

February 24, 2005

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 conditions specified by 10 CFR 72.212, Consumers Energy Company is providing the attached Big Rock Point ISFSI Annual Radioactive Effluent Release Report for the period from January 1, 2004 through December 31, 2004.

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



William J. Trubilowicz
Acting Site General Manager

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

Attachment

NM9501

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, 2004 through December 31, 2004**

February 24, 2005

2 Pages

Attachment 1
BIG ROCK POINT INDEPENDENT SPENT FUEL STORAGE INSTALLATION
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
January 1, 2004 through December 31, 2004

I. FACILITY DESCRIPTION

The Independent Spent Fuel Storage Installation (ISFSI) is located within the Protected Area of the Big Rock Point (BRP) site. The storage of spent fuel at BRP meets the requirements 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 Section 1.2.4.3.4 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 consists of informational thermoluminescent dosimeters (TLDs) at four locations along the perimeter of the ISFSI site. These TLDs are read both annually and quarterly. The results for the ISFSI TLDs measured in 2004 are summarized in the following table.

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V. ISFSI ENVIROMENTAL MEASUREMENTS

Table 1. Big Rock Point ISFSI Environmental TLD Results (mR)
January 1, 2004 - December 31, 2004

TLD No. / Location	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	Annual
BRP-18 - 137 m NW of ISFSI	9.3 ± 0.4	9.8 ± 0.5	9.7 ± 0.4	11.2 ± 0.5	44.3 ± 1.8
BRP-19 - 137 m SW of ISFSI	10.9 ± 0.5	12.4 ± 0.6	12.8 ± 0.7	13.8 ± 0.6	57.7 ± 2.7
BRP-20 - 137 m SE of ISFSI	11.6 ± 0.6	12.1 ± 0.6	13.4 ± 0.6	13.1 ± 0.5	58.8 ± 2.4
BRP-21 - 137 m NE of ISFSI	9.5 ± 0.5	9.4 ± 0.5	10.1 ± 0.4	11.2 ± 0.4	43.2 ± 1.3
Control ¹	11.9 ± 1.3	11.9 ± 1.6	12.1 ± 1.4	12.6 ± 1.7	51.7 ± 4.6

¹ Mean of three control locations located 10.5 miles east, 12 miles southeast and 50 miles south-southwest of the BRP site.

VI. CONCLUSIONS

Based on the above measurements performed during the reporting period of January 1, 2004 and December 31, 2004, it is concluded that the dose for the ISFSI to the most exposed member of the public is within the criteria of 10 CFR 72.104.