Westinghouse

Westinghouse Electric Company
Nuclear Fuel
Columbia Fuel Site
P.O. Drawer R
Columbia, South Carolina 29250
USA

Director, Office of Nuclear Material
Safety and Safeguards
U. S. Nuclear Regulatory Commission
Washington, DC 205555-001

Direct tel: 803-647-1000

Our ref: LTR-RAC-06-18

February 24, 2006

Dear Sir:

Subject: SNM-1107/70-1151

The following report fulfills regulatory requirements as listed in 10CFR 40.65 and 10CFR 70.59 "Effluent Monitoring Requirements." For the six-month period July 1, 2005 through December 31, 2005, the following quantities of radionuclides were released to the unrestricted area by the Westinghouse Electric Company's Columbia, South Carolina Nuclear Fuel Plant:

A. Gaseous	261.6 uCi Uranium (Analyzed as gross alpha)	
B. Liquid Effluent	10,344.5 uCi -	U-234
	365.1 uCi -	U-235
	1,460.1 uCi -	U-238

Gaseous effluent results were obtained from point source gross alpha analysis of stack gas effluent, and the individual radionuclide composition is inferred from the calculated average enrichment (85.0% U-234, 3.0% U-235, and 12.0% U-238). A detailed summary report by stack is provided as Attachment "A."

Liquid effluent values were obtained by analysis of composite proportional samples prior to discharge to the Congaree River and basing the activity on the calculated average enrichment. All liquid discharges are pumped through a single discharge line to Congaree River. A detailed summary liquid discharge report is provided as Attachment "B."

Sincerely,

WESTINGHOUSE ELECTRIC COMPANY

Samuel G. McDonald, Manager
Environment, Health and Safety

cc: U.S. NRC, (2)
ATTN: Regional Administrator, RII
Region II
61 Forsyth Street SW, Suite 23T85
Atlanta, Georgia 30303

ATTACHMENT "B"
LIQUID EFFLUENT DISCHARGES
SECOND HALF 2005

A. Report Period: July 1, through December 31, 2005
B. Sample Location: Composite Sampler at Waste Treatment, prior to discharge to Congaree River
C. Total Liquid Flow: 7.426 E+07 liters
D. Sample Collection: Effluent Composite Sampler

Radioisotope	Concentration		LLD, uCi/ml	Quantity Released, uCi
	uCi/ml	Error		
U-234	1.39 E-07	+/-0.51 E-08	6.00 E-10	10344.5
U-235	0.49 E-08	+/-0.13 E-08	6.00 E-10	365.1
U-238	1.97 E-08	+/-0.21 E-08	6.00E-10	1460.4
Total				12,170.0

Note:

1. Liquid effluent composites were analyzed by alpha spectroscopy, and significant quantities of U-236 were not detected using this method.

RAC-06-18
02/24/06

Attachment "A" GASEOUS EFFLUENT DISCHARGES - JULY 1 THROUGH DECEMBER 31, 2005

	2005 SECOND HALF GASEOUS EFFLUENTS STACK IDENTIFICATION	QUANTITY RELEASED uCi URANIUM/ 6months	GROSS ALPHA (URANIUM) Conc., uCi/ml		ERROR	LLD, uCi/ml	Flow Rate Meters/sec	Derived Isotopic Concentration uCi/ml U234	U235	U238	DERIVED ISOTOPIC DISCHARGE, uCi U234	U235	U238
1	FURNACE EX LINE 1	3.68	8.76E-14	+/-	3.35E-14	8.00E-14	2.78	7.45E-14	2.63E-15	1.05E-14	3.13	0.11	0.44
2	FURNACE EX LINE 2	4.76	1.13E-13	+/-	3.80E-14	8.00E-14	2.78	9.61E-14	3.39E-15	1.36E-14	4.05	0.14	0.57
3	FURNACE EX LINE 3	4.78	1.14E-13	+/-	3.82E-14	8.00E-14	2.78	9.69E-14	3.42E-15	1.37E-14	4.06	0.14	0.57
4	FURNACE EX LINE 4	4.28	1.02E-13	+/-	3.61E-14	8.00E-14	2.78	8.67E-14	3.06E-15	1.22E-14	3.64	0.13	0.51
5	FURNACE EX LINE 5	6.38	1.52E-13	+/-	4.41E-14	8.00E-14	2.78	1.29E-13	4.56E-15	1.82E-14	5.43	0.19	0.77
6	NEW DECON RM	2.77	1.12E-13	+/-	6.09E-14	8.00E-14	1.64	9.52E-14	3.36E-15	1.34E-14	2.35	0.08	0.33
7	MET LAB EX	3.62	4.30E-13	+/-	1.19E-13	8.00E-14	0.56	3.66E-13	1.29E-14	5.16E-14	3.07	0.11	0.43
8	INCINER EX	0.00	8.00E-14	+/-	5.15E-14	8.00E-14	1.89	6.80E-14	2.40E-15	9.60E-15	0.00	0.00	0.00
9	SUPPL INC EX	0.00	8.00E-14	+/-	5.15E-14	8.00E-14	0.94	6.80E-14	2.40E-15	9.60E-15	0.00	0.00	0.00
10	CONVERS 1-A EX	14.68	2.36E-13	+/-	5.50E-14	8.00E-14	4.17	2.01E-13	7.08E-15	2.83E-14	12.48	0.44	1.76
11	CONVERSION 1-B	0.41	4.60E-13	+/-	7.68E-14	8.00E-14	4.17	3.91E-13	1.38E-14	5.52E-14	0.35	0.01	0.05
12	S-1030-A	28.50	2.63E-13	+/-	5.80E-14	8.00E-14	7.50	2.24E-13	7.89E-15	3.16E-14	24.22	0.85	3.42
13	S-1030-B	4.75	6.42E-13	+/-	9.07E-14	8.00E-14	7.50	5.46E-13	1.93E-14	7.70E-14	4.04	0.14	0.57
14	MAINT ENCL 4B	0.00	1.40E-12	+/-	1.34E-13	8.00E-14	3.89	1.19E-12	4.20E-14	1.68E-13	0.00	0.00	0.00
15	CONV ENCL EX 4C	13.29	2.26E-13	+/-	5.38E-14	8.00E-14	3.89	1.92E-13	6.78E-15	2.71E-14	11.29	0.40	1.59
16	CONV ENCL EX 4D	0.00	2.76E-13	+/-	5.95E-14	8.00E-14	3.89	2.35E-13	8.28E-15	3.31E-14	0.00	0.00	0.00
17	CONV EMERG EX 4E	1.41	5.05E-13	+/-	8.04E-14	8.00E-14	3.89	4.29E-13	1.52E-14	6.06E-14	1.20	0.04	0.17
18	CHEM LAB FILTERED EX	10.58	1.26E-13	+/-	4.02E-14	8.00E-14	5.56	1.07E-13	3.78E-15	1.51E-14	8.99	0.32	1.27
19	DECON ROOM EX	14.27	6.66E-13	+/-	9.24E-14	8.00E-14	1.42	5.66E-13	2.00E-14	7.99E-14	12.13	0.43	1.71
20	CAL COMBGAS LN 1	1.06	4.28E-13	+/-	7.40E-14	8.00E-14	0.16	3.64E-13	1.28E-14	5.14E-14	0.90	0.03	0.13
21	CAL COMBGAS LN 2	2.11	8.52E-13	+/-	9.24E-14	8.00E-14	0.16	7.24E-13	2.56E-14	1.02E-13	1.79	0.06	0.25
22	CAL COMBGAS LN 3	0.87	3.52E-13	+/-	6.72E-14	8.00E-14	0.16	2.99E-13	1.06E-14	4.22E-14	0.74	0.03	0.10
23	CAL COMBGAS LN 4	0.59	2.38E-13	+/-	5.52E-14	8.00E-14	0.16	2.02E-13	7.14E-15	2.86E-14	0.50	0.02	0.07
24	CAL COMBGAS LN 5	2.35	9.47E-13	+/-	1.10E-13	8.00E-14	0.16	8.05E-13	2.84E-14	1.14E-13	1.99	0.07	0.28
25	CHEM LAB # 2	4.83	5.47E-13	+/-	8.37E-14	8.00E-14	0.16	4.65E-13	1.64E-14	6.56E-14	4.10	0.14	0.58
26	CHEM LAB #3	0.67	1.39E-13	+/-	4.22E-14	8.00E-14	0.58	1.18E-13	4.17E-15	1.67E-14	0.57	0.02	0.08
27	HP LAB EX	0.83	9.40E-14	+/-	3.47E-14	8.00E-14	0.64	7.99E-14	2.82E-15	1.13E-14	0.70	0.02	0.10
28	DEV LAB 1 EX	8.48	5.91E-13	+/-	8.70E-14	8.00E-14	0.58	5.02E-13	1.77E-14	7.09E-14	7.21	0.25	1.02
29	DEV LAB 2 EX	1.68	1.18E-13	+/-	3.89E-14	8.00E-14	0.94	1.00E-13	3.54E-15	1.42E-14	1.43	0.05	0.20
30	PELLET COMBINED	7.70	1.08E-13	+/-	3.72E-14	8.00E-14	0.94	9.18E-14	3.24E-15	1.30E-14	6.55	0.23	0.92
31	SOLV X N	4.13	9.56E-14	+/-	3.50E-14	8.00E-14	4.72	8.13E-14	2.87E-15	1.15E-14	3.51	0.12	0.50
32	SOLV X S	3.61	5.00E-13	+/-	8.00E-14	8.00E-14	3.33	4.25E-13	1.50E-14	6.00E-14	3.06	0.11	0.43
33	SCRAP REC DRY	10.31	6.88E-13	+/-	9.39E-14	8.00E-14	3.33	5.85E-13	2.06E-14	8.26E-14	8.76	0.31	1.24
34	MAP COMBINED	0.00	3.41E-13	+/-	6.61E-14	8.00E-14	0.94	2.90E-13	1.02E-14	4.09E-14	0.00	0.00	0.00
35	ABF HOOD TORIT EX	2.76	1.29E-13	+/-	4.07E-14	8.00E-14	1.42	1.10E-13	3.87E-15	1.55E-14	2.35	0.08	0.33
36	IFBA EX	5.79	8.11E-14	+/-	3.22E-14	8.00E-14	4.72	6.89E-14	2.43E-15	9.73E-15	4.92	0.17	0.69
37	MAINT WELD EX	6.57	4.60E-13	+/-	7.68E-14	8.00E-14	0.94	3.91E-13	1.38E-14	5.52E-14	5.58	0.20	0.79
38	AC-3	5.52	9.66E-13	+/-	1.11E-13	8.00E-14	3.78	8.21E-13	2.90E-14	1.16E-13	4.69	0.17	0.66
39	PELLET LINE 6	3.87	9.23E-13	+/-	1.09E-13	8.00E-14	2.78	7.85E-13	2.77E-14	1.11E-13	3.29	0.12	0.46
40	AC-5	8.42	1.47E-13	+/-	4.34E-14	8.00E-14	3.78	1.25E-13	4.41E-15	1.76E-14	7.16	0.25	1.01
41	AC-8	5.33	9.33E-13	+/-	1.09E-13	8.00E-14	3.78	7.93E-13	2.80E-14	1.12E-13	4.53	0.16	0.64
42	AMMONIA FUME SC 1008-A	6.03	2.15E-13	+/-	5.25E-14	8.00E-14	1.89	1.83E-13	6.45E-15	2.58E-14	5.12	0.18	0.72
43	AMMONIA FUME SC 1008-B	0.28	3.71E-13	+/-	6.89E-14	8.00E-14	1.89	3.15E-13	1.11E-14	4.45E-14	0.24	0.01	0.03
44	AC-4	4.94	8.40E-14	+/-	3.28E-14	8.00E-14	3.89	7.14E-14	2.52E-15	1.01E-14	4.20	0.15	0.59
45	HOT OIL RM EX	24.56	4.18E-13	+/-	7.32E-14	8.00E-14	3.89	3.55E-13	1.25E-14	5.02E-14	20.87	0.74	2.95
46	ERBIA FURNACE EX	10.36	8.38E-14	+/-	3.28E-14	8.00E-14	8.17	7.12E-14	2.51E-15	1.01E-14	8.80	0.31	1.24
47	ERBIA SCRUBBER EX	5.24	8.00E-14	+/-	3.20E-14	8.00E-14	4.33	6.80E-14	2.40E-15	9.60E-15	4.45	0.16	0.63
48	ERBIA CHANGE ROOM	4.58	1.59E-13	+/-	4.51E-14	8.00E-14	1.90	1.35E-13	4.77E-15	1.91E-14	3.89	0.14	0.55
	Total uCi	261.60											Total
	TOTAL DERIVED ISOTOPIC										222.4	7.8	31.4	261.6