ENCLOSURE 1

OFF-SITE RADIATION DOSE ASSESSMENT FOR

January 01, 2005 – December 31, 2005

8 pages follow

PRAIRIE ISLAND NUCLEAR GENERATING PLANT
OFF-SITE RADIATION DOSE ASSESSMENT FOR

January through December 2005

An Assessment of the radiation dose due to releases from Prairie Island Nuclear Generating Plant during 2005 was performed in accordance with the Offsite Dose Calculation Manual as required by Technical Specifications. Computed doses were well below the 40 CFR Part 190 Standards and 10 CFR Part 50 Appendix I Guidelines.

Off-site dose calculation formulas and meteorological data from the Off-site Dose Calculation Manual were used in making this assessment. Source terms were obtained from the Annual Radioactive Effluent and Waste Disposal Report prepared for NRC review for the year of 2005.

Off-site Doses from Gaseous Release

Computed doses due to gaseous releases are reported in Table 1. Critical receptor location and pathways for organ doses are reported in Table 2. Gaseous release doses are a small percentage of Appendix I Guidelines.

Off-site Doses from Liquid Release

Computed doses due to liquid releases are reported in Table 1. Critical receptor information is reported in Table 2. Liquid release doses, both whole body and organ, are a small percentage of Appendix I Guidelines.

Doses to Individuals Due to Activities Inside the Site Boundary

Occasionally sportsmen enter the Prairie Island site for recreational activities. These individuals are not expected to spend more than a few hours per year within the site boundary. Commercial and recreational river traffic exists through this area.

For purposes of estimating the dose due to recreational and river water transportation activities within the site boundary, it is assumed that the limiting dose within the site boundary would be received by an individual who spends a total of seven days per year on the river just off-shore from the plant buildings (ESE at 0.2 miles). The gamma dose from noble gas releases and the whole body and organ doses from the inhalation pathway due to Iodine 131, Iodine-133, tritium and long-lived particulates were calculated for this location and occupancy time. These doses are reported in Table 1.

ABNORMAL RELEASES

There **were no** abnormal releases for 2005.

40CFR190 COMPLIANCE

The calculated dose from the release of radioactive materials in liquid or gaseous effluents **did not** exceed twice the limits of 10CFR50, Appendix I, therefore compliance with 40CFR190 **is not** required to be assessed, in this report.

SAMPLING, ANALYSIS AND LLD REQUIREMENTS

The minimum sampling frequency, minimum analysis frequency and lower limit of detection (LLD) requirements, as specified in ODCM Tables 2.1 and 3.1 **were** exceeded in the following instances:

1. SOFTWARE ISSUE CAUSES INACCURATE QUANTIFICATION OF NIOBIUM 95

Due to the parent/daughter relationship between Zirconium-95 and Niobium-95 and the fact that Nb-95 has a larger dose factor, it was decided to adjust the amount of Nb-95 identified to equal that of the Zr-95, when ever Nb-95 was present and the quantity of Zr-95 exceeded that of the Nb-95.

The software was modified to adjust the Nb-95 concentration to match the higher Zr-95 concentration. When Nb-95 was detected in a spectrum file, the Nb-95 concentration was stored for later comparison to the Zr-95 concentration. If the sample did not contain Zr-95, the original identified Nb-95 concentration should have been added to the release spectrum file.

On October 13th, during preparation for a waste tank release it was noted that the spectrum identified Nb-95, but the Pre-Release Authorization did not include Nb-95.

From the time the software was modified until 10/13/05, the site was not calculating the amount of Nb-95 released via liquid waste tank releases whenever Nb-95 was present in the sample and Zr-95 was not present. The data transfer problem only existed when the two isotopes were at the lower edge of detection.

Cause: A programming error caused the Nb-95 to be omitted from the release file if Zr-95 was not present.

Corrective Action: The software was modified to correct the error and tested on 10/13/05.

Results: From 1993 through 2005, there were 91 instances identified, when the Nb-95 was not correctly transferred to the effluent software. The total number of uCi released over those 91 instances was 630 uCi.

Examination of the 10CFR-20 Maximum Permissible Concentration Limits, at the point of discharge was performed. During the 13 year period of 1993 through 2005 the Maximum Permissible Concentration was not exceeded.

The dose received was 8.0E-09 mRem to the total body and 9.0E-05 mRem to the critical organ (GI-LLI).

The maximum dose received for a given year, 1996, was 1.60E-09 mRem to the total body and 1.81E-05 mRem to the critical organ (GI-LLI).

The minimum dose received for a given year, 2004, was 1.08E-10 mRem to the total body and 1.22E-06 mRem to the critical organ (GI-LLI).

The additional dose resulting from the release of the unreported Nb-95 did not impose a risk to the Health and safety of the public.

The event was captured in the site's Action Request Process, CAP-01000932.

The event was reported to the NRC Region 3 RP Inspector, at the time of the event.

2. ODCM QUARTERLY COMPOSITE SAMPLE LOST

An aliquot of sample (particulate filter) is saved from each airborne release. At the end of each quarter, a composite sample is prepared, for each release path, and shipped to a vendor for Sr-89/90 analysis. These analyses are required by the ODCM (Offsite Dose Calculations Manual).

Some time after Quarter 2 Composite Preparation, the Spent Fuel Pool Ventilation Filters were lost. An exhaustive search was made, but the filters were not found.

Cause: Control of the composites samples was insufficient.

Corrective Actions: The procedure controlling the compositing and storage of samples awaiting shipment was enhanced to include additional controls and to require inventories be performed by all persons handling the samples.

A storage container for the prepared samples was provided to segregate and protect prepared samples from loss.

Results: The lost samples were verified to be non-radioactive per the count performed during compositing and shipping preparation.

A review of data for all ventilation pathways for the last 3 years noted all Sr-89/90 results were less than minimum detectable activity.

A review of data for all other ventilation pathways for quarter 2 and all ventilation pathways for the subsequent quarter (quarter 3) noted all Sr-89/90 results were less than minimum detectable activity.

A value of <MDA was entered for Quarter 2 2005 Spent Fuel Pool Ventilation composite.

There was no imposition upon the health and safety of the public.

The event was captured in the site's Action Request Process, CAP-044128.

The event was reported to the NRC Region 3 RP Inspector, at the time of the event.

MONITORING INSTRUMENTATION

There **were no** occurrences when less than the minimum required radioactive liquid and/or gaseous effluent monitoring instrumentation channels were operable as required by ODCM Tables 2.2 and 3.2. There **was** a missed compensatory sample during a monitor out-of-service period.

1. MISSED COMPENSATORY SAMPLE DURING OUT-OF-SERVICE PERIOD FOR R-21, DISCHARGE CANAL MONITOR

The ODCM Table 2.2 Action 6 requires that a grab sample be taken every 12 hours during a period when R-21, Circulating Water Discharge Canal Monitor, is out of service. On 1/8/06, during a period when R-21 was out of service, a sample was not taken as required. Upon discovery, the sample was taken at about 17.5 hours after the last sample (5.5 hours after required).

Cause: The event was a human performance error.

Corrective Action: The duty chemist will now coordinate with the operations crew to assist in assuring compensatory sampling is performed.

Results: The sample taken indicated no activity.

Examination of other radiation monitors, including R-18, Waste Disposal Liquid Effluent Monitor and both R19s, Unit 1 and Unit 2 Steam Generator Blowdown Liquid Monitors, noted no increase.

No Radioactive Waste Tank Release or Steam Generator Blowdown to the river occurred during this period.

This event did not impose a risk to the Health and safety of the general public.

A department clock reset was initiated.

The event was captured in the site's Action Request Process, CAP-040479.

The event was reported to the NRC Region 3 RP Inspector, at the time of the event.

Doses to Individuals Due to Effluent Releases from the Independent Spent Fuel Storage Facility (ISFSI)

Three (3) fuel casks were loaded and placed in the storage facility during the 2005 calendar year. The total number of casks in the ISFSI is twenty (20). There has been no release of radioactive effluents from the ISFSI.

CURRENT ODCM REVISION

The Offsite Dose Calculation Manual **was** revised in 2005. The current revision is 19. The revision date is September 12, 2005. A copy is submitted with this year's report.

PROCESS CONTROL PROGRAM

There **were no** changes made to the Process Control Program in 2005. Current manual is revision 8, August 25, 1999.

Table 1

OFF-SITE RADIATION DOSE ASSESSMENT - PRAIRIE ISLAND

PERIOD: JANUARY through DECEMBER 2005

		10 CFR Part 50 Appendix I Guidelines for a 2-unit site per year
Gaseous Releases		
Maximum Site Boundry Gamma Air Dose (mrad)	5.54E-03	20
Maximum Site Boundry Beta Air Dose (mrad)	2.11E-02	40
Maximum Off-site Dose to any organ (mrem)*	3.77E-02	30
Offshore Location		
Gamma Dose (mrad)	3.78E-04	
Total Body (mrem)*	1.23E-03	
Organ (mrad)*	1.35E-03	30
Liquid Releases		
Maximum Off-site Dose Total Body (mrem)	1.33E-03	6
Maximum Off-site Dose Organ - GI TRACT (mrem)	3.21E-03	20
Limiting Organ Dose Organ - TOTAL BODY (mrem)	1.33E-03	6

* Long-Lived Particulate, I-131, I-133 and Tritium

Table 2

OFF-SITE RADIATION DOSE ASSESSMENT - PRAIRIE ISLAND
SUPPLEMENTAL INFORMATION

PERIOD: JANUARY through DECEMBER 2005

Gaseous Releases

Maximum Site Boundary
Dose Location
(From Building Vents)

Sector		WNW
Distance	(miles)	0.4

Offshore Location
Within Site Boundary

Sector		ESE
Distance	(miles)	0.2
Pathway		Inhalation

Maximum Off-site

Sector	SSE
Distance (miles)	0.6
Pathways	Plume, Ground, Inhalation, Vegetables
Age Group	Child

Liquid Releases

Maximum Off-site Dose
Location Downstream

Pathway	Fish

ENCLOSURE 2

ANNUAL RADIOACTIVE EFFLUENT REPORT
SUPPLEMENTAL INFORMATION

January 01, 2005 – December 31, 2005

9 pages follow

ANNUAL RADIOACTIVE EFFLUENT REPORT

01-JAN-05 THROUGH 31-DEC-05

SUPPLEMENTAL INFORMATION

Facility: Prairie Island Nuclear Generating Plant

Licensee: Northern States Power Company

License Numbers: DPR-42 & DPR-60

A. Regulatory Limits

1. Liquid Effluents:

a. The dose or dose commitment to an individual from radioactive materials in liquid effluents released from the site shall be limited to:

for the quarter	3.0 mrem to the total body
	10.0 mrem to any organ
for the year	6.0 mrem to the total body
	20.0 mrem to any organ

2. Gaseous Effluents:

a. The dose rate due to radioactive materials released in gaseous effluents from the site shall be limited to:

noble gases	≤ 500 mrem/year total body
	≤3000 mrem/year skin
I-131, I-133, H-3, LLP	≤1500 mrem/year to any organ

b. The dose due to radioactive gaseous effluents released from the site shall be limited to:

noble gases	≤10 mrad/quarter gamma
	≤20 mrad/quarter beta
	≤20 mrad/year gamma
	≤40 mrad/year beta
I-131, I-133, H-3, LLP	≤15 mrem/quarter to any organ
	≤30 mrem/year to any organ

B. Water Effluent Concentration

1. Fission and activation gases in gaseous releases:

   10 CFR 20, Appendix B, Table 2, Column 1

2. Iodine and particulates with half lives greater than 8 days in gaseous releases:

   10 CFR 20, Appendix B, Table 2, Column 1

3. Liquid effluents for radionuclides other than dissolved or entrained gases:

   10 CFR 20, Appendix B, Table 2, Column 2

4. Liquid effluent dissolved and entrained gases:

   2.0E-04 uCi/ml Total Activity

C. Average Energy

Not applicable to Prairie Island regulatory limits.

D. Measurements and approximations of total activity

1.	Fission and activation gases in gaseous releases:	Total Nuclide	Gem Gem	±25%
2.	Iodines in gaseous releases:	Total Nuclide	Gem Gem	±25%
3.	Particulates in gaseous releases:	Total Nuclide	Gem Gem	±25%
4.	Liquid effluents	Total Nuclide	Gem Gem	±25%

E. Manual Revisions

1. Offsite Dose Calculations Manual latest Revision number: 19

   Revision date : 9-12-05

1.0 BATCH RELEASES (LIQUID)

	QTR: 01	QTR: 02	QTR: 03	QTR: 04
1.1 NUMBER OF BATCH RELEASES	3.10E+01	8.80E+01	2.00E+01	2.00E+01
1.2 TOTAL TIME PERIOD (HRS)	5.55E+01	1.63E+02	3.48E+01	3.55E+01
1.3 MAXIMUM TIME PERIOD (HRS)	2.15E+00	3.63E+00	2.17E+00	1.98E+00
1.4 AVERAGE TIME PERIOD (HRS)	1.79E+00	1.85E+00	1.74E+00	1.78E+00
1.5 MINIMUM TIME PERIOD (HRS)	1.00E+00	7.50E-01	1.53E+00	1.52E+00
1.6 AVERAGE MISSISSIPPI RIVER FLOW (CFS)	1.21E+04	3.82E+04	1.56E+04	2.48E+04

2.0 BATCH RELEASES (AIRBORNE)

	QTR: 01	QTR: 02	QTR: 03	QTR: 04
2.1 NUMBER OF BATCH RELEASES	4.40E+01	3.50E+01	2.00E+00	0.00E+00
2.2 TOTAL TIME PERIOD (HRS)	1.09E+03	4.91E+02	3.40E+00	0.00E+00
2.3 MAXIMUM TIME PERIOD (HRS)	4.81E+01	2.40E+01	2.15E+00	0.00E+00
2.4 AVERAGE TIME PERIOD (HRS)	2.47E+01	1.40E+01	1.70E+00	0.00E+00
2.5 MINIMUM TIME PERIOD (HRS)	3.70E-01	4.28E-02	1.25E+00	0.00E+00

3.0 ABNORMAL RELEASES (LIQUID)

	QTR: 01	QTR: 02	QTR: 03	QTR: 04
3.1 NUMBER OF BATCH RELEASES	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3.2 TOTAL ACTIVITY RELEASED (CI)	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3.3 TOTAL TRITIUM RELEASED (CI)	0.00E+00	0.00E+00	0.00E+00	0.00E+00

4.0 ABNORMAL RELEASES (AIRBORNE)

	QTR: 01	QTR: 02	QTR: 03	QTR: 04
4.1 NUMBER OF BATCH RELEASES	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4.2 TOTAL ACTIVITY RELEASED (CI)	0.00E+00	0.00E+00	0.00E+00	0.00E+00

TABLE 1A
GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES

	QTR: 01	QTR: 02	QTR: 03	QTR: 04
5.0 FISSION AND ACTIVATION GASES				
5.1 TOTAL RELEASE (CI)	0.00E+00	1.22E+01	3.63E-01	0.00E+00
5.2 AVERAGE RELEASE RATE (UCI/SEC)	0.00E+00	1.55E+00	4.62E-02	0.00E+00
5.3 GAMMA DOSE (MRAD)	0.00E+00	5.50E-03	4.47E-05	0.00E+00
5.4 BETA DOSE (MRAD)	0.00E+00	1.83E-02	2.86E-03	0.00E+00
5.5 PERCENT OF GAMMA TECH SPEC (%)	0.00E+00	5.50E-02	4.47E-04	0.00E+00
5.6 PERCENT OF BETA TECH SPEC (%)	0.00E+00	9.13E-02	1.43E-02	0.00E+00
6.0 IODINES				
6.1 TOTAL I-131 (CI)	0.00E+00	8.33E-05	0.00E+00	0.00E+00
6.2 AVERAGE RELEASE RATE (UCI/SEC)	0.00E+00	1.06E-05	0.00E+00	0.00E+00
7.0 PARTICULATES				
7.1 TOTAL RELEASE (CI)	0.00E+00	2.09E-05	0.00E+00	0.00E+00
7.2 AVERAGE RELEASE RATE (UCI/SEC)	0.00E+00	2.66E-06	0.00E+00	0.00E+00
8.0 TRITIUM				
8.1 TOTAL RELEASE (CI)	3.24E+00	3.33E+00	2.71E+00	3.30E+00
8.2 AVERAGE RELEASE RATE (UCI/SEC)	4.12E-01	4.24E-01	3.45E-01	4.20E-01
9.0 TOTAL IODINE, PARTICULATE AND TRITIUM (UCI/SEC)	4.12E-01	4.24E-01	3.45E-01	4.20E-01
10.0 DOSE FROM IODINE, LLP, AND TRITIUM (MREM)	9.59E-03	1.73E-02	4.86E-03	5.91E-03
11.0 PERCENT OF TECH SPEC (%)	6.39E-02	1.16E-01	3.24E-02	3.94E-02
12.0 GROSS ALPHA (CI)	0.00E+00	0.00E+00	0.00E+00	0.00E+00

TABLE 1C

GASEOUS EFFLUENTS - GROUND LEVEL RELEASES (CI)

13.0 FISSION AND ACTIVATION GASES

		CONTINUOUS MODE				BATCH MODE			
NUCLIDE	UNITS	QTR: 01	QTR: 02	QTR: 03	QTR: 04	QTR: 01	QTR: 02	QTR: 03	QTR: 04
KR-85	CI		6.18E-01	5.30E-03			1.23E-01	3.42E-01	
KR-85M	CI						8.62E-05		
XE-131M	CI		8.74E-02				2.28E-02	2.47E-04	
XE-133	CI		1.03E+01	3.40E-03			8.54E-01	1.25E-02	
XE-133M	CI		1.51E-04	1.89E-05			3.07E-03		
XE-135	CI		1.04E-01				6.80E-03		
XE-135M	CI						1.55E-05		
TOTALS	CI	0.00E+00	1.12E+01	8.72E-03	0.00E+00	0.00E+00	1.01E+00	3.55E-01	0.00E+00

14.0 IODINES

		CONTINUOUS MODE				BATCH MODE			
NUCLIDE	UNITS	QTR: 01	QTR: 02	QTR: 03	QTR: 04	QTR: 01	QTR: 02	QTR: 03	QTR: 04
I-131	CI		8.33E-05						
I-133	CI		1.81E-05						
TOTALS	CI	0.00E+00	1.01E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

TABLE 1C
GASEOUS EFFLUENTS - GROUND LEVEL RELEASES (CONTINUED)

15.0 PARTICULATES

		CONTINUOUS MODE				BATCH MODE			
NUCLIDE	UNITS	QTR: 01	QTR: 02	QTR: 03	QTR: 04	QTR: 01	QTR: 02	QTR: 03	QTR: 04
BE-7	CI		9.26E-07						
CO-58	CI		3.43E-07						
CS-137	CI						1.94E-05		
SR-89	CI		2.09E-07						
TOTALS	CI	0.00E+00	1.48E-06	0.00E+00	0.00E+00	0.00E+00	1.94E-05	0.00E+00	0.00E+00

TABLE 1A
LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES

		QTR: 01	QTR: 02	QTR: 03	QTR: 04
16.0	VOLUME OF WASTE PRIOR TO DILUTION (LITERS)	4.92E+07	5.11E+07	3.10E+07	3.39E+07
17.0	VOLUME OF DILUTION WATER (LITERS)	1.53E+11	1.08E+11	2.63E+11	2.24E+11
18.0	FISSION AND ACTIVATION PRODUCTS				
	18.1 TOTAL RELEASES W/O H-3, RADGAS, ALPHA (CI)	1.62E-02	5.35E-02	1.09E-02	1.70E-02
	18.2 AVERAGE DILUTION CONCENTRATION (UCI/ML)	1.06E-10	4.96E-10	4.15E-11	7.61E-11
19.0	TRITIUM				
	19.1 TOTAL RELEASE (CI)	1.44E+02	1.76E+02	9.32E+01	1.03E+02
	19.2 AVERAGE DILUTION CONCENTRATION (UCI/ML)	9.40E-07	1.63E-06	3.54E-07	4.60E-07
20.0	DISSOLVED AND ENTRAINED GASES				
	20.1 TOTAL RELEASE (CI)	3.27E-04	1.54E-02	8.19E-05	3.36E-05
	20.2 AVERAGE DILUTION CONCENTRATION (UCI/ML)	2.14E-12	1.43E-10	3.11E-13	1.50E-13
21.0	GROSS ALPHA (CI)	0.00E+00	0.00E+00	0.00E+00	0.00E+00
22.0	TOTAL TRITIUM, FISSION & ACTIVATION PRODUCTS (UCI/ML)	9.40E-07	1.63E-06	3.54E-07	4.60E-07
23.0	TOTAL BODY DOSE (MREM)	3.67E-04	4.87E-04	2.25E-04	2.52E-04
24.0	CRITICAL ORGAN				
	24.1 DOSE (MREM)	3.67E-04	1.91E-03	2.25E-04	2.52E-04
	24.2 ORGAN	TOT BODY	GI TRACT	TOT BODY	TOT BODY
25.0	PERCENT OF TECHNICAL SPECIFICATIONS LIMIT (%)	1.22E-02	1.62E-02	7.50E-03	8.40E-03
26.0	PERCENT OF CRITICAL ORGAN TECH SPEC LIMIT (%)	1.22E-02	1.91E-02	7.50E-03	8.40E-03

TABLE 2A
LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES (CI)

27.0 INDIVIDUAL LIQUID EFFLUENT

		CONTINUOUS MODE				BATCH MODE			
NUCLIDE	UNITS	QTR: 01	QTR: 02	QTR: 03	QTR: 04	QTR: 01	QTR: 02	QTR: 03	QTR: 04
AG-110M	CI					1.00E-04	2.26E-03	6.31E-04	2.75E-04
CO-57	CI					4.88E-05	1.17E-04	7.78E-06	4.47E-05
CO-58	CI					6.98E-03	1.49E-02	1.10E-03	1.38E-03
CO-60	CI					2.02E-04	1.20E-03	6.67E-04	6.59E-04
CR-51	CI						1.28E-03	5.98E-05	
CS-137	CI	7.24E-06	9.62E-07						
FE-55	CI				4.87E-03	8.59E-03	1.46E-02	5.17E-03	9.17E-03
FE-59	CI					2.47E-05	6.37E-04	2.31E-05	
I-131	CI	8.32E-06					1.34E-06		
I-134	CI								4.78E-07
LA-140	CI						7.07E-06		
MN-54	CI					3.31E-06	5.02E-05	3.38E-05	2.11E-05
NA-24	CI						9.86E-07	6.50E-07	
NB-95	CI					1.05E-05	3.03E-04	4.76E-05	3.66E-05
NB-95M	CI						4.62E-06		
NB-97	CI					3.31E-06	8.61E-06	5.12E-06	
RU-105	CI					2.16E-06			
SB-124	CI					2.03E-05	1.89E-03	2.18E-04	3.26E-05
SB-125	CI					1.77E-04	5.27E-03	8.80E-04	4.94E-04
SN-113	CI						8.57E-05	9.94E-06	4.66E-06
SR-90	CI				1.36E-06				
SR-92	CI					5.49E-07	4.75E-05	1.20E-05	7.18E-06
TE-123M	CI					3.43E-05	3.10E-04	5.70E-05	6.26E-06
TE-125M	CI						1.02E-02	1.97E-03	
TE-127	CI						1.06E-04		

(CONTINUED)

TABLE 2A

LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES (CONTINUED)

27.0 INDIVIDUAL LIQUID EFFLUENT

		CONTINUOUS MODE				BATCH MODE			
NUCLIDE	UNITS	QTR: 01	QTR: 02	QTR: 03	QTR: 04	QTR: 01	QTR: 02	QTR: 03	QTR: 04
TE-129	CI						1.41E-05		
TL-201	CI						2.75E-06		
W-187	CI						1.01E-05	3.48E-06	
ZN-65	CI						3.04E-06		2.31E-06
ZR-95	CI					6.17E-06	1.87E-04	2.85E-05	1.19E-05
ZR-97	CI						1.15E-06		
TOTALS	CI	1.56E-05	9.62E-07	0.00E+00	4.88E-03	1.62E-02	5.35E-02	1.09E-02	1.21E-02

28.0 DISSOLVED AND ENTRAINED GASES

		CONTINUOUS MODE				BATCH MODE			
NUCLIDE	UNITS	QTR: 01	QTR: 02	QTR: 03	QTR: 04	QTR: 01	QTR: 02	QTR: 03	QTR: 04
XE-131M	CI						6.83E-04		
XE-133	CI					3.27E-04	1.47E-02	8.19E-05	3.36E-05
XE-133M	CI						1.08E-05		
TOTALS	CI	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.27E-04	1.54E-02	8.19E-05	3.36E-05

ENCLOSURE 3

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

January 01, 2005 – December 31, 2005

8 pages follow

PRAIRIE ISLAND NUCLEAR GENERATING PLANT
NORTHERN STATES POWER

Period: 01/01/05-12/31/05
License No. DPR-42/60

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

A. SOLID WASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL (NOT IRRADIATED FUEL)

1. Solid Waste Total Volumes and Total Curie Quantities:

TYPE OF WASTE	UNITS	PERIOD TOTALS (0.00 E00)	EST. TOTAL ERROR, % (0.00 E00)	CONTAINER DISPOSAL VOL (ft^3) (LIST)
A. Resins	m^3	1.07E+02		179.4
	ft^3	3.78E+03		135.8
	Ci	2.37E+02	2.50E+01	94
B. Dry-Compacted	m^3			
	ft^3			
	Ci			
C. Non-Compacted	m^3	7.43E+02		1280
	ft^3	2.62E+04		258
	Ci	1.52E+00	2.50E+01	94
D. Filter Media	m^3			
	ft^3			
	Ci			
S. Other (furnish description)	m^3	5.54E+01		1958
U2 Rx Head	ft^3	1.96E+03		
	Ci	2.32E+01	2.50E+01	

NOTE: **The solid waste information provided in this report is the volume and activity of the low-level waste leaving the Prairie Island site. No allowance is made for off-site volume reduction prior to disposal.**

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SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

A. SOLID WASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL (NOT IRRADIATED FUEL) [continued]

2. Principal Radionuclide Composition by Type of Waste:
(Bold letter designation from Page 1)

TYPE	Nuclide	Percent % Abundance (0.00E0)
C	*Fe-55	6.28E+01
	Co-58	8.73E+00
	Co-60	7.83E+00
	*Ni-63	1.10E+01
	Zr-95	2.08E+00
	Nb-95	2.69E+00
	Cr-51	1.05E+00

1% cutoff

S	*Fe-55	3.93E+01
	Co-58	4.01E+01
	Co-60	8.31E+00
	Fe-59	1.03E+00
	Zr-95	1.05E+00
	Cr-51	5.30E+00
	*Ni-63	2.55E+00

1% cutoff

* = Inferred - Not Measured on Site

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A. SOLID WASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL (NOT IRRADIATED FUEL) [continued]

2. Principal Radionuclide Composition by Type of Waste (Continuation):
(Bold letter designation from Page 1)

TYPE	Nuclide	Percent % Abundance (0.00E0)
A	*H-3	1.10E+00
	*Fe-55	1.52E+01
	*Ni-63	2.74E+01
	Co-60	1.22E+01
	Cs-134	1.17E+01
	Cs-137	2.83E+01

1% cutoff

* = Inferred - Not Measured on Site

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A. SOLID WASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL (NOT IRRADIATED FUEL) [continued]

3. Solid Waste Disposition:

Number of Shipments	Mode	Destination
14	RACE Logistics	RACE, LLC
2	Hittman	Envirocare of Utah (Bulk)
2	Perkins	Envirocare of Utah (Bulk)
2	R & R Trucking	Envirocare of Utah (Containerized)
6	R & R Trucking	ALARON Corporation
2	Hittman	Barnwell Waste Management Facility
1	R & R Trucking	Barnwell Waste Management Facility

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A. SOLID WASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL (NOT IRRADIATED FUEL) [continued]

4. Shipping Container and Solidification Method:

No.	Disposal Volume (Ft^3/m^3)	Activity (mCi)	Type of Waste	Container Code	Solidif. Code
05-009	179.4/5.08	2.09E+04	A	L	N/A
05-010	179.4/5.08	4.50E+02	A	L	N/A
05-011	179.4/5.08	2.62E+02	A	L	N/A
05-013	179.4/5.08	2.25E+02	A	L	N/A
05-015	179.4/5.08	2.37E+02	A	L	N/A
05-016	179.4/5.08	3.12E+02	A	L	N/A
05-017	179.4/5.08	4.50E+02	A	L	N/A
05-018	2560/72.4	5.88E+01	C	L	N/A
05-019	1280/36.2	5.14E+00	C	L	N/A
05-039	260/7.36	5.27E-02	C	L	N/A
05-045	2560/72.4	4.47E+02	C	L	N/A
05-032	1958/55.44	2.32E+04	S	L	N/A
05-046	2560/72.4	1.76E+02	C	L	N/A
05-047	2560/72.4	1.00E+01	C	L	N/A
05-048	1280/36.2	1.05E+01	C	L	N/A
05-052	135.8/3.85	9.00E+04	A	A	N/A
05-053	135.8/3.85	7.08E+04	A	A	N/A
05-057	1410/39.9	1.07E+02	C	L	N/A
05-058	1410/39.9	7.70E+01	C	L	N/A
05-059	1410/39.9	2.02E+02	C	L	N/A
05-060	1410/39.9	2.02E+02	C	L	N/A
05-061	2560/72.4	1.76E+01	C	L	N/A
05-062	1280/36.2	1.05E+01	C	L	N/A
05-064	940/26.6	7.00E-02	A	L	N/A
05-065	949.6/26.9	1.90E-01	A	L	N/A
05-068	2560/72.4	2.35E+02	C	L	N/A
05-070	1128/31.9	4.92E+01	C	L	N/A
05-071	179.4/5.08	8.60E+01	A	L	N/A
05-072	179.4/5.08	5.32E+04	A	A	N/A
TOTALS	29	31958/905	2.62E+05		

CONTAINER CODES: (Shipment type)
L = LSA
A = Type A
B = Type B
Q = Highway Route Controlled Quantity

SOLIDIFICATION CODES:	C	=	Cement
TYPES OF WASTES:	A	=	Resins
	B	=	Dry Compacted
	C	=	Non-Compacted
	D	=	Filter Media
	S	=	Other

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B. IRRADIATED FUEL SHIPMENTS (DISPOSITION)

Number of Shipments	Mode	Destination
0		

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EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

C. PROCESS CONTROL PROGRAM CHANGES

TITLE: Process Control for Solidification/Dewatering of Radioactive Waste from Liquid Systems

Current Revision Number: 8

Effective Date: 8/25/1999

NOTE: **If the effective date of the PCP is within the period covered by this report, then a description and justification of the changes to the PCP is required (T.S.6.5.D) [T.S.5.5.4]. Attach the sidelined pages to this report.**

Changes/Justification: N/A

ENCLOSURE 4

OFFSITE DOSE CALCULATION MANUAL (ODCM)
REVISION 19
EFFECTIVE DATE: 9/12/05

221 pages follow