

August 14, 2007



SNM 1168, docket 70-1201

**ATTN: Document Control Desk  
Director, Office of Nuclear Material Safety and Safeguards  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001**

**Subject:        Semi-annual effluent report: January 01, 2007 through June 30, 2007**

**In accord with the provisions of 10 CFR 70.59, the Mount Athos Road Facility of AREVA NP (Lynchburg, Virginia) submits the enclosed gaseous effluent report for the first semi-annual period of 2007.**

**You may contact me at (434) 832-5276 should you have any questions or require additional information regarding the enclosed report.**

**Sincerely,**

A handwritten signature in black ink, appearing to read 'Charles F. Holman', with a stylized flourish at the end.

**Charles F. Holman  
Manager, Environmental, Health,  
Safety and Licensing**

**cc:     USNRC, Region II  
        Sam Nunn Atlanta Federal Center; Suite 23T85  
        61 Forsyth Street, SW  
        Atlanta, Georgia 30303-8931**

**Leslie P. Foldesi  
Commonwealth of Virginia  
Department of Health  
P.O. Box 2448  
Richmond, VA 23218**

**EHS&L 05-301**

**AREVA NP INC.  
An AREVA and Siemens company**

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## Gaseous Effluent Report

1<sup>st</sup> semiannual, year 2007

### 1. PLR

Reporting Period: 01/01/2007 to 06/30/2007  
Sample Collection Point: Main Plant Stack - 1 sampling pt.  
Volume Released: 2.862E+09 cubic feet  
Stack Flow Rate (typical): 10933 cubic feet per minute  
Activity Released Gross Alpha: 0.362 uCi  
Gross Beta: 0.000 uCi

Isotope	Activity (uCi)	Concentration (uCi/ml)	% DAC
U-234	2.80E-01	3.46E-15	6.91
U-235	1.56E-02	1.92E-16	0.32
U-236	8.85E-04	1.09E-17	0.02
U-238	6.51E-02	8.02E-16	1.34

### 3. SERF-3 RCA

Reporting Period: 01/01/2007 to 06/30/2007  
Sample Collection Point: SERF-3 RCA Stack - 1 sampling pt.  
Volume Released: 1.085E+09 cubic feet  
Stack Flow Rate (typical): 4187 cubic feet per minute  
Activity Released Gross Alpha: 0.000 uCi  
Gross Beta: 2.405 uCi

Isotope	Activity (uCi)	Concentration (uCi/ml)	% DAC
Co-60	2.405	7.82E-14	0.16

## Gaseous Effluent Report

1<sup>st</sup> semiannual, year 2007

### 4. SERF-4 RCA

Reporting Period: 01/01/2007 to 06/30/2007  
Sample Collection Point: SERF-4 RCA Stack - 1 sampling pt.  
Volume Released: 3.663E+09 cubic feet  
Stack Flow Rate (typical): 14717 cubic feet per minute  
Activity Released Gross Alpha: 0.000 uCi  
Gross Beta: 10.850 uCi

Isotope	Activity (uCi)	Concentration (uCi/ml)	% DAC
Co-60	10.850	1.05E-13	0.21

### 5. Chem Lab

Reporting Period: 01/01/2007 to 06/30/2007  
Sample Collection Point: Chem Lab - 3 sampling pts.  
Volume Released: 6.369E+08 cubic feet  
Stack Flow Rate (typical): 893 cubic feet per minute  
Activity Released Gross Alpha: 0.000 uCi  
Gross Beta: 2.677 uCi

Isotope	Activity (uCi)	Concentration (uCi/ml)	% DAC
Co-60	2.677	1.48E-13	0.30

## Gaseous Effluent Report

1<sup>st</sup> semiannual, year 2007

### 6. SERF 5

Reporting Period:	01/01/2007 to 06/30/2007
Sample Collection Point:	SERF 5 - 3 sampling points
Volume Released:	5.724E+09 cubic feet
Stack Flow Rate (typical):	15218 cubic feet per minute
Activity Released	Gross Alpha: 0.000 uCi
	Gross Beta: 41.92 uCi

Isotope	Activity (uCi)	Concentration (uCi/ml)	% DAC
Co-60	41.923	2.59E-13	0.52

### 6. Maximum Concentration Released in One Sampling Period:

Reporting Period: 1st semiannual, year 2007

Isotope	DAC (uCi/ml)	maximum Concentration (uCi/ml)	% DAC
U-234	5.0E-14	1.675E-14	33.50
U-235	6.0E-14	1.675E-14	27.92
U-236	6.0E-14	1.675E-14	27.92
U-238	6.0E-14	1.675E-14	27.92
Co-60	5.0E-11	4.428E-11	88.56