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GNRO-2011/00058

August 11, 2011

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, D.C. 20555

Subject: 2010 Annual Radioactive Effluent Release Report (ARERR) – Corrected  
Table 3  
Grand Gulf Nuclear Station (GGNS), Unit 1  
Docket No. 50-416  
License No. NPF-29

Dear Sir or Madam:

Attached is the corrected Table 3, Radioactive Effluent and Waste Disposal Annual Report. Table 3 was provided as part of the GGNS Annual Radioactive Effluent Release Report (ARERR) for the period January 1, 2010 through December 31, 2010. During his review, Mr. Louis Carson, NRC Region IV inspector, noted that Pu-241 was listed in the isotopic table as being shipped in 2010. The Pu-241 activity had been incorrectly identified as curies versus the correct unit of millicuries. After peer review of all of the data and recalculation of the resultant activities using the correct Pu-241 activity, all of the percent abundances changed for each nuclide. Two additional nuclides were determined to be below the 0.1% abundance as required by the table heading and have been deleted from the revised table.

In addition to the error mentioned above, the peer review resulted in three other corrections to chart A.1 of Table 3: a. Class A curie content was revised to 4.08E+01 versus 1.58E+04, b. Class A curie content was revised to 1.19E+00 versus 1.16E+00 and d. Class A curie content was revised to 9.11E-02 versus 9.11E-01.

Mr. Carson was notified of the changes made to this report.

This letter does not contain any commitments. If you have questions or require additional information concerning these reports, please contact Mr. Tommy Trichell at (601) 437-6113.

Sincerely,

CLP/RRJ

Attachment: 1. Table 3, Radioactive Effluent and Waste Disposal Annual Report

cc: (See Next Page)



cc:

NRC Senior Resident Inspector Grand Gulf Nuclear Station Port Gibson, MS 39150
U.S. Nuclear Regulatory Commission Region Administrator, Region IV ATTN: Mr. Elmo E. Collins, Jr. 612 East Lamar Blvd, Suite 400 Arlington, TX 76011-4125
U. S. Nuclear Regulatory Commission ATTN: Mr. Alan Wang, NRR/DORL Mail Stop OWFN/8 B1 Washington, DC 20555-0001

GNRO-2011/00058  
Attachment 1

**Attachment 1**  
**to**  
**GNRO-2011/00058**

**Table 3, Radioactive Effluent and Waste Disposal Annual Report**

TABLE 3  
ENTERGY OPERATIONS, INC.  
GRAND GULF NUCLEAR STATION UNIT 1

**RADIOACTIVE EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**  
**SOLID RADIOACTIVE WASTE AND IRRADIATED FUEL SHIPMENTS**  
**JANUARY – DECEMBER 2010**

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

1. Type of Waste	Unit	Class A	Class B	Class C	Est. Total Error %
a. Spent resins, filter sludges, evaporator bottoms, etc.	m <sup>3</sup> Ci	8.15E+01 4.08E+01	2.83E+00 1.02E+03	0.00E+00 0.00E+00	+/- 25%
b. Dry compressible waste, contaminated equipment, etc.	m <sup>3</sup> Ci	7.07E+02 1.19E+00	0.00E+00 0.00E+00	0.00E+00 0.00E+00	+/- 25%
c. Irradiated components, control rods, etc.	m <sup>3</sup> Ci	0.00E+00 0.00E+00	0.00E+00 0.00E+00	0.00E+00 0.00E+00	+/- 25%
d. Other: oil drum sealand, mixed waste	m <sup>3</sup> Ci	7.22E+00 9.11E-02	0.00E+00 0.00E+00	0.00E+00 0.00E+00	+/- 25%

**2. Estimate of Major Nuclide Composition ( by type of waste)**

a. Spent resins, filter sludges, evaporator bottoms, etc.

None

b. Dry compressible waste, contaminated equipment, etc.

None

c. Irradiated components, control rods, etc.

None

d. Other: oil drum sealand, mixed waste for volume reduction.

Isotope (greater than 0.1%)	Percent	Curies
Ni-63	3.16E-01	3.35E+00
Co-60	8.64E+00	9.15E+01
Cs-137	1.27E-01	1.34E+00
Fe-55	7.64E+01	8.10E+02
Fe-59	1.35E-01	1.43E+00
Mn-54	8.50E+00	9.00E+01
Zn-65	5.29E+00	5.61E+01
Co-58	2.60E-01	2.73E+00
Cr-51	1.93E-01	2.04E+00

TABLE 3  
ENTERGY OPERATIONS, INC.  
GRAND GULF NUCLEAR STATION UNIT 1

**RADIOACTIVE EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT**  
**SOLID RADIOACTIVE WASTE AND IRRADIATED FUEL SHIPMENTS**  
**JANUARY – DECEMBER 2010 (Cont)**

3. Solid Waste Disposition

Number of Shipments	Destination Name	City	State	Mode of Transportation
1	EnergySolutions, Clive Disposal Facility (Containerized Waste)	Clive	UT	Hittman
2	EnergySolutions, Clive Disposal Facility (Bulk Waste)	Clive	UT	Hittman
12	Duratek, LLC	Oak Ridge	TN	Hittman
5	Studsvik	Erwin	TN	Hittman

NRC Class	Disposal Volume(ft^3)	Description	Number of Containers	Waste Type Description
B	120.3	8/120 HIC	1	Poly HIC – RWCU-A
A	199.4	ES-210	12	Carbon Steel Liner - SRT
A	1280	20' SEALAND	24	20FT Sealand
A	199.4	ES-210 (solidification)	4	Stainless Steel Liner CPS/RWCU-B

B. Irradiated Fuel Shipments (Disposition)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
None	N/A	N/A