

A CMS Energy Company

Big Rock Point Nuclear Plant
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Kurt M. Haas
General Manager

February 2, 2007

10 CFR 72.44(d)(3)

U.S. Nuclear Regulatory Commission
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**DOCKETS 50-155 AND 72-043 - LICENSE DPR-6 - BIG ROCK POINT PLANT -
INDEPENDENT SPENT FUEL STORAGE INSTALLATION - ANNUAL
RADIOACTIVE EFFLUENT RELEASE REPORT**

In accordance with 10 CFR 72.44(d)(3) and Independent Spent Fuel Storage Installation (ISFSI) Certificate of Compliance 72-1026, Consumers Energy Company is providing the attached Big Rock Point ISFSI Annual Radioactive Effluent Release Report for the period from January 1, 2006 through December 31, 2006.

If you require additional information, please contact Ms. Linda Castiglione at (231) 547-8365.



Kurt M. Haas
Site General Manager

cc: Administrator, Region III, USNRC
NRC Decommissioning Inspector - Big Rock Point
NRC NMSS Project Manager

Attachment

NMSS01
JE17

Attachment 1

Consumers Energy
BIG ROCK POINT
Docket Numbers 50-155 and 72-043

**INDEPENDENT SPENT FUEL STORAGE INSTALLATION
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January 1, 2006 through December 31, 2006**

February 2, 2007

2 Pages

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I. FACILITY DESCRIPTION

The Independent Spent Fuel Storage Installation (ISFSI) is located within the Owner Controlled Area of the Big Rock Point (BRP) site. The storage of spent fuel at BRP meets the requirements of Certificate of Compliance (No. 72-1026) issued by the NRC.

II. EFFLUENT LIMITS AND CONTROLS

This installation operates under effluent control limits as required by 10 CFR 72.44(d). However, the design of the sealed storage canisters at the ISFSI precludes any gaseous or liquid effluent releases. This report is submitted in compliance with ISFSI Certification of Compliance 72-1026 and pursuant to 10 CFR 72.44(d)(3).

III. RADIOLOGICAL EFFLUENT RELEASES

As noted in Section II, by design, there are no radioactive liquid or gaseous effluents originating from the ISFSI facility. The annual radiological surveillance performed during this reporting period did not find any indication of radioactive releases occurring from the ISFSI.

IV. ISFSI ENVIRONMENTAL MONITORING PROGRAM

The Big Rock Point Radiological Environmental Monitoring Program (REMP) is described in the Off-Site Dose Calculation Manual (ODCM), Section I, Subsection 4.0. The ISFSI Environmental Monitoring Program which is contained within the Big Rock Point Radiological Environmental Monitoring Program (REMP), consists of thermoluminescent dosimeters (TLDs) at four locations along the perimeter of the ISFSI site and three control TLDs 10.5 to 50 miles from the site. These TLDs are read both annually and quarterly. The results for the ISFSI TLDs and the average of the control TLDs measured in 2006 are summarized in the following table.

There were no sample anomalies for 2006.

V. ISFSI ENVIROMENTAL MEASUREMENTS

Table 1. Big Rock Point ISFSI Environmental TLD Results (mR)
January 1, 2006 - December 31, 2006

TLD No. / Location	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Annual
BRP-18 - 137 m NW of ISFSI	9.7 ± 0.4	10.1 ± 0.6	10.1 ± 0.5	10.4 ± 0.6	37.4 ± 1.6
BRP-19 - 137 m SW of ISFSI	12.2 ± 0.5	13.2 ± 0.7	13.8 ± 0.5	13.9 ± 0.8	51.0 ± 2.1
BRP-20 - 137 m SE of ISFSI	13.3 ± 0.6	12.9 ± 0.7	14.4 ± 0.8	12.9 ± 0.7	50.5 ± 2.6
BRP-21 - 137 m NE of ISFSI	10.1 ± 0.5	10.5 ± 0.4	10.8 ± 0.5	10.4 ± 0.4	37.5 ± 1.1
Control	14.4 ± 3.4	14.9 ± 4.3	13.2 ± 1.7	16.8 ± 5.3	56.2 ± 19.3

VI. CONCLUSIONS

Based on the above measurements performed during the reporting period of January 1, 2006 and December 31, 2006, it is concluded that the dose from ISFSI operations does not exceed the limits as defined in 10 CFR 72.104.