
FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		60	2		(03)	1/30	EST
	PERMIT REQUIREMENT	*****	*****	****	REPORT MO. TOTAL	REPORT AVERAGE	OPTIONAL DAILY MX.	MGD	ONCE/MONTH	ESTIMA
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									

Send white copy with supplemental DMR form by 21st day of month following reporting period to:
MINNESOTA POLLUTION CONTROL AGENCY
520 LAFAYETTE ROAD
ST. PAUL, MINNESOTA 55155
ATTN: W.Q. POINT SOURCE COMPLIANCE

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

D.A. Schuelch
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT
DATE: 10-8-98
SIGNATURE OF CHIEF OPERATOR _____ DATE _____ CERTIFICATION # IF NEW

COMMENTS:

- 1)EFL:no floatg solids,foam or film
- 2)Large debris shall not be discharged.

PROGRAM NAME :NSCWSP.E TASK NUMBER: 3B000039
NSP PRAIRIE ISLAND PLANT - UNIT 1

TO: Kevin Holmstrom

SEP 02, 98
00:03:19

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 09/02/98

TIME: 00:03:15

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	76.0	74.5	75.3
1T2571A	STURGEON LAKE TEMP 2	76.0	74.4	75.2
1T2572A	DIAMOND BLUFF TEMP	77.4	75.4	76.4
1T2573A	LOCK & DAM PIER 1 TEMP	78.0	76.5	77.1
1T2574A	LOCK & DAM PIER 2 TEMP	75.9	62.5	68.5
1T2575A	LOCK & DAM PIER 3 TEMP	79.1	77.8	78.4
1T2527A	SCREENHOUSE INLT TEMP	75.8	74.7	75.3
1T2530A	DISCHARGE CANAL AVERAGE TEMP	91.7	86.5	88.8

o.s.
#9/8/98

E-O-J

PROGRAM NAME :NSCWSP.E TASK NUMBER: 3B000039
NSP PRAIRIE ISLAND PLANT - UNIT 1

TO: Kevin Holmstrom

SEP 03, 98
00:03:32

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 09/03/98 TIME: 00:03:29

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	74.7	72.7	73.8
1T2571A	STURGEON LAKE TEMP 2	75.9	72.8	74.3
1T2572A	DIAMOND BLUFF TEMP	76.2	73.2	75.0
1T2573A	LOCK & DAM PIER 1 TEMP	77.1	75.0	75.8
1T2574A	LOCK & DAM PIER 2 TEMP	75.2	63.3	67.9
1T2575A	LOCK & DAM PIER 3 TEMP	78.0	76.2	77.0
1T2527A	SCREENHOUSE INLT TEMP	74.9	73.4	73.9
1T2530A	DISCHARGE CANAL AVERAGE TEMP	88.5	83.4	86.3

9/8/98

E-O-J

KEVIN

ITOLMSTRA

PROGRAM NAME : NSCWSP.E TASK NUMBER: 3B000039
NSP PRAIRIE ISLAND PLANT - UNIT 1

SEP 04, 98
00:03:50

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 09/04/98

TIME: 00:03:45

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	74.8	72.3	72.8 ^M 72.9
1T2571A	STURGEON LAKE TEMP 2	76.2	72.1	72.8 ^M 73.6
1T2572A	DIAMOND BLUFF TEMP	75.4	72.4	74.0
1T2573A	LOCK & DAM PIER 1 TEMP	75.9	74.3	75.1
1T2574A	LOCK & DAM PIER 2 TEMP	<u>74.6</u>	<u>63.6</u>	<u>68.4</u>
1T2575A	LOCK & DAM PIER 3 TEMP	77.1	75.3	76.4
1T2527A	SCREENHOUSE INLT TEMP	73.9	72.8	73.2
1T2530A	DISCHARGE CANAL AVERAGE TEMP	89.0	84.4	87.0

E-O-J

9/10/98

PROGRAM NAME :NSCWSP.E TASK NUMBER: 3B000039
NSP PRAIRIE ISLAND PLANT - UNIT 1

*Kevin
Holmstrom*

SEP 05, 98
00:04:05

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 09/05/98

TIME: 00:04:00

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	75.4	71.9	73.4
1T2571A	STURGEON LAKE TEMP 2	78.5	72.0	74.8
1T2572A	DIAMOND BLUFF TEMP	75.7	72.1	74.0
1T2573A	LOCK & DAM PIER 1 TEMP	76.6	74.0	75.2
1T2574A	LOCK & DAM PIER 2 TEMP	78.1	64.4	70.5
1T2575A	LOCK & DAM PIER 3 TEMP	77.9	75.2	76.5
1T2527A	SCREENHOUSE INLT TEMP	75.4	72.8	73.7
1T2530A	DISCHARGE CANAL AVERAGE TEMP	91.4	84.4	87.9

JH 9/8/98

E-O-J

PROGRAM NAME :NSCWSP.E TASK NUMBER: 3B000039
NSP PRAIRIE ISLAND PLANT - UNIT 1

SEP 06,98
00:04:20

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 09/06/98

TIME: 00:04:17

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	76.3	73.4	74.7
1T2571A	STURGEON LAKE TEMP 2	76.7	72.6	74.8
1T2572A	DIAMOND BLUFF TEMP	76.4	73.4	74.8
1T2573A	LOCK & DAM PIER 1 TEMP	77.4	75.0	76.2
1T2574A	LOCK & DAM PIER 2 TEMP	79.6	65.5	72.8
1T2575A	LOCK & DAM PIER 3 TEMP	78.9	76.1	77.4
1T2527A	SCREENHOUSE INLT TEMP	75.3	73.5	74.2
1T2530A	DISCHARGE CANAL AVERAGE TEMP	93.4	86.2	89.9

9/9/98

E-0-J

Karin Holmstrom

PROGRAM NAME :NSCWSP.E TASK NUMBER: 3B000039
NSP PRAIRIE ISLAND PLANT - UNIT 1

SEP 07, 98
00:04:37

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 09/07/98

TIME: 00:04:33

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	75.9	74.4	74.9
1T2571A	STURGEON LAKE TEMP 2	76.2	74.3	75.1
1T2572A	DIAMOND BLUFF TEMP	76.4	75.1	75.3
1T2573A	LOCK & DAM PIER 1 TEMP	77.8	75.0	76.9
1T2574A	LOCK & DAM PIER 2 TEMP	75.7	72.0	72.0
1T2575A	LOCK & DAM PIER 3 TEMP	78.9	77.9	78.0
1T2527A	SCREENHOUSE INLT TEMP	75.4	74.6	75.0
1T2530A	DISCHARGE CANAL AVERAGE TEMP	92.7	88.5	91.3

H 9/10/98

E-O-J

Kenneth Holmstrom

PROGRAM NAME : NSCWSP.E TASK NUMBER: 3B000039
NSP PRAIRIE ISLAND PLANT - UNIT 1

SEP 08, 98
00:04:52

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 09/08/98

TIME: 00:04:48

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	75.4	72.4 70.0 [#]	73.2
1T2571A	STURGEON LAKE TEMP 2	74.3	71.8 70.0 [#]	72.6
1T2572A	DIAMOND BLUFF TEMP	75.6	73.3	74.5
1T2573A	LOCK & DAM PIER 1 TEMP	77.0	74.7	75.5
1T2574A	LOCK & DAM PIER 2 TEMP	78.7	61.9	66.6
1T2575A	LOCK & DAM PIER 3 TEMP	78.0	75.5	76.5
1T2527A	SCREENHOUSE INLT TEMP	75.2	73.2	73.9
1T2530A	DISCHARGE CANAL AVERAGE TEMP	88.5	84.5	86.3

9/10/98

E-O-J

Kevin
Helen Strawn

PROGRAM NAME :NSCWSP.E TASK NUMBER: 3B000039
NSP PRAIRIE ISLAND PLANT - UNIT 1

SEP 09, 98
00:00:12

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 09/09/98

TIME: 00:00:07

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	73.7	70.5	72.1
1T2571A	STURGEON LAKE TEMP 2	76.7	71.3	73.1
1T2572A	DIAMOND BLUFF TEMP	75.0	71.9	73.5
1T2573A	LOCK & DAM PIER 1 TEMP	76.0	73.6	74.7
1T2574A	LOCK & DAM PIER 2 TEMP	80.9	59.4	66.6
1T2575A	LOCK & DAM PIER 3 TEMP	76.9	74.7	75.7
1T2527A	SCREENHOUSE INLT TEMP	73.4	71.8	72.6
1T2530A	DISCHARGE CANAL AVERAGE TEMP	90.9	81.9	86.2

H 9/9/98

E-O-J

Kerri Holmstrom

PROGRAM NAME :NSCWSP.E TASK NUMBER: 3B000039
NSP PRAIRIE ISLAND PLANT - UNIT 1

SEP 10, 98
00:00:36

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 09/10/98

TIME: 00:00:28

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	72.6	70.7	71.6
1T2571A	STURGEON LAKE TEMP 2	72.4	70.4	71.5
1T2572A	DIAMOND BLUFF TEMP	73.9	70.8	72.5
1T2573A	LOCK & DAM PIER 1 TEMP	75.7	73.3	74.6
1T2574A	LOCK & DAM PIER 2 TEMP	77.8	60.6	66.8
1T2575A	LOCK & DAM PIER 3 TEMP	76.5	74.4	75.5
1T2527A	SCREENHOUSE INLT TEMP	73.0	71.9	72.5
1T2530A	DISCHARGE CANAL AVERAGE TEMP	93.4	86.2	90.2

E-O-J

H 9/11/98

Kevin Holmsstrom

W. KEVIN ITOMBI RAM

PROGRAM NAME : NSCWSP.E TASK NUMBER: 3B000039
NSP PRAIRIE ISLAND PLANT - UNIT 1

SEP 11, 98
00:01:08

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 09/11/98

TIME: 00:00:57

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	71.7	70.2	70.5
1T2571A	STURGEON LAKE TEMP 2	71.9	69.8	70.4
1T2572A	DIAMOND BLUFF TEMP	73.2	70.7	72.0
1T2573A	LOCK & DAM PIER 1 TEMP	76.3	74.2	75.1
1T2574A	LOCK & DAM PIER 2 TEMP	87.0	62.5	72.8
1T2575A	LOCK & DAM PIER 3 TEMP	76.7	74.6	75.7
1T2527A	SCREENHOUSE INLT TEMP	72.6	71.2	71.9
1T2530A	DISCHARGE CANAL AVERAGE TEMP	94.6	89.4	91.6

*OK
9-11-98*

#9/11/98

E-O-J

10. K. Min Holmstrom

PROGRAM NAME :NSCWSP.E TASK NUMBER: 3B000039
NSP PRAIRIE ISLAND PLANT - UNIT 1

SEP 12, 98
00:01:20

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 09/12/98 TIME: 00:01:14

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	72.9	70.8	71.5
1T2571A	STURGEON LAKE TEMP 2	75.4	70.3	72.5
1T2572A	DIAMOND BLUFF TEMP	73.7	70.4	72.2
1T2573A	LOCK & DAM PIER 1 TEMP	76.5	74.5	75.4
1T2574A	LOCK & DAM PIER 2 TEMP	93.6	65.6	75.9
1T2575A	LOCK & DAM PIER 3 TEMP	77.4	75.0	76.2
1T2527A	SCREENHOUSE INLT TEMP	74.3	71.5	72.3
1T2530A	DISCHARGE CANAL AVERAGE TEMP	95.8	89.2	92.8

TAKEN OUT
OF AVERAGE
9/14/98

E-O-J

R

TO: Kevin 1701m-slooa

PROGRAM NAME :NSCWSP.E TASK NUMBER: 3B000039
NSP PRAIRIE ISLAND PLANT - UNIT 1

SEP 13, 98
00:01:34

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 09/13/98

TIME: 00:01:28

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	74.6	72.4	72.7
1T2571A	STURGEON LAKE TEMP 2	77.3	71.6	74.1
1T2572A	DIAMOND BLUFF TEMP	74.6	71.5	72.7
1T2573A	LOCK & DAM PIER 1 TEMP	76.8	74.5	75.3
1T2574A	LOCK & DAM PIER 2 TEMP	78.3	74.0	73.3
1T2575A	LOCK & DAM PIER 3 TEMP	78.0	75.6	76.4
1T2527A	SCREENHOUSE INLT TEMP	74.3	71.9	72.7
1T2530A	DISCHARGE CANAL AVERAGE TEMP	96.9	91.5	94.2

DO NOT USE

9/17/98

E-O-J

TO: Kevin Holstrom

PROGRAM NAME :NSCWSP.E TASK NUMBER: 3B000039
NSP PRAIRIE ISLAND PLANT - UNIT 1

SEP 14, 98
00:01:50

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 09/14/98

TIME: 00:01:43

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	75.8	73.2	74.4
1T2571A	STURGEON LAKE TEMP 2	78.2	72.9	75.3
1T2572A	DIAMOND BLUFF TEMP	75.2	72.2	73.8
1T2573A	LOCK & DAM PIER 1 TEMP	78.3	75.9	76.8
1T2574A	LOCK & DAM PIER 2 TEMP	97.4	69.3	78.6
1T2575A	LOCK & DAM PIER 3 TEMP	79.2	76.7	77.8
1T2527A	SCREENHOUSE INLT TEMP	75.7	73.3	74.3
1T2530A	DISCHARGE CANAL AVERAGE TEMP	97.8	92.5	95.4

TAKEN OUT
OF AVERAGE.

11/9/14/98

E-O-J

L&DMCU TO BE DOWN
FROM 9/14 TO 9/15.

Kevin Holmpton

PROGRAM NAME :NSCWSP.E TASK NUMBER: 3B000039
NSP PRAIRIE ISLAND PLANT - UNIT 1

SEP 15, 98
00:02:13

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 09/15/98

TIME: 00:02:09

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	75.4	74.3	74.8
1T2571A	STURGEON LAKE TEMP 2	75.9	73.7	75.0
1T2572A	DIAMOND BLUFF TEMP	75.3	73.8	74.6
1T2573A	LOCK & DAM PIER 1 TEMP	78.4	77.1	77.6
1T2574A	LOCK & DAM PIER 2 TEMP	75.6	69.6	72.5
1T2575A	LOCK & DAM PIER 3 TEMP	79.1	77.7	78.3
1T2527A	SCREENHOUSE INLT TEMP	74.9	74.2	74.5
1T2530A	DISCHARGE CANAL AVERAGE TEMP	96.6	94.6	95.5

PO NOT USE

H 9/16/98

E-O-J

PROGRAM NAME :NSCWSP.E TASK NUMBER: 3B000039
NSP PRAIRIE ISLAND PLANT - UNIT 1

SEP 16, 98
00:02:27

Kevin Holmsten

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 09/16/98

TIME: 00:02:24

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	75.3	72.6	74.0
1T2571A	STURGEON LAKE TEMP 2	75.4	71.9	73.7
1T2572A	DIAMOND BLUFF TEMP	76.1	72.7	74.3
1T2573A	LOCK & DAM PIER 1 TEMP	78.4	77.0	77.9
1T2574A	LOCK & DAM PIER 2 TEMP	87.7	76.5	78.7
1T2575A	LOCK & DAM PIER 3 TEMP	79.0	77.3	78.4
1T2527A	SCREENHOUSE INLT TEMP	74.9	73.2	74.0
1T2530A	DISCHARGE CANAL AVERAGE TEMP	96.0	91.3	94.1

DO NOT USE

9/16/98

E-O-J

Kevin Holmsted

PROGRAM NAME : NSCWSP.E TASK NUMBER: 3B000039
NSP PRAIRIE ISLAND PLANT - UNIT 1

SEP 17, 98
00:02:48

PRAIRIE ISLAND RIVER TEMPERATURE REPORT
DATE: 09/17/98 TIME: 00:02:44

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	74.5	72.0	73.2
1T2571A	STURGEON LAKE TEMP 2	78.3	71.8	74.6
1T2572A	DIAMOND BLUFF TEMP	75.7	72.8	74.4
1T2573A	LOCK & DAM PIER 1 TEMP	78.3	77.0	77.7
1T2574A	LOCK & DAM PIER 2 TEMP	OK- 79.1	77.6	78.4
1T2575A	LOCK & DAM PIER 3 TEMP	78.9	77.2	78.1
1T2527A	SCREENHOUSE INLT TEMP	76.2	73.0	74.2
1T2530A	DISCHARGE CANAL AVERAGE TEMP	96.4	90.6	93.7

*LD #2 out of service
9/17/98*

E-O-J

NOTE:
AT 1:09 PM ON 9/15/98 LD #2 WAS
RESTORED TO SERVICE. IF BIAS HAS
BEEN REMOVED. *K. Holmsted* 9/17/98

PROGRAM NAME :NSCWSP.E TASK NUMBER: 3B000039
NSP PRAIRIE ISLAND PLANT - UNIT 1

SEP 18.98
00:03:10

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 09/18/98

TIME: 00:03:06

TO: KEVIN
HOLMSTROM

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	74.5	72.6	73.6
1T2571A	STURGEON LAKE TEMP 2	75.4	72.2	74.2
1T2572A	DIAMOND BLUFF TEMP	75.6	72.6	74.2
1T2573A	LOCK & DAM PIER 1 TEMP	78.3	77.0	77.7
1T2574A	LOCK & DAM PIER 2 TEMP	79.0	77.6	78.4
1T2575A	LOCK & DAM PIER 3 TEMP	78.8	77.2	78.0
1T2527A	SCREENHOUSE INLT TEMP	75.6	73.1	73.9
1T2530A	DISCHARGE CANAL AVERAGE TEMP	96.4	91.1	93.8

9/22/98

E-O-J

PROGRAM NAME :NSCWSP.E TASK NUMBER: 3B000039
NSP PRAIRIE ISLAND PLANT - UNIT 1

SEP 19, 98
00:03:35

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 09/19/98

TIME: 00:03:30

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	74.9	73.3	74.1
1T2571A	STURGEON LAKE TEMP 2	75.7	72.4	74.4
1T2572A	DIAMOND BLUFF TEMP	75.2	72.3	74.0
1T2573A	LOCK & DAM PIER 1 TEMP	78.5	77.2	77.8
1T2574A	LOCK & DAM PIER 2 TEMP	79.2	77.8	78.5
1T2575A	LOCK & DAM PIER 3 TEMP	79.0	77.4	78.1
1T2527A	SCREENHOUSE INLT TEMP	75.3	73.4	74.1
1T2530A	DISCHARGE CANAL AVERAGE TEMP	96.9	92.4	94.6

E-O-J

*D. KEVIN
HOLMSTON*

9/22/98

PROGRAM NAME :NSCWSP.E TASK NUMBER: 3B000039
NSP PRAIRIE ISLAND PLANT - UNIT 1

SEP 20, 98
00:03:53

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 09/20/98

TIME: 00:03:50

TD: KEVIN
HOLMSTROM

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	74.9	72.0	72 73.1
1T2571A	STURGEON LAKE TEMP 2	75.1	73.5	73 73.6
1T2572A	DIAMOND BLUFF TEMP	75.6	72.5	72 73.6
1T2573A	LOCK & DAM PIER 1 TEMP	78.9	72.5	72 77.6
1T2574A	LOCK & DAM PIER 2 TEMP	79.6	78.0	78 78.1
1T2575A	LOCK & DAM PIER 3 TEMP	79.3	77.0	77 77.8
1T2527A	SCREENHOUSE INLT TEMP	74.8	73.6	74.1
1T2530A	DISCHARGE CANAL AVERAGE TEMP	97.0	92.8	95.0

E-O-J

A 9/22/98

PROGRAM NAME :NSCWSP.E TASK NUMBER: 3B000039
NSP PRAIRIE ISLAND PLANT - UNIT 1

SEP 21, 98
00:04:14

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 09/21/98

TIME: 00:04:11

TO: KEVIN
HOLMSTROM

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	74.2	72.1	73.5
1T2571A	STURGEON LAKE TEMP 2	74.3	71.6	73.3
1T2572A	DIAMOND BLUFF TEMP	75.4	72.5	74.0
1T2573A	LOCK & DAM PIER 1 TEMP	78.4	75.3	76.6
1T2574A	LOCK & DAM PIER 2 TEMP	78.9	76.2	77.2
1T2575A	LOCK & DAM PIER 3 TEMP	78.6	75.9	77.0
1T2527A	SCREENHOUSE INLT TEMP	74.3	72.8	73.9
1T2530A	DISCHARGE CANAL AVERAGE TEMP	94.1	85.3	89.5

E-O-J

9/22/98

TO: Kevin Holmstrom

PROGRAM NAME : NSCWSP.E TASK NUMBER: 3B000039
NSP PRAIRIE ISLAND PLANT - UNIT 1

SEP 22, 98
00:04:31

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 09/22/98 TIME: 00:04:26

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	72.1	68.4	69.5
1T2571A	STURGEON LAKE TEMP 2	71.7	67.3	69.0
1T2572A	DIAMOND BLUFF TEMP	73.0	70.7	71.7
1T2573A	LOCK & DAM PIER 1 TEMP	75.3	71.8	73.0
1T2574A	LOCK & DAM PIER 2 TEMP	76.1	72.6	73.7
1T2575A	LOCK & DAM PIER 3 TEMP	75.8	72.4	73.6
1T2527A	SCREENHOUSE INLT TEMP	73.0	69.3	70.8
1T2530A	DISCHARGE CANAL AVERAGE TEMP	85.5	81.8	83.4

E-O-J

9/22/98

TO: Kevin Holmstrom

PROGRAM NAME :NSCWSP.E TASK NUMBER: 3B000039
NSP PRAIRIE ISLAND PLANT - UNIT 1

SEP 23, 98
00:04:57

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 09/23/98 TIME: 00:04:52

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	68.5	66.0	67.5
1T2571A	STURGEON LAKE TEMP 2	68.4	66.6	67.4
1T2572A	DIAMOND BLUFF TEMP	71.1	68.4	69.9
1T2573A	LOCK & DAM PIER 1 TEMP	72.7	71.3	72.0
1T2574A	LOCK & DAM PIER 2 TEMP	73.4	72.0	72.7
1T2575A	LOCK & DAM PIER 3 TEMP	73.1	71.6	72.5
1T2527A	SCREENHOUSE INLT TEMP	69.6	67.8	68.6
1T2530A	DISCHARGE CANAL AVERAGE TEMP	89.1	83.8	86.4

E-O-J

A 9/24/98

To: *Karin Holmstrom*

PROGRAM NAME :NSCWSP.E TASK NUMBER: 3B000039
NSP PRAIRIE ISLAND PLANT - UNIT 1

SEP 24, 98
00:00:20

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 09/24/98

TIME: 00:00:14

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	68.0	65.5	66.5
1T2571A	STURGEON LAKE TEMP 2	66.9	65.0	66.0
1T2572A	DIAMOND BLUFF TEMP	69.7	67.0	68.4
1T2573A	LOCK & DAM PIER 1 TEMP	72.6	70.9	71.7
1T2574A	LOCK & DAM PIER 2 TEMP	73.1	71.5	72.3
1T2575A	LOCK & DAM PIER 3 TEMP	72.7	71.1	71.9
1T2527A	SCREENHOUSE INLT TEMP	68.9	66.9	67.7
1T2530A	DISCHARGE CANAL AVERAGE TEMP	91.0	84.1	87.7

E-O-J

9/24/98

PROGRAM NAME :NSCWSP.E TASK NUMBER: 3B000039
NSP PRAIRIE ISLAND PLANT - UNIT 1

KEVIN HOLMSTROM

SEP 25, 98
00:00:47

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 09/25/98 TIME: 00:00:40

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	66.0	64.7	65.2
1T2571A	STURGEON LAKE TEMP 2	67.9	64.1	65.4
1T2572A	DIAMOND BLUFF TEMP	68.0	65.1	67.1
1T2573A	LOCK & DAM PIER 1 TEMP	72.0	70.9	71.4
1T2574A	LOCK & DAM PIER 2 TEMP	72.6	71.4	71.9
1T2575A	LOCK & DAM PIER 3 TEMP	72.3	71.0	71.6
1T2527A	SCREENHOUSE INLT TEMP	67.0	65.9	66.4
1T2530A	DISCHARGE CANAL AVERAGE TEMP	92.1	88.4	89.8

9/28/98

E-O-J

KEVIN HOLSTROM

PROGRAM NAME :NSCWSP.E TASK NUMBER: 3B000039
NSP PRAIRIE ISLAND PLANT - UNIT 1

SEP 26, 98
00:01:13

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 09/26/98

TIME: 00:01:06

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	68.0	64.9	65.3
1T2571A	STURGEON LAKE TEMP 2	71.3	65.0	66.6
1T2572A	DIAMOND BLUFF TEMP	68.6	65.4	66.9
1T2573A	LOCK & DAM PIER 1 TEMP	72.2	70.7	71.0
1T2574A	LOCK & DAM PIER 2 TEMP	72.8	71.3	71.6
1T2575A	LOCK & DAM PIER 3 TEMP	72.4	70.9	71.2
1T2527A	SCREENHOUSE INLT TEMP	69.8	66.1	67.0
1T2530A	DISCHARGE CANAL AVERAGE TEMP	93.6	89.2	91.1

E-O-J

9/29/98

KEVIN HOLMSTROM

PROGRAM NAME :NSCWSP.E TASK NUMBER: 3B000039
NSP PRAIRIE ISLAND PLANT - UNIT 1

SEP 27, 98
00:01:31

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 09/27/98 TIME: 00:01:25

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	69.7	67.1	68.2
1T2571A	STURGEON LAKE TEMP 2	70.9	67.6	68.4
1T2572A	DIAMOND BLUFF TEMP	69.3	67.4	68.3
1T2573A	LOCK & DAM PIER 1 TEMP	72.7	71.3	71.9
1T2574A	LOCK & DAM PIER 2 TEMP	73.6	71.8	72.7
1T2575A	LOCK & DAM PIER 3 TEMP	73.2	71.5	72.4
1T2527A	SCREENHOUSE INLT TEMP	69.1	66.9	68.1
1T2530A	DISCHARGE CANAL AVERAGE TEMP	95.2	92.0	93.5

9/28/98

R-O-J

KEVIN HOLMS

PROGRAM NAME :NSCWSP.E TASK NUMBER: 3B000039
NSP PRAIRIE ISLAND PLANT - UNIT 1

SEP 28, 98
00:01:48

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 09/28/98

TIME: 00:01:44

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	69.0	67.5	68.4
1T2571A	STURGEON LAKE TEMP 2	68.6	66.9	67.7
1T2572A	DIAMOND BLUFF TEMP	69.8	67.1	68.5
1T2573A	LOCK & DAM PIER 1 TEMP	72.7	71.5	72.2
1T2574A	LOCK & DAM PIER 2 TEMP	73.5	72.3	73.0
1T2575A	LOCK & DAM PIER 3 TEMP	73.4	72.2	72.8
1T2527A	SCREENHOUSE INLT TEMP	69.1	68.3	68.8
1T2530A	DISCHARGE CANAL AVERAGE TEMP	94.0	91.0	92.9

E-O-J

09/28/98

PROGRAM NAME :NSCWSP.E TASK NUMBER: 3B000039
NSP PRAIRIE ISLAND PLANT - UNIT 1

SEP 29, 98
00:02:07

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 09/29/98

TIME: 00:02:02

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	68.4	66.3	67.5
1T2571A	STURGEON LAKE TEMP 2	68.7	66.2	67.4
1T2572A	DIAMOND BLUFF TEMP	70.1	66.8	68.5
1T2573A	LOCK & DAM PIER 1 TEMP	72.8	71.1	72.0
1T2574A	LOCK & DAM PIER 2 TEMP	73.5	71.5	72.6
1T2575A	LOCK & DAM PIER 3 TEMP	73.1	71.3	72.2
1T2527A	SCREENHOUSE INLT TEMP	69.2	67.6	68.2
1T2530A	DISCHARGE CANAL AVERAGE TEMP	93.4	88.6	91.6

E-O-J

*TO: Kevin
Holmstrom*

H 10/5/98

PROGRAM NAME :NSCWSP.E TASK NUMBER: 3B000039
NSP PRAIRIE ISLAND PLANT - UNIT 1

SEP 30, 98
00:02:27

TO: KEVIN
HOLMSTROM

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 09/30/98

TIME: 00:02:23

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	69.2	67.1	68.2
1T2571A	STURGEON LAKE TEMP 2	69.1	67.1	68.0
1T2572A	DIAMOND BLUFF TEMP	70.5	67.8	69.1
1T2573A	LOCK & DAM PIER 1 TEMP	73.3	72.3	72.6
1T2574A	LOCK & DAM PIER 2 TEMP	74.3	72.7	73.5
1T2575A	LOCK & DAM PIER 3 TEMP	74.0	72.5	73.2
1T2527A	SCREENHOUSE INLT TEMP	69.3	68.0	68.6
1T2530A	DISCHARGE CANAL AVERAGE TEMP	94.2	90.2	92.6

E-O-J

H 10/5/98

PROGRAM NAME :NSCWSP.E TASK NUMBER: 3B000039
NSP PRAIRIE ISLAND PLANT - UNIT 1

*TD: Kevin
Holmstrom*

OCT 01, 98
00:02:46

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 10/01/98

TIME: 00:02:41

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	68.7	0.0	66.3
1T2571A	STURGEON LAKE TEMP 2	67.9	0.0	65.9
1T2572A	DIAMOND BLUFF TEMP	69.3	0.0	67.5
1T2573A	LOCK & DAM PIER 1 TEMP	73.0	0.0	70.9
1T2574A	LOCK & DAM PIER 2 TEMP	73.8	0.0	71.8
1T2575A	LOCK & DAM PIER 3 TEMP	73.3	0.0	71.5
1T2527A	SCREENHOUSE INLT TEMP	69.1	65.6	67.7
1T2530A	DISCHARGE CANAL AVERAGE TEMP	92.9	88.1	90.9

E-O-J

PROGRAM NAME : NSCWSP.E TASK NUMBER: 3B000039
NSP PRAIRIE ISLAND PLANT - UNIT 1

OCT 01, 98
00:02:46

TO: Kevin
Holmstrom

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 10/01/98

TIME: 00:02:41

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	68.7	68.5	66.3
1T2571A	STURGEON LAKE TEMP 2	67.9	64.1	65.9
1T2572A	DIAMOND BLUFF TEMP	69.3	66.6	67.5
1T2573A	LOCK & DAM PIER 1 TEMP	73.0	69.3	70.9
1T2574A	LOCK & DAM PIER 2 TEMP	73.8	70.2	71.8
1T2575A	LOCK & DAM PIER 3 TEMP	73.3	70.0	71.5
1T2527A	SCREENHOUSE INLT TEMP	69.1	65.6	67.7
1T2530A	DISCHARGE CANAL AVERAGE TEMP	92.9	88.1	90.9

E-O-J

AA 10/2/98



Northern States Power Company

414 Nicollet Mall
Minneapolis, MN 55401
Telephone (612) 330-5500

October 13, 1998

Point Source Compliance Section
Division of Water Quality
Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, MN 55155

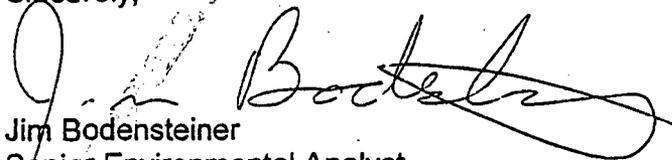
Attention: Mary Hayes

**PRAIRIE ISLAND NUCLEAR GENERATING PLANT
NPDES Permit No. MN0004006
Monthly Discharge Monitoring Reports**

Enclosed is a corrected Discharge 701M Monitoring Report for the month of August for the Prairie Island Generating Plant. As described in the attached note, the report was corrected by removing the Lock and Dam Pier 2 readings from August 6 through August 31 from the temperature summary for the Lock and Dam. The plant determined that the Pier 2 readings were not representative due to a bias from air temperature resulting from the thermocouple installation and the lowering river level.

If you have any questions, please call me at 330-6625.

Sincerely,



Jim Bodensteiner
Senior Environmental Analyst

Enclosures

c: Terry Coss
Mark Gruber
Gary Kolle
Gerald Joachim
Katherine Logan (MPCA Rochester)
Tom Verbout
Ken Mueller
ERAD Record Center



Northern States Power Company

414 Nicollet Mall
Minneapolis, Minnesota 55401-1927
Telephone (612) 330-5500

May 21, 1999

Point Source Compliance Section
Division of Water Quality
Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, MN 55155

Attention: Mary Hayes

**PRAIRIE ISLAND NUCLEAR GENERATING PLANT
NPDES Permit No. MN0004006
Monthly Discharge Monitoring Reports**

In accordance with Part I.D.2. of the subject NPDES permit, we are submitting our Discharge Monitoring Reports for discharges 701M, 010, 011, 012, 013, 014, 015, 016, 017, 018, 021, 022, 023 and 030 at the Prairie Island Nuclear Generating Plant. These reports cover the period April 1, 1999 through April 30, 1999. We are also submitting the Bromine/Chlorine Monthly Supplemental Report and the Circulating Water Total Phosphorous Report for the month of April.

As noted last month, the addition of the descaler was stopped on September 5 and has not resumed. Correspondingly, the total phosphorus monitoring conducted weekly while adding descaler has been suspended and will be restarted, if and when descaler addition resumes. An evaluation of continued use is being performed.

Please note that the flows reported for discharges 022 and 023 include a total of both outfalls.

In accordance with Part I.C.5.e. of the subject NPDES permit, we are also submitting the records of the daily maximum, minimum, and average temperatures for the monitoring locations of the expanded temperature monitoring system. Per past agreement, the Sturgeon Lake monitors were removed mid-December for protection from winter ice conditions. River conditions allowed reinstallation of the Sturgeon Lake monitors in April. The first full day of monitoring was April 8, and readings from that day through the rest of the month were utilized for compliance and reporting purposes. Prior to returning to the Sturgeon Lake monitors to service, the intake greenhouse monitoring is used for a background temperature reference, as previously described. Other data gaps or errors on the computer printout of the daily summaries from various locations of the expanded temperature monitoring system were entered or corrected manually from available data retrieved from the system. Backup monitoring and reporting is utilized when a particular monitor is out of service or otherwise unavailable.

FILE COPY
PI-LAB

Page Two

A plant status report of the continuous chlorination/bromination treatment program is included with the Bromine/Chlorine Monthly Supplemental Report and provides a summary of April operations including the monthly demand result. The report notes discontinuation of treatment April 5 to 6 due to a low level in the sodium hypochlorite tank. Sodium bromide solution alone may have been fed for a period of time after the discontinuation of sodium hypochlorite pumping. The report also notes the reduced minutes in the day for April 4 due to the change to daylight savings time.

The enclosed memorandum titled "Cooling Tower Operations, Blowdown Flows, and Temperature Monitoring in Early April," provides a summary of operations under the allowance for continuation of renovation work on cooling towers #121 and #122 up to the unit 1 outage. The work is ongoing during the present outage. Under provisions of the allowance, operating the other two cooling towers would be defined as "running all cooling towers to the maximum practically extent" for the period up to unit 1 shutdown, after which two cooling tower operation is the normal arrangement. Under provisions of the allowance and the permit, blowdown flows may be raised above normal restrictions in order to maintain condenser inlet temperature within 85°F.

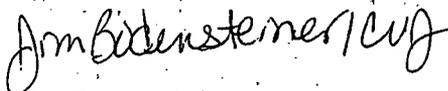
The memorandum notes the return to service of the Sturgeon Lake temperature monitors in early April after the threat of ice damage had subsided pursuant to MPCA approval, as previously identified above.

The memorandum also reports the failure of the #122 screenwash pump on April 8 and documents the remedial action of cross connecting to the #121 screenwash pump for flow to remove fish larvae and eggs. The situation was previously discussed and reviewed with the MPCA.

The memorandum also cites fish loss in the recycle and discharge canal system (including the powerhouse intake) as discovered in early April after cooling tower start up at the end of March. Details of the fish loss are found in a separate memorandum (attached), "Cooling Tower Startup Fishkill." The loss was previously verbally reported to the DNR and the MPCA.

If you have any questions, please call me at 612-330-6625.

Sincerely,



Jim Bodensteiner
Senior Environmental Analyst

Enclosures

8A-J-19
LIFE-COBA

Page Three

c: Terry Coss
Marilyn Danks (DNR)
Mark Gruber
Gerald Joachim
Gary Kollé
Katherine Logan (MPCA Rochester)
~~Ken Mueller~~
Brian Rogers
ERAD Record Center

w:jjb/rpts/mpraire.doc

NNNN SSSSSSPPPPPPPPP Northern States Power Company
NN NN SSS PPP Prairie Island Nuclear Generating Plant
NN NN SSSS PPPPPPP 1717 Wakonade Drive East
NN NN SSS PPP Welch, Minnesota 55089
NN NNSSSSSS PPP (651)-388-1121

DATE MAY 01, 1999

NAME JIM BODENSTEINER
ADDRESS NSP ERAD

SUBJECT: COOLING TOWER OPERATIONS, BLOWDOWN FLOWS, AND TEMPERATURE MONITORING
IN EARLY APRIL

On December 30, 1998 Northern States Power submitted a letter to the Minnesota Pollution Control Agency requesting that from April 1, 1999 through April 17, 1999, operating two cooling towers would be defined as "running all cooling towers to the maximum practical extent". This is one of the provisions in the allowance for raising blowdown flows above the normal restrictions (300 CFS in April) in order to maintain condenser inlet temperature below 85 degrees. This request would permit renovation work to continue on two towers up to Unit 1 shutdown; allowing a much more aggressive project schedule to continue without interruption.

On February 12, 1999 a letter from the Minnesota Pollution Control Agency approved the request submitted on December 30, 1998 thereby allowing the work to continue on two towers throughout the period. This allowed cooling tower blowdown above the 300 CFS restriction in order to maintain condenser inlet temperatures below 85 degrees with two towers in service. Plant operations set an operational band of 82-85 degrees condenser inlet temperature and a target band of 82-85 degrees.

Two Cooling tower pumps were started early on March 31, 1999 and the fans (12 per tower) started in the afternoon. By late afternoon of the March 31, 1999 two towers and all 24 fans were in service.

Cooling tower blowdown was reduced to around 370 CFS in the late afternoon March 31, 1999 and condenser inlet temperature was controlled within the band of 82-85 degrees.

Late in the afternoon April 1, 1999 one cell fan on #123 tower shutdown due to high vibration and remained off throughout the period. Early on April 16, 1999 another cell fan on #123 tower shutdown for unknown reason and remains off for troubleshooting. Both these failures occurred on the non-renovated part of #123 tower. With the tower running, access to this section of the tower is severely restricted for safety reasons. For this reason, repair of these two fans has been delayed.

For the period April 1,1999 through April 16,1999 cooling tower blowdown can be summarized with a high of 396 CFS for several hours on April 1,1999 to a low of 292 CFS for several hours on April 13,1999. The average blowdown for the period was 350 CFS. For the vast majority of the time, the condenser inlet temperature remained in the band of 82-85 degrees.

By early morning on April 17,1999 after Unit 1 shutdown, cooling tower blowdown had dropped to 283 CFS and condenser inlet temperature had dropped to 68 degrees. By Monday morning April 19,1999 conditions had settled out at 291-299 CFS blowdown and condenser inlet temperature had dropped to around 58 degrees.

Late afternoon April 7,1999 the Sturgeon Lake #1 and #2 temperature monitors were installed in the proper locations. They continue to give good data on Sturgeon Lake temperatures. On April 8,1999 the NPDES upstream temperature was shifted from the intake screenhouse to the combination of the Sturgeon Lake monitors and the main channel monitor(Diamond Bluff) on a 20% and 80% split.

We continue to run 2 towers and 22 fans and work continues on the other two towers.

Early on April 8,1999 the plant biologist noticed there was no front screenwash water on #'s 125,126,127 and 128 screens. #122 screenwash pump had failed. The pump was scheduled for a repair order within several days. During this time period it was decided to cross-connect and have #121 pump supply all screens at reduced flow and pressure. During larval sampling to provide proper pressure and flow, only the four sample screens would have front wash water with flow shutoff to the other four. The plant biologist reported that providing reduced flow to all screens appeared to be adequate to remove larval fish and eggs on the front side as intended by design. After the first repair of the pump on April 14,1999 failed to correct the problem, it was determined the pump had a completely severed shaft. It was decided to replace the entire pump. A new pump will be arriving late May or early June. On April 15,1999 the plant biologist left an informational message with MPCA(Mary Hayes) giving her the current and future status of the screenwash water system. On April 30,1999 the larval sampling was discontinued and the screenwash system was left in a mode of reduced flow and pressure to all eight screens awaiting arrival of the new pump.

Early in the morning of April 1,1999 evidence of a fishkill was observed in the plant discharge canal. This incident was reported to the MPCA and MDNR and is covered in separate documentaton.

Sincerely yours,



Gerald Joenim
Senior Radiation Protection Specialist

NNNN SSSSSPPPPPPPPPP Northern States Power Company
NN NN SSS PPP Prairie Island Nuclear Generating Plant
NN NN SSS PPPPPPP 1717 Wakonade Drive East
NN NN SSS PPP Welch, Minnesota 55089
NN NNSSSSSSS PPP (651)-388-1121

DATE MAY 01, 1999

NAME JIM BODENSTEINER
ADDRESS NSP ERAD

SUBJECT: COOLING TOWER STARTUP FISHKILL

Early morning on March 31, 1999 #123 and #124 cooling towers pumps were started and by late afternoon 24 fans were running on the towers. During the startup process extra measures were taken by operations to minimize the rapid temperature change in the discharge canal and recycle canal. Temperatures climbed to around 90-92 degrees from around 80 degrees in the plant discharge canal. Incomplete mixing of the spillover from the discharge basin (around 110 degrees) and the cooling tower return water (about 80 degrees) caused the temperatures in the recycle canal to rise into the low 100's. The spillover is the result of running four circulating water pumps and only two cooling tower pumps. This effect was minimized by operators manipulation of the gates between the discharge basin and the cooling tower return basin to enhance the mixing. On April 3, 1999 the recycle canal dropped to the low 90's. Inspections late on March 31, 1999 showed no evidence of affected fish or pending fishkill. During this time period cooling tower blowdown was being reduced from around 860 CFS on March 30, 1999 to around 370 CFS in the late afternoon of March 31, 1999. Condenser inlet temperatures climbed from high 50's on March 30, 1999 to near 85 degrees late March 31, 1999.

Around 0830 on April 1, 1999 about 50 dead fish were observed in the discharge canal. By 0930 this had climbed to around 100 or more. It was noted that they were almost all small sunfish. The plant biologist was contacted and said he would take a look at the canal. Around 1030 he reported hundreds of small sunfish in the discharge canal and a substantial number of catfish stuck in the rocks near the recycle gates. An inspection of the trash racks yielded around 20 larger catfish on trash racks. The trash buckets showed a substantial increase in number of fish.

Several plant operations individuals and shift manager inspected the trash racks and had a conversation with the plant biologist. The biologist confirmed that he would make the necessary contacts to the MPCA and MDNR. He promptly contacted the MPCA and DNR and informed them of the fishkill.

At 1330 the trash racks were cleaned and yielded about 75 catfish. A cleanup of the discharge canal was also completed in the late afternoon. The fish were placed near the fishpit for inspection by the plant biologist.

Early morning on April 2,1999 the trash racks showed an additional 50-75 catfish. The racks were cleaned around 0930. Discharge canal showed a substantial number of sunfish. The discharge canal was cleaned and all the dead fish were dumped at the fishpit for the biologist.

In the late afternoon April 2,1999 the biologist completed his inspection. He sent an e-mail to MPCA(Hayes) and MNDR(Danks). The report was the following:

green sunfish	3387: 2.25"-7.75" size range;most 4-6"
channel catfish	161: 10.25"-28.5" size range;most 20-24"
minnow/shiner	21:
freshwater drum	4:
bluegill	3: 5.5",8.25",9"
Quillback carpsucker	3: 17",18",19.5"
Flathead catfish	1: 21.5"
Gizzard shad	1: 7.75"

On April 5,1999 200-300 additional sunfish were observed and around 20 additional catfish were observed on the trash racks. Some increase in the number of fish in the trash buckets was also observed.

Over the next several days a small number of additional fish were observed.

On April 23,1999 the plant biologist sent an e-mail to the MPCA and MDNR with a final tally of the fishkill which is included in this report.

The plant staff feels that the primary cause of the fishkill was the additional thermal stress placed on the fish by the very short period of time allowed to start the two towers and 24 fans and reduce cooling tower blowdown from around 850 cfs to around 370 CFS. Tower renovation limited this evolution to only one day. Possible additional stress factors due to repair and replacement of treated wood tower internals are under consideration, and will be further investigated during the two tower startups scheduled in late May. Plant staff members are currently reviewing cooling tower startup procedures in an attempt to minimize the effect on the fish and the environment by possibly starting the towers up one at a time over a number of days.

Sincerely yours,



Gerald Joachim
Senior Radiation Protection Specialist

NSP – PRAIRIE ISLAND PLANT

Final tally of fish loss associated with the April 1st blowdown (discharge) restriction and start-up of Cooling Towers #123 and #124; collected from discharge canal, recirculation and intake canal, bar-racks, and trashbaskets on 4/1 and 4/2, 1999.

Channel catfish: 193 size range 10½" – 28½"

– length distribution –

< 10" : 0
10" - 14" : 41
15" - 19" : 37
20" - 24" : 108
25" - 29" : 7
> 30" : 0

Green sunfish: 3,393 size range 2¼" – 7¾" ; plus, approx. 200 - 300 not picked up

– length distribution (based on 108 random specimens) –

< 2" : 0
2" - 3" : 4
3" - 4" : 9
4" - 5" : 43
5" - 6" : 35
6" - 7" : 13
7" - 8" : 4
> 8" : 0

Flathead catfish: 1 @ 21½"

Quillback carpsucker: 3 @ 17", 18", 19½"

Gizzard shad: 1 @ 7¾"

Freshwater drum: 4 @ 8¼", 11¼", 15", 18"

Bluegill: 3 @ 5½", 8¼", 9"

Minnow / Shiner species: 21 adults, not measured

APRIL 1999

	Bromine Kgrs / day	Chlorine Kgrs / day	Time mins. / day	U-1 Residual	U-2 Residual	Outfall Residual
1	22.4	37.7	1440	0.05	0.06	<0.001
2	44.7	52.6	1440	0.14	0.08	<0.001
3	55.9	65.8	1440	0.10	0.13	<0.001
4	50.3	66.0	1380	0.09	0.14	<0.001
5	50.3	66.0	1440	0.07	0.13	<0.001
6	44.7	58.6	785	0.13	0.07	<0.001
7	78.3	54.9	1440	0.13	0.07	<0.001
8	16.8	78.6	1440	0.11	0.07	<0.001
9	50.3	63.1	1440	0.12	0.07	<0.001
10	50.3	63.1	1440	0.11	0.08	<0.001
11	33.6	63.1	1440	0.12	0.09	<0.001
12	44.7	66.1	1440	0.13	0.07	<0.001
13	61.5	66.1	1440	0.09	0.05	<0.001
14	44.7	95.9	1440	0.10	0.07	<0.001
15	44.7	75.9	1440	0.13/0.11	0.06	<0.001
16	50.3	57.2	1440	0.12	0.05	<0.001
17	56.0	62.4	1440	0.10	0.06	<0.001
18	33.6	48.7	1440	0.10/0.07	0.06	<0.001
19	22.4	34.1	1440	0.02	0.08	<0.001
20	22.4	38.5	1440	<0.01	0.07	<0.001
21	28.0	19.6	1440	0.07/0.10/0.06	0.12/0.03/0.06	<0.001
22	16.8	34.4	1440	0.05/0.14	0.07/0.26	<0.001
23	39.1	34.4	1440	0.14/0.08	0.22/<0.01	<0.001
24	28.0	31.1	1440	0.15/0.15	0.20/0.15	<0.001
25	28.0	33.0	1440	0.13	0.14	<0.001
26	16.8	33.7	1440	0.14	0.16	<0.001
27	39.1	33.1	1440	0.11	0.14	<0.001
28	22.4	36.0	1440	0.11/0.16	0.13/0.18	<0.001
29	16.8	31.7	1440	0.22/0.05	0.24/0.06	<0.001
30	28.0	24.3	1440	0.07	0.07	<0.001
31						

BR RIVER
DEMAND 1.03 ppm

PRAIRIE ISLAND CIRC WATER TOTAL PHOSPHOROUS CONCENTRATION (PPB)

INLET

OUTLET

THE DESCALER PUMP REMAINED OFF THE ENTIRE MONTH OF APRIL FOLLOWING THE UNIT 2 REFUELING OUTAGE. AN EVALUATION OF CONTINUED USE IS BEING PERFORMED. ALL SAMPLING IS SUSPENDED UNTIL THE EVALUATION IS COMPLETED AND WILL BE RESTARTED WHEN AND IF DESCALER INJECTION IS RESTARTED.

NNNN SSSSSSPPPPPPPPPP
NN NN SSS PPP
NN NN SSSS PPPPPPP
NN NN SSS PPP
NN NNSSSSSS PPP

Northern States Power Company
Prairie Island Nuclear Generating Plant
1717 Wakonade Drive East
Welch, Minnesota 55089
(651)-388-1121

DATE MAY 01, 1999

NAME JIM BODENSTEINER
ADDRESS NSP ERAD

SUBJECT: CONTINUOUS CHLORINATION/BROMINATION

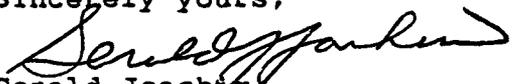
We operated in the continuous bromination mode the entire month of April except from 2115 April 5th to 0910 April 6th when the system was shutdown because of low level in sodium hypochlorite storage tanks. The system was restarted after a shipment was received. Near the end of the month the Unit 1 refueling outage resulted in a lot a cooling water pump cycling which required shifting injection points. No incidents resulted from all the shifting of injection points. The cycling was due to low cooling water demand.

The recorded injection time of 1380 minutes on April 4th reflects the change to Daylight Savings time with ther resultant loss of one hour.

The bromine river demand completed on April 20th had results of 1.03 ppm which is slightly higher than the March value and probably caused by increasing river temperature.

Please contact me at Ext. 4440 if additional information is needed. Thank you.

Sincerely yours,


Gerald Joachem
Senior Radiation Protection Specialist

PERMITTEE NAME/ADDRESS:

NSP-PRAIRIE ISLAND PLANT
414 NICOLLET MALL
MINNEAPOLIS MN 55401

WASTEWATER TREATMENT
DISCHARGE MONITORING REPORT

MN0004006 PERMIT #
010 M
OUTFALL #

MAJOR (SUBR 05)
F - FINAL
Combined Effl frm 011 tr



NSP-PRAIRIE ISLAND PLANT
WELCH MN 55089

MONITORING PERIOD
FROM YEAR 99 MO 04 DAY 01 TO YEAR 99 MO 04 DAY 30

*** NO DISCHARGE ***

ATTN: MR. MICHAEL HESTICK

PARAMETER	SAMPLE MEASUREMENT	QUANTITY			CONCENTRATION				FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS		
PLANT CAPACITY FACT. PERCENT OF CAPACITY	SAMPLE MEASUREMENT	*****	*****		*****	75.9	*****	(23)	Cont	MEAS
00180 1 0 0	PERMIT REQUIREMENT	*****	*****	****	*****	REPORT MO AVG	*****	PER-CENT	CONTIN	MEAS
EFFLUENT GROSS VALUE PH	SAMPLE MEASUREMENT	*****	*****		8.3	*****	8.4	(12)	1/7	GRAB
00400 1 0 0	PERMIT REQUIREMENT	*****	*****	****	6.0 MO MIN	*****	9.0 MO MAX	SU	WEEKLY	GRAB
EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		*****			(19)		
OXIDANTS, TOTAL RESIDUAL	PERMIT REQUIREMENT	*****	*****	****	*****	OPTIONAL MO AVG	.05 DAILY MX	MG/L	ONCE /	GRAB DISCHG
34044 A 0 0	SAMPLE MEASUREMENT	*****	*****		*****			(19)		
DISINFECT, PRCS CMPLT	PERMIT REQUIREMENT	*****	*****	****	*****	REPORT MO AVG	.04 MX DA AV	MG/L	CONTIN	CONTIN
OXIDANTS, TOTAL RESIDUAL	SAMPLE MEASUREMENT	*****	*****		*****			(19)		
34044 1 0 0	PERMIT REQUIREMENT	*****	*****	****	*****	REPORT MO AVG	.04 MX DA AV	MG/L	CONTIN	CONTIN
EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		*****			(19)		
OXIDANTS RELEASED, TOTAL RESIDUAL	PERMIT REQUIREMENT	*****	*****	****	*****	OPTIONAL MO AVG	.2 DAILY MX	MG/L	ONCE /	GRAB DISCHG
34046 A 0 0	SAMPLE MEASUREMENT	*****	*****		*****	<0.001	<0.001	(19)	30/30	CALC
DISINFECT, PRCS CMPLT	PERMIT REQUIREMENT	*****	*****	****	*****	REPORT MO AVG	.001 MX DA AV	MG/L	CONTIN	CONTIN
OXIDANTS RELEASED, TOTAL RESIDUAL	SAMPLE MEASUREMENT	*****	*****		*****			(03)	Cont	EST
34046 1 0 0	PERMIT REQUIREMENT	*****	*****	****	*****	REPORT MO TOTAL	REPORT AVERAGE	OPTIONAL DAILY MX		
EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		6060	202				
FLOW, IN CONDUIT OR THRU TREATMENT PLANT	PERMIT REQUIREMENT	*****	*****	****	*****					
50050 1 0 0	SAMPLE MEASUREMENT	*****	*****		*****					
EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	*****					

Send white copy with supplemental DMR form by 21st day of month following reporting period to: MINNESOTA POLLUTION CONTROL AGENCY 520 LAFAYETTE ROAD ST. PAUL, MINNESOTA 55155 ATTN: W.Q. POINT SOURCE COMPLIANCE

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

[Signature]
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

5-14-99
DATE

SIGNATURE OF CHIEF OPERATOR

DATE

CERTIFICATION #

IF NEW

COMMENTS:

1)EFL: no floatg solids, foam or film 2)See Part I,C.6 for flow restrictions 3)See Part I,C.5 for thermal limitations 4)Amount and Time of Chlorine and/or Bromine continuous and/or intermittent application shall be recorded daily and submitted with the monthly DMRs in addition to the values reported on this DMR.

PERMITTEE NAME/ADDRESS:

NSP PRAIRIE ISLAND PLANT
414 NICOLLET MALL
MINNEAPOLIS MN 55401

WASTEWATER TREATMENT
DISCHARGE MONITORING REPORT

MN0004006

701 M

PERMIT #

OUTFALL #

MAJOR (SUBR 05)
F - FINAL
Miss R Imdtly Blw Lock



NSP-PRAIRIE ISLAND PLANT
WELCH MN 55089

MONITORING PERIOD						
YEAR	MO.	DAY	TO	YEAR	MO.	DAY
99	04	01		99	04	30

FROM

*** NO DISCHARGE !!! ***

ATTN: MR. MICHAEL HESTICK

PARAMETER		QUANTITY			CONCENTRATION				FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS		
TEMPERATURE, WATER DEG. FAHRENHEIT 00011 6 N 0 DOWNSTREAM MONITOR	SAMPLE MEASUREMENT	*****	*****		47.5	51.0	59.9	(15)	Cont	MEAS
	PERMIT REQUIREMENT	*****	*****	****	REPORT MO MIN	86.0 MX DA AV	REPORT MO MAX	DEG. F	CONTINUOUS	INSITU
TEMPERATURE, WATER DEG. FAHRENHEIT 00011 7 N 0 INTAKE FROM STREAM	SAMPLE MEASUREMENT	*****	*****		48.1	50.6	59.1	(15)	Cont	MEAS
	PERMIT REQUIREMENT	*****	*****	****	REPORT	REPORT	REPORT	DEG. F	CONTINUOUS	CONTIN
TEMP. DIFF. BETWEEN SAMP. & UPSTRM DEG.F 00018 6 N 0 DOWNSTREAM MONITOR	SAMPLE MEASUREMENT	*****	*****			0.4		(15)		
	PERMIT REQUIREMENT	*****	*****	****	OPTIONAL MO MIN	5.0 MO AVG	OPTIONAL MO MAX	DEG. F	CONTINUOUS	INSITU
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									

Send white copy with supplemental DMR form by 21st day of month following reporting period to:
MINNESOTA POLLUTION CONTROL AGENCY
520 LAFAYETTE ROAD
ST. PAUL, MINNESOTA 55155
ATTN: W.Q. POINT SOURCE COMPLIANCE

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

5-14-99

DATE

SIGNATURE OF CHIEF OPERATOR

DATE

CERTIFICATION #

IF NEW

COMMENTS:

- 1) See Permit Part I, C.5. for Thermal Restrictions.
- 2) Notify MPCA & MDNR when winter temp GE 43F.
- 3) Use 701N to summarize NOV-MAR days when river temp is GT 43F.
- 4) Parameter 00018 is Delta T=Trive-Tintk
- 5) MIN=LOW DLY MAX IN MONTH 6) AVG=Monthly average of daily maximum 7) MAX=HIGH DLY MAX IN MONTH

PERMITTEE NAME/ADDRESS:

NSP-PRAIRIE ISLAND PLANT
414 NICOLLET MALL
MINNEAPOLIS MN 55401

WASTEWATER TREATMENT
DISCHARGE MONITORING REPORT

MN0004006
PERMIT #

011 M
OUTFALL #

MAJOR
(SUBR 05)
F - FINAL
Steam Generator Blowdown



NSP-PRAIRIE ISLAND PLANT
WELCH MN 55089

MONITORING PERIOD						
YEAR	MO.	DAY	TO	YEAR	MO.	DAY
99	04	01		99	04	30

ATTN: MR. MICHAEL HESTICK

*** NO DISCHARGE !!!

PARAMETER		QUANTITY			CONCENTRATION				FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS		
SOLIDS, TOTAL SUSPENDED 00530 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	0.03	0.03	(01)	0.5	0.5	0.5	(19)	1/30	GRAB
	PERMIT REQUIREMENT	65.3 MO AVG	217.0 MO MAX	KG/ DAY	45.0 MX WK AV	30.0 MO AVG	100.0 MO MAX	MG/L	ONCE/ MONTH	GRAB
FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		0.480	0.016		(03)	1/30	EST
	PERMIT REQUIREMENT	*****	*****	**** ****	REPORT MO TOTAL	REPORT AVERAGE	OPTIONAL DAILY MX	MGD	ONCE/ MONTH	ESTIMA
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									

Send white copy with supplemental DMR form by 21st day of month following reporting period to:
MINNESOTA POLLUTION CONTROL AGENCY
520 LAFAYETTE ROAD
ST. PAUL, MINNESOTA 55155
ATTN: W.Q. POINT SOURCE COMPLIANCE

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

[Signature]
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

5-14-99

DATE

SIGNATURE OF CHIEF OPERATOR

DATE

CERTIFICATION #

IF NEW

COMMENTS:

1)EFL: no floatg solids, foam or film

PERMITTEE NAME/ADDRESS:

NSP PRAIRIE ISLAND PLANT
414 NICOLLET MALL
MINNEAPOLIS MN 55401

NSP-PRAIRIE ISLAND PLANT
WELCH MN 55089

WASTEWATER TREATMENT
DISCHARGE MONITORING REPORT

MN0004006

PERMIT #

012 M

OUTFALL #

MAJOR
(SUBR 05)
F - FINAL

Radwaste Treatment Effluent



MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
99	04	01		99	04	30

FROM

*** NO DISCHARGE !!! ***

ATTN: MR. MICHAEL HESTICK

PARAMETER		QUANTITY			CONCENTRATION				FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS		
SOLIDS, TOTAL SUSPENDED 00530 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	0.01	0.01	(01)	0.7	0.7	0.7	(19)	1/30	GRAB
	PERMIT REQUIREMENT	26.0 MO AVG	86.9 MO MAX	KG/ DAY	45.0 MX WK AV	30.0 MO AVG	100.0 MO MAX	MG/L	ONCE/ MONTH	GRAB
FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		0.120	0.004		(03)	1/30	EST
	PERMIT REQUIREMENT	*****	*****	****	REPORT MO TOTAL	REPORT AVERAGE	OPTIONAL DAILY MX	MGD	ONCE/ MONTH	ESTIMA
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									

Send white copy with supplemental DMR form by 21st day of month following reporting period to:
MINNESOTA POLLUTION CONTROL AGENCY
520 LAFAYETTE ROAD
ST. PAUL, MINNESOTA 55155
ATTN: W.O. POINT SOURCE COMPLIANCE

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

[Signature]

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

5-14-99
DATE

SIGNATURE OF CHIEF OPERATOR

DATE

CERTIFICATION #

IF NEW

COMMENTS:

1) EFL: no floatg solids, foam or film

PERMITTEE NAME/ADDRESS:

NSP-PRAIRIE ISLAND PLANT
414 NICOLLET MALL
MINNEAPOLIS MN 55401

WASTEWATER TREATMENT
DISCHARGE MONITORING REPORT

MN0004006

013 M

PERMIT #

OUTFALL #

MAJOR (SUBR 05)
F - FINAL
Neutralizer + Resin Rinse



NSP-PRAIRIE ISLAND PLANT
WELCH MN 55089

MONITORING PERIOD						
YEAR	MO.	DAY	TO	YEAR	MO.	DAY
99	04	01		99	04	30

FROM

TO

*** NO DISCHARGE !!! ***

ATTN: MR. MICHAEL HESTICK

PARAMETER		QUANTITY			CONCENTRATION				FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS		
SOLIDS, TOTAL SUSPENDED 00530 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	0.7	5.8	(01)	25.7	15.8	27.7	(19)	12/30	GRAB
	PERMIT REQUIREMENT	97.9 MO AVG	326.0 MO MAX	KG/ DAY	45.0 MX WK AV	30.0 MO AVG	100.0 MO MAX	MG/L	ONCE/ MONTH	GRA
FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		0.330	0.011		(03)	12/30	EST
	PERMIT REQUIREMENT	*****	*****	****	REPORT MO TOTAL	REPORT AVERAGE	OPTIONAL DAILY MX	MGD	ONCE/ MONTH	ESTIMA
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									

Send white copy with supplemental DMR form by 21st day of month following reporting period to:
MINNESOTA POLLUTION CONTROL AGENCY
520 LAFAYETTE ROAD
ST. PAUL, MINNESOTA 55155
ATTN: W.Q. POINT SOURCE COMPLIANCE

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

DATE

SIGNATURE OF CHIEF OPERATOR

DATE

CERTIFICATION #

IF NEW

COMMENTS:

1)EFL:no floatg solids,foam or film

PERMITTEE NAME/ADDRESS:

NSP PRAIRIE ISLAND PLANT
414 NICOLLET MALL
MINNEAPOLIS MN 55401

NSP-PRAIRIE ISLAND PLANT
WELCH MN 55089

WASTEWATER TREATMENT
DISCHARGE MONITORING REPORT

MN0004006 PERMIT #
014 M OUTFALL #

MAJOR (SUBR 05)
F - FINAL
Unit 1 Turbine Bldg Sump



MONITORING PERIOD						
YEAR	MO.	DAY	TO	YEAR	MO.	DAY
99	04	01		99	04	30

FROM

*** NO DISCHARGE !!! ***

ATTN: MR. MICHAEL HESTICK

PARAMETER		QUANTITY			CONCENTRATION				FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS		
SOLIDS, TOTAL SUSPENDED 00530 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		0.7	0.7	0.7	(19)	1/30	GRAB
	PERMIT REQUIREMENT	*****	*****	****	45.0 MX WK AV	30.0 MO AVG	100.0 MO MAX	MG/L	ONCE/ MONTH	GRAB
OIL AND GREASE FREON EXTR-GRAV METH 00556 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		*****	<1.0	<1.0	(19)	1/30	GRAB
	PERMIT REQUIREMENT	*****	*****	****	*****	10.0 MO AVG	15.0 MO MAX	MG/L	ONCE/ MONTH	GRAB
FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		1.950	0.065		(03)	1/7	ESI
	PERMIT REQUIREMENT	*****	*****	****	REPORT MO TOTAL	REPORT AVERAGE	OPTIONAL DAILY MX	MGD	WEEKLY	ESTIMA
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									

Send white copy with supplemental DMR form by 21st day of month following reporting period to: MINNESOTA POLLUTION CONTROL AGENCY, 520 LAFAYETTE ROAD, ST. PAUL, MINNESOTA 55155, ATTN: W.O. POINT SOURCE COMPLIANCE

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT: *[Signature]* DATE: 5-14-99
SIGNATURE OF CHIEF OPERATOR: _____ DATE: _____ CERTIFICATION # _____ IF NEW

COMMENTS:

1)EFL:no floatg solids,foam or film

PERMITTEE NAME/ADDRESS:

NSP-PRAIRIE ISLAND PLANT
414 NICOLLET MALL
MINNEAPOLIS MN 55401

WASTEWATER TREATMENT
DISCHARGE MONITORING REPORT

MN0004006
PERMIT #

015 M
OUTFALL #

MAJOR (SUBR 05)
F - FINAL
Unit 2 Turbine Bldg Sump



NSP-PRAIRIE ISLAND PLANT
WELCH MN 55089

MONITORING PERIOD						
YEAR	MO.	DAY	TO	YEAR	MO.	DAY
99	04	01		99	04	30

*** NO DISCHARGE !!! ***

ATTN: MR. MICHAEL HESTICK

PARAMETER		QUANTITY			CONCENTRATION				FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS		
SOLIDS, TOTAL SUSPENDED 00530 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		3.4	3.4	3.4	(19)	1/30	GRAB
	PERMIT REQUIREMENT	*****	*****	****	45.0 MX WK AV	30.0 MD AVG	100.0 MD MAX	MG/L	ONCE/ MONTH	GRAI
OIL AND GREASE FREON EXTR-GRAV METH 00556 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		*****	<1.0	<1.0	(19)	1/30	GAB
	PERMIT REQUIREMENT	*****	*****	****	*****	10.0 MD AVG	15.0 MD MAX	MG/L	ONCE/ MONTH	GRAB
FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		0.660	0.022		(03)	1/7	EST
	PERMIT REQUIREMENT	*****	*****	****	REPORT MD TOTAL	REPORT AVERAGE	OPTIONAL DAILY MX	MGD	WEEKLY	ESTIMA
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									

Send white copy with supplemental DMR form by 21st day of month following reporting period to:
MINNESOTA POLLUTION CONTROL AGENCY
520 LAFAYETTE ROAD
ST. PAUL, MINNESOTA 55155
ATTN: W.Q. POINT SOURCE COMPLIANCE

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

[Signature]
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT
DATE: 5-14-99

SIGNATURE OF CHIEF OPERATOR
DATE: _____
CERTIFICATION # IF NEW

COMMENTS:

1)EFL:no floatg solids,foam or film

PERMITTEE NAME/ADDRESS:

N PRAIRIE ISLAND PLANT
414 NICOLLET MALL
MINNEAPOLIS MN 55401

NSP-PRAIRIE ISLAND PLANT
WELCH MN 55089

WASTEWATER TREATMENT
DISCHARGE MONITORING REPORT

MN0004006 PERMIT #
016 M OUTFALL #

MAJOR (SUBR 05)
F - FINAL
Metal Cleaning Effluent



MONITORING PERIOD						
YEAR	MO.	DAY	TO	YEAR	MO.	DAY
99	04	01		99	04	30

*** NO DISCHARGE ~~(X)~~ ***

ATTN: MR. MICHAEL HESTICK

PARAMETER		QUANTITY			CONCENTRATION			FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM		
SOLIDS, TOTAL SUSPENDED	SAMPLE MEASUREMENT			(01)			(19)		
00530 1 0 0	PERMIT REQUIREMENT	.6 MD AVG	1.9 MD MAX	KG/DAY	45.0 MX WK AV	30.0 MD AVG	100.0 MD MAX	MG/L	ONCE/ GRAB BATCH
OIL AND GREASE	SAMPLE MEASUREMENT			(01)	*****			(19)	
FREON EXTR-GRAY METH	PERMIT REQUIREMENT	.2 MD AVG	.3 MD MAX	KG/DAY	*****	10.0 MD AVG	15.0 MD MAX	MG/L	ONCE/ GRAB BATCH
00556 1 0 0	SAMPLE MEASUREMENT			(01)	*****			(19)	
COPPER, TOTAL (AS CU)	PERMIT REQUIREMENT	.02 MD AVG	.02 MD MAX	KG/DAY	*****	1.0 MD AVG	1.0 MD MAX	MG/L	ONCE/ GRAB BATCH
01042 1 0 0	SAMPLE MEASUREMENT			(01)	*****			(19)	
IRON, TOTAL (AS FE)	PERMIT REQUIREMENT	.02 MD AVG	.02 MD MAX	KG/DAY	*****	1.0 MD AVG	1.0 MD MAX	MG/L	ONCE/ GRAB BATCH
01045 1 0 0	SAMPLE MEASUREMENT	*****	*****					(03)	
FLOW, IN CONDUIT OR THRU TREATMENT PLANT	PERMIT REQUIREMENT	*****	*****	****	REPORT MD TOTAL	REPORT AVERAGE	OPTIONAL DAILY MX	MGD	ONCE/ ESTIMA BATCH
50050 1 0 0	SAMPLE MEASUREMENT								
	PERMIT REQUIREMENT								
	SAMPLE MEASUREMENT								
	PERMIT REQUIREMENT								

Send white copy with supplemental DMR form by 21st day of month following reporting period to:
MINNESOTA POLLUTION CONTROL AGENCY
520 LAFAYETTE ROAD
ST. PAUL, MINNESOTA 55155
ATTN: W.Q. POINT SOURCE COMPLIANCE

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT *[Signature]* DATE 5-14-79
SIGNATURE OF CHIEF OPERATOR _____ DATE _____ CERTIFICATION # IF NEW

COMMENTS:
1)EFL:no floatg solids,foam or film

PERMITTEE NAME/ADDRESS:

NSP-PRAIRIE ISLAND PLANT
414 NICOLLET MALL
MINNEAPOLIS MN 55401

WASTEWATER TREATMENT
DISCHARGE MONITORING REPORT

MN0004006 PERMIT #
017 M
OUTFALL #

MAJOR (SUBR 05)
F - FINAL
Unit 1 Condensate Blowdown



NSP-PRAIRIE ISLAND PLANT
WELCH MN 55089

MONITORING PERIOD						
YEAR	MO.	DAY	TO	YEAR	MO.	DAY
99	04	01		99	04	30

*** NO DISCHARGE ***

ATTN: MR. MICHAEL HESTICK

PARAMETER		QUANTITY			CONCENTRATION				FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS		
SOLIDS, TOTAL SUSPENDED	SAMPLE MEASUREMENT	<0.04	<0.04	(01)	<0.5	<0.5	<0.5	(19)	1/30	GRAB
00530 1 0 0	PERMIT REQUIREMENT	28.4	94.6	KG/DAY	45.0	30.0	100.0		ONCE/MONTH	GRA.
EFFLUENT GROSS VALUE FLOW, IN CONDUIT OR THRU TREATMENT PLANT	SAMPLE MEASUREMENT	*****	*****		0.240	0.008		(03)	1/30	EST
50050 1 0 0	PERMIT REQUIREMENT	*****	*****	****	REPORT	REPORT	OPTIONAL		ONCE/MONTH	ESTIMA
EFFLUENT GROSS VALUE				****	MO TOTAL	AVERAGE	DAILY MX	MGD		
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									

Send white copy with supplemental DMR form by 21st day of month following reporting period to:
MINNESOTA POLLUTION CONTROL AGENCY
520 LAFAYETTE ROAD
ST. PAUL, MINNESOTA 55155
ATTN: W.Q. POINT SOURCE COMPLIANCE

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[Signature]
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT
DATE: 5-14-99

SIGNATURE OF CHIEF OPERATOR
DATE: _____
CERTIFICATION # IF NEW

COMMENTS:

- 1) EFL: no floaty solids, foam or film
- 2) TSS kg/day values equal the sum for 017 and 018.

PERMITTEE NAME/ADDRESS:

NSP PRAIRIE ISLAND PLANT
414 NICOLLET MALL
MINNEAPOLIS MN 55401

WASTEWATER TREATMENT
DISCHARGE MONITORING REPORT

MN0004006
PERMIT #

018 M
OUTFALL #

MAJOR
(SUBR 05)
F - FINAL
Unit 2 Condensate Blowdown



NSP-PRAIRIE ISLAND PLANT
WELCH MN 55089

MONITORING PERIOD						
YEAR	MO.	DAY	TO	YEAR	MO.	DAY
99	04	01		99	04	30

*** NO DISCHARGE ***

ATTN: MR. MICHAEL HESTICK

PARAMETER		QUANTITY			CONCENTRATION				FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS		
SOLIDS, TOTAL SUSPENDED 00530 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	<0.04	<0.04	(01)	<0.5	<0.5	<0.5	(19)	1/30	GRAB
	PERMIT REQUIREMENT	28.4 MO AVG	94.6 MO MAX	KG/ DAY	45.0 MX WK AV	30.0 MO AVG	100.0 MO MAX	MG/L	ONCE/ MONTH	GRAB
FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		0.450	0.015		(03)	1/30	EST
	PERMIT REQUIREMENT	*****	*****	****	REPORT MO TOTAL	REPORT AVERAGE	OPTIONAL DAILY MX	MGD	ONCE/ MONTH	ESTIMA
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									

Send white copy with supplemental DMR form by 21st day of month following reporting period to:
MINNESOTA POLLUTION CONTROL AGENCY
520 LAFAYETTE ROAD
ST. PAUL, MINNESOTA 55155
ATTN: W.Q. POINT SOURCE COMPLIANCE

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

5-14-99

DATE

SIGNATURE OF CHIEF OPERATOR

DATE

CERTIFICATION #

IF NEW

COMMENTS:

- 1)EFL: no floatg solids, foam or film
- 2)TSS kg/day values equal the sum for 017 and 018.

PERMITTEE NAME/ADDRESS:

NSP-PRAIRIE ISLAND PLANT
414 NICOLLET MALL
MINNEAPOLIS MN 55401

NSP-PRAIRIE ISLAND PLANT
WELCH MN 55089

ATTN: MR. MICHAEL HESTICK

WASTEWATER TREATMENT
DISCHARGE MONITORING REPORT

MN0004006
PERMIT #

021 M
OUTFALL #

MONITORING PERIOD						
YEAR	MO.	DAY	TO	YEAR	MO.	DAY
99	04	01		99	04	30

MAJOR
(SUBR 05)
F - FINAL
Heating System Blowdown



*** NO DISCHARGE ~~X~~ ***

PARAMETER		QUANTITY			CONCENTRATION				FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS		
SOLIDS, TOTAL SUSPENDED 00530 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT			(01)				(19)		
	PERMIT REQUIREMENT	9.1 MD AVG	30.3 MD MAX	KG/ DAY	45.0 MX WK AV	30.0 MD AVG	100.0 MD MAX	MG/L	ONCE/ MONTH	GRAI
FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****					(03)		
	PERMIT REQUIREMENT	*****	*****	****	REPORT MO TOTAL	REPORT AVERAGE	OPTIONAL MD MAX	MGD	ONCE/ MONTH	ESTIMA
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									

Send white copy with supplemental DMR form by 21st day of month following reporting period to:
MINNESOTA POLLUTION CONTROL AGENCY
520 LAFAYETTE ROAD
ST. PAUL, MINNESOTA 55155
ATTN: W.Q. POINT SOURCE COMPLIANCE

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

5-14-99

DATE

SIGNATURE OF CHIEF OPERATOR

DATE

CERTIFICATION #

IF NEW

COMMENTS:

PERMITTEE / ADDRESS:

NSP-PRAIRIE ISLAND PLANT
414 NICOLLET MALL
MINNEAPOLIS MN 55401

WASTEWATER TREATMENT
DISCHARGE MONITORING REPORT

MN0004006

PERMIT #

022 M

OUTFALL #

MAJOR (SUBR 05)
F - FINAL
Unit 1 Plant Cooling Wtr



NSP-PRAIRIE ISLAND PLANT
WELCH MN 55089

MONITORING PERIOD						
YEAR	MO.	DAY	TO	YEAR	MO.	DAY
99	04	01		99	04	30

*** NO DISCHARGE !!! ***

ATTN: MR. MICHAEL HESTICK

PARAMETER		QUANTITY			CONCENTRATION			FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM		
OXIDANTS, TOTAL RESIDUAL 34044 A 0 0 DISINFECT, PRCS CMPLT	SAMPLE MEASUREMENT	*****	*****		*****		0.22	(19)	30/30 GRAB
	PERMIT REQUIREMENT	*****	*****	****	*****	OPTIONAL MD AVG	2.0		ONCE / GRAB DISCHG
FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 8 0 0 OTHER TRT, PRCS CMPLT	SAMPLE MEASUREMENT	*****	*****		663	22.1		(03)	30/30 EST
	PERMIT REQUIREMENT	*****	*****	****	REPORT MD TOTAL	REPORT AVERAGE	OPTIONAL MD MAX		CONTIN ESTIMA UOUS
	SAMPLE MEASUREMENT								
	PERMIT REQUIREMENT								
	SAMPLE MEASUREMENT								
	PERMIT REQUIREMENT								
	SAMPLE MEASUREMENT								
	PERMIT REQUIREMENT								
	SAMPLE MEASUREMENT								
	PERMIT REQUIREMENT								

Send white copy with supplemental DMR form by 21st day of month following reporting period to:
MINNESOTA POLLUTION CONTROL AGENCY
520 LAFAYETTE ROAD
ST. PAUL, MINNESOTA 55155
ATTN: W.Q. POINT SOURCE COMPLIANCE

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

DATE

SIGNATURE OF CHIEF OPERATOR

DATE

CERTIFICATION #

IF NEW

COMMENTS:

NOTE: FLOW IS A-TOTAL OF OUTFALLS 022 & 023

PERMITTEE NAME/ADDRESS:

NSP-PRAIRIE ISLAND PLANT
414 NICOLLET MALL
MINNEAPOLIS MN 55401

WASTEWATER TREATMENT
DISCHARGE MONITORING REPORT

MN0004006

PERMIT #

023 M

OUTFALL #

MAJOR
(SUBR 05)
F - FINAL



Unit 2 Plant Cooling Wtr

NSP-PRAIRIE ISLAND PLANT
WELCH MN 55089

FROM

MONITORING PERIOD						
YEAR	MO.	DAY	TO	YEAR	MO.	DAY
99	04	01		99	04	30

*** NO DISCHARGE !!! ***

ATTN: MR. MICHAEL HESTICK

PARAMETER		QUANTITY			CONCENTRATION				FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS		
OXIDANTS, TOTAL RESIDUAL 34044 A 0 0 DISINFECT, PRCS CMPLT	SAMPLE MEASUREMENT	*****	*****		*****		0.26	(19)	30/30	GRAB
	PERMIT REQUIREMENT	*****	*****	****	*****	OPTIONAL MO AVG	2.0 DAILY MX	MG/L	ONCE / GRAI DISCHG	
FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 B 0 0 OTHER TRT, PRCS CMPLT	SAMPLE MEASUREMENT	*****	*****		663	22.1		(03)	30/30	EST
	PERMIT REQUIREMENT	*****	*****	****	REPORT MO TOTAL	REPORT AVERAGE	OPTIONAL MO MAX	MGD	CONTIN ESTIMA UDUS	
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									

Send white copy with supplemental DMR form by 21st day of month following reporting period to:
MINNESOTA POLLUTION CONTROL AGENCY
520 LAFAYETTE ROAD
ST. PAUL, MINNESOTA 55155
ATTN: W.O. POINT SOURCE COMPLIANCE

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

[Signature]

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

5-14-99

DATE

SIGNATURE OF CHIEF OPERATOR

DATE

CERTIFICATION #

IF NEW

COMMENTS:

NOTE: FLOW IS A TOTAL OF OUTFALLS 022 & 023

PERMITTEE NAME/ADDRESS:

NSP PRAIRIE ISLAND PLANT
414 NICOLLET MALL
MINNEAPOLIS MN 55401

WASTEWATER TREATMENT
DISCHARGE MONITORING REPORT

MN0004006

PERMIT #

030 M

OUTFALL #

MAJOR (SUBR 05)
F - FINAL
Intake Screen Bkwh+Fish



NSP-PRAIRIE ISLAND PLANT
WELCH MN 55089

MONITORING PERIOD						
YEAR	MO.	DAY	TO	YEAR	MO.	DAY
99	04	01		99	04	30

*** NO DISCHARGE ***

ATTN: MR. MICHAEL HESTICK

PARAMETER		QUANTITY			CONCENTRATION				FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS		
FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		60	2		(03)	1/30	EST
	PERMIT REQUIREMENT	*****	*****	****	REPORT MO TOTAL	REPORT AVERAGE	OPTIONAL DAILY MX	MGD	ONCE/MONTH	ESTIMA
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									

Send white copy with supplemental DMR form by 21st day of month following reporting period to:
MINNESOTA POLLUTION CONTROL AGENCY
520 LAFAYETTE ROAD
ST. PAUL, MINNESOTA 55155
ATTN: W.O. POINT SOURCE COMPLIANCE

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT *[Signature]* DATE 5-14-99

SIGNATURE OF CHIEF OPERATOR _____ DATE _____ CERTIFICATION # IF NEW

COMMENTS:
1) EFL: no floatg solids, foam or film
2) Large debris shall not be discharged.

PROGRAM NAME :NSCWSP.E TASK NUMBER: 0500003C
NSP PRAIRIE ISLAND PLANT - UNIT 1

APR 02,99
00:01:46

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 04/02/99

TIME: 00:01:42

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	NCAL 65.9	64.0	64.8
1T2571A	STURGEON LAKE TEMP 2	NCAL 67.8	65.0	66.1
1T2572A	DIAMOND BLUFF TEMP	47.1	44.5	45.4
1T2573A	LOCK & DAM PIER 1 TEMP	47.1	44.8	45.7
1T2574A	LOCK & DAM PIER 2 TEMP	49.3	46.2	47.6
1T2575A	LOCK & DAM PIER 3 TEMP	50.5	47.4	48.9
1T2527A	SCREENHOUSE INLT TEMP	48.6	46.6	47.6
1T2530A	DISCHARGE CANAL AVERAGE TEMP	92.6	88.3	90.6

BKH

E-O-J

PROGRAM NAME :NSCWSP.E TASK NUMBER: 0500003C
NSP PRAIRIE ISLAND PLANT - UNIT 1

APR 03, 99
00:01:51

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 04/03/99

TIME: 00:01:46

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1			
1T2571A	STURGEON LAKE TEMP 2	N CAL	N CAL	N CAL
1T2572A	DIAMOND BLUFF TEMP	46.8	45.3	45.8
1T2573A	LOCK & DAM PIER 1 TEMP	48.3	45.4	46.3
1T2574A	LOCK & DAM PIER 2 TEMP	50.2	47.5	48.4
1T2575A	LOCK & DAM PIER 3 TEMP	51.4	48.6	50.0
1T2527A	SCREENHOUSE INLT TEMP	49.2	48.0	48.5
1T2530A	DISCHARGE CANAL AVERAGE TEMP	92.0	89.0	90.5

BKR

E-O-J

PROGRAM NAME :NSCWSP.E TASK NUMBER: 0500003C
NSP PRAIRIE ISLAND PLANT - UNIT 1

APR 04, 99
00:01:56

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 04/04/99

TIME: 00:01:51

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	N C A L	N C A L	N C A L
1T2571A	STURGEON LAKE TEMP 2	N C A L	N C A L	N C A L
1T2572A	DIAMOND BLUFF TEMP	46.1	45.2	45.6
1T2573A	LOCK & DAM PIER 1 TEMP	48.2	45.7	46.2
1T2574A	LOCK & DAM PIER 2 TEMP	49.8	47.3	48.2
1T2575A	LOCK & DAM PIER 3 TEMP	50.9	48.5	49.7
1T2527A	SCREENHOUSE INLT TEMP	49.1	48.2	48.5
1T2530A	DISCHARGE CANAL AVERAGE TEMP	91.8	89.2	90.2

BICA

E-O-J

PROGRAM NAME :NSCWSP.E TASK NUMBER: 0500003C
NSP PRAIRIE ISLAND PLANT - UNIT 1

APR 05,99
00:01:58

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 04/05/99

TIME: 00:01:55

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	N C A L	N C A L	N C A L
1T2571A	STURGEON LAKE TEMP 2	N C A L	N C A L	N C A L
1T2572A	DIAMOND BLUFF TEMP	48.0	44.4	45.7
1T2573A	LOCK & DAM PIER 1 TEMP	48.1	45.5	46.2
1T2574A	LOCK & DAM PIER 2 TEMP	51.0	47.4	48.4
1T2575A	LOCK & DAM PIER 3 TEMP	52.4	49.1	50.2
1T2527A	SCREENHOUSE INLT TEMP	50.5	48.2	49.1
1T2530A	DISCHARGE CANAL AVERAGE TEMP	92.0	87.4	89.6

BKL

E-O-J

PROGRAM NAME :NSCWSP.E TASK NUMBER: 0500003C
NSP PRAIRIE ISLAND PLANT - UNIT 1

APR 06,99
00:02:04

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 04/06/99

TIME: 00:01:57

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	N C A L N	C A L N C A L	N C A L
1T2571A	STURGEON LAKE TEMP 2	N C A L N	C A L N C A L	N C A L
1T2572A	DIAMOND BLUFF TEMP	46.1	44.2	45.2
1T2573A	LOCK & DAM PIER 1 TEMP	46.9	44.8	46.1
1T2574A	LOCK & DAM PIER 2 TEMP	49.4	46.4	47.9
1T2575A	LOCK & DAM PIER 3 TEMP	51.0	47.6	49.2
1T2527A	SCREENHOUSE INLT TEMP	50.1	46.9	48.1
1T2530A	DISCHARGE CANAL AVERAGE TEMP	89.5	86.8	87.8

BICK

E-O-J

Brian Rogers

PROGRAM NAME :NSCWSP.E TASK NUMBER: 0500003C
NSP PRAIRIE ISLAND PLANT - UNIT 1

APR 07,99
00:02:08

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 04/07/99

TIME: 00:02:05

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1			
1T2571A	STURGEON LAKE TEMP 2			
1T2572A	DIAMOND BLUFF TEMP			
1T2573A	LOCK & DAM PIER 1 TEMP			
1T2574A	LOCK & DAM PIER 2 TEMP			
1T2575A	LOCK & DAM PIER 3 TEMP			
1T2527A	SCREENHOUSE INLT TEMP			
1T2530A	DISCHARGE CANAL AVERAGE TEMP			

	N C A L N C A L N C A L
	N C A L N C A L N C A L
	47.2 43.50 44.7
	46.1 44.30 44.8
	47.4 45.60 46.2
	49.0 46.10 47.2
	47.7 45.8 46.6
	90.4 84.7 87.7

BICA

E-O-J

Brian Rogers

PROGRAM NAME :NSCWSP.E TASK NUMBER: 2C00002A
NSP PRAIRIE ISLAND PLANT - UNIT 1

APR 08,99
00:01:45

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 04/08/99

TIME: 00:01:38

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	51.0	50.7	50.8
1T2571A	STURGEON LAKE TEMP 2	46.8	46.5	46.6
1T2572A	DIAMOND BLUFF TEMP	47.3	47.0	47.1
1T2573A	LOCK & DAM PIER 1 TEMP	47.3	47.0	47.1
1T2574A	LOCK & DAM PIER 2 TEMP	48.6	48.3	48.5
1T2575A	LOCK & DAM PIER 3 TEMP	51.0	50.2	50.7
1T2527A	SCREENHOUSE INLT TEMP	49.9	49.7	49.8
1T2530A	DISCHARGE CANAL AVERAGE TEMP	91.7	90.9	91.3

BCK

E-O-J

Brian Rogers

PROGRAM NAME :NSCWSP.E TASK NUMBER: 2C00002A
NSP PRAIRIE ISLAND PLANT - UNIT 1

APR 09, 99
00:01:47

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 04/09/99

TIME: 00:01:41

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	50.7	48.3	49.0
1T2571A	STURGEON LAKE TEMP 2	48.1	46.1	47.1
1T2572A	DIAMOND BLUFF TEMP	47.8	45.8	47.1
1T2573A	LOCK & DAM PIER 1 TEMP	48.0	46.8	47.3
1T2574A	LOCK & DAM PIER 2 TEMP	49.7	48.2	48.9
1T2575A	LOCK & DAM PIER 3 TEMP	51.3	49.1	50.2
1T2527A	SCREENHOUSE INLT TEMP	49.8	47.9	48.6
1T2530A	DISCHARGE CANAL AVERAGE TEMP	90.9	87.8	89.3

BKL

E-O-J

Brian Rogers

PROGRAM NAME :NSCWSP.E TASK NUMBER: 2C00002A
NSP PRAIRIE ISLAND PLANT - UNIT 1

APR 10, 99
00:01:53

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 04/10/99

TIME: 00:01:49

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	51.1	47.1	48.9
1T2571A	STURGEON LAKE TEMP 2	49.0	46.0	47.3
1T2572A	DIAMOND BLUFF TEMP	50.1	46.5	48.1
1T2573A	LOCK & DAM PIER 1 TEMP	49.6	47.2	48.2
1T2574A	LOCK & DAM PIER 2 TEMP	50.9	48.3	49.4
1T2575A	LOCK & DAM PIER 3 TEMP	51.7	48.7	50.0
1T2527A	SCREENHOUSE INLT TEMP	50.4	47.3	48.6
1T2530A	DISCHARGE CANAL AVERAGE TEMP	92.1	88.0	89.8

BKL

E-O-J

Brian Rogers

To: *Ben Rogers*

PROGRAM NAME :NSCWSP.E TASK NUMBER: 2B000029
NSP PRAIRIE ISLAND PLANT - UNIT 1

APR 11, 99
00:02:07

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 04/11/99

TIME: 00:01:54

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	49.5	46.6	48.0
1T2571A	STURGEON LAKE TEMP 2	47.4	45.3	46.7
1T2572A	DIAMOND BLUFF TEMP	48.3	46.8	47.5
1T2573A	LOCK & DAM PIER 1 TEMP	49.0	46.9	48.1
1T2574A	LOCK & DAM PIER 2 TEMP	49.9	47.7	49.0
1T2575A	LOCK & DAM PIER 3 TEMP	50.2	47.8	49.1
1T2527A	SCREENHOUSE INLT TEMP	49.2	47.1	48.0
1T2530A	DISCHARGE CANAL AVERAGE TEMP	88.8	85.7	87.3

Bill

E-O-J

PROGRAM NAME :NSCWSP.E TASK NUMBER: 2B000029
NSP PRAIRIE ISLAND PLANT - UNIT 1

APR 12,99
00:02:11

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 04/12/99

TIME: 00:02:08

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	46.7	46.10-0	45.9 46.4
1T2571A	STURGEON LAKE TEMP 2	45.7	45.30-0	45.0 45.5
1T2572A	DIAMOND BLUFF TEMP	47.4	46.80-0	46.7 47.0
1T2573A	LOCK & DAM PIER 1 TEMP	47.2	46.80-0	46.6 47.0
1T2574A	LOCK & DAM PIER 2 TEMP	47.9	47.50-0	47.5 47.6
1T2575A	LOCK & DAM PIER 3 TEMP	48.1	47.50-0	47.5 47.7
1T2527A	SCREENHOUSE INLT TEMP	47.1	46.3	46.7
1T2530A	DISCHARGE CANAL AVERAGE TEMP	88.9	86.5	87.6

BKL

E-O-J

PROGRAM NAME :NSCWSP.E TASK NUMBER: 2B000029
NSP PRAIRIE ISLAND PLANT - UNIT 1

APR 13, 99
00:02:19

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 04/13/99

TIME: 00:02:14

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	49.0	45.5	47.0
1T2571A	STURGEON LAKE TEMP 2	46.7	44.4	45.5
1T2572A	DIAMOND BLUFF TEMP	49.0	45.3	47.2
1T2573A	LOCK & DAM PIER 1 TEMP	47.8	46.1	47.0
1T2574A	LOCK & DAM PIER 2 TEMP	49.1	46.8	47.8
1T2575A	LOCK & DAM PIER 3 TEMP	49.7	46.9	48.1
1T2527A	SCREENHOUSE INLT TEMP	48.5	46.0	47.0
1T2530A	DISCHARGE CANAL AVERAGE TEMP	91.1	86.4	88.6

BKR

E-O-J

PROGRAM NAME :NSCWSP.E TASK NUMBER: 2B000029
NSP PRAIRIE ISLAND PLANT - UNIT 1

Brian Rogers

APR 14, 99
00:02:30

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 04/14/99

TIME: 00:02:25

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	50.0	47.4	48.4
1T2571A	STURGEON LAKE TEMP 2	47.6	46.0	46.7
1T2572A	DIAMOND BLUFF TEMP	49.3	47.0	48.1
1T2573A	LOCK & DAM PIER 1 TEMP	48.5	47.7	48.1
1T2574A	LOCK & DAM PIER 2 TEMP	49.5	48.5	49.0
1T2575A	LOCK & DAM PIER 3 TEMP	50.3	48.7	49.3
1T2527A	SCREENHOUSE INLT TEMP	49.4	47.2	48.2
1T2530A	DISCHARGE CANAL AVERAGE TEMP	92.8	87.6	90.0

BLH

E-O-J

PROGRAM NAME :NSCWSP.E TASK NUMBER: 2B000029
NSP PRAIRIE ISLAND PLANT - UNIT 1

APR 15, 99
00:02:42

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 04/15/99 TIME: 00:02:38

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	51.3	48.5	49.7
1T2571A	STURGEON LAKE TEMP 2	48.5	46.6	47.5
1T2572A	DIAMOND BLUFF TEMP	49.9	47.3	48.8
1T2573A	LOCK & DAM PIER 1 TEMP	49.5	48.3	48.8
1T2574A	LOCK & DAM PIER 2 TEMP	50.5	49.1	49.8
1T2575A	LOCK & DAM PIER 3 TEMP	51.3	49.4	50.3
1T2527A	SCREENHOUSE INLT TEMP	50.3	48.3	49.2
1T2530A	DISCHARGE CANAL AVERAGE TEMP	93.3	88.6	91.0

E-O-J

TO: BRIAN
ROGERS
BKR

PROGRAM NAME :NSCWSP.E TASK NUMBER: 15000093
NSP PRAIRIE ISLAND PLANT - UNIT 1

APR 16,99
00:02:53

TO: BRIAN
ROGERS

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 04/16/99

TIME: 00:02:46

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	49.4	47.8	48.7
1T2571A	STURGEON LAKE TEMP 2	47.3	46.3	46.7
1T2572A	DIAMOND BLUFF TEMP	48.7	48.0	48.4
1T2573A	LOCK & DAM PIER 1 TEMP	48.8	48.0	48.4
1T2574A	LOCK & DAM PIER 2 TEMP	49.8	48.7	49.2
1T2575A	LOCK & DAM PIER 3 TEMP	50.4	48.9	49.5
1T2527A	SCREENHOUSE INLT TEMP	49.1	48.0	48.6
1T2530A	DISCHARGE CANAL AVERAGE TEMP	88.8	86.9	88.1

E-O-J

BKR

PROGRAM NAME :NSCWSP.R TASK NUMBER: 15000093
NSP PRAIRIE ISLAND PLANT - UNIT 1

APR 17, 99
00:02:50

*To: Brian
Rogers*

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 04/17/99 TIME: 00:02:47

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	48.6	46.8 47.0	47.5
1T2571A	STURGEON LAKE TEMP 2	47.1	45.9 46.0	46.2
1T2572A	DIAMOND BLUFF TEMP	49.1	47.4 47.4	48.0
1T2573A	LOCK & DAM PIER 1 TEMP	48.4	47.5 47.5	47.8
1T2574A	LOCK & DAM PIER 2 TEMP	49.3	48.2 48.0	48.5
1T2575A	LOCK & DAM PIER 3 TEMP	49.7	48.2 48.0	48.7
1T2527A	SCREENHOUSE INLT TEMP	48.3	47.0	47.7
1T2530A	DISCHARGE CANAL AVERAGE TEMP	89.9	86.9	88.2

BKR

E-O-J

PROGRAM NAME :NSCWSP.E TASK NUMBER: 15000093
NSP PRAIRIE ISLAND PLANT - UNIT 1

APR 18, 99
00:02:52

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 04/18/99

TIME: 00:02:47

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	49.4	46.9	47.9
1T2571A	STURGEON LAKE TEMP 2	47.5	46.3	46.8
1T2572A	DIAMOND BLUFF TEMP	49.8	47.2	48.4
1T2573A	LOCK & DAM PIER 1 TEMP	48.8	47.8	48.3
1T2574A	LOCK & DAM PIER 2 TEMP	49.9	48.5	49.1
1T2575A	LOCK & DAM PIER 3 TEMP	50.4	48.5	49.2
1T2527A	SCREENHOUSE INLT TEMP	49.0	47.1	47.9
1T2530A	DISCHARGE CANAL AVERAGE TEMP	91.7	74.2	79.7

E-O-J

BKR
TO: BRIAN ROBERTS

PROGRAM NAME :NSCWSP.E TASK NUMBER: 15000093
NSP PRAIRIE ISLAND PLANT - UNIT 1

APR 19,99
00:02:50

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 04/19/99

TIME: 00:02:49

*TO: BRIAN
ROGERS*

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	49.6	47.9	48.6
1T2571A	STURGEON LAKE TEMP 2	47.3	46.5	46.9
1T2572A	DIAMOND BLUFF TEMP	49.2	47.4	48.6
1T2573A	LOCK & DAM PIER 1 TEMP	49.0	48.1	48.5
1T2574A	LOCK & DAM PIER 2 TEMP	49.6	48.9	49.3
1T2575A	LOCK & DAM PIER 3 TEMP	49.8	48.9	49.3
1T2527A	SCREENHOUSE INLT TEMP	49.3	47.8	48.5
1T2530A	DISCHARGE CANAL AVERAGE TEMP	77.7	70.2	74.5

BKR

E-O-J

PROGRAM NAME :NSCWSP.E TASK NUMBER: 15000093
NSP PRAIRIE ISLAND PLANT - UNIT 1

APR 20, 99
00:02:53

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 04/20/99

TIME: 00:02:52

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	50.6	48.3	49.1
1T2571A	STURGEON LAKE TEMP 2	48.0	46.5	47.2
1T2572A	DIAMOND BLUFF TEMP	50.3	47.3	48.9
1T2573A	LOCK & DAM PIER 1 TEMP	49.1	48.0	48.7
1T2574A	LOCK & DAM PIER 2 TEMP	50.2	48.9	49.5
1T2575A	LOCK & DAM PIER 3 TEMP	50.5	48.9	49.6
1T2527A	SCREENHOUSE INLT TEMP	50.2	48.5	49.1
1T2530A	DISCHARGE CANAL AVERAGE TEMP	76.1	66.7	71.3

BICK

E-O-J

PROGRAM NAME :NSCWSP.E TASK NUMBER: 15000093
NSP PRAIRIE ISLAND PLANT - UNIT 1

APR 21, 99
00:02:57

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 04/21/99

TIME: 00:02:55

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	49.9	47.9	48.8
1T2571A	STURGEON LAKE TEMP 2	47.7	46.5	47.0
1T2572A	DIAMOND BLUFF TEMP	49.2	48.4	48.7
1T2573A	LOCK & DAM PIER 1 TEMP	49.4	48.1	48.6
1T2574A	LOCK & DAM PIER 2 TEMP	50.0	48.8	49.3
1T2575A	LOCK & DAM PIER 3 TEMP	49.9	48.7	49.3
1T2527A	SCREENHOUSE INLT TEMP	49.5	48.3	48.9
1T2530A	DISCHARGE CANAL AVERAGE TEMP	73.6	69.3	70.9

BICK

E-O-J

PROGRAM NAME :NSCWSP.E TASK NUMBER: 15000093
NSP PRAIRIE ISLAND PLANT - UNIT 1

APR 22,99
00:02:59

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 04/22/99

TIME: 00:02:57

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	49.8	47.8	48.7
1T2571A	STURGEON LAKE TEMP 2	48.2	46.6	47.4
1T2572A	DIAMOND BLUFF TEMP	50.0	48.3	49.1
1T2573A	LOCK & DAM PIER 1 TEMP	49.6	48.3	48.8
1T2574A	LOCK & DAM PIER 2 TEMP	50.3	48.8	49.5
1T2575A	LOCK & DAM PIER 3 TEMP	50.4	48.7	49.5
1T2527A	SCREENHOUSE INLT TEMP	49.6	48.1	48.7
1T2530A	DISCHARGE CANAL AVERAGE TEMP	75.8	70.2	72.9

BKR

E-O-J

PROGRAM NAME :NSCWSP.E TASK NUMBER: 15000093
NSP PRAIRIE ISLAND PLANT - UNIT 1

BRIAN ROOS

APR 23, 99
00:02:55

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 04/23/99

TIME: 00:02:53

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	49.4	47.8-8	48.6
1T2571A	STURGEON LAKE TEMP 2	48.3	46.7-8	47.3
1T2572A	DIAMOND BLUFF TEMP	49.9	48.6	49.2
1T2573A	LOCK & DAM PIER 1 TEMP	49.9	48.4	49.1
1T2574A	LOCK & DAM PIER 2 TEMP	50.5	49.0-0	49.7
1T2575A	LOCK & DAM PIER 3 TEMP	50.5	48.9-8	49.6
1T2527A	SCREENHOUSE INLT TEMP	49.4	48.3	48.9
1T2530A	DISCHARGE CANAL AVERAGE TEMP	75.0	70.5	72.4

BKR

E-O-J

BRIAN ROGERS

PROGRAM NAME :NSCWSP.E TASK NUMBER: 15000093
NSP PRAIRIE ISLAND PLANT - UNIT 1

APR 24, 99
00:02:50

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 04/24/99 TIME: 00:02:48

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	50.5	47.0	48.5
1T2571A	STURGEON LAKE TEMP 2	48.8	46.3	47.3
1T2572A	DIAMOND BLUFF TEMP	50.8	47.6	49.0
1T2573A	LOCK & DAM PIER 1 TEMP	49.8	48.0	48.8
1T2574A	LOCK & DAM PIER 2 TEMP	50.8	48.5	49.5
1T2575A	LOCK & DAM PIER 3 TEMP	51.0	48.3	49.5
1T2527A	SCREENHOUSE INLT TEMP	49.9	47.6	48.7
1T2530A	DISCHARGE CANAL AVERAGE TEMP	74.1	66.7	70.8

BKR

E-O-J

BRIAN ROGERS

PROGRAM NAME :NSCWSP.E TASK NUMBER: 2D00002B
NSP PRAIRIE ISLAND PLANT - UNIT 1

APR 25, 99
00:02:54

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 04/25/99

TIME: 00:02:46

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	52.8	49.1 48.0	50.7
1T2571A	STURGEON LAKE TEMP 2	50.0	48.0 48.0	48.7
1T2572A	DIAMOND BLUFF TEMP	51.8	48.4	50.1
1T2573A	LOCK & DAM PIER 1 TEMP	50.9	49.4	50.1
1T2574A	LOCK & DAM PIER 2 TEMP	52.0	50.4	51.1
1T2575A	LOCK & DAM PIER 3 TEMP	52.6	50.4	51.3
1T2527A	SCREENHOUSE INLT TEMP	52.2	48.9	50.5
1T2530A	DISCHARGE CANAL AVERAGE TEMP	76.7	67.1	72.0

BKR

E-O-J

BRIMROGERS

PROGRAM NAME :NSCWSP.E TASK NUMBER: 2D00002B
NSP PRAIRIE ISLAND PLANT - UNIT 1

APR 26, 99
00:02:51

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 04/26/99

TIME: 00:02:50

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	54.7	51.1 49.0	52.4
1T2571A	STURGEON LAKE TEMP 2	51.4	49.1 47.0	50.1
1T2572A	DIAMOND BLUFF TEMP	52.9	49.4	51.3
1T2573A	LOCK & DAM PIER 1 TEMP	52.3	50.8	51.4
1T2574A	LOCK & DAM PIER 2 TEMP	53.7	51.5	52.5
1T2575A	LOCK & DAM PIER 3 TEMP	54.4	51.5	52.8
1T2527A	SCREENHOUSE INLT TEMP	53.9	50.8	52.2
1T2530A	DISCHARGE CANAL AVERAGE TEMP	78.9	69.7	74.0

BKR

E-O-J

PROGRAM NAME :NSCWSP.E TASK NUMBER: 2D00002B
NSP PRAIRIE ISLAND PLANT - UNIT 1

APR 27, 99
00:02:50

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 04/27/99

TIME: 00:02:48

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	56.0	53.0	54.4
1T2571A	STURGEON LAKE TEMP 2	53.0	50.6	52.0
1T2572A	DIAMOND BLUFF TEMP	53.9	51.0	52.7
1T2573A	LOCK & DAM PIER 1 TEMP	54.0	52.2	53.0
1T2574A	LOCK & DAM PIER 2 TEMP	55.0	53.2	54.1
1T2575A	LOCK & DAM PIER 3 TEMP	55.8	53.2	54.5
1T2527A	SCREENHOUSE INLT TEMP	55.1	52.6	53.8
1T2530A	DISCHARGE CANAL AVERAGE TEMP	78.6	71.9	75.7

R-O-J

TO: BRIAN
ROBERTS.

BKA

PROGRAM NAME :NSCWSP.E TASK NUMBER: 2D00002B
NSP PRAIRIE ISLAND PLANT - UNIT 1

APR 28,99
00:02:54

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 04/28/99

TIME: 00:02:52

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	54.8	53.9	54.1
1T2571A	STURGEON LAKE TEMP 2	53.2	51.9	52.2
1T2572A	DIAMOND BLUFF TEMP	53.6	52.9	53.3
1T2573A	LOCK & DAM PIER 1 TEMP	54.4	53.1	53.8
1T2574A	LOCK & DAM PIER 2 TEMP	55.5	54.1	54.8
1T2575A	LOCK & DAM PIER 3 TEMP	55.5	54.2	54.9
1T2527A	SCREENHOUSE INLT TEMP	54.6	53.9	54.1
1T2530A	DISCHARGE CANAL AVERAGE TEMP	78.2	73.6	75.8

E-O-J

To: BRIAN
ROGERS

BKR

PROGRAM NAME :NSCWSP.E TASK NUMBER: 2D00002B
NSP PRAIRIE ISLAND PLANT - UNIT 1

TU. Brian Rogers

APR 29, 99
00:03:06

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 04/29/99

TIME: 00:03:04

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	57.4	52.9	54.4
1T2571A	STURGEON LAKE TEMP 2	55.3	51.9	52.9
1T2572A	DIAMOND BLUFF TEMP	55.9	52.3	53.7
1T2573A	LOCK & DAM PIER 1 TEMP	55.2	53.2	54.0
1T2574A	LOCK & DAM PIER 2 TEMP	56.8	54.0	55.1
1T2575A	LOCK & DAM PIER 3 TEMP	57.3	54.0	55.2
1T2527A	SCREENHOUSE INLT TEMP	56.3	53.0	54.5
1T2530A	DISCHARGE CANAL AVERAGE TEMP	79.3	72.6	76.2

BKR

E-O-J

PROGRAM NAME :NSCWSP.E TASK NUMBER: 2D00002B
NSP PRAIRIE ISLAND PLANT - UNIT 1

TO: Brian Rogers

APR 30, 99
00:03:12

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 04/30/99

TIME: 00:03:10

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	59.3	54.3	56.7
1T2571A	STURGEON LAKE TEMP 2	56.5	53.3	54.9
1T2572A	DIAMOND BLUFF TEMP	57.2	54.0	55.3
1T2573A	LOCK & DAM PIER 1 TEMP	56.2	54.8	55.6
1T2574A	LOCK & DAM PIER 2 TEMP	57.9	55.7	56.8
1T2575A	LOCK & DAM PIER 3 TEMP	59.0	55.8	57.1
1T2527A	SCREENHOUSE INLT TEMP	58.0	54.3	56.0
1T2530A	DISCHARGE CANAL AVERAGE TEMP	81.1	72.1	76.8

BKR

E-O-J

PROGRAM NAME : NSCWSP.B TASK NUMBER: 2D00002B
NSP PRAIRIE ISLAND PLANT - UNIT 1

TO: Brian Rogers

MAY 01, 99
00:03:11

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

DATE: 05/01/99 TIME: 00:03:09

POINT ID	DESCRIPTION	MAX	MIN	AVE
1T2570A	STURGEON LAKE TEMP 1	61.8	56.0	58.6
1T2571A	STURGEON LAKE TEMP 2	58.6	54.4	56.4
1T2572A	DIAMOND BLUFF TEMP	58.9	55.2	57.0
1T2573A	LOCK & DAM PIER 1 TEMP	58.7	56.0	57.2
1T2574A	LOCK & DAM PIER 2 TEMP	60.3	56.8	58.4
1T2575A	LOCK & DAM PIER 3 TEMP	60.8	57.1	58.8
1T2527A	SCREENHOUSE INLT TEMP	59.6	55.7	57.5
1T2530A	DISCHARGE CANAL AVERAGE TEMP	63.6	72.3	78.8

BKA

E-O-J



Northern States Power Company

414 Nicollet Mall
Minneapolis, Minnesota 55401-1927
Telephone (612) 330-5500

July 20, 2001

Metro/Major Facilities
Attn: Discharge Monitoring Reports
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155

Attention: Mary Hayes

**PRAIRIE ISLAND NUCLEAR GENERATING PLANT
NPDES Permit No. MN0004006
Monthly Discharge Monitoring Reports**

In accordance with Chapter 6 Part 3 of the subject NPDES permit, we are submitting our Discharge Monitoring Reports for discharges SD-001, SD-002, SD-003, SD-004, SD-005, SD-006, SD-007, SD-010, SD-012, WS-001 and WS-002 at the Prairie Island Nuclear Generating Plant. The discharge SD-010 monitoring report covers the period April 1, 2001 through June 30, 2001 and the rest of the reports cover the period June 1, 2001 through June 30, 2001. Along with the discharge monitoring report, we are submitting the Bromine/Chlorine Monthly Supplemental Report. Additionally as requested, we are submitting the Radwaste Treatment System Effluent Boron Analysis report summarizing the results of tanks discharged via outfall SD-003 in June.

Please note that the flows reported for discharges WS-001 and WS-002 include a total of both outfalls.

In accordance with Chapter 2 Part 4 of the subject NPDES permit, we are submitting the records of the daily maximum, minimum, and averaging temperatures for the monitoring locations of the temperature monitoring system in the new format with the entire month's results in one table.

The plant has identified the following downtimes or periods of incorrect operation within the listed day for temperature monitoring locations for durations typically greater than one hour, per Permit Chapter 2 Part 2.1:

- June 15 Sturgeon Lake 1 for approximately 130 minutes

For your information, the daily percent up (in service) time of each temperature monitoring location is found in the monthly table. Additionally, the plant calculated a monthly average differential temperature of 0.04°F using daily maximum temperatures from the Lock and Dam and from the upstream data.

Page Two

Please find enclosed a plant chronology by week identifying the status of the circulating water system including intake screen and cooling tower operation and compliance with applicable NPDES permit conditions.

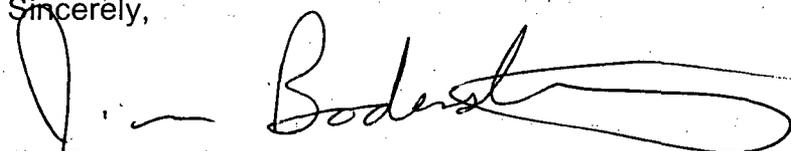
For your information, a graph of the Corps of Engineers' May river level and flow monitoring at Lock and Dam 3 is attached with the chronology.

Cooling tower blowdown was above the 400-cfs level during the second week in order to maintain condenser inlet temperatures within 85°F as allowed by the NPDES permit. For the same reason, cooling tower blowdown was above the applicable 800 cfs briefly on June 29. The plant chronology documents the associated operations of cooling towers "to the maximum practical extent" with the out-of-service status of only a few fans and plans for repair identified. The chronology identifies the June 18 transformer failure, which resulted in two cooling towers going out of service until the next day. The MPCA was notified of the failure and potential results. The loss of the cooling towers resulted in cooling tower blowdown above the applicable 800-cfs levels for a small portion of a day and resulted in elevated canal temperatures contributing to a small fish loss as enumerated in the chronology. Blowdown levels were controlled to within the 800 cfs level within a day per protocol previously filed.

The chronology also identifies the loss of amertap balls to the river on June 23 and then again on June 30. Details on the amertap ball system, its losses, and the development of corrective and preventive measures regarding losses will be forwarded under a separate cover letter.

If you have any questions, please call me at 612-330-6625.

Sincerely,



Jim Bodensteiner
Senior Environmental Analyst
Northern States Power Company d/b/a Xcel Energy

Enclosures

c: Terry Coss
Kevin Holstrom
Gerald Joachim
Gary Kollé
Katherine Logan (MPCA Rochester)
Ken Mueller
Steve Schaefer
ES Record Center

BROMINATION/CHLORINATION REPORT

From: 01-JUN-01 To: 30-JUN-01

Day	Bromine Kgms/day	Chlorine Kgms/day	Time mins/day	U-1 Residual	U-2 Residual	Outfall Residual
1	33.6	60.4	1440	0.09	0.12	<.001
2	39.1	58.4	1440	0.16	0.12	<.001
3	33.6	56.9	1440	0.13	0.17	<.001
4	39.1	47.7	1440	0.13	0.16	<.001
5	33.6	47.7	1440	0.10	0.14	<.001
6	28.0	59.9	1440	0.10	0.13	<.001
7	39.1	63.7	1440	0.05	0.05	<.001
				0.07	0.07	<.001
8	33.6	63.7	1440	0.08	0.08	<.001
9	16.8	66.7	1440	0.11	0.11	<.001
10	22.4	71.0	1440	0.09	0.10	<.001
11	22.4	64.9	1440	0.14	0.10	<.001
12	33.6	77.9	1440	0.10	0.11	<.001
13	33.6	70.7	1440	0.11	0.12	<.001
14	33.6	67.8	1440	0.10	0.12	<.001
15	39.1	67.8	1440	0.09	0.14	<.001
16	39.1	67.8	1440	0.14	0.18	<.001
					0.17	
17	33.6	73.4	1440	0.13	0.16	<.001
18	33.6	73.8	1440	0.12	0.12	<.001
19	22.4	52.3	1440	0.08	0.18	<.001
20	16.8	70.4	1440	0.11	0.14	<.001
21	22.4	64.9	1440	0.08	0.12	<.001
				<.03	<.03	
				0.05	0.07	
22	39.1	51.4	1440	<0.03	0.06	<.001
				0.05		
23	11.2	18.5	330	<.03	<.03	<.001
24	0	0	0	<.03	<.03	<.001
25	11.2	18.5	210	<NIS>	<NIS>	<NIS>
				<.03	<.03	<.001
26	0	0	0	<NIS>	<NIS>	<NIS>
27	0	0	0	<NIS>	<NIS>	<NIS>
28	0	0	0	<NIS>	<NIS>	<NIS>
29	22.4	40.8	600	<.03	<.03	<.001
				0.06	0.06	
30	33.6	101.2	1440	0.07	0.08	<.001

Maximum Daily Chlorination Rate = 134.8 Kgms/day on the 30th.

RADWASTE TREATMENT SYSTEM EFFLUENT BORON ANALYSIS - SD003

From: 01-JUN-01 To: 30-JUN-01

This report contains the results of boron analysis completed during the report period. It does not indicate the boron was released to the river on the date of analysis or within the report period.

Day	Boron ppm
5	1764
5	577
7	1889
8	1803
10	1905
10	1413
12	1651
13	439
13	1214
16	1563
16	1163
19	1470
21	1839
22	363

Number of Waste Tanks Analyzed = 14
Minimum Boron Concentration = 363.0 ppm
Maximum Boron Concentration = 1905.0 ppm
Average Boron Concentration = 1360.9 ppm

FACILITY NAME/ADDRESS:
NSP - Prairie Island Nuclear Power Plant
1717 Wakonade
Welch, MN 55089

WASTEWATER TREATMENT
DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
NSP
414 Nicollet Mall
Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	FORMER #
MN0004006	FINAL	010M 1

STATION INFORMATION:

SD-001 (Combined Effluent)
Surface Discharge, Effluent To Surface Water

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
2001	06	01	2001	06	30

FROM

TO

No Discharge

PARAMETER	QUANTITY	UNITS	CONCENTRATION	UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow	11916	MG	397.2	mgd	30/30	EST
50050	REPORT CalMoTot		REPORT DailyAve		1 x Day	MeaCon
pH			8.2	SU	1/7	Grab
00400			6.0 CalMoMin		1 x Week	Grab
						9.0 CalMoMax
Phosphorus Total (as P)				mg/L		
00665					1 x Week	Grab
						REPORT DailyMax
Chlorine Rate	134.8	kg/day			1/30	Calc
50059	REPORT DailyMax				1 x Day	Calcul
Oxidants (Bromine) Tot Residual Interm				mg/L		
34046					1 x Day	Grab
						.05 InstantMax
Oxidants (Bromine) Tot Residual Contin				mg/L	26/30	Calc
04223					1 x Day	Calcul
						<0.001 DailyMax
Oxidants (Chlorine) Tot Residual Interm				mg/L		
03775					1 x Day	Grab
						.2 InstantMax

Send original with supplemental DMR (if applicable) by the 21st day of month following reporting period to:
MINNESOTA POLLUTION CONTROL AGENCY
520 LAFAYETTE RD
ST. PAUL, MN 55155-4194
ATTN: Discharge Monitoring Report

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

7-13-01
DATE

SIGNATURE OF CHIEF OPERATOR

PHONE

DATE

CERTIFICATION#

COMMENTS: * Phosphate addition was terminated.

FACILITY NAME/ADDRESS:
 NSP - Prairie Island Nuclear Power Plant
 1717 Wakonade Dr E
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 NSP
 414 Nicollet Mall
 Minneapolis, MN 554011993



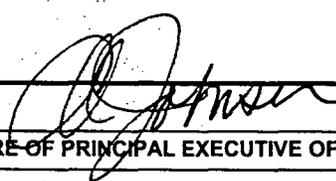
PERMIT #	LIMIT STATUS	FORMER #
MN0004006	FINAL	010M 1

STATION INFORMATION:
 SD-001 (Combined Effluent)
 Surface Discharge, Effluent To Surface Water

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
2001	06	01	2001	06	30

FROM 2001/06/01 TO 2001/06/30 No Discharge

PARAMETER		QUANTITY	UNITS	CONCENTRATION			UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Oxidants (Chlorine) Tot Residual Contin 03774	SAMPLE VALUE	*****	****	*****	*****		mg/L		
	PERMIT REQ	*****	*****	*****	*****	.04 DailyMax		1 x Day	Calcul
Plant Capacity Fctr % of Capacity 00180	SAMPLE VALUE	*****	****	*****	90.1		%	Cont	meas
	PERMIT REQ	*****	*****	*****	REPORT CalMoAvg	*****		1 x Day	Measur

Send original with supplemental DMR (if applicable) by the 21st day of month following reporting period to: MINNESOTA POLLUTION CONTROL AGENCY 520 LAFAYETTE RD ST. PAUL, MN 55155-4194 ATTN: Discharge Monitoring Report	I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.			7-13-01
		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		DATE
		SIGNATURE OF CHIEF OPERATOR		PHONE
				DATE
				IDENTIFICATION#

COMMENTS:

FACILITY NAME/ADDRESS:
 NSP - Prairie Island Nuclear Power Plant
 1717 Wakonade Drive
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 Northern States Power Co
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	FORMER #
MN0004006	FINAL	011M 1

STATION INFORMATION:
 SD-002 (Steam Generator Blowdown Discharge)
 Surface Discharge, Effluent To Surface Water

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
2001	06	01	2001	06	30

FROM

TO

No Discharge

PARAMETER	QUANTITY	UNITS	CONCENTRATION	UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow	*****	MG	*****	mgd	5/30	EST
50050	1.167		0.039		1 x Month	Estima
	REPORT		REPORT			
	CalMoTot		CalMoAvg			
TSS	0.044	kg/day	0.3	mg/L	1/30	Grab
00530	0.044		0.3		1 x Month	Grab
	65.3		30			
	CalMoAvg	DailyMax	CalMoAvg	DailyMax		

Send original with supplemental DMR (if applicable) by the 21st day of month following reporting period to:
 MINNESOTA POLLUTION CONTROL AGENCY
 520 LAFAYETTE RD
 ST. PAUL, MN 55155-4194

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

7-13-01

DATE

SIGNATURE OF CHIEF OPERATOR

PHONE

DATE

CERTIFICATION#

ATTN: Discharge Monitoring Report
 COMMENTS:

FACILITY NAME/ADDRESS:

NSP - Prairie Island Nuclear Power Plant
1717 Wakonade Dr E
Weich, MN 55089

WASTEWATER TREATMENT
DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:

Northern States Power Co
414 Nicollet Mall
Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	FORMER #
MN0004006	FINAL	012M 1

STATION INFORMATION:

SD-003 (Radwaste Treatment Effluent)
Surface Discharge, Effluent To Surface Water

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
2001	06	01	2001	06	30

FROM

TO

No Discharge

PARAMETER	QUANTITY	UNITS	CONCENTRATION	UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow	*****	MG	*****	mgd	5/30	EST
50050	0.113		0.004		1 x Month	Estima
	REPORT		REPORT			
	CalMoTot		CalMoAvg			
TSS	0.027	kg/day	1.8	mg/L	4/30	Grab
00530	0.027		1.8		1 x Month	Grab
	26.0	86.9	30	100		
	CalMoAvg	DailyMax	CalMoAvg	DailyMax		

Send original with supplemental DMR (if applicable) by the 21st day of month following reporting period to:

MINNESOTA POLLUTION CONTROL AGENCY
520 LAFAYETTE RD
ST. PAUL, MN 55119

ATTN: Discharge Monitoring Report
COMMENTS:

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

7-13-01

DATE

SIGNATURE OF CHIEF OPERATOR

PHONE

DATE

IDENTIFICATION#

FACILITY NAME/ADDRESS:
 NSP - Prairie Island Nuclear Power Plant
 1717 Wakonade
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 Northern States Power Co
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	FORMER #
MN0004006	FINAL	013M 1

STATION INFORMATION:
 SD-004 (Neutralizer + Resin Rinse Discharge)
 Surface Discharge, Effluent To Surface Water

MONITORING PERIOD					
YEAR	MO.	DAY	YEAR	MO.	DAY
2001	06	01	2001	06	30

FROM

TO

No Discharge

PARAMETER	QUANTITY	UNITS	CONCENTRATION	UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE				
Flow 50050	SAMPLE VALUE	*****	0.596	MG	*****	0.020	*****	mgd	18/30	EST
	PERMIT	*****	REPORT CalMoTot		*****	REPORT CalMoAvg			1 x Month	Estima
TSS 00530	SAMPLE VALUE	0.6	4.7	kg/day	*****	7.7	37.5	mg/L	18/30	EST
	PERMIT	97.9	326.0			30	100		1 x Month	Grab
		CalMoAvg	DailyMax			CalMoAvg	DailyMax			

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 MINNESOTA POLLUTION CONTROL AGENCY
 520 LAFAYETTE RD
 ST. PAUL, MN 55155-4194

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

DATE

SIGNATURE OF CHIEF OPERATOR

PHONE

DATE

CERTIFICATION#

ATTN: Discharge Monitoring Report
 COMMENTS:

FACILITY NAME/ADDRESS:
 NSP - Prairie Island Nuclear Power Plant
 1717 Wakonade Dr E
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 Northern States Power Co
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	FORMER #
MN0004006	FINAL	014M 1

STATION INFORMATION:
 SD-005 (Unit 1 Turbine Bldg Sump Dschg)
 Surface Discharge, Effluent To Surface Water

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY

FROM 2001/06/01 TO 2001/06/30

No Discharge

PARAMETER	QUANTITY	UNITS	CONCENTRATION	UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow 50050	SAMPLE VALUE *****	MG	2.451	mgd	5/30	EST
	PERMIT *****		REPORT CalMoTot			
TSS 00530	SAMPLE VALUE *****	*****	0.9	mg/L	1/30	Grab
	PERMIT *****		30 CalMoAvg			
Oil Total Recoverable 00552	SAMPLE VALUE *****	*****	2.0	mg/L	1/30	Grab
	PERMIT *****		10 CalMoAvg			

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 MINNESOTA POLLUTION CONTROL AGENCY
 520 LAFAYETTE RD
 ST. PAUL, MN 55119

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

[Signature] 7-13-01
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT DATE
 SIGNATURE OF CHIEF OPERATOR PHONE DATE IDENTIFICATION#

ATTN: Discharge Monitoring Report
 COMMENTS:

FACILITY NAME/ADDRESS:
 NSP - Prairie Island Nuclear Power Plant
 1717 Wakonade Drive
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 Northern States Power Co
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	FORMER #
MN0004006	FINAL	015M 1

STATION INFORMATION:
 SD-006 (Unit 2 Turbine Bldg Sump Dschg)
 Surface Discharge, Effluent To Surface Water

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
2001	06	01	2001	06	30

FROM

TO

No Discharge

PARAMETER		QUANTITY	UNITS	CONCENTRATION	UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE			
Flow 50050	SAMPLE VALUE	*****	1.020	MG	*****	0.034	*****	mgd	5/30	EST
	PERMIT	*****	REPORT CalMoTot		*****	REPORT CalMoAvg			1 x Month	Estima
TSS 00530	SAMPLE VALUE	*****	*****	****	*****	18.4	18.4	mg/L	4/30	Grab
	PERMIT	*****	*****	****	*****	30 CalMoAvg	100 DailyMax		1 x Month	Grab
Oil Total Recoverable 00552	SAMPLE VALUE	*****	*****	****	*****	3.0	3.0	mg/L	4/30	Grab
	PERMIT	*****	*****	****	*****	10 CalMoAvg	15 DailyMax		1 x Month	Grab

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 MINNESOTA POLLUTION CONTROL AGENCY
 520 LAFAYETTE RD
 ST. PAUL, MN 55155-4194

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SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

DATE

SIGNATURE OF CHIEF OPERATOR

PHONE

DATE

CERTIFICATION#

ATTN: Discharge Monitoring Report
 COMMENTS:

FACILITY NAME/ADDRESS:
 NSP - Prairie Island Nuclear Power Plant
 1717 Wakonade Dr E
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 Northern States Power Co
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	FORMER #
MN0004006	FINAL	016M 1

STATION INFORMATION:
 SD-007 (Metal Cleaning Effluent Discharge)
 Surface Discharge, Effluent To Surface Water

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
2001	06	01	2001	06	30

No Discharge

PARAMETER		QUANTITY	UNITS	CONCENTRATION			UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow	SAMPLE VALUE	*****	MG	*****	*****	*****	mgd		
50050	PERMIT	*****	REPORT CalMoTot	*****	REPORT CalMoAvg	*****		1 x Day	Estima
TSS	SAMPLE VALUE		kg/day	*****			mg/L		
00530	PERMIT	.6	1.9		30	100		1 x Day	Grab
		CalMoAvg	DailyMax		CalMoAvg	DailyMax			
pH	SAMPLE VALUE	*****	****		*****		SU		
00400	PERMIT	*****	*****	6.0		9.0		1 x Week	Grab
				CalMoMin		CalMoMax			
Copper Total (as Cu)	SAMPLE VALUE		kg/day	*****			mg/L		
01042	PERMIT	.02	.02		1.0	1.0		1 x Day	Grab
		CalMoAvg	DailyMax		CalMoAvg	DailyMax			
Iron Total (as Fe)	SAMPLE VALUE		kg/day	*****			mg/L		
01045	PERMIT	.02	.02		1.0	1.0		1 x Day	Grab
		CalMoAvg	DailyMax		CalMoAvg	DailyMax			
Oil Total Recoverable	SAMPLE VALUE		kg/day	*****			mg/L		
00552	PERMIT	.2	.3		10	15		1 x Day	Grab
		CalMoAvg	DailyMax		CalMoAvg	DailyMax			

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 MINNESOTA POLLUTION CONTROL AGENCY
 520 LAFAYETTE RD
 ST. PAUL, MN 55119

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

[Signature]
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT
 DATE: 7-13-01

 SIGNATURE OF CHIEF OPERATOR
 PHONE: _____ DATE: _____ IDENTIFICATION#: _____

ATTN: Discharge Monitoring Report
 COMMENTS:

FACILITY NAME/ADDRESS:
 NSP - Prairie Island Nuclear Power Plant
 1717 Wakonade
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 NSP
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	FORMER #
MN0004006	FINAL	019Q 1

STATION INFORMATION:

SD-010 (Misc Plant Floor Drains Discharge)
 Surface Discharge, Effluent To Surface Water

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
2001	04	01	2001	06	30

FROM

TO

No Discharge

PARAMETER		QUANTITY	UNITS	CONCENTRATION	UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE			
Flow 50050	SAMPLE VALUE	*****	0.364	MG	*****	0.004	*****	mgd	1/ Qtr	EST
	PERMIT REQ	*****	REPORT CalQtrTot	*****	REPORT CalQtrAve	*****	*****	1 x Quarter	Estima	
TSS 00530	SAMPLE VALUE	*****	*****	*****	*****	0.5	0.5	mg/L	1/ Qtr	Grab
	PERMIT REQ	*****	*****	*****	*****	30 CalQtrAve	100 DailyMax	1 x Quarter	Grab	
Oil Total Recoverable 00552	SAMPLE VALUE	*****	*****	*****	*****	<1.0	<1.0	mg/L	1/ Qtr	Grab
	PERMIT REQ	*****	*****	*****	*****	10 CalQtrAve	15 DailyMax	1 x Quarter	Grab	

Send original with supplemental DMR (if applicable) by the 21st day of month following reporting period to:
 MINNESOTA POLLUTION CONTROL AGENCY
 520 LAFAYETTE RD
 ST. PAUL, MN 55155-4194
 ATTN: Discharge Monitoring Report

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SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

7-13-01

DATE

SIGNATURE OF CHIEF OPERATOR

PHONE

DATE

CERTIFICATION#

COMMENTS:

FACILITY NAME/ADDRESS:

NSP - Prairie Island Nuclear Power Plant
 1717 Wakonade Dr E
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:

Northern States Power Co
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	FORMER #
MN0004006	FINAL	030M 1

STATION INFORMATION:

SD-012 (Intake Screen Backwash + Fish Retn)
 Surface Discharge, Effluent To Surface Water

MONITORING PERIOD					
YEAR	MO.	DAY	YEAR	MO.	DAY
2001	06	01	2001	06	30

FROM 2001/06/01 TO 2001/06/30 No Discharge

PARAMETER		QUANTITY	UNITS	CONCENTRATION			UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow 50050	SAMPLE VALUE	*****	60.0	MG	*****	2.0	*****	mgd	1/30 EST
	PERMIT	*****	REPORT CalMoTot		*****	REPORT CalMoAvg	*****		1 x Month Estima

Send original with supplemental DMR (if applicable) by the 21st day of month following reporting period to:

MINNESOTA POLLUTION CONTROL AGENCY
 520 LAFAYETTE RD
 ST. PAUL, MN 55103-1194

ATTN: Discharge Monitoring Report
 COMMENTS:

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

7-13-01

DATE

SIGNATURE OF CHIEF OPERATOR

PHONE

DATE

IDENTIFICATION #

FACILITY NAME/ADDRESS:
 NSP - Prairie Island Nuclear Power Plant
 1717 Wakonade Drive
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 Northern States Power Co
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	FORMER #
MN0004006	FINAL	

STATION INFORMATION:
 WS-001 (Unit 1 Plant Cooling Water Dschg)
 Waste Stream, Internal Waste Stream

MONITORING PERIOD					
YEAR	MO.	DAY	YEAR	MO.	DAY
2001	06	01	2001	06	30

FROM 2001/06/01 TO 2001/06/30 No Flow

PARAMETER	QUANTITY	UNITS	CONCENTRATION	UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow	***** * 860.5	MG	***** 28.7	*****	26/30	EST
50050	PERMIT *****	REPORT CalMoTot	REPORT CalMoAvg	*****	1 x Day	MeaCon
Oxidants	*****	*****	*****	*****	26/30	Grab
Total Residual	SAMPLE VALUE *****	*****	*****	0.16	1 x Day	Grab
34044	PERMIT *****	*****	*****	2.0 DailyMax	1 x Day	Grab

* FLOW is a total of WS001 + WS002

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		SIGNATURE OF CHIEF OPERATOR	PHONE	DATE

COMMENTS:

FACILITY NAME/ADDRESS:
 NSP - Prairie Island Nuclear Power Plant
 1717 Wakonade Dr E
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 Northern States Power Co
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	FORMER #
MN0004006	FINAL	022M 8

STATION INFORMATION:
 WS-002 (Unit 2 Plant Cooling Water Dschg)
 Waste Stream, Internal Waste Stream

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
2001	06	01	2001	06	30

FROM

TO

No Flow

PARAMETER		QUANTITY	UNITS	CONCENTRATION		UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow 50050	SAMPLE VALUE	*****	* 860.5	MG	*****	28.7	*****	mgd 26/30 EST
	PERMIT	*****	REPORT CalMoTot		*****	REPORT CalMoAvg	*****	1 x Day MeaCon
Oxidants Total Residual 34044	SAMPLE VALUE	*****	*****	*****	*****	0.16	mg/L 26/30 Grab	
	PERMIT	*****	*****	*****	*****	2.0 DailyMax	1 x Day Grab	

* Flow is a total of WS001 + WS002

Send original with supplemental DMR (if applicable) by the 21st day of month following reporting period to:

MINNESOTA POLLUTION CONTROL AGENCY
 520 LAFAYETTE RD
 ST. PAUL, MN 55114

ATTN: Discharge Monitoring Report
 COMMENTS:

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

7-13-01

DATE

SIGNATURE OF CHIEF OPERATOR

PHONE

DATE

IDENTIFICATION#

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

Month - Year: June-2001

Max-Avg-Mir

POINT ID	DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Month	Max Value		
1T2570A SL1	MAX	79.0	61.4	62.1	63.0	61.8	61.5	64.1	67.4	69.5	70.3	72.5	72.9	73.2	72.6	71.7	72.7	72.3	72.6	71.8	71.7	71.6	71.7	72.6	72.5	75.2	76.6	78.1	78.4	79.2	80.4	79.3	80.4	80.4		
	AVG	63.1	60.6	61.0	62.0	61.4	60.9	62.5	64.9	67.3	68.4	70.2	70.8	71.5	71.6	70.7	71.0	71.3	71.0	70.8	71.0	70.7	70.0	70.9	71.3	72.6	74.9	76.5	77.6	78.2	79.3	78.8	69.7	71.6		
	MIN	61.5	60.3	60.1	61.3	60.6	60.3	61.1	62.9	65.7	67.0	68.6	69.0	70.1	70.8	70.0	69.8	70.5	70.0	70.2	70.4	69.6	67.6	69.2	70.0	70.7	73.4	74.9	76.5	77.3	78.5	74.9	60.1	61.4		
	Data %	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	91	100	100	100	100	100	100	100	100	100	100	99	100	100	100	100	100	100		
1T2571A SL2	MAX	62.8	61.8	62.6	62.8	62.5	61.9	63.3	65.6	68.2	68.8	71.1	72.0	72.0	71.7	71.0	71.5	71.2	71.0	70.5	70.9	70.8	71.0	71.4	71.5	73.4	75.0	76.6	77.3	78.2	79.3	78.2	79.3	79.3		
	AVG	62.2	61.4	61.6	62.2	61.8	61.5	62.4	64.1	66.2	67.4	69.2	70.1	70.9	70.9	70.4	70.7	70.6	70.2	69.7	70.4	70.3	70.2	70.8	71.1	72.3	73.8	75.5	76.5	77.5	78.4	76.8	69.3	70.2		
	MIN	61.8	61.0	60.9	61.7	61.1	61.2	61.6	62.8	64.4	65.8	67.3	68.5	70.1	69.8	69.8	69.8	70.0	69.4	69.4	69.7	69.9	69.4	70.2	70.7	71.5	73.1	74.4	75.8	76.8	77.6	74.4	60.9	61.8		
	Data %	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	98	100	100	100	100	100	100	100	100	100	100	99	100	100	100	100	100	100		
1T2572A DB	MAX	63.6	62.8	63.2	63.2	63.3	62.5	63.7	65.5	67.3	68.2	71.0	71.1	71.7	72.0	71.3	72.6	72.2	71.9	72.4	72.3	72.5	72.8	72.9	72.9	74.0	74.9	76.3	77.4	78.1	79.2	79.1	79.2	79.2		
	AVG	62.9	62.2	62.2	62.7	62.7	62.0	62.8	64.1	66.0	67.2	68.8	70.3	71.3	71.2	70.8	71.1	71.2	71.0	70.9	71.5	71.6	71.5	72.1	72.0	72.7	73.8	75.2	76.3	77.2	78.3	77.5	69.7	70.7		
	MIN	61.8	60.7	60.9	61.1	61.7	61.2	61.9	62.8	64.2	66.5	67.3	69.4	70.6	70.3	69.8	69.9	70.2	70.0	69.4	70.3	70.6	69.9	70.7	70.3	71.1	72.2	74.1	74.6	76.1	77.4	75.1	60.7	62.5		
	Data %	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100		
1T2573A LD1	MAX	63.2	62.6	62.6	63.0	63.3	62.4	63.4	64.8	66.6	67.9	69.2	70.3	71.2	71.6	70.9	71.1	71.3	71.3	71.6	71.1	71.5	71.5	71.8	71.9	73.1	74.0	75.6	76.4	77.4	78.3	78.2	78.3	78.3		
	AVG	62.9	62.2	62.0	62.7	62.5	62.1	62.7	64.0	65.8	67.1	68.6	69.6	70.5	70.8	70.3	70.6	70.3	70.1	70.7	71.0	70.7	71.4	71.4	72.1	73.3	74.9	75.8	76.7	77.7	78.9	69.3	70.0			
	MIN	61.9	61.3	61.3	62.4	61.2	61.8	62.1	63.1	64.8	66.0	67.7	68.7	69.6	69.1	69.5	70.2	69.9	69.3	68.9	69.8	70.6	70.1	70.6	71.0	71.1	72.6	74.0	74.8	76.1	76.9	75.3	61.2	62.4		
	Data %	100	100	100	100	100	100	100	100	100	100	100	100	100	100	99	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100		
1T2574A LD2	MAX	63.8	62.9	63.3	63.7	63.6	62.8	64.2	65.9	68.0	69.5	70.9	71.8	72.2	72.4	71.7	72.1	72.0	72.0	72.1	71.8	71.8	71.9	72.6	72.4	74.2	75.2	76.6	77.7	78.5	79.5	79.0	79.5	79.5		
	AVG	63.3	62.3	62.4	63.0	62.9	62.4	63.2	64.7	66.8	68.1	69.8	70.6	71.6	71.6	71.2	71.3	71.0	70.7	71.2	71.4	71.4	71.9	71.9	72.9	74.4	75.9	77.0	77.7	78.7	77.6	70.0	70.8			
	MIN	62.5	61.0	61.3	61.8	61.9	61.7	62.3	63.5	65.4	66.7	68.4	69.2	70.9	70.8	70.4	70.5	70.1	69.7	68.4	70.4	71.0	69.0	70.9	71.2	73.5	74.6	76.3	76.8	77.5	75.5	61.0	62.8			
	Data %	100	100	100	100	100	100	100	100	100	100	100	100	100	100	99	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100		
1T2575A LD3	MAX	63.8	62.9	63.4	63.8	63.5	63.1	64.7	67.0	69.3	70.2	72.4	72.9	73.3	73.1	72.1	72.8	72.5	72.9	72.9	72.4	72.3	72.3	73.2	73.2	75.3	76.5	77.7	78.7	79.5	80.4	79.6	80.4	80.4		
	AVG	63.3	62.3	62.5	63.2	62.9	62.5	63.6	65.3	67.6	68.7	70.6	71.3	72.3	72.3	71.7	71.8	71.9	71.8	71.4	71.6	71.6	71.2	72.0	72.4	73.4	75.2	76.6	77.7	78.4	79.3	78.0	70.6	71.5		
	MIN	62.0	61.6	61.7	61.7	61.7	61.8	62.5	63.9	66.1	67.4	69.1	69.3	71.3	71.2	61.8	70.7	71.3	69.7	70.6	70.7	70.3	70.0	71.0	71.6	71.9	74.4	74.6	76.7	76.8	77.6	76.1	61.6	62.9		
	Data %	100	100	100	100	100	100	100	100	100	100	100	100	100	100	99	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100		
1T2527A SHI	MAX	64.0	62.9	63.3	64.2	63.5	62.4	64.8	68.0	70.2	70.8	72.6	73.3	73.5	73.2	62.4	73.2	72.9	72.8	72.7	72.6	72.5	72.4	73.4	73.2	75.5	76.9	78.1	79.0	79.7	80.7	80.2	80.7	80.7		
	AVG	63.5	62.1	62.2	63.3	62.8	62.4	63.3	65.7	68.2	69.2	71.0	71.6	72.2	72.5	62.0	72.0	72.4	71.9	72.0	72.1	72.0	71.3	72.0	72.4	73.4	75.5	76.9	78.3	78.9	79.9	78.2	70.3	71.4		
	MIN	62.9	61.7	61.4	62.6	62.1	61.6	62.2	64.0	66.9	68.2	69.8	70.1	71.1	71.8	61.6	71.0	71.8	71.3	71.7	71.6	71.2	70.1	70.8	71.6	72.1	74.5	75.8	77.7	78.3	79.2	76.8	61.4	62.4		
	Data %	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100		
1T2530A DC	MAX	73.5	70.2	70.8	71.0	76.2	76.2	84.1	85.8	87.8	93.8	94.1	91.5	93.6	92.2	76.2	87.1	88.3	98.4	98.4	86.4	86.5	84.8	87.0	89.6	92.2	92.7	92.8	92.3	93.0	92.4	90.9	98.4	98.4		
	AVG	69.5	68.6	68.5	69.1	71.2	72.8	80.7	83.0	85.4	88.7	91.0	89.0	90.3	89.8	72.8	84.9	85.4	95.2	85.5	84.6	84.6	82.8	84.4	86.8	89.8	91.1	91.5	90.3	90.6	84.2	83.7	86.8			
	MIN	67.1	66.6	65.7	67.2	68.9	70.3	75.8	80.4	83.2	85.7	87.8	85.3	87.1	87.9	70.3	81.9	82.1	85.9	81.6	81.0	82.1	80.3	81.2	83.7	87.4	89.2	89.3	87.7	87.1	89.2	80.9	65.7	70.2		
	Data %	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100		
ΔT	-1.6	0.3	0.1	0.4	0.4	0.4	0.4	0.2	0.3	0.7	-0.3	0.3	0.3	0.3	0.3	-0.5	-0.2	0.2	0.1	-0.3	-0.3	-0.6	-0.2	-0.2	0.1	0.1	0.1	0.1	0.2	0.1	-0.1	0.0				
D	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6			
a	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/		
t	2	3	4	5	6	7	8	9	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	3	1	2			
e									0	1	2	3	4	5	6	7	8	9																		

SL1 = Sturgeon Lake Temp 1
SL2 = Sturgeon Lake Temp 2

DB = Diamond Bluff Temp
LD1 = Lock & Dam Temp 1

LD2 = Lock & Dam Temp 2
LD3 = Lock & Dam Temp 3

SHI = Screenhouse Inlet Temp
DC = Discharge Canal Ave. Temp

96% or greater is < 1 hour data loss
95% or less is >= 1 hour data loss

005 TIME AS INDICATED. NO DATA SUBSTITUTED OR ESTIMATED FOR 005 1967.

11/2/2001

June 1 – June 7

- Six fans out of service
- All intake screens operating
- U-2 in hot standby at 547 degrees
- 123 CT shutdown to repair two fans
- 6-6-01, 123 CT returned to service. Three fans out of service. U-2 at 20% power
- 6-7-01, U-2 at 100% power.
- Cooling Tower blowdown at 396 cfs

June 8 – June 14

- Three cooling tower fans out of service: 121-6 (balancing needed, WO submitted), 121-10 (wiring problems – will need tower shutdown to repair), 123-8 (parts received and working on today)
- Cooling Tower Blowdown = 410 cfs, but will be increased to maintain <85 F condenser inlet as temperatures increase today
- U-1 condenser inlet temperature = 84.6 F average
- All intake fine mesh screens in operation
- 6-12-01 Cooling Tower Blowdown = 500 cfs and will be adjusted as necessary to maintain <85 F condenser inlet temperature
- 6-13-01, 123-8 fan returned to service. Two fans remain OOS
- 6-13-01, CT blowdown = 525 cfs
- 6-13-01, Lost approximately 3000 amertap balls to the river
- 6-14-01, CT blowdown = 512 cfs

June 15 – June 22

- Sturgeon Lake #1 temperature monitor, oos for >1 hour on 6-15-01
- 6-15-01, CT blowdown = 500 cfs
- 6-18-01, CT 11 transformer failure. 121 and 122 CT OOS. Cause is unknown. CT blowdown at 783 cfs. MPCA notified by email from Environmental Services.
- 6-18-01, CT blowdown = 888 cfs for approximately 8 hours, which is less than the agreed to 24 hours we have to regain compliance.
- 6-19-01, 121 & 122 Cooling towers returned to service. 1 fan oos, (#10 on 121 CT). CT blowdown = 768 cfs.
- 6-19-01, small fish kill. 10+, large carp on the discharge canal shore. 5-10 smaller fish on the old greenhouse trash racks. Approximately 100 fish in trash buckets.

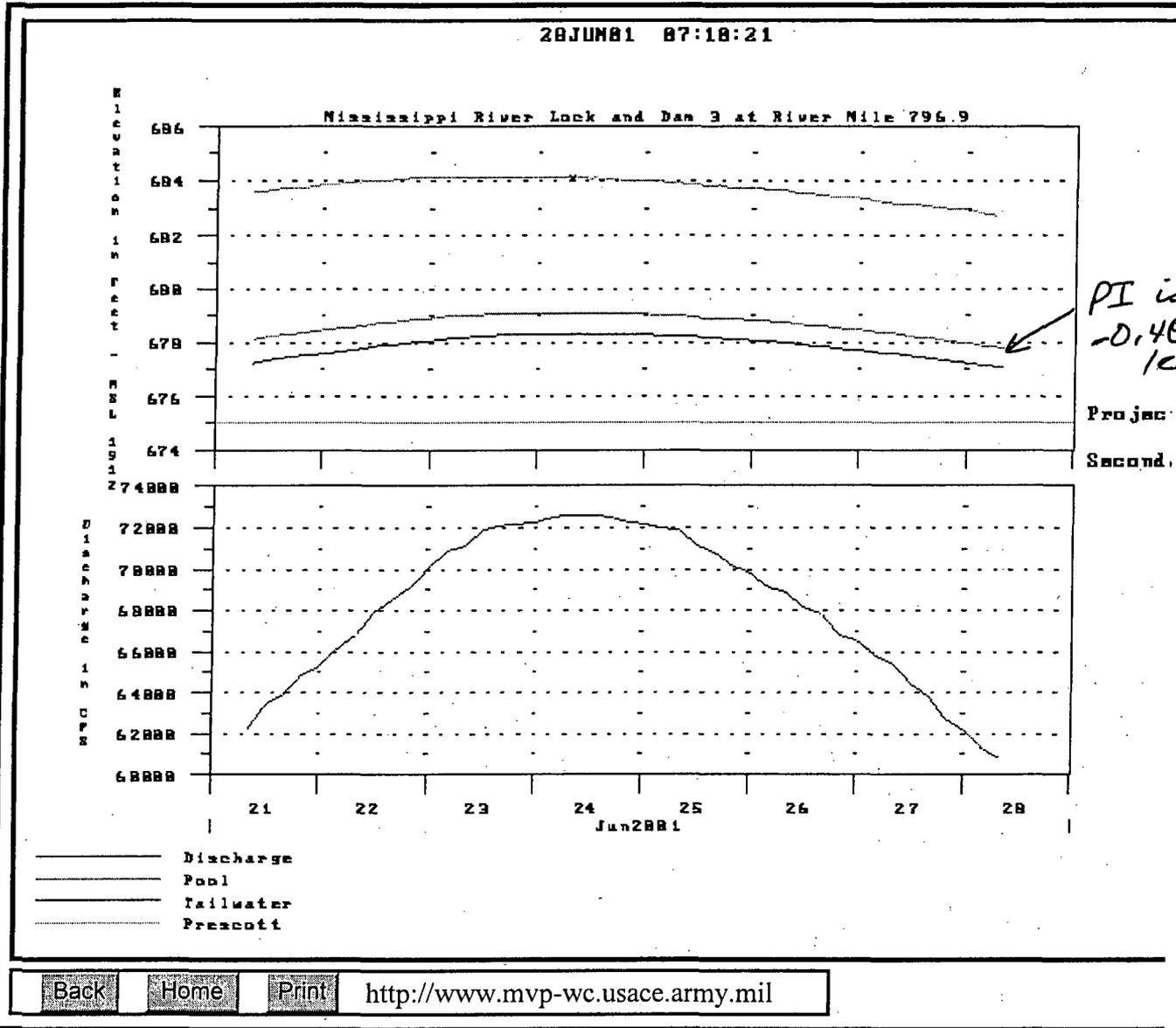
June 23 – June 30

- 6-23-01, Lost approximately 3000 amertap balls to the river. 121-10 CT fan oos. CT blowdown = 798 cfs
- 6-25-01, Fish return-line partially clogged and bypassing via the designed by-pass structure located near south end of the Intake Screenhouse. Plant engineering informed, as well as the MPCA by email from Environmental Services.
- 6-26-01, lost 124-1 fan on cooling tower, 2 fans oos. CT blowdown – 798 cfs
- 6-28-01, Lost approximately 1000 amertap balls to the river. MPCA notified via voice mail from Environmental Services.
- 6-29-01, CT blowdown cfs = 798-806, briefly exceeding the 800 limit. All towers and fans operating to the maximum practical extent. Two CT fans oos.
- 6-30-01, Lost approximately 1000 amertap balls to the river.

Monthly delta temperature = 0.04 degrees F

As requested by the MPCA, an additional report has been added to the DMR package. The report is titled, "Radwaste Treatment System Effluent Boron Analysis – SD003". The report includes the number of discharged waste tanks for the month, the minimum boron concentration, the maximum boron concentration and the average boron concentration. During the one-year study period, boron values for radioactive waste tanks will be reported in all subsequent DMR's.

Jed Lucas 7-11-01



Prairie Island is 0.48 feet less than the middle plot which is Lock and Dam #3



Northern States Power Company

File Copy
PI Lab

414 Nicollet Mall
Minneapolis, Minnesota 55401-1927
Telephone (612) 330-5500

November 21, 2001

Metro/Major Facilities
Attn: Discharge Monitoring Reports
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155

Attention: Mary Hayes

**PRAIRIE ISLAND NUCLEAR GENERATING PLANT
NPDES Permit No. MN0004006
Monthly Discharge Monitoring Reports**

In accordance with Chapter 6 Part 3 of the subject NPDES permit, we are submitting our Discharge Monitoring Reports for discharges SD-001, SD-002, SD-003, SD-004, SD-005, SD-006, SD-007, SD-012, WS-001 and WS-002 at the Prairie Island Nuclear Generating Plant. The discharge monitoring reports cover the period October 1, 2001 through October 31, 2001. Along with the discharge monitoring reports, we are submitting the supplemental Bromination/Chlorination Report for October. Additionally as requested, we are submitting the Radwaste Treatment System Effluent Boron

Analysis report summarizing the results of tanks discharged via outfall SD-003 in September. (Oct.?)

Please note that the flows reported for discharges WS-001 and WS-002 include a total of both outfalls.

In accordance with Chapter 2 Part 4 of the subject NPDES permit, we are submitting the records of the daily maximum, minimum, and averaging temperatures for the monitoring locations of the temperature monitoring system in the new format with the entire month's results in one table.

The plant has identified the following downtimes or periods of incorrect operation within the listed day for temperature monitoring locations for durations typically greater than one hour, per Permit Chapter 2 Part 2.1:

- Sturgeon Lake 2 for the entire month. It was dislodged from its mooring and found at Lock and Dam 3 in August.
- October 1 Sturgeon Lake 1 unexplainable high maximum
- October 3 Sturgeon Lake 1 for approximately one hour

Page Two

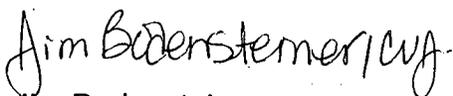
- October 4 all locations for one to two hours
- October 23 Sturgeon Lake 1, Diamond Bluff, and Lock and Dam Piers 1, 2, and 3 for approximately two and one-half hours
- October 30 Sturgeon Lake 1, Diamond Bluff, and Lock and Dam Pier 2 for approximately an hour to an hour and one-half
- October 31 Sturgeon Lake 1 for approximately one hour

For your information, the daily percent up (in service) times of the other temperature monitoring locations are found in the monthly table. Additionally, the plant calculated a monthly average differential temperature of 3.62°F using daily maximum temperatures from the Lock and Dam and from the upstream data.

Please find enclosed the plant's September 2001 Chronology of Circulating Water Status by week identifying the status of the circulating water system including intake screen and cooling tower operation and compliance with applicable NPDES permit conditions. A small release of Discharge SD-004 tank sludge to the recycle canal occurred on October 3, as reported to the state at the time. Details of the release including corrective/preventive measures (including shoveling up residue) are found in the enclosed incident report. The chronology also identifies the loss of amertap balls to the river on October 16 and 26. The later loss was largely attributed to the natural die off of gizzard shad plugging screens. Ken Mueller notified the MPCA as well as the DNR of the occurrence of the natural die off via an electronic message, which is reprinted in the chronology.

If you have any questions, please call me at 612-330-6625.

Sincerely,



Jim Bodensteiner
Senior Environmental Analyst
Northern States Power Company d/b/a Xcel Energy

Enclosures

c: Terry Coss
Kevin Holstrom
Gerald Joachim
Gary Kolle
Katherine Logan (MPCA Rochester)
Jill Lucas
Ken Mueller
Steve Schaefer
ES Record Center

XCEL ENERGY

ENVIRONMENTAL INCIDENT REPORT

Form 17-2320 (11-00)

FACILITY: Prairie Island

SUBJECT: Unpermitted discharge

ENFORCING DOCUMENT: _____

(I) DESCRIPTION OF INCIDENT: Occurrence or Sampling Date: 10/3/01

Date Determined as Violation or Reportable Incident 10/3/01

The site maintenance crew was in the process of pumping neutralizer tank sludge to a dumpster. The dumpster acts as a settling container, where the sludge is dewatered prior to shipping as industrial waste. Usually the dewatering discharge is returned to a neutralizer tank. In this case, the discharge was directed to the recycle canal. Approximately five gallons of water was pumped to the recycle canal before the liquid turned milky colored from the sludge leaking through the filter. An estimated five gallons of milky liquid was discharged before it was secured. This was pumped without a sample and probably exceeded the 30 ppm suspended solids limit. An area of 10 ft² was impacted by the white residue; this was shoveled into the dumpster. The sludge is mostly hardness material i.e., calcium carbonate, calcium sulfate, and magnesium salts. The pH was 6-7. The Minnesota Dute Officer was notified, and a phone message was left for the MPCA who are out on strike. No further notifications are required.

(II) CAUSE:

Lack of communication on discharge location for dewatering sludge.

(III) CORRECTIVE ACTION TAKEN:

Dewatering was terminated and outflow redirected into the neutralizer tank.

(IV) PREVENTION:

A root cause analysis is being conducted to ensure this does not happen again. This incident will be discussed as an industry operating event during the December safety meeting with the maintenance department.

(V) REPORTING:

WRITTEN: SUBMITTED ON _____ BY _____ PHONE _____

ORAL: SUBMITTED ON _____ BY _____ PHONE _____

BROMINATION/CHLORINATION REPORT

From: 01-OCT-01 To: 31-OCT-01

Day	Bromine Kgms/day	Chlorine Kgms/day	Time mins/day	U-1 Residual	U-2 Residual	Outfall Residual
1	33.6	65.4	1440	0.22	0.23	<.001
2	33.6	65.6	1440	0.18	0.22	<.001
3	33.6	65.8	1440	0.20	0.23	<.001
4	39.1	53.0	1440	0.21	0.23	<.001
5	16.8	48.6	1440	0.18	0.22	<.001
6	33.6	42.6	1440	0.16	0.16	<.001
7	28.0	55.6	1440	0.15	0.16	<.001
8	28.0	55.1	1440	0.18	0.18	<.001
9	33.6	52.8	1440	0.19	0.17	<.001
10	33.6	42.2	1440	0.11	0.13	<.001
11	22.4	39.8	1440	0.12	0.16	<.001
12	33.6	42.2	1440	0.07	0.12	<.001
13	22.4	40.6	1440	0.09	0.15	<.001
14	22.4	41.8	1440	0.08	0.15	<.001
				0.12	0.15	
15	33.6	41.8	1440	0.13	0.18	<.001
16	33.6	41.8	1440	0.12	0.15	<.001
17	28.0	67.0	1440	0.12	0.16	<.001
18	33.6	41.2	1440	0.10	0.15	<.001
19	28.0	40.5	1440	0.10	0.14	<.001
20	22.4	36.0	1440	0.10	0.14	<.001
21	33.6	42.4	1440	0.10	0.13	<.001
22	33.6	39.6	1440	0.08	0.13	<.001
23	33.6	42.4	1440	0.06	0.12	<.001
24	28.0	39.6	1440	<NIS>	0.10	<.001
				0.05		
25	11.2	28.0	1440	0.04	0.09	<.001
				0.15		
26	39.1	40.5	1440	0.13	0.15	<.001
27	33.1	36.6	1440	0.13	0.16	<.001
28	33.1	45.1	1500	0.13	0.17	<.001
29	22.4	30.8	1440	0.07	0.19	<.001
				0.07		
30	33.6	39.2	1440	0.06	0.13	<.001
31	33.6	47.5	1440	0.12	0.23	<.001

Maximum Daily Chlorination Rate = 99.4 Kgms/day on the 3rd.

RADWASTE TREATMENT SYSTEM EFFLUENT BORON ANALYSIS - SD003

From: 01-OCT-01 To: 31-OCT-01

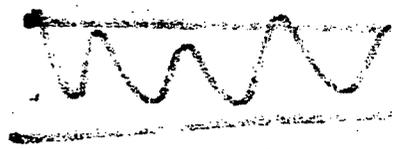
This report contains the results of boron analysis completed during the report period. It does not indicate the boron was released to the river on the date of analysis or within the report period.

<u>Day</u>	<u>Boron ppm</u>
11	131
16	147
17	146
23	149
27	1357
30	<10

Number of Waste Tanks Analyzed = 6
Minimum Boron Concentration = 10.0 ppm
Maximum Boron Concentration = 1357.0 ppm
Average Boron Concentration = 323.3 ppm

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

POINT ID	DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
1T2570A SL1	MAX	79.0	63.2	63.2	60.9	59.6	56.9	55.6	55.6	55.6	56.0	56.3	57.0	57.0	57.0	53.8	52.7	51.8	51.5	5	
	AVG	63.2	62.3	61.9	60.1	57.6	55.6	55.6	55.6	55.6	55.6	55.9	56.7	57.0	54.6	52.8	51.5	51.0	50.5	5	
	MIN	61.1	61.3	60.9	59.6	56.4	55.2	55.6	55.6	55.6	55.4	55.5	56.3	57.0	53.3	51.7	50.7	50.2	49.8	4	
	Data	%	100	100	95	92	100	97	100	100	100	100	100	100	100	100	100	100	100	98	
1T2571A SL2	MAX	71.6	72.0	71.6	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	1
	AVG	64.6	68.1	68.1	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	1
	MIN	59.8	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	1
	Data	%	100	100	88	38	100	97	100	100	100	100	100	100	100	100	100	100	100	100	86
1T2572A DB	MAX	63.4	63.6	64.1	62.3	61.2	59.8	57.9	56.1	56.0	57.2	57.5	58.2	57.5	56.4	55.1	54.1	53.3	52.6	5	
	AVG	62.3	62.4	62.8	61.6	60.2	58.4	56.3	54.7	55.2	56.3	56.0	56.9	56.5	55.4	54.2	53	52.1	51.7	4	
	MIN	60.9	61.5	60.6	59.8	58.5	56.5	54.1	52.7	53.9	54.7	53.9	55.9	54.7	53.4	52.2	51.4	49.7	49.4	4	
	Data	%	100	100	96	94	100	98	100	100	100	100	100	100	100	100	100	100	100	99	
1T2573A LD1	MAX	65.8	67.1	66.8	65.3	64.1	62.7	61.1	59.9	58.7	59.4	59.1	60.7	60.4	59.3	58.0	55.8	55.9	55.5	5	
	AVG	64.6	65.7	65.7	64.5	63.2	61.3	60.1	59.0	58.2	58.7	58.4	59.2	59.5	57.9	56.3	55.2	54.9	54.4	5	
	MIN	63.5	64.1	64.0	63.3	62.0	59.8	58.6	58.2	57.5	57.8	57.6	58.2	58.5	56.4	55.6	54.6	54.1	53.5	5	
	Data	%	100	100	96	94	100	99	100	100	100	100	100	100	100	100	100	100	100	99	
1T2574A LD2	MAX	67.0	67.6	67.7	66.6	65.6	63.3	61.6	60.5	59.3	60.4	60.6	61.4	61.6	60.7	58.5	57.6	57.0	56.6	5	
	AVG	65.8	66.5	66.5	65.4	64.0	61.9	60.5	59.2	58.7	59.5	59.5	60.4	60.7	59.2	57.5	56.6	56.3	55.6	4	
	MIN	64.3	65.2	65.2	64.5	62.5	60.0	59.3	58.4	57.9	58.2	57.4	59.7	59.7	57.0	56.4	55.5	54.9	53.9	5	
	Data	%	100	100	96	94	100	99	100	100	100	100	100	100	100	100	100	100	100	99	
1T2575A LD3	MAX	67.5	67.7	67.8	66.3	65.4	63.4	61.6	60.3	59.4	61.0	60.8	61.8	61.8	60.8	59.5	59.1	57.8	57.2	5	
	AVG	66.5	66.6	66.8	65.5	64.2	62.1	60.5	59.2	58.9	60.1	60.1	60.8	61.3	59.9	58.8	58.0	56.9	56.4	4	
	MIN	65.6	65.4	65.5	64.0	62.7	61.0	59.4	58.3	58.3	58.2	58.5	60.3	60.7	58.4	61.0	56.9	55.2	55.1	5	
	Data	%	100	100	96	94	100	99	100	100	100	100	100	100	100	100	100	100	100	99	
1T2572A SHI	MAX	64.3	64.1	64.3	62.5	61.1	58.6	57.1	55.5	54.9	57.2	57.5	57.9	58.2	57.3	58.6	53.7	52.9	52.9	5	
	AVG	63.1	63.5	63.4	61.8	59.7	57.4	56.2	54.9	54.5	56.0	56.4	57.1	57.7	56.1	57.4	53.1	52.5	52.1	4	
	MIN	62.2	62.7	62.5	61.1	58.6	56.9	55.5	54.5	54.2	54.9	55.7	56.6	57.3	55.0	56.9	52.7	51.9	51.8	4	
	Data	%	100	100	98	95	100	100	100	100	100	100	100	100	100	100	100	100	100	99	
1T2530A DC	MAX	88.5	88.5	87.9	85.1	84.1	81.0	80.1	79.6	79.6	81.3	81.4	82.5	82.1	80.9	81.0	81.1	80.0	79.9	8	
	AVG	86.2	86.4	86.2	84.2	82.3	79.8	78.6	78.6	78.9	80.7	80.1	81.1	81.6	79.8	79.8	79.8	79.1	78.9	8	
	MIN	84.0	84.6	85.0	83.2	80.7	78.4	76.4	77.4	77.9	79.3	78.6	79.7	80.8	79.0	78.4	78.9	77.4	78.0	8	
	Data	%	100	100	97	95	100	99	100	100	100	100	100	100	100	100	100	100	100	99	
	ΔT	0.8	3.0	2.6	3.3	3.3	2.8	2.7	3.0	1.9	2.1	1.7	2.2	2.8	2.6	2.3	2.1	2.2	2.3		
	D	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
	a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/		
	e	2	3	4	5	6	7	8	9	1	1	1	1	1	1	1	1	1	1		
										0	1	2	3	4	5	6	7	8	9		



SL1 = Sturgeon Lake Temp 1
SL2 = Sturgeon Lake Temp 2

DB = Diamond Bluff Temp
LD1 = Lock & Dam Temp 1

LD2 = Lock & Dam Temp 2
LD3 = Lock & Dam Temp 3

October 2001 Chronology of Circulating Water Status and Compliance Items

October 1 – October 7

- 10/3, Turned off the fans on #123 tower. We may need to retain the ability of starting up one tower if things don't level out in October. Still looks like #123 tower shutdown should be okay tomorrow.
- 10/3, In the process of pumping neutralizer tank sludge to a dumpster, there was a problem in dewatering the sludge. The previous dewatering discharge was back to the other neutralizer tank. This time, the discharge was directed to the recycle canal. Approximately 5 gallons of water was pumped to the recycle canal before the liquid turned milky colored from sludge leaking through the filter. An estimated 5 gallons of milky liquid was discharged before it was secured. This was pumped without a sample and probably exceeded the 30 PPM suspended solids limit. An area of 10 square feet has a significant white residue; this was shoveled into the dumpster. The sludge is mostly water hardness material i.e., calcium carbonate, calcium sulfate and magnesium salts. The pH of the water was 6 to 7. The Minnesota Duty Officer was notified, and a phone message left for the MPCA who are out on strike. No further notifications are required.
- 10/4, Divers will be coming in to put in marker buoys for Sturgeon Lake this fall. SL1 is providing all of the Sturgeon Lake temperature weighting in the ambient formula.
- 10/5, CT-123 is off. CT-124 is operating with 12 fans. 122 Intake Screenhouse Bypass Gate was partially open for 2 hours and 20 minutes while working under Work Order 0111577.

October 8 – October 15

- 10/12, CT-124 is operating with 12 fans.

October 16 – October 23

- 10/16, CT-124 tower is shutdown. Approximately 500 amertap balls were discharged over the last several weeks. The cause is being investigated. There is an additional work order on the system for an unrelated problem.
- 10/23, The temperature monitor system was out of service for several hours, while I&C evaluated Sturgeon Lake data. ERCS and PIARCH will have a blank period but the data will actually be in the new system.

October 24 – October 31

- 10/26, The amertap ball catching screens were plugged with organic matter from the gizzard shad and young of the year expiration. The system discharged approximately 3000 amertap balls on Unit 1, the operating system.
- 10/29, The following is an email forwarded to the MPCA and MNDNR regarding the dieoff of gizzard shad due to cold, river temperatures in the fall.

Marilyn and Don, FYI -

It's that time of year again when Prairie Island Plant is experiencing large accumulations of young of the year gizzard shad in trashbaskets of the plant screenhouse traveling screens. As in past years, we feel that it's not a plant operations related fish-kill that we are seeing, but an accumulation/collection of fish on our screening systems that are lethargic and dying-off due to natural phenomena, primarily rapid drop in river water temperature. We started seeing increased numbers about 2 weeks ago as river water temperature dropped below about 58°F. Numbers of shad collected at the plant increased greatly late last week with strong wind and relatively rapid drop in air and river temperatures. Minimal numbers of other species have been observed, but no more than I would normally expect to see in the trashbaskets. Other species observed have included freshwater drum, emerald shiners, channel catfish, white bass, and silver chub.

- 10/31, Unit 2 was manually tripped around 1410 during the attempted repair of the steam supply valve to condenser air ejector when condenser vacuum fell below the preplanned limit. Currently scheduled for restart late Friday evening.

There were 31 days of continuous bromination. There is an additional hour of run time due to daylight savings.

Monthly average delta temperature = 3.62 degrees F

As requested by the MPCA, an additional report has been added to the DMR package. The report is titled, "Radwaste Treatment System Effluent Boron Analysis – SD003". The report includes the number of discharged waste tanks for the month, the minimum boron concentration, the maximum boron concentration and the average boron concentration. During the one-year study period, boron values for radioactive waste tanks will be reported in all subsequent DMR's.

11/12/01
Jill Lucas

FACILITY NAME/ADDRESS:
 NSP - Prairie Island Nuclear Power Plant
 1717 Wakonade.D
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 Northern States Power Co - Xcel Energy
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	FORMER #
MN0004006	FINAL	010M 1

STATION INFORMATION:
 SD-001 (Combined Effluent)
 Surface Discharge, Effluent To Surface Water

MONITORING PERIOD					
YEAR	MO.	DAY	YEAR	MO.	DAY
FROM	2001	10	TO	2001	10
		01			31

No Discharge

MPCA:LB

PARAMETER	QUANTITY	UNITS	CONCENTRATION	UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow	24931	MG	804.2	mgd	31/31	Est
50050	REPORT CalMoTot		REPORT DailyAve		1 x Day	MeaCon
pH			8.2	SU	1/7	Grab
00400			6.0 CalMoMin		1 x Week	Grab
Phosphorus			* NR	mg/L		
Total (as P)			REPORT		1 x Week	Grab
00665			DailyMax			
Chlorine Rate	99.4	kg/day			1/31	Calc
50059	REPORT DailyMax				1 x Day	Calcul
Oxidants (Bromine)				mg/L		
Tot Residual Interm				.05	1 x Day	Grab
34046				InstantMax		
Oxidants (Bromine)				mg/L		
Tot Residual Contin				<0.001	31/31	Calc
04223				.001	1 x Day	Calcul
				DailyMax		
Oxidants (Chlorine)				mg/L		
Tot Residual Interm				2	1 x Day	Grab
03775				InstantMax		

Send original with supplemental DMR (if applicable) by the 21st day of month following reporting period to:
 MINNESOTA POLLUTION CONTROL AGENCY
 520 LAFAYETTE RD
 ST. PAUL, MN 55155-4194
 ATTN: Discharge Monitoring Report

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

11-12-01

DATE

SIGNATURE OF CHIEF OPERATOR

PHONE

DATE

CERTIFICATION#

COMMENTS:

FACILITY NAME/ADDRESS:
 NSP - Prairie Island Nuclear Power Plant
 1717 Wakonade Dr E
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 Northern States Power Co - Xcel Energy
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	FORMER #
MN0004006	FINAL	010M 1

STATION INFORMATION:
 SD-001 (Combined Effluent)
 Surface Discharge, Effluent To Surface Water

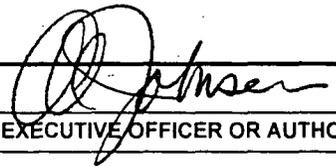
MONITORING PERIOD					
YEAR	MO.	DAY	YEAR	MO.	DAY
2001	10	01	2001	10	31

No Discharge

MPCA: LB

PARAMETER	QUANTITY	UNITS	CONCENTRATION	UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Oxidants (Chlorine) Tot Residual Contin 03774	SAMPLE VALUE	*****	*****	mg/L		
	PERMIT REQ	*****	*****	.04 DailyMax	1 x Day	Calcul
Plant Capacity Fctr % of Capacity 00180	SAMPLE VALUE	*****	103.6	%		cont meas
	PERMIT REQ	*****	REPORT CalMoAvg	*****	1 x Day	Measur

*Phosphate descaler was terminated.

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		SIGNATURE OF CHIEF OPERATOR	PHONE DATE CERTIFICATION#

COMMENTS:

FACILITY NAME/ADDRESS:
 NSP - Prairie Island Nuclear Power Plant
 1717 Wakonade Drive
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 Northern States Power Co - Xcel Energy
 414 Nicolet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	FORMER #
MN0004006	FINAL	011M 1

STATION INFORMATION:
 SD-002 (Steam Generator Blowdown Discharge)
 Surface Discharge, Effluent To Surface Water

MONITORING PERIOD					
YEAR	MO.	DAY	YEAR	MO.	DAY
2001	10	01	2001	10	31

FROM

TO

No Discharge

MPCA:LB

PARAMETER	QUANTITY	UNITS	CONCENTRATION	UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE				
Flow 50050	SAMPLE VALUE	*****	0.279	MG	*****	0.009	*****	mgd	5/31	Est
	PERMIT REQ	*****	REPORT CalMoTot		*****	REPORT CalMoAvg	*****		1 x Month	Estima
TSS 00530	SAMPLE VALUE	0.085	0.085	kg/day	*****	2.5	2.5	mg/L	1/31	Grab
	PERMIT REQ	65.3	217.0		*****	30	100		1 x Month	Grab
		CalMoAvg	DailyMax			CalMoAvg	DailyMax			

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 520 LAFAYETTE RD
 ST. PAUL, MN 55155-4194
 ATTN: Discharge Monitoring Report

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SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

DATE

SIGNATURE OF CHIEF OPERATOR

PHONE

DATE

CERTIFICATION#

COMMENTS:

FACILITY NAME/ADDRESS:
 NSP - Prairie Island Nuclear Power Plant
 1717 Wakonade Dr E
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 Northern States Power Co - Xcel Energy
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	FORMER #
MN0004006	FINAL	012M 1

STATION INFORMATION:
 SD-003 (Radwaste Treatment Effluent)
 Surface Discharge, Effluent To Surface Water

MONITORING PERIOD					
YEAR	MO.	DAY	YEAR	MO.	DAY
2001	10	01	2001	10	31

FROM

TO

No Discharge

MPCA:LB

PARAMETER		QUANTITY	UNITS	CONCENTRATION			UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE	
Flow 50050	SAMPLE VALUE	*****	0.036	MG	*****	0.001	*****	mgd	5/31	Est
	PERMIT REQ	*****	REPORT CalMoTot		*****	REPORT CalMoAvg	*****		1 x Month	Estima
TSS 00530	SAMPLE VALUE	<0.001	<0.001	kg/day	*****	<0.1	<0.1	mg/L	1/31	Grab
	PERMIT REQ	26.0	86.9		*****	30	100		1 x Month	Grab
		CalMoAvg	DailyMax			CalMoAvg	DailyMax			

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 520 LAFAYETTE RD
 ST. PAUL, MN 55155-4194
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SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

11-12-01
 DATE

SIGNATURE OF CHIEF OPERATOR

PHONE

DATE

CONFIRMATION#

COMMENTS:

FACILITY NAME/ADDRESS:
 NSP - Prairie Island Nuclear Power Plant
 1717 Wakonade Drive
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 Northern States Power Co - Xcel Energy
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	FORMER #
MN0004006	FINAL	013M 1

STATION INFORMATION:
 SD-004 (Neutralizer + Resin Rinse Discharge)
 Surface Discharge, Effluent To Surface Water

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
2001	10	01	2001	10	31

FROM

TO

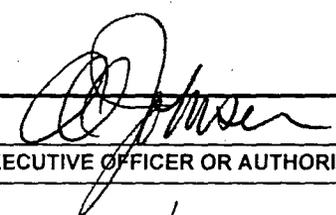
No Discharge

MPCA:LB

PARAMETER	QUANTITY	UNITS	CONCENTRATION	UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow 50050	SAMPLE VALUE	*****	0.447	MG	*****	12/31 Est
	PERMIT REQ	*****	REPORT CalMoTot	*****	REPORT CalMoAvg	*****
TSS 00530	SAMPLE VALUE	0.4	3.3	kg/day	*****	12/31 EST
	PERMIT REQ	97.9 CalMoAvg	326.0 DailyMax	*****	30 CalMoAvg	100 DailyMax

Send original with supplemental DMR (if applicable) by the 21st day of month following reporting period to:
 MINNESOTA POLLUTION CONTROL AGENCY
 520 LAFAYETTE RD
 ST. PAUL, MN 55155-4194
 ATTN: Discharge Monitoring Report

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT			11-12-01
			DATE
SIGNATURE OF CHIEF OPERATOR	PHONE	DATE	CERTIFICATION#

COMMENTS:

FACILITY NAME/ADDRESS:
 NSP - Prairie Island Nuclear Power Plant
 1717 Wakonade Dr E
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 Northern States Power Co - Xcel Energy
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	FORMER #
MN0004006	FINAL	014M 1

STATION INFORMATION:
 SD-005 (Unit 1 Turbine Bldg Sump Dschg)
 Surface Discharge, Effluent To Surface Water

MONITORING PERIOD					
YEAR	MO.	DAY	YEAR	MO.	DAY
FROM	2001	10	TO	2001	10
	01			31	

No Discharge

MPCA:LB

PARAMETER	QUANTITY	UNITS	CONCENTRATION	UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE	
Flow 50050	SAMPLE VALUE	*****	2.126	MG	*****	5/31	Est
	PERMIT REQ	*****	REPORT CalMoTot	*****	*****	1 x Month	Estima
TSS 00530	SAMPLE VALUE	*****	11.2	mg/L	*****	2/31	Grab
	PERMIT REQ	*****	30 CalMoAvg	*****	*****	1 x Month	Grab
Oil Total Recoverable 00552	SAMPLE VALUE	*****	<1.0	mg/L	*****	1/31	Grab
	PERMIT REQ	*****	10 CalMoAvg	*****	*****	1 x Month	Grab

Send original with supplemental DMR (if applicable) by the 21st day of month following reporting period to:
 MINNESOTA POLLUTION CONTROL AGENCY
 520 LAFAYETTE RD
 ST. PAUL, MN 55155-4194
 ATTN: Discharge Monitoring Report

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

[Signature] 11-12-01
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT DATE
 SIGNATURE OF CHIEF OPERATOR PHONE DATE CERTIFICATION#

COMMENTS:

FACILITY NAME/ADDRESS:
 NSP - Prairie Island Nuclear Power Plant
 1717 Wakonade Drive
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 Northern States Power Co - Xcel Energy
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	FORMER #
MN0004006	FINAL	015M 1

STATION INFORMATION:
 SD-006 (Unit 2 Turbine Bldg Sump Dschg)
 Surface Discharge, Effluent To Surface Water

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
2001	10	01	2001	10	31

FROM

TO

No Discharge

MPCA: LB

PARAMETER		QUANTITY		UNITS	CONCENTRATION			UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		SAMPLE VALUE	PERMIT REQ		CalMoTot	CalMoAvg	DailyMax			
Flow 50050	SAMPLE VALUE	*****	1.567	MG	*****	0.051	*****	mgd	5/31 1 x Month	Est Estima
	PERMIT REQ	*****	REPORT CalMoTot		*****	REPORT CalMoAvg	*****			
TSS 00530	SAMPLE VALUE	*****	*****	****	*****	24.0	24.0	mg/L	1 x Month	Grab
	PERMIT REQ	*****	*****		*****	30 CalMoAvg	100 DailyMax			
Oil Total Recoverable 00552	SAMPLE VALUE	*****	*****	****	*****	<1.0	<1.0	mg/L	1 x Month	Grab
	PERMIT REQ	*****	*****		*****	10 CalMoAvg	15 DailyMax			

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SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

DATE

SIGNATURE OF CHIEF OPERATOR

PHONE

DATE

CERTIFICATION#

[Handwritten Signature]

11-12-01

COMMENTS:

FACILITY NAME/ADDRESS:
 NSP - Prairie Island Nuclear Power Plant
 1717 Wakonade Dr E
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 Northern States Power Co - Xcel Energy
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	FORMER #
MN0004006	FINAL	016M 1

MONITORING PERIOD					
YEAR	MO.	DAY	YEAR	MO.	DAY
2001	10	01	2001	10	31

FROM

TO

No Discharge

MPCA:LB

STATION INFORMATION:
 SD-007 (Metal Cleaning Effluent Discharge)
 Surface Discharge, Effluent To Surface Water

PARAMETER	QUANTITY	UNITS	CONCENTRATION	UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow 50050	SAMPLE VALUE	*****	*****	mgd		
	PERMIT REQ	*****	REPORT CalMoTot	*****	1 x Day	Estima
TSS 00530	SAMPLE VALUE		*****	kg/day		
	PERMIT REQ	.6 CalMoAvg	1.9 DailyMax	*****	30 CalMoAvg	100 DailyMax
pH 00400	SAMPLE VALUE	*****	*****	****		
	PERMIT REQ	*****	*****	*****	6.0 CalMoMin	9.0 CalMoMax
Copper Total (as Cu) 01042	SAMPLE VALUE		*****	kg/day		
	PERMIT REQ	.02 CalMoAvg	.02 DailyMax	*****	1.0 CalMoAvg	1.0 DailyMax
Iron Total (as Fe) 01045	SAMPLE VALUE		*****	kg/day		
	PERMIT REQ	.02 CalMoAvg	.02 DailyMax	*****	1.0 CalMoAvg	1.0 DailyMax
Oil Total Recoverable 00552	SAMPLE VALUE		*****	kg/day		
	PERMIT REQ	.2 CalMoAvg	.3 DailyMax	*****	10 CalMoAvg	15 DailyMax

Send original with supplemental DMR (if applicable) by the 21st day of month following reporting period to:
 MINNESOTA POLLUTION CONTROL AGENCY
 520 LAFAYETTE RD
 ST. PAUL, MN 55155-4194
 ATTN: Discharge Monitoring Report

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

[Signature]
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT
 DATE 11-12-01

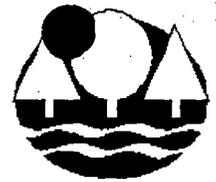
1
 SIGNATURE OF CHIEF OPERATOR
 PHONE
 DATE
 CONFIRMATION#

COMMENTS:

FACILITY NAME/ADDRESS:
 NSP - Prairie Island Nuclear Power Plant
 1717 Wakonade Dr.
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 Northern States Power Co - Xcel Energy
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	FORMER #
MN0004006	FINAL	030M 1

STATION INFORMATION:
 SD-012 (Intake Screen Backwash + Fish Retn)
 Surface Discharge, Effluent To Surface Water

MONITORING PERIOD					
YEAR	MO.	DAY	YEAR	MO.	DAY
2001	10	01	2001	10	31

FROM

TO

No Discharge

MPCA:LB

PARAMETER		QUANTITY		UNITS	CONCENTRATION			UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow	SAMPLE VALUE	*****	62.0	MG	*****	2.0	*****	mgd	31/31	EST
50050	PERMIT REQ	*****	REPORT CalMoTot		*****	REPORT CalMoAvg	*****		1 x Month	Estima

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 MINNESOTA POLLUTION CONTROL AGENCY
 520 LAFAYETTE RD
 ST. PAUL, MN 55155-4194
 ATTN: Discharge Monitoring Report

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SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

11-12-01

DATE

SIGNATURE OF CHIEF OPERATOR

PHONE

DATE

CERTIFICATION#

COMMENTS:

FACILITY NAME/ADDRESS:
 NSP - Prairie Island Nuclear Power Plant
 1717 Wakonade Dr E
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 Northern States Power Co - Xcel Energy
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	FORMER #
MN0004006	FINAL	

STATION INFORMATION:
 WS-001 (Unit 1 Plant Cooling Water Dschg)
 Waste Stream, Internal Waste Stream

MONITORING PERIOD					
YEAR	MO.	DAY	YEAR	MO.	DAY
2001	10	01	2001	10	31

FROM

TO

No Flow

MPCA:LB

PARAMETER		QUANTITY		UNITS	CONCENTRATION			UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		SAMPLE VALUE	PERMIT REQ		REPORT	REPORT	REPORT			
Flow		*****	* 807.8	MG	*****	26.1	*****	mgd	31/31	Est
50050		*****	REPORT		*****	REPORT	*****		1 x Day	MeaCon
			CalMoTot			CalMoAvg				
Oxidants		*****	*****	****	*****	*****	*****	mg/L	35/31	Grab
Total Residual		*****	*****		*****	0.22	*****		1 x Day	Grab
34044		*****	*****		*****	2.0	*****			
						DailyMax				

*Flow is a total of W5001 + W5002

Send original with supplemental DMR (if applicable) by the 21st day of month following reporting period to:
 MINNESOTA POLLUTION CONTROL AGENCY
 520 LAFAYETTE RD
 ST. PAUL, MN 55155-4194
 ATTN: Discharge Monitoring Report

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

11-12-01
 DATE

SIGNATURE OF CHIEF OPERATOR

PHONE

DATE

CONFIRMATION#

COMMENTS:

FACILITY NAME/ADDRESS:
 NSP - Prairie Island Nuclear Power Plant
 1717 Wakonade
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 Northern States Power Co - Xcel Energy
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	FORMER #
MN0004006	FINAL	022M 8

STATION INFORMATION:
 WS-002 (Unit 2 Plant Cooling Water Dschg)
 Waste Stream, Internal Waste Stream

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
2001	10	01	2001	10	31

FROM

TO

No Flow

MPCA:LB

PARAMETER	QUANTITY	UNITS	CONCENTRATION	UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow	*****	MG	*****	mgd	31/31	Est
50050	* 807.8		26.1		1 x Day	MeaCon
	REPORT		REPORT			
	CalMoTot		CalMoAvg			
Oxidants	*****	****	*****	mg/L	32/31	Grab
Total Residual	*****		0.23		1 x Day	Grab
34044	*****		2.0			
	*****		DailyMax			

* Flow is a total of W5001 + W5002

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		11-12-01	
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		DATE	
SIGNATURE OF CHIEF OPERATOR		PHONE	DATE
			CERTIFICATION#

COMMENTS:



Northern States Power Company

414 Nicollet Mall
Minneapolis, Minnesota 55401-1927
Telephone (612) 330-5500

August 21, 2003

Metro/Major Facilities
Attn: Discharge Monitoring Reports
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155

Attention: Roger Nelson

**PRAIRIE ISLAND NUCLEAR GENERATING PLANT
NPDES Permit No. MN0004006
Monthly Discharge Monitoring Reports**

In accordance with Chapter 6 Part 3 of the subject NPDES permit, we are submitting our Discharge Monitoring Reports for discharges SD-001, SD-002, SD-003, SD-004, SD-005, SD-006, SD-007, SD-012, WS-001 and WS-002 at the Prairie Island Nuclear Generating Plant for the period July 1, 2003 through July 31, 2003. Along with the discharge monitoring reports, we are submitting the supplemental Bromination/Chlorination Report for July.

Please note that the flows reported for discharges WS-001 and WS-002 include a total of both outfalls.

In accordance with Chapter 2 Part 4 of the subject NPDES permit, we are submitting the records of the daily maximum, minimum, and averaging temperatures for the monitoring locations of the temperature monitoring system in the format with the entire month's results in one table.

The plant has identified the following downtimes or periods of incorrect operation within the listed day for temperature monitoring locations for durations typically greater than one hour, per Permit Chapter 2 Part 2.1:

- July 1 to 19: due to computer problems, data from all monitoring locations was not transmitted to nor incorporated into the summary in the table, but data for all monitoring locations, except the Discharge Canal, was retrievable via an alternate monitor/recording process as summarized in the weekly sheets attached to the monthly table.
- July 1 to 31: for one to several hours each day Diamond Bluff transmission was out of service. The greenhouse inlet was used as the appropriate backup in compliance determination for the month.

For your information, the daily percent up (in service) times of the temperature monitoring locations are found in the monthly table, or for the period July 1 to 19 in the weekly tables. The plant calculated a monthly average differential temperature of 0.59°F using daily maximum temperatures from the Lock and Dam and from the upstream data (Screenhouse Inlet as the backup for the month).

Please find enclosed the plant's July Discharge Monitor Chronology Report. The chronology notes average ambient river temperatures (as measured at the backup Screenhouse Inlet location . . . see above) above 78°F for two consecutive days, July 6 and 7, triggering operation of all cooling towers to the maximum practical extent. However, average ambient river temperatures returned to below 78°F for the remainder of the month. The chronology notes the status of intake screens, cooling towers, temperature monitoring, and the bromination/chlorination system. The chronology notes the fish loss in the discharge canal following a trip of two cooling towers, which had resulted from the loss of transformer 12. Xcel Energy Environmental Services assessed the loss and provided an electronic report of the assessment to the MPCA and the Department of Natural Resources on August 1. The report included enumeration/estimation of loss fish by species and size.

If you have any questions, please call me at 612-330-6625.

Sincerely,



Jim Bodensteiner
Senior Environmental Analyst
Northern States Power Company d/b/a Xcel Energy

Enclosures

c: Kevin Holstrom
Gary Kolle
Katherine Logan (MPCA Rochester)
Jill Lucas
Ken Mueller
Steve Schaefer
Jeanne Tobias
ES Record Center

From **Jeanne Tobias** Date **8/13/03**
To **Jim Bodensteiner** Location **Prairie Island**
Location **Xcel Energy**

Subject **July 2003 Chronological Report**

- 7/1 Diamond Bluff Temperature indication has been out of service for several hours each day since June 24th. Plant employees, with vendor assistance, continue to work on determining the source of the problem. The intake screenhouse temperature monitor was used for upstream monitoring. Fan #5 fan on CT-121 remains oos, and fan #2 on CT-123 remains oos.
- 7/15 Fan #7 on CT-123 stopped at 1959.
- 7/18 Fan #5 on CT-121 started at 0734 after repairs were completed.
- 7/26 At 2130, 123 and 124 cooling tower pumps and all fans stopped due to loss of transformer 12.
- Bank 2 intake traveling screens stopped due to the loss of transformer 12. The screens were restarted after approximately 10 minutes.
- 7/27 123 cooling tower pump was started at 2012. 124 cooling tower pump was started at 2232.
- 7/28 At 0530, all fans on CT-123 that were running before loss of transformer power were restarted. Fans #2 and #7 remain off due to other problems. A work order to repair them was submitted. Operations began starting fans on CT-124, but due to voltage problems, they began to stop the fans. All fans were isolated by 0807. At 1148, 124 cooling tower pump was stopped due to voltage considerations.
- 7/28 Between 0700 and 0800, approximately 70 dead fish were discovered in the discharge canal. Notification was made to Xcel Energy Environmental Services Spills/Incidents Person who contacted Minnesota Duty Officer, MPCA & DNR per procedure. By approximately 1700, 511 dead fish were found in the discharge canal as a result of warm temperatures/temperature change when CT-123 and CT-124 tripped due to loss of transformer on 7/26/03. Fish species & size were identified, tallied and documented by Ken Mueller & Brad Giese. A detailed report was submitted to the MPCA, MN DNR and WI DNR on 7/30/03.
- 7/30 There was no additional fish mortality
- 7/31 CT-121 and CT-122 are running with all fans operational.
- CT-123 running with fans #2 and #7 out of service.
 - CT-124 and fans remain shut down due to voltage concerns with transformer 12 out of service.

Additional Monthly Items

- The Bromination/Chlorination system operated 100% of the time during the month of July. (Report enclosed)
- The monthly delta T for July is 0.59.
- Upstream temperatures exceeded 78 degrees for two consecutive days on 7/6 and 7/7, and is displayed in the backup *Summary of Weekly River Temperature Monitoring* report. CT-121 fan #5 and Ct-123 fan #2 were out of service during this period. On August 1 at 0605, CT-124 and all associated fans were returned to service. Fans #2 and #7 on CT-123 remain oos.
- The backup *Summary of Weekly River Temperature Monitoring* is included because there was a failure of data transfer to the one-page report from July 1 to July 19th.

BROMINATION/CHLORINATION REPORT

From: 01-JUL-03 To: 31-JUL-03

Day	Bromine Kgms/day	Chlorine Kgms/day	Time mins/day	U-1 Residual	U-2 Residual	Outfall Residual
1	39.15	73.95	1440	0.14	0.16	<.001
2	33.56	72.68	1440	0.11	0.13	<.001
3	27.96	51.44	1440	0.09	0.12	<.001
4	44.74	77.16	1440	0.08	0.10	<.001
5	39.15	79.70	1440	0.10	0.12	<.001
6	39.15	93.91	1440	0.07	0.07	<.001
				0.10	0.11	
7	55.93	102.88	1440	0.12	0.14	<.001
				0.06		
8	44.74	90.02	1440	0.13	0.16	<.001
9	44.74	64.30	1440	0.10	0.14	<.001
10	55.93	109.31	1440	0.16	0.21	<.001
11	44.74	64.30	1440	0.22	0.28	<.001
12	33.56	73.31	1440	0.16	0.21	<.001
13	33.56	79.07	1440	0.14	0.16	<.001
14	44.74	79.11	1440	0.12	0.16	<.001
15	33.56	83.59	1440	0.16	0.18	<.001
16	33.56	70.73	1440	0.13	0.16	<.001
17	44.74	77.16	1440	0.12	0.18	<.001
18	33.56	82.32	1440	0.16	0.20	<.001
19	33.56	62.36	1440	0.14	0.16	<.001
20	44.74	91.97	1440	0.13	0.18	<.001
21	39.15	77.16	1440	0.10	0.13	<.001
22	44.74	83.59	1440	0.11	0.18	<.001
23	39.15	82.00	1440	0.10	0.14	<.001
24	33.56	77.16	1440	0.08	0.14	<.001
25	39.15	77.16	1440	0.09	0.14	<.001
26	39.15	77.16	1440	0.09	0.15	<.001
27	44.74	75.22	1440	0.10	0.14	<.001
28	33.56	98.40	1440	0.08	0.10	<.001
29	33.56	51.44	1440	0.07	0.10	<.001
30	44.74	83.59	1440	0.10	0.08	<.001
31	33.56	83.59	1440	0.12	0.12	<.001

Maximum Daily Chlorination Rate = 165.2 Kgms/day on the 10st.

PRAIRIE ISLAND RIVER TEMPERATURE REPORT

Month - Year: July-2003

Max-Avg-

POINT ID	DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Month	Max Va						
1T2570A SL1	MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	77.9	77.9	78.2	79.6	79.1	78.3	76.9	78.7	77.4	76.9	78.8	78.7	78.9	79.3	80.9	80.3	80.9	80.9						
	AVG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	74.4	74.0	73.2	73.2	75.1	74.6	73.3	72.7	73.4	73.3	74.9	78.7	78.7	78.9	79.3	79.3	77.4	0.0	0.0					
	MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	74.4	74.0	73.2	73.2	75.1	74.6	73.3	72.7	73.4	73.3	74.9	78.7	78.7	78.9	79.3	79.3	77.4	0.0	0.0				
Data																																								
1T2571A SL2	MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	77.0	76.9	77.2	78.9	78.2	77.7	77.0	78.6	78.1	77.4	78.5	78.0	78.4	79.6	81.5	79.8	81.5	81.5						
	AVG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	74.3	74.1	74.3	73.9	75.2	74.5	74.0	73.2	73.4	72.8	74.3	78.0	78.0	78.4	79.6	79.6	76.9	0.0	0.0					
	MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	74.3	74.1	74.3	73.9	75.2	74.5	74.0	73.2	73.4	72.8	74.3	78.0	78.0	78.4	79.6	79.6	76.9	0.0	0.0				
Data																																								
1T2572A DB	MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	76.5	76.1	74.9	74.9	74.9	75.0	76.9	77.2	77.5	76.8	77.7	78.6	79.4	80.4	81.0	80.0	81.0	81.0						
	AVG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	74.5	72.7	74.9	74.9	74.9	74.9	75.0	74.0	74.1	72.7	74.5	74.1	75.7	75.8	77.3	78.9	0.0	0.0						
	MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	74.5	72.7	74.9	74.9	74.9	74.9	75.0	74.0	74.1	72.7	74.5	74.1	75.7	75.8	77.3	78.9	0.0	0.0					
Data																																								
1T2573A LD1	MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	76.5	76.4	76.5	77.7	77.6	77.7	76.8	77.7	77.4	77.1	78.0	79.3	80.1	80.9	81.6	80.9	81.6	81.6						
	AVG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	75.0	75.2	75.3	75.3	76.0	76.0	76.2	76.5	76.2	76.5	76.9	76.7	76.6	79.2	80.9	80.9	78.6	0.0	0.0					
	MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	75.3	75.2	75.3	75.3	76.0	76.0	76.2	76.5	76.2	76.5	76.9	76.7	76.6	79.2	80.9	80.9	78.6	0.0	0.0				
Data																																								
1T2574A LD2	MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	77.7	77.7	77.9	79.1	78.7	78.5	77.5	78.5	78.4	78.3	79.1	80.6	81.4	81.8	82.5	81.9	82.5	82.5						
	AVG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	76.9	76.8	76.9	77.2	77.5	77.2	76.8	76.8	77.0	76.5	77.6	78.0	78.5	80.9	80.6	80.6	78.6	0.0	0.0					
	MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	76.1	73.4	75.6	75.3	76.7	75.9	74.6	75.3	75.4	73.3	76.0	77.7	78.0	78.2	79.8	78.0	0.0	0.0					
Data																																								
1T2575A LD3	MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	79.2	79.6	79.1	80.7	80.3	79.7	78.5	79.3	79.2	79.0	80.0	82.0	82.1	82.8	83.2	82.9	83.2	83.2						
	AVG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	77.9	77.7	77.6	78.0	78.0	78.1	78.2	77.9	77.6	77.4	78.0	80.0	80.3	80.2	80.9	81.4	81.4	80.6	0.0	0.0				
	MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	76.9	76.1	75.9	74.3	74.3	75.2	74.1	74.6	75.1	75.7	77.0	77.4	79.0	79.7	79.6	79.7	0.0	0.0					
Data																																								
1T2572A SHI	MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	76.4	76.3	76.4	77.2	76.8	77.1	76.7	77.9	76.8	76.5	77.5	78.2	79.1	79.6	79.7	79.5	79.7	79.7						
	AVG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	75.0	74.2	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0				
	MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	73.9	73.6	73.0	73.3	74.4	74.7	74.4	73.0	73.9	73.4	74.3	75.5	75.7	76.4	76.1	76.9	0.0	0.0					
Data																																								
1T2530A DC	MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	89.9	90.2	86.7	89.6	91.1	88.9	85.8	86.2	88.0	90.4	98.5	99.0	98.2	95.9	97.3	95.3	99.0	99.0						
	AVG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	88.3	88.2	87.6	88.4	88.4	86.9	84.2	84.6	84.3	87.0	90.8	90.9	92.3	93.4	94.2	94.2	94.2	94.2	94.2					
	MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	85.2	85.3	82.9	82.1	86.8	83.8	82.0	82.0	81.4	84.0	87.2	93.2	86.9	90.8	92.3	90.8	0.0	0.0					
Data																																								
	ΔT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.5	2.3	3.3	3.1	3.0	0.7	1.0	0.8	1.1	1.1	2.1	2.0	1.6	1.4	1.9								
	a	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	8				
	t	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/				
	e	2	3	4	5	6	7	8	9	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	3	3	1								

AT = 0.59 g/m³

SL1 = Sturgeon Lake Temp 1
SL2 = Sturgeon Lake Temp 2

DB = Diamond Bluff Temp
LD1 = Lock & Dam Temp 1

LD2 = Lock & Dam Temp 2
LD3 = Lock & Dam Temp 3

SHI = Screenhouse Inlet Temp
DC = Discharge Canal Ave. Temp

96% or greater is < 1 hour data loss
95% or less is >= 1 hour data loss

Summary of Weekly River Temperature Monitoring

Week Beginning		30-Jun-03			Ending			6-Jul-03	
DAY		1	2	3	4	5	6	7	
S L 1	Max	75.1	75.7	77.0	78.9	79.1	80.3	79.9	
	AVG	73.0	73.8	75.0	76.3	77.5	78.2	78.4	
	MIN	71.2	72.4	73.4	74.5	76.3	76.5	77.3	
	% Data	100%	100%	100%	100%	100%	100%	100%	
S L 2	Max	73.1	73.7	74.7	76.2	77.0	77.9	78.0	
	AVG	72.2	72.9	73.8	75.0	76.2	76.9	77.3	
	MIN	71.3	72.1	73.0	73.9	75.6	75.7	76.7	
	% Data	100%	100%	100%	100%	100%	100%	100%	
D B	Max	74.0	0.0	74.6	75.5	76.0	77.1	77.4	
	AVG	72.6	#DIV/0!	73.5	74.2	75.4	76.1	76.7	
	MIN	71.4	0.0	72.2	72.9	74.9	74.8	76.0	
	% Data	71%	0%	67%	88%	92%	71%	75%	
L D 1	Max	72.9	73.3	73.8	75.2	75.9	76.7	77.3	
	AVG	72.5	72.9	73.4	74.2	75.5	76.1	76.9	
	MIN	72.0	72.5	72.9	73.2	75.0	75.3	76.3	
	% Data	100%	100%	100%	100%	100%	100%	100%	
L D 2	Max	73.7	74.2	75.1	76.4	77.2	78.2	78.3	
	AVG	72.9	73.5	74.2	75.3	76.5	77.2	77.7	
	MIN	72.0	72.7	73.5	74.2	75.7	76.1	77.2	
	% Data	100%	100%	100%	100%	100%	100%	100%	
L D 3	Max	74.5	75.0	76.1	77.6	78.3	79.3	79.3	
	AVG	73.2	74.0	74.8	76.0	77.2	77.9	78.3	
	MIN	72.2	73.1	73.8	74.5	76.2	76.6	77.7	
	% Data	100%	100%	100%	100%	100%	100%	100%	
S H I	Max	74.9	75.2	76.0	77.5	78.3	79.2	79.2	
	AVG	73.3	74.0	74.8	76.0	77.1	77.8	78.2	
	MIN	71.9	73.0	73.7	74.6	76.4	76.5	77.3	
	% Data	100%	100%	100%	100%	100%	100%	100%	
Avg	ΔT	0.3	0.4	0.5	0.6	0.7	0.8	0.8	
	% Data	100%	100%	100%	100%	100%	100%	100%	
Date		30-Jun-03	1-Jul-03	2-Jul-03	3-Jul-03	4-Jul-03	5-Jul-03	6-Jul-03	

Summary of Weekly River Temperature Monitoring

Week Beginning 7-Jul-03 Ending 13-Jul-03

DAY		1	2	3	4	5	6	7
S L 1	Max	78.5	78.6	77.3	74.1	73.9	77.2	78.4
	AVG	78.2	77.3	75.7	72.9	72.2	73.9	75.5
	MIN	77.2	76.3	74.4	71.9	70.6	71.0	73.0
	% Data	100%	100%	100%	100%	100%	100%	100%
S L 2	Max	78.3	77.7	76.6	74.3	74.6	76.2	76.9
	AVG	77.3	76.9	75.9	73.9	73.0	73.9	74.9
	MIN	76.7	76.3	74.4	73.0	72.2	72.2	73.4
	% Data	100%	100%	100%	100%	100%	100%	100%
D B	Max	77.3	77.0	76.1	74.7	76.0	76.0	76.6
	AVG	76.8	76.2	75.6	74.4	74.0	74.6	75.3
	MIN	76.3	75.6	74.8	74.1	72.7	73.1	74.0
	% Data	71%	71%	75%	71%	71%	71%	71%
L D 1	Max	77.4	77.0	76.8	75.2	74.3	75.6	76.1
	AVG	76.9	76.7	76.4	74.8	73.8	74.3	75.1
	MIN	76.4	76.3	75.3	74.2	73.4	73.4	74.4
	% Data	100%	100%	100%	100%	100%	100%	100%
L D 2	Max	78.6	78.0	77.3	75.4	74.8	76.3	77.2
	AVG	77.8	77.4	76.8	74.9	73.8	74.6	75.7
	MIN	77.0	77.0	75.6	74.0	73.2	73.4	74.6
	% Data	100%	100%	100%	100%	100%	100%	100%
L D 3	Max	79.4	78.8	77.4	75.6	74.9	77.7	78.5
	AVG	78.3	77.9	77.0	74.9	73.9	75.2	76.6
	MIN	77.7	77.2	75.8	74.1	73.2	73.5	75.0
	% Data	100%	100%	100%	100%	100%	100%	100%
S H I	Max	78.9	78.4	77.9	75.2	74.6	76.6	77.2
	AVG	78.2	77.6	76.4	74.0	73.2	74.2	75.5
	MIN	77.4	76.8	75.4	73.1	71.9	72.2	73.8
	% Data	100%	100%	100%	100%	100%	100%	100%
Avg	ΔT	0.8	0.9	1.0	0.7	0.2	0.5	0.5
	% Data	100%	100%	100%	100%	100%	100%	100%
Date		7-Jul-03	8-Jul-03	9-Jul-03	10-Jul-03	11-Jul-03	12-Jul-03	13-Jul-03

Summary of Weekly River Temperature Monitoring

Week Beginning		14-Jul-03			Ending			20-Jul-03	
DAY		1	2	3	4	5	6	7	
S L 1	Max	75.6	77.2	77.9	77.9	78.4	79.8	79.2	
	AVG	74.7	74.9	75.5	76.0	75.6	76.3	76.9	
	MIN	73.5	73.0	73.4	74.0	73.2	73.5	75.1	
	% Data	100%	100%	100%	100%	100%	100%	100%	
S L 2	Max	75.5	75.9	77.0	76.9	77.2	78.9	78.2	
	AVG	74.7	74.5	75.2	75.4	75.4	76.0	76.4	
	MIN	73.8	73.4	74.2	74.0	74.1	73.9	75.2	
	% Data	100%	100%	100%	100%	100%	100%	100%	
D B	Max	75.1	75.9	76.3	76.0	0.0	0.0	0.0	
	AVG	74.7	74.7	75.1	75.1	#DIV/0!	#DIV/0!	#DIV/0!	
	MIN	74.3	73.7	74.3	74.1	0.0	0.0	0.0	
	% Data	79%	92%	71%	71%	0%	0%	0%	
L D 1	Max	76.7	76.3	76.3	76.4	76.4	77.6	77.6	
	AVG	75.2	75.4	75.9	75.8	75.8	76.4	76.7	
	MIN	74.8	74.8	75.5	75.0	75.2	75.3	76.1	
	% Data	100%	100%	100%	100%	100%	100%	100%	
L D 2	Max	77.2	76.8	77.6	77.3	77.3	79.0	78.7	
	AVG	75.6	75.7	76.4	76.4	76.4	77.2	77.6	
	MIN	75.0	75.0	75.6	75.2	75.6	75.6	76.8	
	% Data	100%	100%	100%	100%	100%	100%	100%	
L D 3	Max	78.0	78.1	79.1	79.5	78.8	80.4	80.2	
	AVG	76.6	76.7	77.4	77.9	77.4	78.1	78.7	
	MIN	75.6	75.4	76.0	76.4	76.1	76.1	77.4	
	% Data	100%	100%	100%	100%	100%	100%	100%	
S H I	Max	76.3	76.9	77.0	77.3	77.3	78.2	78.0	
	AVG	75.1	75.3	75.6	76.0	75.7	76.2	76.6	
	MIN	74.1	74.0	74.3	74.7	74.0	74.2	75.5	
	% Data	100%	100%	100%	100%	100%	100%	100%	
Avg	ΔT	1.1	1.2	1.4	1.3	1.4	2.0	2.3	
	% Data	100%	100%	100%	100%	100%	100%	100%	
Date		14-Jul-03	15-Jul-03	16-Jul-03	17-Jul-03	18-Jul-03	19-Jul-03	20-Jul-03	

FACILITY NAME/ADDRESS:
 Xcel - Prairie Island Nuclear Generating
 1717 Wäkonade Dr E
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 NSP dba Xcel Energy
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	FORMER #
MN0004006	FINAL	010M 1

STATION INFORMATION:
 SD-001 (Combined Effluent)
 Surface Discharge, Effluent To Surface Water
 Attention: James Bodensteiner

MONITORING PERIOD					
YEAR	MO.	DAY	YEAR	MO.	DAY
FROM	2003	07	TO	2003	07
	01			31	

No Discharge

MPCA:LB

PARAMETER	QUANTITY	UNITS	CONCENTRATION	UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE				
Flow 50050	SAMPLE VALUE	*****	23019	MG	*****	742.5	*****	mgd	31/31	Meas
	PERMIT REQ	*****	REPORT CalMoTot		*****	REPORT DailyAve	*****		1 x Day	MeaCon
pH 00400	SAMPLE VALUE	*****	*****	****	8.4	*****	8.6	SU	4/31	G
	PERMIT REQ	*****	*****		6.0	*****	9.0		1 x Week	Grab
Phosphorus Total (as P) 00665	SAMPLE VALUE	*****	*****	****	*****	*****	*NA	mg/L	*NA	*NA
	PERMIT REQ	*****	*****		*****	*****	REPORT DailyMax		1 x Week	Grab
Chlorine Rate 50059	SAMPLE VALUE	*****	115.2	kg/day	*****	*****	*****	****	1/31	Calc
	PERMIT REQ	*****	REPORT DailyMax		*****	*****	*****		1 x Day	Calcul
Oxidants (Bromine) Tot Residual Interm 34046	SAMPLE VALUE	*****	*****	****	*****	*****	0.05	mg/L	1 x Day	Grab
	PERMIT REQ	*****	*****		*****	*****	InstantMax			
Oxidants (Bromine) Tot Residual Contin 04223	SAMPLE VALUE	*****	*****	****	*****	*****	<0.001	mg/L	31/31	Calc
	PERMIT REQ	*****	*****		*****	*****	0.001 DailyMax		1 x Day	Calcul
Oxidants (Chlorine) Tot Residual Interm 03775	SAMPLE VALUE	*****	*****	****	*****	*****	0.2	mg/L	1 x Day	Grab
	PERMIT REQ	*****	*****		*****	*****	InstantMax			

Send original with supplemental DMR (if applicable) by the 21st day of month following reporting period to: MINNESOTA POLLUTION CONTROL AGENCY 520 LAFAYETTE RD ST. PAUL, MN 55155-4194 ATTN: Discharge Monitoring Report	I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.		8/14/03
		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	DATE
		SIGNATURE OF CHIEF OPERATOR	PHONE
			DATE
			CERTIFICATION#

COMMENTS:

FACILITY NAME/ADDRESS:
 Xcel - Prairie Band Nuclear Generating
 1717 Wakonade Dr E
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 NSP dba Xcel Energy
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	FORMER #
MN0004006	FINAL	010M 1

STATION INFORMATION:
 SD-001 (Combined Effluent)
 Surface Discharge, Effluent To Surface Water
 Attention: James Bodensteiner

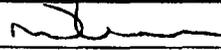
MONITORING PERIOD					
YEAR	MO.	DAY	YEAR	MO.	DAY
2003	07	01	2003	07	31

No Discharge

MPCA:LB

PARAMETER		QUANTITY	UNITS	CONCENTRATION	UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Oxidants (Chlorine) Tot Residual Contin 03774	SAMPLE VALUE	*****	****	*****	mg/L		
	PERMIT REQ	*****	****	*****	0.04 DailyMax	1 x Day	Calcul
Plant Capacity Fctr % of Capacity 00180	SAMPLE VALUE	*****	****	99.8 REPORT	%	31/31	Measur
	PERMIT REQ	*****	****	CalMoAvg	*****	1 x Day	Measur

* Phosphate was terminated.

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		SIGNATURE OF CHIEF OPERATOR	PHONE
		DATE	CERTIFICATION#

COMMENTS:

FACILITY NAME/ADDRESS:
 Xcel - Prairie Island Nuclear Generating
 1717 Wakonade Dr E
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 NSP dba Xcel Energy
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	FORMER #
MN0004006	FINAL	011M 1

STATION INFORMATION:
 SD-002 (Steam Generator Blowdown Discharge)
 Surface Discharge, Effluent To Surface Water

MONITORING PERIOD					
YEAR	MO.	DAY	YEAR	MO.	DAY
2003	07	01	2003	07	31

Attention: James Bodensteiner

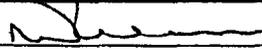
FROM

TO

No Discharge

MPCA:LB

PARAMETER		QUANTITY		UNITS	CONCENTRATION			UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow 50050	SAMPLE VALUE	*****	0.051	MG	*****	.002	*****	mgd	5/31	Est
	PERMIT REQ	*****	REPORT CalMoTot		*****	REPORT CalMoAvg	*****		1 x Month	Estima
TSS 00530	SAMPLE VALUE	< 0.001	< 0.001	kg/day	*****	< 0.1	< 0.1	mg/L	1/31	G
	PERMIT REQ	65.3	217.0		*****	30	100		1 x Month	Grab
		CalMoAvg	DailyMax			CalMoAvg	DailyMax			

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		SIGNATURE OF CHIEF OPERATOR		PHONE	DATE
		CERTIFICATION#			

COMMENTS:

FACILITY NAME/ADDRESS:
 Xcel - Prairie Island Nuclear Generating
 1717 Wakonade Dr E
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 NSP dba Xcel Energy
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	FORMER #
MN0004006	FINAL	012M 1

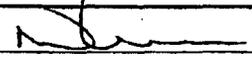
STATION INFORMATION:
 SD-003 (Radwaste Treatment Effluent)
 Surface Discharge, Effluent To Surface Water
 Attention: James Bodensteiner

MONITORING PERIOD					
YEAR	MO.	DAY	YEAR	MO.	DAY
2003	07	01	2003	07	31

No Discharge

MPCA:LB

PARAMETER		QUANTITY		UNITS	CONCENTRATION			UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow 50050	SAMPLE VALUE	*****	0.068	MG	*****	0.002	*****	mgd	5/31	EST
	PERMIT REQ	*****	REPORT CalMoTot		*****	REPORT CalMoAvg	*****		1 x Month	Estima
TSS 00530	SAMPLE VALUE	<0.001	<0.001	kg/day	*****	<0.1	<0.1	mg/L	1/31	G
	PERMIT REQ	26.0 CalMoAvg	86.9 DailyMax		*****	30 CalMoAvg	100 DailyMax		1 x Month	Grab

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		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		DATE
				
		SIGNATURE OF CHIEF OPERATOR	PHONE	DATE
				CERTIFICATION#

COMMENTS:

FACILITY NAME/ADDRESS:
 Xcel - Prairie Island Nuclear Generating
 1717 Wakonade Dr E
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 NSP dba Xcel Energy
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	FORMER #
MN0004006	FINAL	013M 1

STATION INFORMATION:
 SD-004 (Neutralizer + Resin Rinse Discharge)
 Surface Discharge, Effluent To Surface Water

MONITORING PERIOD					
YEAR	MO.	DAY	YEAR	MO.	DAY
2003	07	01	2003	07	31

Attention: James Bodensteiner

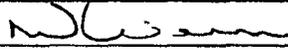
FROM

TO

No Discharge

MPCA:LB

PARAMETER		QUANTITY		UNITS	CONCENTRATION			UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		SAMPLE VALUE	PERMIT REQ		REPORT	REPORT	PERMIT REQ			
Flow	SAMPLE VALUE	*****		MG	*****		*****	mgd		
	PERMIT REQ	*****	CalMoTot		*****	CalMoAvg	*****		1 x Month	Estima
TSS	SAMPLE VALUE	97.9	326.0	kg/day	*****	30	100	mg/L		
	PERMIT REQ	CalMoAvg	DailyMax		*****	CalMoAvg	DailyMax		1 x Month	Grab

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		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT			DATE
		SIGNATURE OF CHIEF OPERATOR		PHONE	DATE

COMMENTS:

FACILITY NAME/ADDRESS:
 Xcel - Prairie Island Nuclear Generating
 1717 Wakonade Dr E
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 NSP dba Xcel Energy
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	FORMER #
MN0004006	FINAL	014M 1

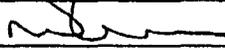
STATION INFORMATION:
 SD-005 (Unit 1 Turbine Bldg Sump Dschg)
 Surface Discharge, Effluent To Surface Water
 Attention: James Bodensteiner

MONITORING PERIOD					
YEAR	MO.	DAY	YEAR	MO.	DAY
2003	07	01	2003	07	31

No Discharge

MPCA:LB

PARAMETER		QUANTITY	UNITS	CONCENTRATION	UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow 50050	SAMPLE VALUE	*****	MG	*****	mgd	5/31 1 x Month	EST Estima
	PERMIT REQ	*****		*****			
TSS 00530	SAMPLE VALUE	*****	****	*****	mg/L	1/31 1 x Month	G Grab
	PERMIT REQ	*****		*****			
Oil Total Recoverable 00552	SAMPLE VALUE	*****	****	*****	mg/L	1/31 1 x Month	G Grab
	PERMIT REQ	*****		*****			

Send original with supplemental DMR (if applicable) by the 21st day of month following reporting period to: MINNESOTA POLLUTION CONTROL AGENCY 520 LAFAYETTE RD ST. PAUL, MN 55155-4194 ATTN: Discharge Monitoring Report	I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		8/14/03 DATE	
		SIGNATURE OF CHIEF OPERATOR		PHONE	DATE
		CERTIFICATION#			

COMMENTS:

FACILITY NAME/ADDRESS:
 Xcel - Prairie Island Nuclear Generating
 1717 Wakonade Dr E
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 NSP dba Xcel Energy
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	FORMER #
MN0004006	FINAL	015M 1

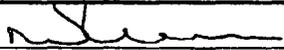
STATION INFORMATION:
 SD-006 (Unit 2 Turbine Bldg Sump Dschg)
 Surface Discharge, Effluent To Surface Water
 Attention: James Bodensteiner

MONITORING PERIOD					
YEAR	MO.	DAY	YEAR	MO.	DAY
2003	07	01	2003	07	31

No Discharge

MPCA:LB

PARAMETER		QUANTITY	UNITS	CONCENTRATION		UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE		
Flow 50050	SAMPLE VALUE	*****	0.575	MG	*****	0.019	*****	mgd	5/31	Est
	PERMIT REQ	*****	REPORT CalMoTot		*****	REPORT CalMoAvg	*****		1 x Month	Estima
TSS 00530	SAMPLE VALUE	*****	*****	****	*****	4.1	4.1	mg/L	1/31	G
	PERMIT REQ	*****	*****		*****	30 CalMoAvg	100 DailyMax		1 x Month	Grab
Oil Total Recoverable 00552	SAMPLE VALUE	*****	*****	****	*****	<1.0	<1.0	mg/L	1/31	G
	PERMIT REQ	*****	*****		*****	10 CalMoAvg	15 DailyMax		1 x Month	Grab

Send original with supplemental DMR (if applicable) by the 21st day of month following reporting period to: MINNESOTA POLLUTION CONTROL AGENCY 520 LAFAYETTE RD ST. PAUL, MN 55155-4194 ATTN: Discharge Monitoring Report	I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		8/14/03 DATE	
		SIGNATURE OF CHIEF OPERATOR		PHONE	DATE

COMMENTS:

FACILITY ADDRESS:
 Xcel - Prairie Island Nuclear Generating
 1717 Wakonade Dr E
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 NSP dba Xcel Energy
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	FORMER #
MN0004006	FINAL	016M 1

STATION INFORMATION:
 SD-007 (Metal Cleaning Effluent Discharge)
 Surface Discharge, Effluent To Surface Water
 Attention: James Bodensteiner

MONITORING PERIOD					
YEAR	MO.	DAY	YEAR	MO.	DAY
2003	07	01	2003	07	31

No Discharge

MPCA:LB

PARAMETER		QUANTITY		UNITS	CONCENTRATION			UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow 50050	SAMPLE VALUE	*****		MG	*****		*****	mgd		
	PERMIT REQ	*****	REPORT CalMoTot		*****	REPORT CalMoAvg	*****		1 x Day	Estima
TSS 00530	SAMPLE VALUE			kg/day	*****		*****	mg/L		
	PERMIT REQ	0.6 CalMoAvg	1.9 DailyMax		*****	30 CalMoAvg	100 DailyMax		1 x Day	Grab
pH 00400	SAMPLE VALUE	*****	*****	****		*****		SU		
	PERMIT REQ	*****	*****		6.0 CalMoMin	*****	9.0 CalMoMax		1 x Week	Grab
Copper Total (as Cu) 01042	SAMPLE VALUE			kg/day	*****		*****	mg/L		
	PERMIT REQ	0.02 CalMoAvg	0.02 DailyMax		*****	1.0 CalMoAvg	1.0 DailyMax		1 x Day	Grab
Iron Total (as Fe) 01045	SAMPLE VALUE			kg/day	*****		*****	mg/L		
	PERMIT REQ	0.02 CalMoAvg	0.02 DailyMax		*****	1.0 CalMoAvg	1.0 DailyMax		1 x Day	Grab
Oil Total Recoverable 00552	SAMPLE VALUE			kg/day	*****		*****	mg/L		
	PERMIT REQ	0.2 CalMoAvg	0.3 DailyMax		*****	10 CalMoAvg	15 DailyMax		1 x Day	Grab

Send original with supplemental DMR (if applicable) by the 21st day of month following reporting period to:
 MINNESOTA POLLUTION CONTROL AGENCY
 520 LAFAYETTE RD
 ST. PAUL, MN 55155-4194
 ATTN: Discharge Monitoring Report

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

[Signature]
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT
 DATE: 8/14/03

 SIGNATURE OF CHIEF OPERATOR
 PHONE: _____ DATE: _____ CERTIFICATION# _____

COMMENTS:

FACILITY NAME/ADDRESS:
 Xcel - Prairie Island Nuclear Generating
 1717 Wakonade Dr E
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 NSP dba Xcel Energy
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	FORMER #
MN0004006	FINAL	030M 1

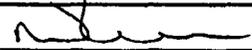
STATION INFORMATION:
 SD-012 (Intake Screen Backwash + Fish Retn)
 Surface Discharge, Effluent To Surface Water
 Attention: James Bodensteiner

MONITORING PERIOD					
YEAR	MO.	DAY	YEAR	MO.	DAY
2003	07	01	2003	07	31

No Discharge

MPCA:LB

PARAMETER		QUANTITY	UNITS	CONCENTRATION	UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow 50050	SAMPLE VALUE	*****	62.0	*****	2.0	31/31	Est
	PERMIT REQ	*****	REPORT CalMoTot	*****	REPORT CalMoAvg	1 x Month	Estima

Send original with supplemental DMR (if applicable) by the 21st day of month following reporting period to: MINNESOTA POLLUTION CONTROL AGENCY 520 LAFAYETTE RD ST. PAUL, MN 55155-4194 ATTN: Discharge Monitoring Report	I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		8/14/03 DATE
		SIGNATURE OF CHIEF OPERATOR	PHONE	DATE

COMMENTS:

FACILITY NAME/ADDRESS:
 Xcel - Prairie Island Nuclear Generating
 1717 Wakonade Dr E
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 NSP dba Xcel Energy
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	FORMER #
MN0004006	FINAL	

STATION INFORMATION:

WS-001 (Unit 1 Plant Cooling Water Dschg)
 Waste Stream, Internal Waste Stream

Attention: James Bodensteiner

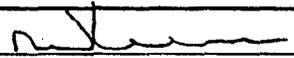
MONITORING PERIOD					
YEAR	MO.	DAY	YEAR	MO.	DAY
2003	07	01	2003	07	31

No Flow

MPCA: LB

PARAMETER		QUANTITY		UNITS	CONCENTRATION			UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow 50050	SAMPLE VALUE	*****	* 1018.5	MG	*****	32.9	*****	mgd	31/31	MeaCon
	PERMIT REQ	*****	REPORT CalMoTot		*****	REPORT CalMoAvg	*****		1 x Day	
Oxidants Total Residual 34044	SAMPLE VALUE	*****	*****	****	*****	0.22	*****	mg/L	33/31	G
	PERMIT REQ	*****	*****		*****	2.0 DailyMax	*****		1 x Day	Grab

* Flow is a total of WS-001 + WS-002

Send original with supplemental DMR (if applicable) by the 21st day of month following reporting period to: MINNESOTA POLLUTION CONTROL AGENCY 520 LAFAYETTE RD ST. PAUL, MN 55155-4194 ATTN: Discharge Monitoring Report	I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	8/14/03 DATE
		SIGNATURE OF CHIEF OPERATOR	PHONE DATE CERTIFICATION#

COMMENTS:

FACILITY NAME/ADDRESS:
 Xcel - Prairie Island Nuclear Generating
 1717 Wakonade Dr E
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 NSP dba Xcel Energy
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	FORMER #
MN0004006	FINAL	022M 8

STATION INFORMATION:
 WS-002 (Unit 2 Plant Cooling Water Dschg)
 Waste Stream, Internal Waste Stream
 Attention: James Bodensteiner

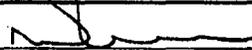
MONITORING PERIOD					
YEAR	MO.	DAY	YEAR	MO.	DAY
2003	07	01	2003	07	31

No Flow

MPCA:LB

PARAMETER		QUANTITY	UNITS	CONCENTRATION			UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow 50050	SAMPLE VALUE	*****	* 1018.5	MG	*****	32.9	*****	mgd	31/31 Meas
	PERMIT REQ	*****	REPORT CalMoTot		*****	REPORT CalMoAvg	*****		1 x Day MeaCon
Oxidants Total Residual 34044	SAMPLE VALUE	*****	*****	****	*****	0.28	*****	mg/L	32/31 6
	PERMIT REQ	*****	*****		*****	2.0 DailyMax	*****		1 x Day Grab

* Flow is a total of WS-001 + WS-002

Send original with supplemental DMR (if applicable) by the 21st day of month following reporting period to: MINNESOTA POLLUTION CONTROL AGENCY 520 LAFAYETTE RD ST. PAUL, MN 55155-4194 ATTN: Discharge Monitoring Report	I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		8/14/03 DATE
		SIGNATURE OF CHIEF OPERATOR		PHONE

COMMENTS:



Northern States Power Company

414 Nicollet Mall
Minneapolis, Minnesota 55401-1927
Telephone (612) 330-5500

May 20, 2005

Metro/Major Facilities
Attn: Discharge Monitoring Reports
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155

Attention: Tom Sinn

**PRAIRIE ISLAND NUCLEAR GENERATING PLANT
NPDES Permit No. MN0004006
Monthly Discharge Monitoring Reports**

In accordance with Chapter 6 Part 3 of the subject NPDES permit, we are submitting our Discharge Monitoring Reports for discharge SD-001, SD-002, SD-003, SD-004 SD-005 SD-006 SD-007, SD-012, WS-001 and WS-002 at the Prairie Island Nuclear Generating Plant. The reports cover the period April 1, 2005 through April 30, 2005. Along with the discharge monitoring reports, we are submitting the supplemental Bromination/Chlorination Report for April.

Please note that the flows reported for discharges WS-001 and WS-002 include a total of both outfalls.

In accordance with Chapter 2 Part 4 of the subject NPDES permit, we are submitting the records of the daily maximum, minimum, and averaging temperatures for the monitoring locations of the temperature monitoring system in the format with the entire month's results in one table.

The plant has identified the following downtimes or periods of incorrect operation within the listed day for temperature monitoring locations for durations typically greater than one hour, per Permit Chapter 2 Part 2.1:

- In accordance with NPDES Permit Chapter 2 Part 3.1, the Sturgeon Lake monitors were removed from service November 24. The Sturgeon Lake temperature monitoring buoys were reinstalled April 15, and Sturgeon Lake Monitor 2 was placed back into service April 17. The Sturgeon Lake Monitor 1 was operating incorrectly, locked up at a single temperature, until April 26.
- April 3 to 11: due to computer problems, data from all monitoring locations was not transmitted correctly for incorporation into the summary in the table. However, most of the data for all monitoring locations, except the Discharge Canal, was retrievable via an alternate monitor/recording process as summarized in the weekly sheets attached to the monthly table.

Page Two

- April 28 and 29 screenhouse intake and Discharge Canal monitors spiked unrepresentatively high due to calibration by Instrument and Control Technicians.

For your information, the daily percent up (in service) times of the temperature monitoring locations are found in the monthly table.

Please find enclosed the plant's April Chronological Discharge Monitor Report noting the status of the intake traveling screens, the cooling towers and cooling water discharge system, the temperature monitoring system, the chlorination/bromination system and the RO (reverse osmosis) system. In preparation for April operations, compliance with the differential temperature limit of 5°F began, replacing the wintertime limit of 43°F. Also, cooling water blowdown restrictions began mid-month. The chronology notes the continuation of the approved arrangements for discharge via outfall SD-004 reverse osmosis (RO) system reject water and water softener regeneration wastewater from pre-start operation.

Additionally, the chronology notes unit 2 outages, and notes the zebra mussel treatment on April 26 (indicating a separate letter was sent discussing high residual levels). The chronology also notes high blowdown April 15 to 16 as allowed to maintain inlet temperatures. A revised March discharge SD-005 monitoring report is included due to an update with additional oil and grease sample results in follow up to observance of a sheen in the middle bay.

If you have any questions, please call me at 612-330-6625.

Sincerely,



Jim Bodensteiner
Senior Environmental Analyst
Northern States Power Company d/b/a Xcel Energy

Enclosures

c: Kevin Holstrom
Gary Kolle
Katherine Logan (MPCA Rochester)
Sue Moldenhauer
~~Ken Mueller~~
Jeanne Tobias
ES Record Center

Date **May 14, 2005**From **Sue Moldenhauer**Location **Prairie Island**To **Jim Bodensteiner**Location **Xcel Energy**Subject **April 2005-- Chronological Discharge Monitoring Report****Cooling Towers**

- 4/1 122 Cooling Tower Pump in-service with all 12 fans in operation
- 4/1 124 Cooling Tower Pump started
- 4/3 124 Cooling Tower, fans 2,3,4,5,7,10,11 and 12 started
- 4/4 124 Cooling Tower, fan 12 tripped
- 4/8 123 Cooling Tower Pump started
- 4/11 123 Cooling Tower, fans 1, 3, 5, 6 and 8 started
- 4/12 123 Cooling Tower, fans 2, 4, 7, 9, 10, 11 and 12 started
124 Cooling Tower, fans 1, 6, 8 and 9 started
121 Cooling Tower Pump started
- 4/14 121 Cooling Tower, fans 1-12 started
At 0000 all Cooling Towers and 47 fans in operation
- 4/15 121 Cooling Tower Pump tripped and all fans on that tower were stopped
- 4/22 121 Cooling Tower Pump started
- 4/23 121 Cooling Tower Pump tripped
- 4/25 123 Cooling Tower, fan 12 tripped
121 Cooling Tower Pump started
- 4/26 The following fans were stopped to increase intake canal temperature for Zebra Mussel treatment
- 124 Cooling Tower, fans 1-11 stopped
 - 123 Cooling Tower, fans 1-11 stopped
 - 122 Cooling Tower, fans 1-5 and 8-12 stopped
- 122 Cooling Tower, all fans started. Fan 9 failed to start
- 4/27 122 Cooling Tower fans 6 & 7 started
123 Cooling Tower, fans 1-11 started
124 Cooling Tower, fans 1-11 started
- 4/27 121 Cooling Tower, fans 1-12 started
- 4/28 122 Cooling Tower, fan 9 started
- 4/30 Due to Unit 2 outage only two Cooling Towers are needed
121 Cooling Tower, fans 1-12 stopped
121 Cooling Tower Pump stopped
124 Cooling Tower, fans 1-8 stopped

Plant Cooling Water Discharge

- 4/14 At 2345 plant cooling water discharge was 275 cfs meeting permit requirements of 300 cfs for April 15th.
- 4/15 In the afternoon it became apparent that condenser inlet temperatures were about to exceed 85 degree F, necessitating increased blowdown. At 1552 increased blowdown to 307 cfs. All 4 cooling towers had been operating, but 121 Cooling Tower unexpectedly tripped offline. Plant personnel began working on determining and repairing the problem(s) right away. Thus at that time, the 3 remaining cooling towers (by our interpretation) constituted "... cooling towers operating at maximum practical extent". An electrical relay failure apparently caused the cooling tower trip. Repairs have been made, but evaluation is still in progress to verify all issues are addressed and there were no additional causes. The plan is to have the cooling tower available as soon as possible. However, permit requirements will be met because only two towers will be required since U2 is being shutdown.
- 4/16 At 0025 decreased plant discharge flow to 259 cfs.

Intake Traveling Screens

- 4/1 All intake traveling screens are operating in fine mesh mode. 122 Fine Screen Larvae Removal Pump providing flow to both banks of screens as 121 Fine Screen Larvae Removal Pump remains out of service for repairs.
- 4/5 Returned 121 Fine Screen Larvae Removal Pump to service.

Emergency Bypass Gates

- 4/2 121 bypass gate was cycled for post maintenance testing. The gate was opened at 1005 and closed at 1024 for a total open time of 19 minutes.
- 4/8 121 Intake Bypass Gate was found open. ERCS Early Release Trend of Plant Delta H indicates that the gate was open from 1520 on 4/6 until closed at 0914 on 4/8. Possible cause was loss of SV-1 control power, allowing hydraulic oil pressure to open the gate.
Bypass gate was open for a total of 42 hours and 13 minutes for the month.

River Temperature Monitoring

- 4/1 River temperature limits shifted from 43 °F daily average downstream temperature to the monthly average delta T maximum limit of 5 °F. Due to ice remaining in the lake, Sturgeon Lake (SL) temperature monitor buoys have not been installed.
- 4/3 The 31 day Prairie Island River Temperature Report did not provide data. The *Summary of Weekly River Temperature Monitoring* for that time period was used for temperature calculations and is included with the DMR Report.
- 4/4 From 1545 until 1200 on 4/11 the 31 day Prairie Island River Temperature Report did not provide data. The *Summary of Weekly River Temperature Monitoring* for that time period was used for temperature calculations and is included with the DMR Report.
- 4/15 Sturgeon Lake temperature monitor buoys #1 and #2 installed.
- 4/17 Determined that SL #1 reading is locked in at 51.9 F. SL #2 and Diamond Bluff monitors used for upstream temperature calculations in accordance with NPDES permit.
- 4/27 All river temperature monitoring equipment is working satisfactory.
- 4/28 Screenhouse and discharge canal temperature monitors spiked due to calibration by Instrument and Control Technicians.
- 4/29 Screenhouse and discharge canal temperature monitors spiked due to calibration by Instrument and Control Technicians.

Monthly $\Delta T = - 0.393$

Chlorination/Bromination

- 4/2 At 1110 restarted bromine chemical feed after chlorine only winter operation. Sampled at 1100 with chlorine feed only and again at 1130 with chlorine and bromine feed.
- 4/3 The chlorination/bromination system ran for a total of 23 hours due to daylight savings time.
- 4/25 At 1000 secured chlorination/bromination for zebra mussel treatment.
- 4/27 At 1030 started chlorination/bromination feed following zebra mussel treatment.

Reverse Osmosis

Reverse osmosis operation continues with reject to the recycle canal through outfall SD004. Approximately 1,815,017 gallons of reject water and water softener regeneration were discharged to the recycle canal through outfall SD004.

Suspended solids and pH samples are only required on batch releases from the Clean in Place (CIP) skid. CIP was not used this month.

Other

- 3/20 Additional oil and grease sample (with duplicate) obtained from U1 Turbine Building Sump. Sample results received in April. Sample results 3 mg/L and 2 mg/L. This sample was taken due to observed oil sheen in middle sump bay (contains coke) around oil absorbents. No oil sheen was observed in the pump bay. Copy of corrected SD-005 for March is included with the April DMR.
- 4/1 U2 remains shutdown due to fan coil repairs.
- 4/3 U2 on-line.
- 4/13 Lockmaster for Lock and Dam #3 reports that at 1600 today 8 barges were swept in front of the roller gates and are stuck causing river level to increase.
- 4/14 At 0005 contacted Lock & Dam #3 Lockmaster. He confirmed no structural damage to the dam has occurred and the structural integrity is not in question. River level has increased approximately 2' since the barges became lodged against the dam. The Lockmaster reported that flow control has been re-established and river level should not increase above the present value during removal of the barges.
- 4/16 U2 shut-down due to D5 emergency back-up diesel repairs.
- 4/26 Chemical addition of CT-1300 Molluscicide for Zebra Mussel treatment commenced at 0920. Sample results were taken hourly at the discharge sluice gates. Sluice gate sample results taken from 1000-1300 were all less than minimum detectable activity. The 1400 sample results became available at 1510 and showed a concentration of 1.0 ppm active ingredient, exceeding the state permit limit of 0.05 ppm. Chemical feed was immediately suspended and clay deactivator feed increased. Plant Chemistry and Environmental personnel contacted the MPCA at 1700. A follow-up letter to the MPCA will be sent within two weeks (sent 5/9 via email).

FACILITY NAME/ADDRESS:
 Xcel - Prairie Island Nuclear Generating
 1717 Wakonade Dr E
 Welch, MN 55089

AMENDED
**WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT**

PERMITTEE NAME/ADDRESS:
 Northern States Power Co dba Xcel Energy
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	PCS #
MN0004006	FINAL	014M 1

STATION INFORMATION:
 SD-005 (Unit 1 Turbine Bldg Sump Dschg)
 Surface Discharge, Effluent To Surface Water
 Attention: James Bodensteiner

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
2005	03	01	2005	03	31

No Discharge

MPCA:LB

PARAMETER	QUANTITY	UNITS	CONCENTRATION	UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow	0.523	MG	0.017	mgd	✓	✓
50050	REPORT CalMoTot		REPORT CalMoAvg		1 x Month	Estima
TSS	3.4		3.4	mg/L	✓	✓
00530	30		100		1 x Month	Grab
	CalMoAvg		DailyMax			
Oil	* 1.0 ^{base} 2.3		* 1.0 ^{base} 3.0	mg/L	✓	✓
Total Recoverable	10		15		1 x Month	Grab
00552	CalMoAvg		DailyMax			

* March 2005 report update due to additional samples drawn on 3/20/05 with analysis results received in April 2005.

JK Christ
 5/16/05

Send original with supplemental DMR (if applicable) by the 21st day of month following reporting period to: MINNESOTA POLLUTION CONTROL AGENCY 520 LAFAYETTE RD ST. PAUL, MN 55155-4194	I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.	<i>JK Christ</i>	<i>4/15/05</i>
		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	DATE
ATTN: Discharge Monitoring Report	COMMENTS:	SIGNATURE OF CHIEF OPERATOR	PHONE DATE CERTIFICATION#

Summary of Weekly River Temperature Monitoring

Week Beginning		28-Mar-05		Ending		3-Apr-05		
DAY		1	2	3	4	5	6	7
S L 1	Max	OOS	OOS	OOS	OOS	OOS	OOS	OOS
	AVG	OOS	OOS	OOS	OOS	OOS	OOS	OOS
	MIN	OOS	OOS	OOS	OOS	OOS	OOS	OOS
	% Data	100%	100%	100%	100%	100%	100%	100%
S L 2	Max	OOS	OOS	OOS	OOS	OOS	OOS	OOS
	AVG	OOS	OOS	OOS	OOS	OOS	OOS	OOS
	MIN	OOS	OOS	OOS	OOS	OOS	OOS	OOS
	% Data	100%	100%	100%	100%	100%	100%	100%
D B	Max	43.8	44.6	44.2	43.9	43.0	41.6	41.1
	AVG	41.9	42.9	43.6	42.5	41.9	40.5	39.9
	MIN	40.2	41.4	42.4	41.8	40.9	39.2	38.5
	% Data	100%	100%	100%	100%	100%	100%	100%
L D 1	Max	43.0	44.3	44.0	43.1	42.8	41.4	41.2
	AVG	41.6	42.6	43.5	42.4	41.9	40.7	40.5
	MIN	40.4	41.3	42.7	41.9	41.3	40.1	40.0
	% Data	100%	100%	100%	100%	100%	100%	100%
L D 2	Max	45.1	46.4	45.6	44.3	44.1	42.8	43.1
	AVG	43.3	44.4	44.7	43.3	43.1	41.8	41.9
	MIN	41.3	42.7	43.6	42.5	42.3	40.9	41.2
	% Data	100%	100%	100%	100%	100%	100%	100%
L D 3	Max	47.0	48.4	47.9	46.3	45.5	44.0	44.3
	AVG	45.6	46.4	46.5	44.6	44.3	42.7	42.9
	MIN	43.9	45.1	45.1	43.3	43.4	41.5	42.0
	% Data	100%	100%	100%	100%	100%	100%	100%
S H I	Max	44.3	44.7	45.2	46.5	46.3	45.4	45.7
	AVG	43.0	43.9	44.8	45.0	45.0	44.1	44.4
	MIN	42.1	43.0	44.4	43.8	43.8	42.8	43.3
	% Data	100%	100%	100%	100%	100%	100%	100%
Avg	ΔT	1.9	2.0	1.7	1.2	1.4	1.6	2.1
	% Data	100%	100%	100%	100%	100%	100%	100%
Date		28-Mar-05	29-Mar-05	30-Mar-05	31-Mar-05	1-Apr-05	2-Apr-05	3-Apr-05

Summary of Weekly River Temperature Monitoring

Week Beginning		4-Apr-05		Ending		10-Apr-05		
DAY		1	2	3	4	5	6	7
S L 1	Max	OOS	OOS	OOS	OOS	OOS	OOS	OOS
	AVG	OOS	OOS	OOS	OOS	OOS	OOS	OOS
	MIN	OOS	OOS	OOS	OOS	OOS	OOS	OOS
	% Data	100%	100%	100%	100%	100%	100%	100%
S L 2	Max	OOS	OOS	OOS	OOS	OOS	OOS	OOS
	AVG	OOS	OOS	OOS	OOS	OOS	OOS	OOS
	MIN	OOS	OOS	OOS	OOS	OOS	OOS	OOS
	% Data	100%	100%	100%	100%	100%	100%	100%
D B	Max	41.8	42.3	42.7	43.7	44.2	45.7	46.8
	AVG	40.4	41.5	41.6	42.2	42.8	44.1	45.9
	MIN	39.2	40.8	41.0	40.7	41.2	42.9	44.8
	% Data	100%	100%	100%	100%	100%	100%	100%
L D 1	Max	42.2	42.9	43.2	44.1	44.7	46.3	47.7
	AVG	41.1	42.2	42.6	43.3	44.0	45.1	46.7
	MIN	40.4	41.6	42.3	42.7	43.4	44.3	45.5
	% Data	100%	100%	100%	100%	100%	100%	100%
L D 2	Max	44.0	44.9	45.7	47.0	47.5	48.9	50.5
	AVG	42.7	44.0	44.9	45.8	46.5	47.4	49.2
	MIN	41.6	43.0	44.1	44.9	45.8	46.3	47.6
	% Data	100%	100%	100%	100%	100%	100%	100%
L D 3	Max	45.5	46.7	47.6	49.2	50.1	51.3	53.0
	AVG	44.0	45.5	46.5	47.4	48.7	49.5	51.4
	MIN	42.7	44.5	45.7	46.1	47.6	48.3	49.7
	% Data	100%	100%	100%	100%	100%	100%	100%
S H I	Max	46.3	47.1	48.6	49.8	50.8	51.7	52.8
	AVG	45.0	45.9	47.6	48.5	49.6	50.2	51.6
	MIN	43.9	45.0	46.7	47.3	48.5	49.1	50.6
	% Data	100%	100%	100%	100%	100%	100%	100%
Avg	ΔT	2.4	2.7	3.5	3.8	3.9	3.5	3.5
	% Data	100%	100%	100%	100%	100%	100%	100%
Date		4-Apr-05	5-Apr-05	6-Apr-05	7-Apr-05	8-Apr-05	9-Apr-05	10-Apr-05

Summary of Weekly River Temperature Monitoring

Week Beginning 11-Apr-05 Ending 17-Apr-05

DAY		1	2	3	4	5	6	7
S L 1	Max	65.0	62.9	61.3	51.9	51.9	51.9	51.9
	AVG	63.6	61.4	56.2	51.9	51.9	51.9	51.9
	MIN	62.9	60.5	51.9	51.9	51.9	51.9	51.9
	% Data	100%	100%	100%	100%	100%	100%	100%
S L 2	Max	66.1	63.3	61.8	55.9	55.0	54.2	54.8
	AVG	64.3	61.4	56.9	53.7	54.0	53.5	53.4
	MIN	63.0	57.3	51.6	51.7	53.4	52.8	52.4
	% Data	100%	100%	100%	100%	100%	100%	100%
D B	Max	48.6	48.6	50.9	52.3	53.6	53.2	54.2
	AVG	47.4	48.3	49.3	51.1	52.3	52.5	52.9
	MIN	46.6	48.0	47.7	50.0	51.0	52.1	51.8
	% Data	100%	100%	100%	100%	100%	100%	100%
L D 1	Max	48.8	49.3	50.9	52.1	53.4	53.5	54.0
	AVG	48.1	49.0	49.7	51.3	52.6	52.9	53.0
	MIN	47.3	48.5	48.9	50.2	52.1	52.5	52.2
	% Data	100%	100%	100%	100%	100%	100%	100%
L D 2	Max	51.4	51.2	52.9	54.5	55.1	54.8	55.2
	AVG	50.3	50.9	51.3	52.9	54.0	54.1	54.0
	MIN	49.5	50.4	50.4	51.4	53.1	53.3	53.0
	% Data	100%	100%	100%	100%	100%	100%	100%
L D 3	Max	53.8	52.9	54.6	55.8	56.5	55.4	56.2
	AVG	52.5	52.5	52.8	54.2	55.0	54.8	54.6
	MIN	51.6	52.0	51.4	53.1	54.0	54.1	53.3
	% Data	100%	100%	100%	100%	100%	100%	100%
S H I	Max	53.5	52.9	54.0	55.3	55.9	55.4	56.3
	AVG	52.7	52.5	52.5	53.6	54.7	54.9	54.8
	MIN	52.1	52.0	51.3	52.4	53.7	54.4	53.5
	% Data	100%	100%	100%	100%	100%	100%	100%
Avg	ΔT	3.2	2.8	2.0	1.6	1.6	1.6	1.3
	% Data	100%	100%	100%	100%	100%	100%	100%
Date		11-Apr-05	12-Apr-05	13-Apr-05	14-Apr-05	15-Apr-05	16-Apr-05	17-Apr-05

BROMINATION/CHLORINATION REPORT

From: 01-APR-05 To: 30-APR-05

Day	Bromine Kgms/day	Chlorine Kgms/day	Time mins/day	U-1 Residual	U-2 Residual	Outfall Residual
1	0	43.8	1440	0.47	0.54	<.001
2	5.2	43.1	1440	0.58	0.52	<.001
				0.38	0.28	<.001
3	35.5	45.7	1440	0.54	0.44	<.001
4	53.3	65.8	1440	0.62	0.84	<.001
5	56.4	69.7	1440	0.61	0.73	<.001
6	47.8	72.1	1440	0.68	0.73	<.001
7	52.9	61.7	1440	0.59	0.63	<.001
8	55.9	66.0	1440	0.59	0.61	<.001
9	55.9	67.3	1440	0.58	0.63	<.001
10	55.9	68.3	1440	0.50	0.59	<.001
11	54.3	71.6	1440	0.42	0.47	<.001
12	51.7	67.7	1440	0.37	0.46	<.001
13	59.7	70.9	1440	0.38	0.44	<.001
14	58.0	70.1	1440	0.28	0.36	<.001
15	57.8	67.4	1440	0.18	0.17	<.001
16	69.2	74.8	1440	0.23	0.28	<.001
17	73.9	81.9	1440	0.33	0.37	<.001
18	75.0	82.6	1440	0.29	0.32	<.001
19	72.5	81.3	1440	0.27	0.32	<.001
20	63.6	78.1	1440	0.34	0.36	<.001
21	65.9	85.9	1440	0.30	0.44	<.001
22	67.3	80.3	1440	0.30	0.36	<.001
23	67.1	79.9	1440	0.43	0.41	<.001
24	59.0	72.1	1440	0.42	0.40	<.001
25	23.3	33.1	600	0.36	0.52	<.001
26	0	0	0	<.03	<.03	<.001
27	22.3	37.1	810	<.03	<.03	<.001
				0.39	0.45	<.001
28	43.3	65.2	1440	0.42	0.62	<.001
29	45.9	67.9	1440	0.43	0.62	<.001
30	45.1	63.9	1440	0.35	0.35	<.001

Maximum Daily Chlorination Rate (Br + Cl) = 157.6 Kgms/day on the 18th.

FACILITY NAME/ADDRESS:

Xcel - Prairie Island Nuclear Generating
1717 Wakonade Dr E
Welch, MN 55089

**WASTEWATER TREATMENT
DISCHARGE MONITORING REPORT**

PERMITTEE NAME/ADDRESS:

Northern States Power Co dba Xcel Energy
414 Nicollet Mall
Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	PCS #
MN0004006	FINAL	010M 1

STATION INFORMATION:

SD-001 (Combined Effluent)
Surface Discharge, Effluent To Surface Water
Attention: James Bodensteiner

MONITORING PERIOD					
YEAR	MO.	DAY	YEAR	MO.	DAY
2005	04	01	2005	04	30

No Discharge

MPCA:LB

PARAMETER	QUANTITY	UNITS	CONCENTRATION	UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow	***** 11717.0	MG	***** 390.6	*****	✓	✓
50050	***** REPORT CalMoTot		***** REPORT DailyAve		1 x Day	MeaCon
pH	*****	****	*****	*****	✓	✓
00400	*****		8.2 6.0 CalMoMin	8.5 9.0 CalMoMax	1 x Week	Grab
Phosphorus Total (as P)	*****	****	*****	*****	0	none
00665	*****		*****	***** REPORT DailyMax	1 x Week	Grab
Chlorine Rate	***** 157.6	kg/day	*****	*****	✓	✓
50059	*****		*****	*****	1 x Day	Calcul
Oxidants (Bromine) Tot Residual Interm	*****	****	*****	*****	0	none
34046	*****		*****	***** 0.05 InstantMax	1 x Day	Grab
Oxidants (Bromine) Tot Residual Contin	*****	****	*****	*****	28/30	✓
04223	*****		*****	***** 0.001 DailyMax	1 x Day	Calcul
Oxidants (Chlorine) Tot Residual Interm	*****	****	*****	*****	0	none
03775	*****		*****	***** 0.2 InstantMax	1 x Day	Grab

Send original with supplemental DMR (if applicable) by the 21st day of month following reporting period to:
MINNESOTA POLLUTION CONTROL AGENCY
520 LAFAYETTE RD
ST. PAUL, MN 55155-4194

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

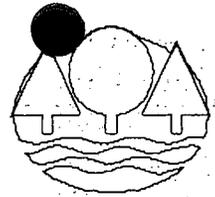
J. K. Clum
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT
5/16/05
DATE
SIGNATURE OF CHIEF OPERATOR
PHONE
DATE
CERTIFICATION#

ATTN: Discharge Monitoring Report
COMMENTS:

FACILITY NAME/ADDRESS:
 Xcel - Prairie Island Nuclear Generating
 1717 Wakonade Dr E
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 Northern States Power Co dba Xcel Energy
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	PCS #
MN0004006	FINAL	010M 1

STATION INFORMATION:
 SD-001 (Combined Effluent)
 Surface Discharge, Effluent To Surface Water
 Attention: James Bodensteiner

MONITORING PERIOD					
YEAR	MO.	DAY	YEAR	MO.	DAY
2005	04	01	2005	04	30

No Discharge

MPCA:LB

PARAMETER	QUANTITY	UNITS	CONCENTRATION	UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Oxidants (Chlorine) Tot Residual Contin 03774	SAMPLE VALUE	*****	*****	*****	mg/L	2/30 ✓
	PERMIT REQ	*****	*****	*****	0.04 DailyMax	1x Day Calcul
Plant Capacity Fctr % of Capacity 00180	SAMPLE VALUE	*****	*****	*****	%	71.1 ✓
	PERMIT REQ	*****	*****	*****	REPORT CalMoAvg	1x Day Measur

Notes

- #1 Phosphate descaler was terminated.
- #2 No intermittent chlorination/bromination

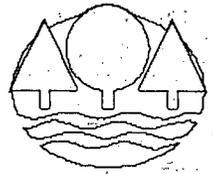
Send original with supplemental DMR (if applicable) by the 21st day of month following reporting period to: MINNESOTA POLLUTION CONTROL AGENCY 520 LAFAYETTE RD ST. PAUL, MN 55155-4194	I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.	<i>JK Elvitt</i>		5/16/05
		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		DATE
		SIGNATURE OF CHIEF OPERATOR		PHONE DATE CERTIFICATION#

ATTN: Discharge Monitoring Report
 COMMENTS:

FACILITY NAME/ADDRESS:
 Xcel - Prairie Island Nuclear Generating
 1717 Wakonade Dr E
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 Northern States Power Co dba Xcel Energy
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	PCS #
MN0004006	FINAL	011M 1

STATION INFORMATION:
 SD-002 (Steam Generator Blowdown Discharge)
 Surface Discharge, Effluent To Surface Water

MONITORING PERIOD					
YEAR	MO.	DAY	YEAR	MO.	DAY
2005	04	01	2005	04	30

Attention: James Bodensteiner

FROM

TO

No Discharge

MPCA:LB

PARAMETER	QUANTITY	UNITS	CONCENTRATION		UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE		
Flow 50050	*****	1.574	MG	*****	0.052	*****	mgd	✓	✓
	SAMPLE VALUE	REPORT						1 x Month	Estima
	PERMIT DEC	CalMoTot			CalMoAvg				
TSS 00530	0.236	0.236	kg/day	*****	1.2	1.2	mg/L	✓	✓
	65.3	217.0			30	100		1 x Month	Grab
	CalMoAvg	DailyMax			CalMoAvg	DailyMax			

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 MINNESOTA POLLUTION CONTROL AGENCY
 520 LAFAYETTE RD
 ST. PAUL, MN 55155-4194

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

JK Elvitt
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT
 DATE: 5/16/05

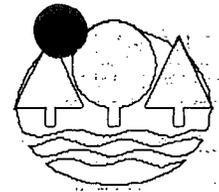
 SIGNATURE OF CHIEF OPERATOR
 PHONE: _____ DATE: _____ CERTIFICATION#: _____

ATTN: Discharge Monitoring Report
 COMMENTS:

FACILITY NAME/ADDRESS:
 Xcel - Prairie Island Nuclear Generating
 1717 Wakonade Drive
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 Northern States Power Co dba Xcel Energy
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	PCS #
MN0004006	FINAL	012M 1

STATION INFORMATION:

SD-003 (Radwaste Treatment Effluent)
 Surface Discharge, Effluent To Surface Water

Attention: James Bodensteiner

MONITORING PERIOD					
YEAR	MO.	DAY	YEAR	MO.	DAY
2005	04	01	2005	04	30

No Discharge

MPCA:LB

PARAMETER	QUANTITY	UNITS	CONCENTRATION	UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE			
Flow	*****	0.203	MG	*****	0.007	*****	mgd	✓	✓
50050	PERMIT	REPORT	CalMoTot	PERMIT	REPORT	CalMoAvg		1 x Month	Estima
TSS	<0.026	<0.026	kg/day	*****	<1.0	<1.0	mg/L	✓	✓
00530	PERMIT	26.0	86.9	PERMIT	30	100		1 x Month	Grab
	CalMoAvg	CalMoAvg	DailyMax	CalMoAvg	CalMoAvg	DailyMax			

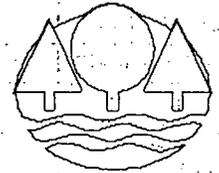
Send original with supplemental DMR (if applicable) by the 21st day of month following reporting period to: MINNESOTA POLLUTION CONTROL AGENCY 520 LAFAYETTE RD ST. PAUL, MN 55155-4194	I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	5/16/05 DATE
		SIGNATURE OF CHIEF OPERATOR	PHONE DATE CERTIFICATION#

ATTN: Discharge Monitoring Report
 COMMENTS:

FACILITY NAME/ADDRESS:
 Xcel - Prairie Island Nuclear Generating
 1717 Wakonade Dr E
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 Northern States Power Co dba Xcel Energy
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	PCS #
MN0004006	FINAL	013M 1

STATION INFORMATION:
 SD-004 (Neutralizer + Resin Rinse Discharge)
 Surface Discharge, Effluent To Surface Water
 Attention: James Bodensteiner

MONITORING PERIOD					
YEAR	MO.	DAY	YEAR	MO.	DAY
2005	04	01	2005	04	30

FROM

TO

No Discharge

MPCA:LB

PARAMETER	QUANTITY	UNITS	CONCENTRATION	UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow	*****	MG	*****	mgd		
50050	REPORT CalMoTot		REPORT CalMoAvg		1 x Month	Estima
TSS	97.9	kg/day	30	mg/L		
00530	CalMoAvg 326.0 DailyMax		CalMoAvg 100 DailyMax		1 x Month	Grab

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 MINNESOTA POLLUTION CONTROL AGENCY
 520 LAFAYETTE RD
 ST. PAUL, MN 55155-4194
 ATTN: Discharge Monitoring Report

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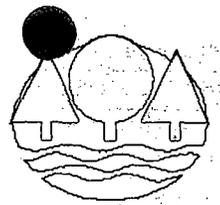
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		5/16/05 DATE	
SIGNATURE OF CHIEF OPERATOR		PHONE	DATE
		CERTIFICATION#	

COMMENTS:

FACILITY NAME/ADDRESS:
 Xcel - Prairie Island Nuclear Generating
 1717 Wakonade Dr E
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 Northern States Power Co dba Xcel Energy
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	PCS #
MN0004006	FINAL	014M 1

STATION INFORMATION:

SD-005 (Unit 1 Turbine Bldg Sump Dschg)
 Surface Discharge, Effluent To Surface Water

Attention: James Bodensteiner

MONITORING PERIOD					
YEAR	MO.	DAY	YEAR	MO.	DAY
2005	04	01	2005	04	30

No Discharge

MPCA:LB

PARAMETER	QUANTITY	UNITS	CONCENTRATION	UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE				
Flow 50050	SAMPLE VALUE	*****	0.707	MG	*****	0.024	*****	mgd	✓	✓
	PERMIT REQ	*****	REPORT CalMoTot		*****	REPORT CalMoAvg			1 x Month	Estima
TSS 00530	SAMPLE VALUE	*****	*****	****	*****	5.5	5.5	mg/L	✓	✓
	PERMIT REQ	*****			*****	30 CalMoAvg	100 DailyMax		1 x Month	Grab
Oil Total Recoverable 00552	SAMPLE VALUE	*****	*****	****	*****	<1	<1	mg/L	✓	✓
	PERMIT REQ	*****			*****	10 CalMoAvg	15 DailyMax		1 x Month	Grab

Send original with supplemental DMR (if applicable) by the 21st day of month following reporting period to:

MINNESOTA POLLUTION CONTROL AGENCY
 520 LAFAYETTE RD.
 ST. PAUL, MN 55155-4194

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

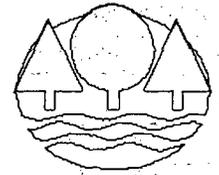
<i>JK Cluett</i>		5/16/05	
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		DATE	
SIGNATURE OF CHIEF OPERATOR		PHONE	DATE
			CERTIFICATION#

ATTN: Discharge Monitoring Report
 COMMENTS:

FACILITY NAME/ADDRESS:
 Xcel - Prairie Island Nuclear Generating
 1717 Wakonade Dr E
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 Northern States Power Co dba Xcel Energy
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	PCS #
MN0004006	FINAL	015M 1

STATION INFORMATION:
 SD-006 (Unit 2 Turbine Bldg Sump Dschg)
 Surface Discharge, Effluent To Surface Water
 Attention: James Bodensteiner

MONITORING PERIOD					
YEAR	MO.	DAY	YEAR	MO.	DAY
2005	04	01	2005	04	30

FROM 2005/04/01 TO 2005/04/30 No Discharge

MPCA:LB

PARAMETER	QUANTITY	UNITS	CONCENTRATION	UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE				
Flow 50050	SAMPLE VALUE	*****	0.844	MG	*****	0.028	*****	mgd	✓	✓
	PERMIT REQ.	*****	REPORT CalMoTot		*****	REPORT CalMoAvg			1 x Month	Estima
TSS 00530	SAMPLE VALUE	*****	*****	****	*****	5.0	10.3	mg/L	✓	✓
	PERMIT REQ.	*****			*****	30 CalMoAvg	100 DailyMax		1 x Month	Grab
Oil Total Recoverable 00552	SAMPLE VALUE	*****	*****	****	*****	1.0	1.0	mg/L	✓	✓
	PERMIT REQ.	*****			*****	10 CalMoAvg	15 DailyMax		1 x Month	Grab

Send original with supplemental DMR (if applicable) by the 21st day of month following reporting period to:
 MINNESOTA POLLUTION CONTROL AGENCY
 520 LAFAYETTE RD
 ST. PAUL, MN 55115-4194
 ATTN: Discharge Monitoring Report
 COMMENTS:

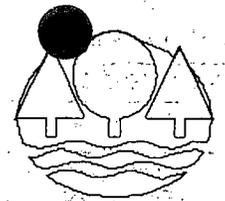
I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		DATE	
SIGNATURE OF CHIEF OPERATOR		PHONE	CERTIFICATION#

FACILITY NAME/ADDRESS:
 Xcel - Prairie Island Clear: Generating
 1717 Wakonade Dr E
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 Northern States Power Co dba Xcel Energy
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	PCS #
MN0004006	FINAL	016M 1

STATION INFORMATION:
 SD-007 (Metal Cleaning Effluent Discharge)
 Surface Discharge, Effluent To Surface Water

MONITORING PERIOD					
YEAR	MO.	DAY	YEAR	MO.	DAY
2005	04	01	2005	04	30

Attention: James Bodensteiner

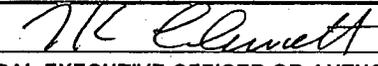
FROM

TO

No Discharge

MPCA: LB

PARAMETER	QUANTITY	UNITS	CONCENTRATION	UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow	*****	MG	*****	mgd		
50050	REPORT CalMoTot		REPORT CalMoAvg		1 x Day	Estima
TSS	*****	kg/day	*****	mg/L		
00530	0.6 CalMoAvg	1.9 DailyMax	30 CalMoAvg	100 DailyMax	1 x Day	Grab
pH	*****	*****	*****	SU		
00400	*****	*****	6.0 CalMoMin	9.0 CalMoMax	1 x Week	Grab
Copper Total (as Cu)	*****	kg/day	*****	mg/L		
01042	0.02 CalMoAvg	0.02 DailyMax	1.0 CalMoAvg	1.0 DailyMax	1 x Day	Grab
Iron Total (as Fe)	*****	kg/day	*****	mg/L		
01045	0.02 CalMoAvg	0.02 DailyMax	1.0 CalMoAvg	1.0 DailyMax	1 x Day	Grab
Oil Total Recoverable	*****	kg/day	*****	mg/L		
00552	0.2 CalMoAvg	0.3 DailyMax	10 CalMoAvg	15 DailyMax	1 x Day	Grab

Send original with supplemental DMR (if applicable) by the 21st day of month following reporting period to: MINNESOTA POLLUTION CONTROL AGENCY 520 LAFAYETTE RD ST. PAUL, MN 55155-4194 ATTN: Discharge Monitoring Report	I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		5/18/05 DATE
		SIGNATURE OF CHIEF OPERATOR	PHONE	DATE

COMMENTS:

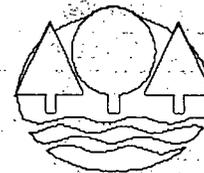
FACILITY NAME/ADDRESS:

Xcel - Prairie Island Nuclear Generating
1717 Wakonade Dr. E
Welch, MN 55089

**WASTEWATER TREATMENT
DISCHARGE MONITORING REPORT**

PERMITTEE NAME/ADDRESS:

Northern States Power Co dba Xcel Energy
414 Nicollet Mall
Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	PCS #
MN0004006	FINAL	030M 1

STATION INFORMATION:

SD-012 (Intake Screen Backwash + Fish Retn)
Surface Discharge, Effluent To Surface Water

MONITORING PERIOD					
YEAR	MO.	DAY	YEAR	MO.	DAY
2005	04	01	2005	04	30

Attention: James Bodensteiner

FROM

TO

No Discharge

MPCA:LB

PARAMETER	QUANTITY	UNITS	CONCENTRATION	UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow	60.0	MG	2.0	mgd	✓	✓
50050	REPORT CalMoTot		REPORT CalMoAvg		1 x Month	Estima

Send original with supplemental DMR (if applicable) by the 21st day of month following reporting period to:
MINNESOTA POLLUTION CONTROL AGENCY
520 LAFAYETTE RD
ST. PAUL, MN 55115-4194

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

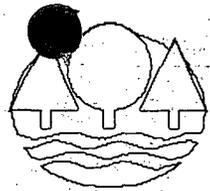
<i>2/K Clavett</i>		<i>5/16/05</i>	
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		DATE	
/			
SIGNATURE OF CHIEF OPERATOR	PHONE	DATE	CERTIFICATION#

ATTN: Discharge Monitoring Report
COMMENTS:

FACILITY NAME/ADDRESS:
 Xcel - Prairie Island Nuclear Generating
 1717 Wakonade Dr E
 Welch, MN 55089

WASTEWATER TREATMENT
 DISCHARGE MONITORING REPORT

PERMITTEE NAME/ADDRESS:
 Northern States Power Co dba Xcel Energy
 414 Nicollet Mall
 Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	PCS #
MN0004006	FINAL	

STATION INFORMATION:
 WS-001 (Unit 1 Plant Cooling Water Dschg)
 Waste Stream, Internal Waste Stream

MONITORING PERIOD					
YEAR	MO.	DAY	YEAR	MO.	DAY
2005	04	01	2005	04	30

Attention: James Bodensteiner

FROM

TO

No Flow

MPCA:LB

PARAMETER	QUANTITY	UNITS	CONCENTRATION	UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow	* 534.0	MG	17.8	mgd	✓	✓
50050	REPORT CalMoTot		REPORT CalMoAvg		1 x Day	MeaCon
Oxidants					✓	✓
Total Residual			0.68	mg/L	1 x Day	Grab
34044			2.0 DailyMax			

* Combined flow of WS-001 and WS-002

Send original with supplemental DMR (if applicable) by the 21st day of month following reporting period to:
 MINNESOTA POLLUTION CONTROL AGENCY
 520 LAFAYETTE RD
 ST. PAUL, MN 55155-4194

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

<i>[Signature]</i>		5/16/05	
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		DATE	
/			
SIGNATURE OF CHIEF OPERATOR	PHONE	DATE	CERTIFICATION#

ATTN: Discharge Monitoring Report
 COMMENTS:

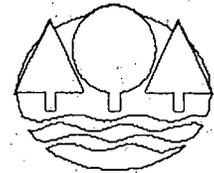
FACILITY NAME/ADDRESS:

Xcel - Prairie Island Nuclear Generating
1717 Wakonade Dr E
Welch, MN 55089

**WASTEWATER TREATMENT
DISCHARGE MONITORING REPORT**

PERMITTEE NAME/ADDRESS:

Northern States Power Co dba Xcel Energy
414 Nicollet Mall
Minneapolis, MN 554011993



PERMIT #	LIMIT STATUS	PCS #
MN0004006	FINAL	022M 8

STATION INFORMATION:

WS-002 (Unit 2 Plant Cooling Water Dschg)
Waste Stream, Internal Waste Stream

MONITORING PERIOD					
YEAR	MO.	DAY	YEAR	MO.	DAY
2005	04	01	2005	04	30

Attention: James Bodensteiner

FROM

TO

No Flow

MPCA:LB

PARAMETER		QUANTITY	UNITS	CONCENTRATION			UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE	
Flow 50050	SAMPLE VALUE	*****	* 534.0	MG	*****	17.8	*****	mgd	✓	✓
	PERMIT REQ	*****	REPORT CalMoTot		*****	REPORT CalMoAvg	*****		1 x Day	WeaCon
Oxidants Total Residual 34044	SAMPLE VALUE	*****	*****	****	*****	0.84	*****	mg/L	✓	✓
	PERMIT REQ	*****	*****		*****	2.0 DailyMax	*****		1 x Day	Grab

* Combined flow of WS-001 and WS-002.

Send original with supplemental DMR (if applicable) by the 21st day of month following reporting period to:
MINNESOTA POLLUTION CONTROL AGENCY
520 LAFAYETTE RD
ST. PAUL, MN 55115-4194

ATTN: Discharge Monitoring Report
COMMENTS:

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief the information is true, complete, and accurate.

<i>J. K. Clenduff</i>		5/18/05	
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		DATE	
/			
SIGNATURE OF CHIEF OPERATOR	PHONE	DATE	CERTIFICATION#

101 316b Binder.txt

Request 101: Entire 316(b) Binder

Please see the binder included in this transmittal.

DATE: July 2, 2008

MEMORANDUM

FROM: Wendy Larson

PROJECT: MPCALP3

TO: Norman Senjem
Minnesota Pollution Control Agency

CC: Todd Redder, Peter Klaver, Joe DePinto, Hans Holmberg

SUBJECT: Assessment of Temperature Impacts from Prairie Island Nuclear Generating Plant

Summary

LimnoTech applied the Upper Mississippi River-Lake Pepin (UMR-LP) water quality model to assess temperature impacts from the Prairie Island Nuclear Generating (PING) plant in Pool 3. The UMR-LP model has been developed by LimnoTech under contract to the Minnesota Pollution Control Agency (MPCA) to support the TMDL for the Upper Mississippi River and Lake Pepin. Temperature impacts were evaluated for 2006 hydrologic conditions at normal Pool 3 water surface elevation, and three drawdown scenarios: 1 foot; 1.5 feet; and 2 feet. The purpose of the analyses was to determine if the PING would have a greater impact on instream temperatures under drawdown conditions, should they occur in the future.

The modeling results indicate that drawdown would have a minor impact on the temperature difference between the upstream and downstream stations and, in general, drawdown would decrease rather than increase instream temperatures.

Background

The Prairie Island Nuclear Generating Plant is located on the Mississippi River upstream of Lock and Dam 3 (LD3), as shown in Figure 1. The plant discharges condenser/circulating water and cooling water to the river via a condenser/circulating water system discharge canal through surface discharge SD 001.

The plant is limited in the amount of heat it may discharge to the river (MPCA, 2006), and cooling tower operation is sometimes required to meet the thermal limitations. The thermal limitations regulating the plant cooling water discharge are described in the permit in Chapter 5 Part 2: "Applicable Effluent Limitations – Thermal Limitations." The plant's thermal load to the river is limited by the mixed river temperature immediately below LD3 downstream of the plant. Temperature monitoring is conducted at SD 001 (condenser/circulating water and cooling water discharge canal outfall), at the plant intake (SW 002), at the main river channel near Diamond Bluff (SW 003-upstream river point), at a point(s) in Sturgeon Lake (SW 004-upstream river point), and immediately downstream of LD3 by three separate temperature probes (SW 001). This monitoring is conducted to determine the ambient river water temperature, assess the plant's thermal input, and assure compliance with applicable thermal limitations.

The applicable temperature limitation is described in Section 2.3 of the permit as follows:

“For the purposes of this permit, the fall trigger point is defined as the point at which the daily average upstream ambient river temperature falls below 43 degrees F for five consecutive days.

During the period April 1 through the fall thermal point the Permittee shall operate the cooling towers and associated equipment, to the extent necessary, in such a way that the cooling water discharge satisfies the following conditions:

- 1) Does not raise the temperature of the receiving water immediately below Lock and Dam No. 3 by more than 5 degrees F above ambient based on upstream monitoring data and the monthly averages of maximum daily temperatures at the three monitoring probes located on the piers dividing the four gated sections of the dam.
- 2) In no case shall it exceed a daily average temperature of 86 degrees F.
- 3) If the daily average ambient river temperature reaches 78 degrees F for two consecutive days, the Permittee shall operate all cooling towers to the maximum extent practicable. For single unit operations, this requirement is satisfied by operation of two of the four cooling towers.”

Table 1 summarizes the permit requirements.

Table 1. Temperature limitations at LD3 (SW 001) from NPDES permit (MPCA, 2006)

SW 001: Mississippi River Below Lock & Dam #3

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Temperature Difference Between Sample & Reference Point in F	5	Deg F	Monthly Average of Daily Maximum	Apr-Oct	Measurement, Continuous	1 x Day	9
Temperature, Water	86	Deg F	Daily Average	Jan-Dec	Measurement, Continuous	1 x Day	8
Temperature, Water	43	Deg F	Daily Average Intervention	Nov-Mar	Measurement, Continuous	1 x Day	5
Temperature, Water	43	Deg F	Daily Average Intervention	Apr-Oct	Measurement, Continuous	1 x Day	10

Notes:

5 -- Once the temperature in the receiving water falls below 43 degrees F for five consecutive days the discharge shall not raise the temperature of the receiving water above 43 degrees for an extended period of time. If the temperature in the river is greater than 43 degrees F for two consecutive days the Permittee shall notify the MPCA. This limit applies until the ambient river temperature increases to 43 degrees F or above for 5 consecutive days or until April 1, whichever occurs first. The Permittee shall submit the daily maximum, daily average, and daily minimum temperature collected at each of the three monitoring probes located on the dividing piers at Lock and Dam No. 3 with the monthly DMR.

8 -- See applicable sections in Chapter 2 and 5 for thermal limitations and data collection requirements.

9 -- Starting April 1 the discharge shall not raise the temperature of the receiving water greater than 5 degrees F above the ambient water temperature based on the monthly averages of maximum daily temperatures at the three monitoring probes (reference point) located on the piers dividing Lock and Dam No. 3. This limit applies until such a point when the daily average temperature of the receiving water is less than 43 degrees F for 5 consecutive days.

10 -- Starting April 1 the discharge shall not raise the temperature of the receiving water greater than 5 degrees F above the ambient water temperature. This limit applies until such a point when the daily average temperature of the receiving water is less than 43 degrees F for 5 consecutive days. The Permittee shall submit the daily maximum, daily average, and daily minimum temperature for each of the three monitoring probes located on the dividing piers at Lock and Dam No. 3 with the monthly DMR.

Data Availability

Temperature data were obtained from Brent Kuhl at Xcel Energy. Water temperature is routinely measured by Xcel Energy at locations upstream and downstream of the plant, as follows:

- Upstream samples are collected at two locations:
 - The primary upstream monitoring station at Diamond Bluff, SW 003, is located in the main river channel 50 feet downstream of Wing Dam 22 and 80 feet from the east bank.
 - Two separate monitoring stations are located at the mouth of Sturgeon Lake on the east and west shores, SW 002 and SW 004, as shown in Figure 1. These monitors are removed from service once the ambient river temperature drops to 43 °F, and are typically returned to service in April.
- Downstream samples are collected at Station SW 001 at LD3. Thermocouples are located on three dam piers on the downside of the dam.

Discharge temperature is monitored at Station SD 001 in the condenser/circulation water and cooling water discharge canal. A continuous record of daily temperature in the discharge canal was not available for the calibration period (2006), so temperature discharged from one of four cooling towers, where available, was used as a basis for filling in gaps. Although there were no concurrent measurements of temperature at the two locations, it was apparent upon inspection that the cooling tower temperatures were consistently lower than the SD 001 temperatures. The absolute difference in temperature between the cooling tower and SD 001 locations, however, appeared to vary over the course of the year. The cooling tower where temperature was monitored is located upstream of three other cooling towers, so the operation of the other towers influences the temperature difference along with any losses that may occur from the discharge canal. Ultimately, a range of constant temperature adjustments were chosen to provide a smooth transition between the measured SD 001 temperatures and the adjusted cooling tower temperatures; this result is shown in Figure 2. The constant temperature adjustments ranged from 4 to 14 °F. Note that for some periods neither SD 001 nor cooling tower temperatures were available; in these instances, the discharge canal temperature was kept constant at the last day for which discharge canal data were available.

Model Calibration

A comparison of model results for daily average temperature to data for the April-November, 2006 period is shown in Figure 3. The model-predicted daily average temperature difference between Diamond Bluff and LD3 is compared to data in Figure 4. Overall, model performance for the calibration period is quite good, with model-data differences of approximately 1 degree or less. Uncertainties associated with estimates of discharge temperature based on cooling tower discharge (due to a lack of a continuous discharge record) likely account for the observed differences.

Drawdown Scenarios

Three drawdown scenarios (1.0, 1.5, and 2.0 feet) were simulated by decreasing the water level at LD3 by these amounts on a daily basis. All simulations resulted in little change in absolute temperature at Diamond Bluff and at Lock and Dam 3, as shown in Figures 5 and 6. The temperature difference between the Diamond Bluff and LD3 stations under baseline (i.e., no drawdown) and three drawdown scenarios is shown in Figure 7. Modeling results indicate that during most time periods, drawdown has a small impact on the temperature difference between the upstream and downstream stations and, in general, drawdown decreases the temperature difference.

The finding that drawdown decreases rather than increases the temperature difference may be counterintuitive. One might expect that drawdown would increase the temperature difference, because discharge from the PING plant would have a greater impact on water temperature when the water is lower and there is less water volume. However, the PING plant thermal load is not the only input to the system; heat transfer by radiation, conduction and evaporation also play a role, and the relative impact of these processes vary with hydrometeorological conditions. While the heat input from the PING load is always positive, the net effect of the other processes may be positive or negative. The actual amount of heat transferred to, or from, the river between two monitoring stations, for a given combination of meteorological conditions, is largely dependent on the residence time of the river discharge between the two stations. The effect of drawdown is to reduce the volume occupied by the river discharge, but it has little effect on the discharge itself, so the residence time decreases. This in turn decreases the amount of heat transfer that occurs between the two monitoring stations.

Whether these factors result in an overall increase or decrease in the temperature change between the two stations depends not only on whether the net heat transfer is positive or negative, but also on its magnitude relative to the PING thermal load. Based on the river surface area between Diamond Bluff and LD3, net heat transfer from meteorological sources tends to be on the order of 100 MW, compared to thermal inputs from PING on the order of 1,000 MW. This largely explains why the effects of drawdown on temperature differences between Diamond Bluff and LD3 are not large.

References

- MPCA. 2006. National Pollutant Elimination System (NPDES) and State Disposal System (SDS) Permit MN 0004006 for Prairie Island Nuclear Generating Plant. Issued September, 2005; modified June 30, 2006.

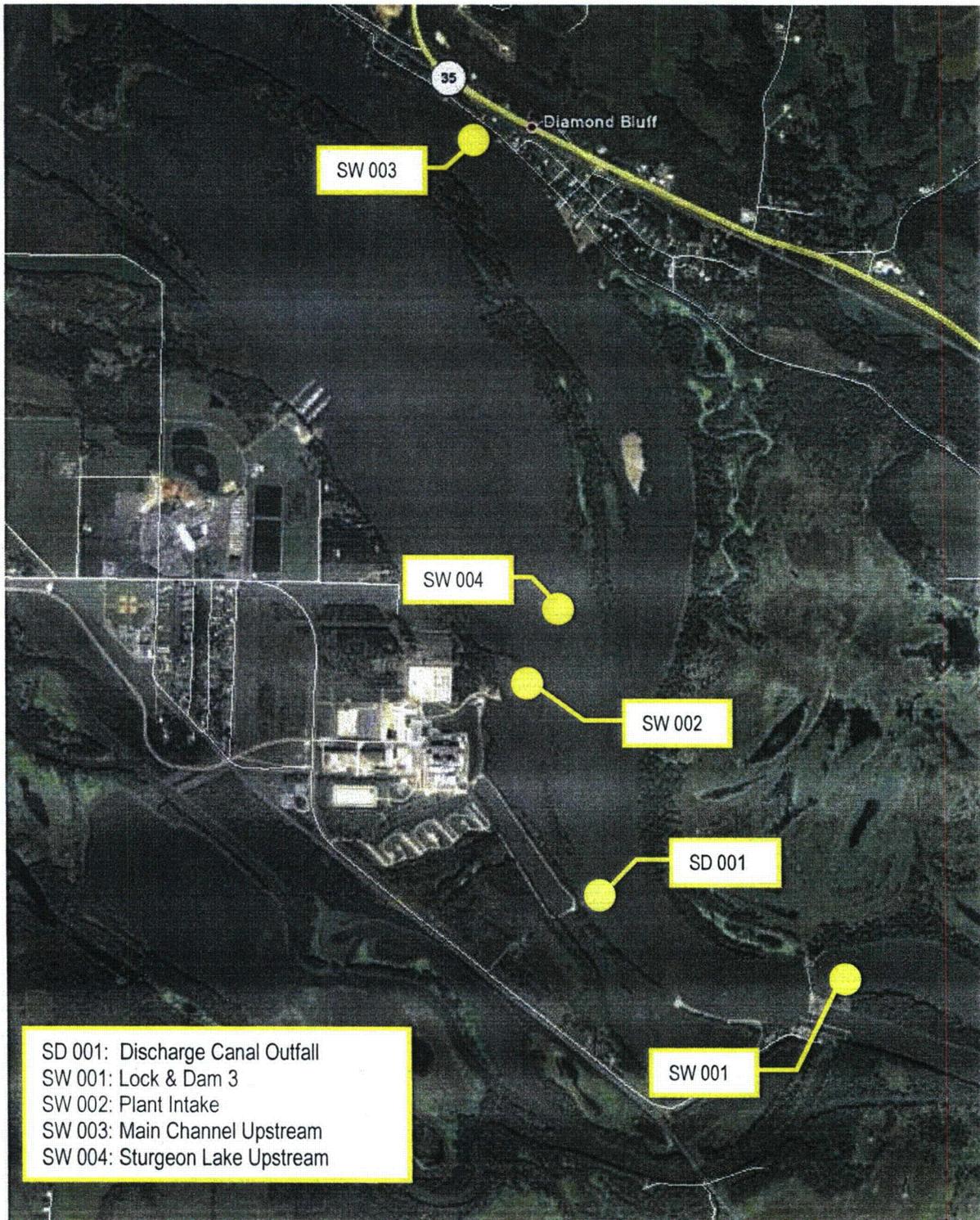


Figure 1. Map of PING facility with temperature monitoring locations

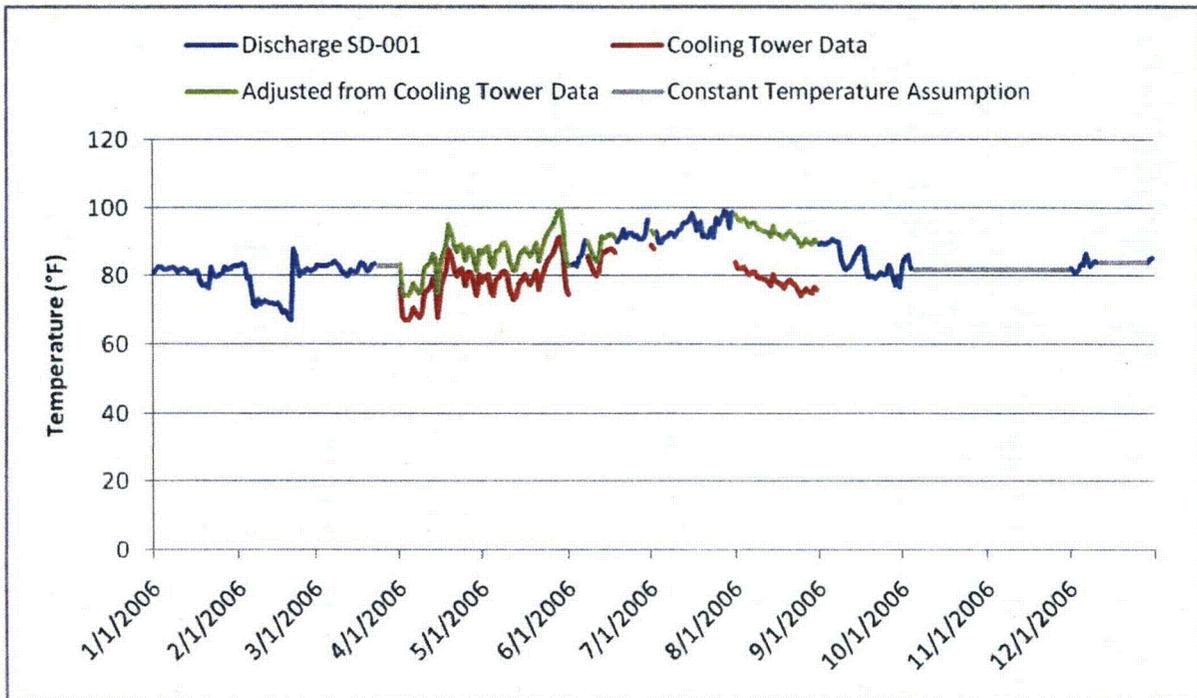


Figure 2. Development of PING temperature inputs for UMR-LP model

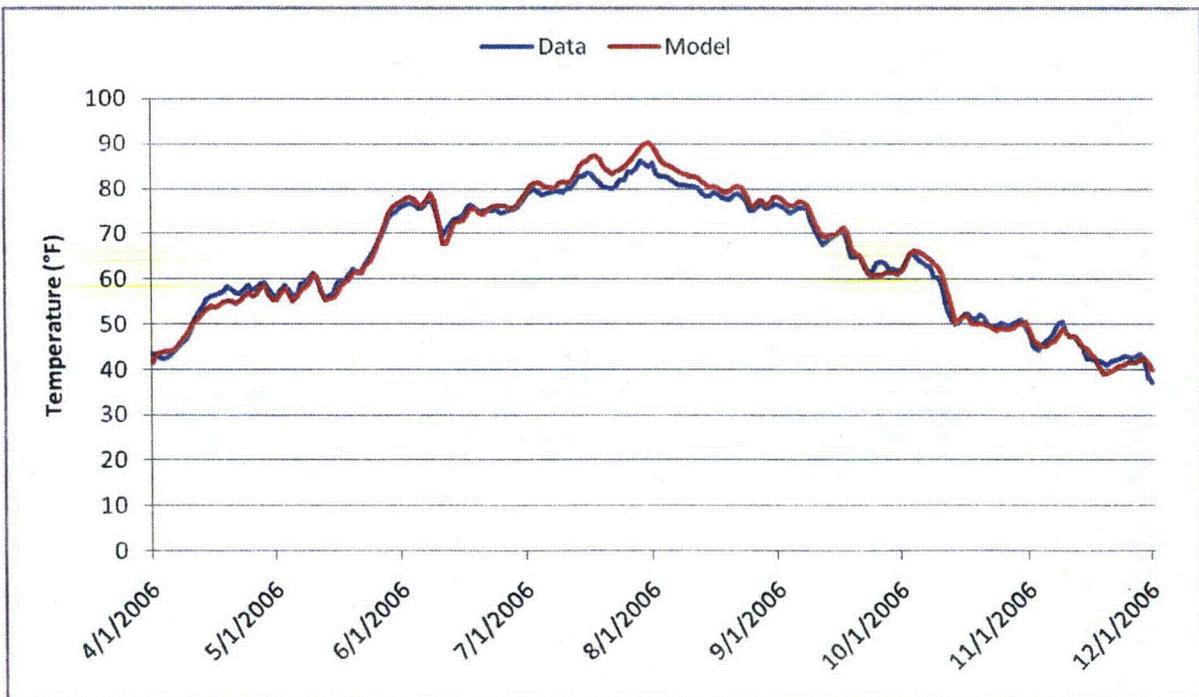


Figure 3. Instream temperatures below LD3: model to data comparison

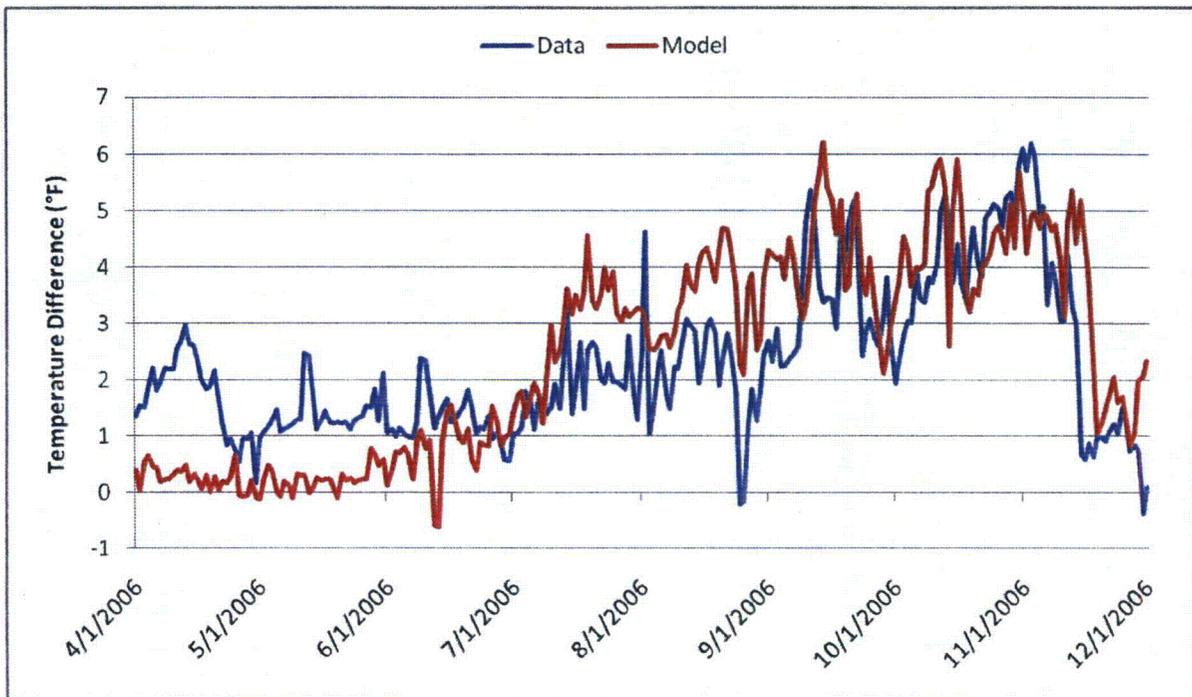


Figure 4. Temperature difference between Diamond Bluff and LD3: model to data comparison

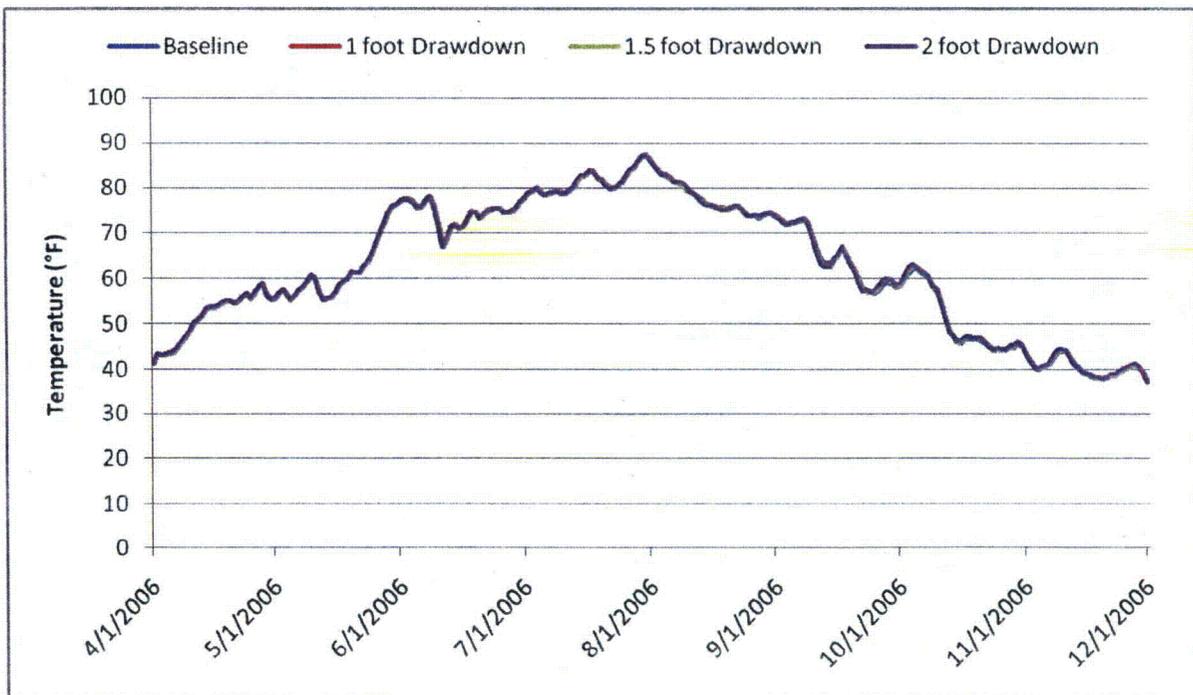


Figure 5. Temperatures at Diamond Bluff for various drawdown scenarios

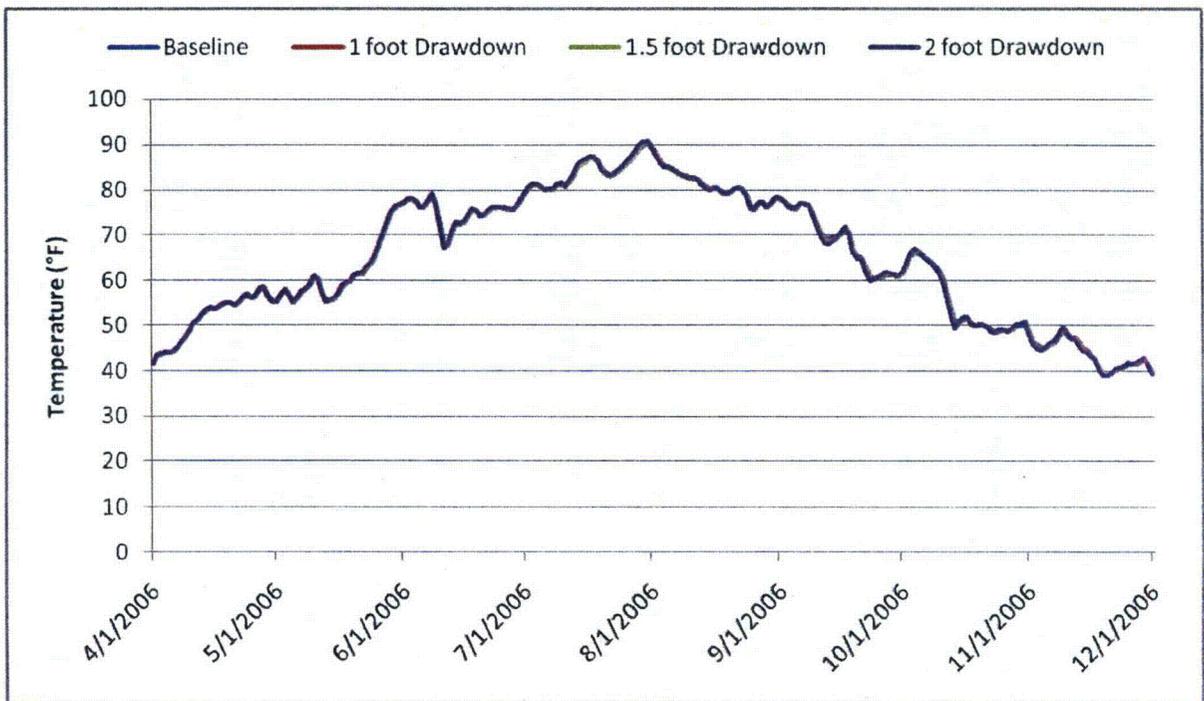


Figure 6. Temperatures at LD3 for various drawdown scenarios

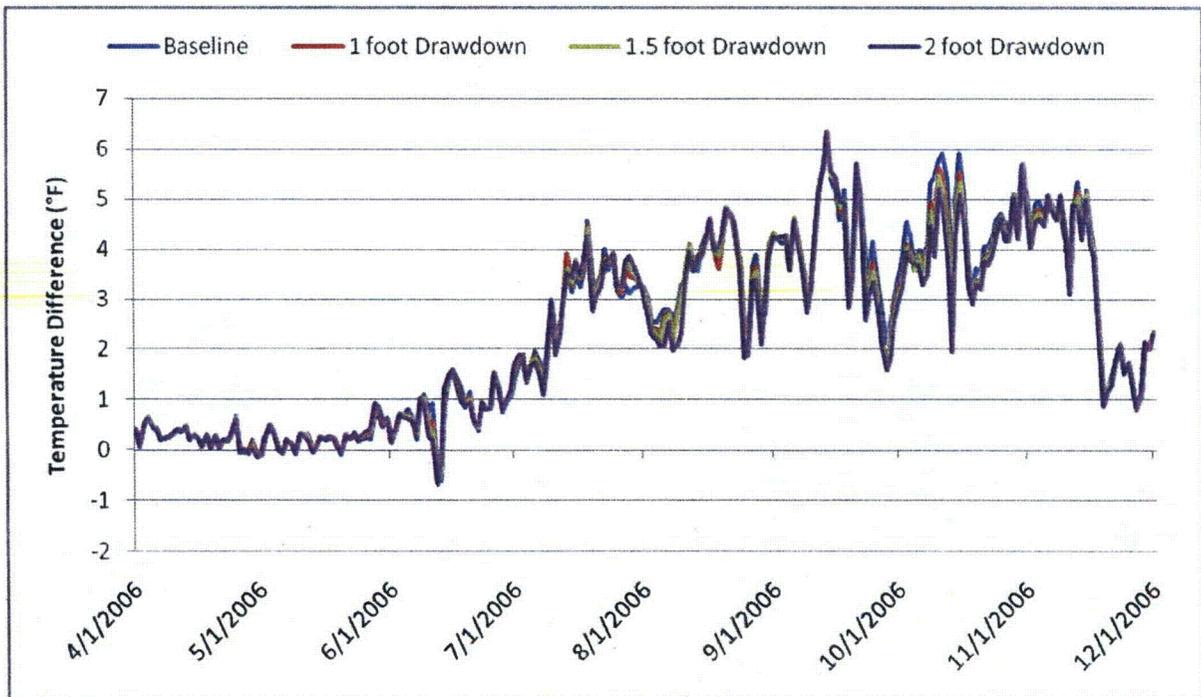


Figure 7. Temperature difference between Diamond Bluff and LD3 for various drawdown scenarios