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Nuclear Safety Assurance Director

PNP 2011-023

10 CFR 72.44

March 1, 2011

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

SUBJECT: 2010 ISFSI Annual Radioactive Effluent Release Report

Big Rock Point
Dockets 50-155 and 72-043
License No. DPR-6

Dear Sir or Madam:

In accordance with 10 CFR 72.44(d)(3), Entergy Nuclear Operations, Inc. is submitting the annual independent spent fuel storage installation (ISFSI) radioactive effluent release report for Big Rock Point for the period from January 2010, through December 2010.

This letter contains no new commitments and no revision to existing commitments.

Sincerely,

A handwritten signature in black ink, appearing to be "Paula K. Anderson", written over a horizontal line.

pka/bed

Attachment: Independent Spent Fuel Storage Installation Annual Radioactive Effluent Release Report

CC Administrator, Region III, USNRC
BRP Decommissioning Inspector, USNRC
NMSS Project Manager, USNRC

ATTACHMENT

INDEPENDENT SPENT FUEL STORAGE INSTALLATION ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

BIG ROCK POINT
January 2010 – December 2010

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 10 CFR 72, and the Certificate of Compliance No. 72-1026, issued by the Nuclear Regulatory Commission (NRC).

II. EFFLUENT LIMITS AND CONTROLS

The ISFSI operates under effluent control limits as required by 10 CFR 72.104. However, the design of the sealed storage canisters at the ISFSI precludes any gaseous or liquid effluent releases.

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 indicate any release of radioactivity from the ISFSI.

IV. ISFSI ENVIRONMENTAL MONITORING PROGRAM

The BRP Radiological Environmental Monitoring Program (REMP) is described in the Offsite Dose Calculation Manual (ODCM), Section I, Subsection 4.0. The ISFSI Environmental Monitoring Program, which is contained within the BRP REMP, consists of thermoluminescent dosimeters (TLDs) at four locations along the perimeter of the ISFSI site, and three control TLDs 10.5 to 12.6 miles from the site. Quarterly TLDs are read quarterly, as reflected in Section VI. Quarterly measurements are compared to control measurements to evaluate compliance with 10 CFR 72.104. The results for the ISFSI TLDs and the average of the control TLDs measured in 2010 are summarized in Section VI.

V. SAMPLE ANOMALIES

None.

VI. ISFSI ENVIRONMENTAL MEASUREMENTS

BRP ISFSI Environmental TLD Results (mR)
January 2010 – December 2010

TLD No./Location	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
BRP-18 / 137 meters NW of ISFSI	20	18	16	21
BRP-19 / 137 meters SW of ISFSI	22	22	21	25
BRP-20 / 137 meters SE of ISFSI	22	21	22	25
BRP-21 / 137 meters NE of ISFSI	20	18	17	20
Control Location – Petoskey BRP-05	20	18	18	22
Control Location – Boyne City BRP-06	20	21	18	23
Control Location – Ironton BRP-07	22	20	20	23

VII. CONCLUSIONS

When compared to the control locations, it is evident that the dose from ISFSI operations during the reporting period does not exceed the limits as defined in 10 CFR 72.104.