



Westinghouse
Electric Company

Nuclear Fuel

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Columbia SC 29250
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NRC-01-08

February 26, 2001

U. S. Nuclear Regulatory Commission
ATTN: Regional Administrator, RII
Region II
61 Forsyth Street SW, Suite 23T85
Atlanta, GA 30303

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, 2000 through December 31, 2000, 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	278.7	uCi Uranium (Analyzed as gross alpha)
B. Liquid Effluent	57,280.7	uCi - U-234
	2021.7	uCi - U-235
	8,086.7	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 routed through a single discharge line to Congaree River. A detailed summary liquid discharge report is provided as Attachment "B."

Sincerely,

WESTINGHOUSE ELECTRIC COMPANY

Donald Goldbach, Manager
Environment, Health and Safety

cc: U.S. NRC, (2)
ATTN: William Gloerson
61 Forsyth Street SW, Suite 23T85
Atlanta, GA 30303

Director, (2)
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Attachment "A" GASEOUS EFFLUENT DISCHARGES JULY 1 THROUGH DECEMBER 31, 2000

2000 SECOND HALF GASEOUS EFFLUENTS STACK IDENTIFICATION	QUANTITY RELEASED uCi URANIUM/6months	GROSS ALPHA (URANIUM)			LLD, uCi/ml	Flow Rate Meters/sec	Derived Isotopic Concentration uCi/ml			DERIVED ISOTOPIC DISCHARGE, uCi			
		Conc., uCi/ml	ERROR				U234	U235	U238	U234	U235	U238	
1 FURNACE EX LINE 1	6.59	1.50E-13	+/-	4.38E-14	8.00E-14	2.78	1.28E-13	4.50E-15	1.80E-14	5.60	0.20	0.79	
2 FURNACE EX LINE 2	5.61	1.28E-13	+/-	4.05E-14	8.00E-14	2.78	1.09E-13	3.84E-15	1.54E-14	4.77	0.17	0.67	
3 FURNACE EX LINE 3	5.24	1.19E-13	+/-	3.90E-14	8.00E-14	2.78	1.01E-13	3.57E-15	1.43E-14	4.45	0.16	0.63	
4 FURNACE EX LINE 4	4.18	9.52E-14	+/-	3.49E-14	8.00E-14	2.78	8.09E-14	2.86E-15	1.14E-14	3.55	0.13	0.50	
5 FURNACE EX LINE 5	5.66	1.29E-13	+/-	4.07E-14	8.00E-14	2.78	1.10E-13	3.87E-15	1.55E-14	4.81	0.17	0.68	
6 NEW DECON RM	11.23	4.34E-13	+/-	1.20E-13	8.00E-14	1.64	3.69E-13	1.30E-14	5.21E-14	9.55	0.34	1.35	
7 MET LAB EX	6.04	6.88E-13	+/-	1.24E-13	8.00E-14	0.56	5.85E-13	2.06E-14	8.26E-14	5.13	0.18	0.72	
8 INCINER EX	14.13	4.87E-13	+/-	9.50E-14	8.00E-14	1.89	4.14E-13	1.46E-14	5.84E-14	12.01	0.42	1.70	
9 SUPPL INC EX	1.48	9.92E-14	+/-	4.52E-14	8.00E-14	0.94	8.43E-14	2.98E-15	1.19E-14	1.26	0.04	0.18	
10 CONVERTS 1-A EX	11.99	1.82E-13	+/-	4.83E-14	8.00E-14	4.17	1.55E-13	5.46E-15	2.18E-14	10.19	0.36	1.44	
11 CONVERSION 1-B	0.00	7.88E-13	+/-	1.00E-13	8.00E-14	4.17	6.70E-13	2.36E-14	9.46E-14	0.00	0.00	0.00	
12 SCRAP REC 2-A	6.57	1.56E-13	+/-	4.47E-14	8.00E-14	2.78	1.33E-13	4.68E-15	1.87E-14	5.58	0.20	0.79	
13 SCRAP REC 2-B	0.85	5.10E-13	+/-	8.08E-14	8.00E-14	2.78	4.34E-13	1.53E-14	6.12E-14	0.72	0.03	0.10	
14 CONV 3-A	21.60	5.09E-13	+/-	8.08E-14	8.00E-14	2.78	4.33E-13	1.53E-14	6.11E-14	18.36	0.65	2.59	
15 CONV 3-B	0.38	6.50E-13	+/-	9.13E-14	8.00E-14	2.78	5.53E-13	1.95E-14	7.80E-14	0.32	0.01	0.05	
16 MAINT ENCL 4B	14.47	2.35E-13	+/-	5.49E-14	8.00E-14	3.89	2.00E-13	7.05E-15	2.82E-14	12.30	0.43	1.74	
17 CONV ENCL EX 4C	11.06	1.94E-13	+/-	4.99E-14	8.00E-14	3.89	1.65E-13	5.82E-15	2.33E-14	9.40	0.33	1.33	
18 CONV ENCL EX 4D	2.46	5.22E-13	+/-	8.18E-14	8.00E-14	3.89	4.44E-13	1.57E-14	6.26E-14	2.09	0.07	0.30	
19 CONV EMERG EX 4E	1.38	7.58E-13	+/-	9.85E-14	8.00E-14	3.89	6.44E-13	2.27E-14	9.10E-14	1.17	0.04	0.17	
20 CHEM LAB FILTERED EX	8.76	9.97E-14	+/-	3.57E-14	8.00E-14	5.56	8.47E-14	2.99E-15	1.20E-14	7.45	0.26	1.05	
21 DECON ROOM EX	21.54	9.62E-13	+/-	1.11E-13	8.00E-14	1.42	8.18E-13	2.89E-14	1.15E-13	18.31	0.65	2.58	
22 CAL COMBGAS LN 1	3.23	1.13E-12	+/-	1.94E-13	8.00E-14	0.18	9.61E-13	3.39E-14	1.36E-13	2.75	0.10	0.39	
23 CAL COMBGAS LN 2	1.95	7.53E-13	+/-	1.58E-13	8.00E-14	0.18	6.40E-13	2.26E-14	9.04E-14	1.66	0.06	0.23	
24 CAL COMBGAS LN 3	1.43	5.52E-13	+/-	1.35E-13	8.00E-14	0.18	4.69E-13	1.66E-14	6.62E-14	1.22	0.04	0.17	
25 CAL COMBGAS LN 4	0.92	3.56E-13	+/-	1.09E-13	8.00E-14	0.18	3.03E-13	1.07E-14	4.27E-14	0.78	0.03	0.11	
26 CAL COMBGAS LN 5	2.39	9.21E-13	+/-	1.75E-13	8.00E-14	0.18	7.83E-13	2.76E-14	1.11E-13	2.03	0.07	0.29	
27 CHEM LAB # 2	5.10	5.53E-13	+/-	1.36E-13	8.00E-14	0.58	4.70E-13	1.66E-14	6.64E-14	4.34	0.15	0.61	
28 CHEM LAB #3	0.46	9.20E-14	+/-	5.53E-14	8.00E-14	0.64	7.82E-14	2.76E-15	1.10E-14	0.39	0.01	0.06	
29 HP LAB EX	1.43	1.55E-13	+/-	9.12E-14	8.00E-14	0.58	1.32E-13	4.65E-15	1.86E-14	1.22	0.04	0.17	
30 DEV LAB 1 EX	1.83	1.23E-13	+/-	5.03E-14	8.00E-14	0.94	1.05E-13	3.69E-15	1.48E-14	1.56	0.05	0.22	
31 DEV LAB 2 EX	4.17	2.79E-13	+/-	7.58E-14	8.00E-14	0.94	2.37E-13	8.37E-15	3.35E-14	3.54	0.13	0.50	
32 PELLET COMBINED	6.39	8.56E-14	+/-	4.20E-14	8.00E-14	4.72	7.28E-14	2.57E-15	1.03E-14	5.43	0.19	0.77	
33 SOLV X N	4.93	1.09E-13	+/-	3.74E-14	8.00E-14	3.33	9.27E-14	3.27E-15	1.31E-14	4.19	0.15	0.59	
34 SOLV X S	3.42	4.53E-13	+/-	7.62E-14	8.00E-14	3.33	3.85E-13	1.36E-14	5.44E-14	2.91	0.10	0.41	
35 SCRAP REC DRY	5.05	3.38E-13	+/-	8.34E-14	8.00E-14	0.94	2.87E-13	1.01E-14	4.06E-14	4.29	0.15	0.61	
36 MAP COMBINED	0.00	3.07E-13	+/-	6.27E-14	8.00E-14	6.67	2.61E-13	9.21E-15	3.68E-14	0.00	0.00	0.00	
37 U308 HF STRIP	0.00	8.66E-14	+/-	4.22E-14	8.00E-14	1.89	7.36E-14	2.60E-15	1.04E-14	0.00	0.00	0.00	
38 IFBA EX	6.15	8.24E-14	+/-	4.12E-14	8.00E-14	4.72	7.00E-14	2.47E-15	9.89E-15	5.23	0.18	0.74	
39 MAINT WELD EX	6.99	4.68E-13	+/-	9.82E-14	8.00E-14	0.94	3.98E-13	1.40E-14	5.62E-14	5.94	0.21	0.84	
40 AC-3	4.86	8.14E-14	+/-	4.09E-14	8.00E-14	3.89	6.92E-14	2.44E-15	9.77E-15	4.13	0.15	0.58	
41 BULK BLEND EX	3.74	8.57E-14	+/-	4.20E-14	8.00E-14	2.78	7.28E-14	2.57E-15	1.03E-14	3.18	0.11	0.45	
42 AC-5	5.63	9.43E-14	+/-	5.60E-14	8.00E-14	3.89	8.02E-14	2.83E-15	1.13E-14	4.79	0.17	0.68	
43 AC-8	6.97	1.17E-13	+/-	4.51E-14	8.00E-14	3.89	9.95E-14	3.51E-15	1.40E-14	5.92	0.21	0.84	
44 AMMONIA FUME SC 1008-A	9.72	3.25E-13	+/-	8.18E-14	8.00E-14	1.89	2.76E-13	9.75E-15	3.90E-14	8.26	0.29	1.17	
45 AMMONIA FUME SC 1008-B	0.00	1.67E-13	+/-	5.86E-14	8.00E-14	1.89	1.42E-13	5.01E-15	2.00E-14	0.00	0.00	0.00	
46 AC-4	6.39	1.04E-13	+/-	4.63E-14	8.00E-14	3.89	8.84E-14	3.12E-15	1.25E-14	5.43	0.19	0.77	
47 HOT OIL RM EX	24.33	3.98E-13	+/-	9.05E-14	8.00E-14	1.89	3.38E-13	1.19E-14	4.78E-14	20.68	0.73	2.92	
Total uCi	278.7						TOTAL DERIVED ISOTOPIC RELEASE			236.9	8.4	33.4	TOTAL 278.7

Westinghouse Electric Company
 NRC-01-08
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ATTACHMENT "B"
LIQUID EFFLUENT DISCHARGES
SECOND HALF 2000

- A. Report Period: July 1, through December 31, 2000
- B. Sample Location: Composite sampler prior to discharge to Congaree River
- C. Total Liquid Flow: 8.815 E+07 liters
- D. Sample Collection: Effluent Composite Sampler

Radioisotope	Concentration		LLD, uCi/ml	Quantity Released, uCi
	uCi/ml	Error		
U-234	6.50 E-07	+/-8.95E-08	6.0 E-10	57,280.7
U-235	2.29 E-08	+/-5.18E-09	6.0 E-10	2021.7
U-238	9.17 E-08	+/-1.51E-08	6.0 E-10	8,086.7
Total				67,389.1

Note:

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