



March 2, 2005
RKB:05:009

Mr. W. D. Travers
U. S. Nuclear Regulatory Commission, Region II
Sam Nunn Atlanta Federal Center, Suite 23T85
61 Forsyth St., S.W.
Atlanta, GA 30303-8931

Dear Mr. Travers:

License SNM-1227
Docket 70-1257

Subject: Required Reporting of Effluents per 10 CFR 70.59

As required by 10 CFR 70.59, Framatome ANP, Inc. (FANP) is reporting discharges of radioactive materials in the effluents from its nuclear fuels fabrication plant on Horn Rapids Road in Richland, Washington. Data from July 1, 2004 through December 31, 2004 are reported in the attached tables.

All data indicate continued compliance with applicable discharge limits. If there are any questions, please contact me at (509) 375-8638.

Very truly yours,

A handwritten signature in black ink, appearing to read 'R. K. Burklin'.

R. K. Burklin, Manager
Radiation Protection

/mah

Attachments

cc: J. R. Strosnider, Director, NMSS, U.S. Nuclear Regulatory Commission
A.W. Conklin, State of Washington Department of Health
W. B. Gloersen, U.S. Nuclear Regulatory Commission, Region II

Gaseous Effluent July 1, 2004 – December 31, 2004					
Stack	Average Concentration ($\mu\text{Ci}/\text{ml}$)	Error Estimate (%)	Average LLD ($\mu\text{Ci}/\text{ml}$)*	Quantity ($\mu\text{Ci } \alpha$)	Flow (m^3)
Low Enriched Uranium					
K03	1.38E-16	260	6.72E-15	0.04	2.58E+08
K06	5.27E-16	47	3.19E-15	0.05	1.04E+08
K09	6.42E-18	563	5.34E-15	0.00	1.78E+07
K21	3.37E-16	161	7.03E-15	0.05	1.10E+08
K25	-5.65E-18	≥ 100	4.58E-15	0.00	1.79E+07
K31	1.44E-15	48	8.10E-15	0.15	1.08E+08
K32	1.14E-15	5	1.94E-13	0.24	2.04E+07
K37	3.84E-16	47	2.72E-15	0.04	9.36E+07
K42	2.67E-16	71	3.15E-15	0.01	4.63E+07
K46	3.93E-16	56	3.26E-15	0.04	1.07E+08
K47	8.15E-16	85	1.03E-14	0.01	8.23E+06
K49	1.44E-15	24	4.49E-15	0.07	5.00E+07
K50	4.41E-14	5	4.93E-15	0.27	6.41E+06
K55	1.52E-15	21	4.22E-15	0.01	5.11E+06
K56	7.51E-16	53	5.21E-15	0.00	2.66E+06
K58	3.52E-17	803	2.46E-15	0.00	1.28E+08
K60	4.22E-16	55	3.68E-15	0.04	9.58E+07
K62	2.90E-16	100	4.73E-15	0.17	3.88E+08
K65	1.40E-16	328	7.88E-15	0.00	1.46E+07
K67	5.21E-16	77	5.68E-15	0.00	6.66E+06
K69	2.10E-16	125	4.35E-15	0.01	3.33E+07
K72	6.71E-16	30	2.02E-15	0.10	1.46E+08 [†]
TOTAL				1.29	

Stack	Average Concentration ($\mu\text{Ci}/\text{ml}$)	Error Estimate (%)	Average LLD ($\mu\text{Ci}/\text{ml}$)*	Quantity ($\mu\text{Ci } \beta$)	Flow (m^3)
Radionuclide: Mixed Fission and Activation Products					
K52	-1.92E-15	≥ 100	5.61E-14	-0.12	5.23E+07
Total				-0.12	5.23E+07
Total with negative results dropped				0	5.23E+07

Stack	Average Concentration ($\mu\text{Ci}/\text{ml}$)	Error Estimate (%)	Average LLD ($\mu\text{Ci}/\text{ml}$)**	Quantity (μCi)	Flow (m^3)
Radionuclide: Rn-220					
K03	7.85E-10	12	---	2.03E+05	2.58E+08
K72	8.88E-9	22	---	1.30E+06	1.46E+08 [†]
Total				1.50E+06	4.04E+08

* Typical lower limit of detection for 7-day sampling.

** Rn-220 concentrations are determined by the use of E-perms, which rely on changes in voltage - not counting instruments.

† Flow estimated by ventilation engineer as actual flows could not be retrieved from computer.

Solid Effluent				
July 1, 2004 – December 31, 2004				
Number of Shipments	Mode of Transportation	Destination	Volume (m³)	Quantity* (CI)
8	Truck	U.S. Ecology Richland, WA	144	0.137
6	Truck	Envirocare Clive, UT	54	0.41
Total			198	0.547

* Based on 3.4 wt% enriched uranium.

Liquid Effluent July 1, 2004 – December 31, 2004					
Constituent	Concentration ($\mu\text{Ci/ml}$)	Error Estimate (%)	LLD ($\mu\text{Ci/ml}$)	Quantity (Ci)	Liquid Volume (m^3)
U	<1.51E-07	63	-	<0.01	6.89E+4
Tc-99	<5.34E-07	58	-	<0.041	
Cs-137	1.22E-07	156	2.5E-8	0.008	
Total Ci				<0.059	

* Combined liquid effluent released to City of Richland sewer system.
 ** These constituents are analyzed chemically via Inductively Coupled Plasma/Mass Spectroscopy (ICP/MS) as opposed to radiation counting. Laboratory detection limits for uranium and Tc-99 are 1 part per billion and 5 parts per trillion, respectively.