



February 26, 2010  
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Document Control Desk  
Director, Office of Nuclear Material  
Safety and Safeguards  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

Gentlemen:

**License SNM-1227**  
**Docket 70-1257**

**Subject: Required Reporting of Effluents per 10 CFR 70.59 (REVISED)**

As required by 10 CFR 70.59, AREVA NP Inc.(AREVA NP) 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, 2009 through December 31, 2009 are reported in the attached tables. This report is a revision to AREVA's report (same title) dated February 25, 2010 which included errors in the Quantity (Ci) data for the liquid effluent as well as an incorrect date range in the header in the gaseous effluent table. Please discard the February 24<sup>th</sup> version.

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  
Radiation Protection

/mah

Attachments

cc: L. A. Reyes, U.S. Nuclear Regulatory Commission, Region II  
J. J. Martell, State of Washington Department of Health  
M. L. Thomas, U.S. Nuclear Regulatory Commission, Region II

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**AREVA NP INC.**

An AREVA and Siemens company

2101 Horn Rapids Road, Richland, WA 99354  
Tel.: 509 375 8100 - www.aveva.com

Gaseous Effluent July 1, 2009 - December 31, 2009					
Stack	Average Concentration (μCi/ml)	Error Estimate (%)	Average LLD (μCi/ml)*	Quantity (μCi α)	Flow (m <sup>3</sup> )
Low Enriched Uranium					
K03	3.40E-16	89	4.41E-15	.08	2.27E+08
K06	1.27E-15	32	5.35E-15	.12	9.50E+07
K21	4.77E-16	851	3.08E-14	.03	4.77E+07
K25	1.95E-15	39	9.28E-15	.06	2.79E+07
K31	7.49E-15	5	9.85E-14	3.08	4.19E+08
K37	7.54E-16	48	4.92E-15	.07	9.47E+07
K42	1.37E-15	38	6.63E-15	.06	4.01E+07
K46	9.90E-16	37	5.02E-15	.12	1.13E+08
K47	2.38E-15	41	1.34E-14	.02	8.33E+06
K49	1.52E-15	20	4.07E-15	.10	6.33E+07
K50	1.39E-14	7	8.61E-15	.02	1.77E+06
K55	1.31E-15	22	6.34E-15	.00	1.89E+06
K56	1.78E-15	31	5.71E-15	.00	1.15E+06
K58	6.25E-16	37	3.31E-15	.08	1.30E+08
K60	4.26E-16	78	5.83E-15	.04	9.67E+07
K62	1.81E-15	31	8.53E-15	.64	3.53E+08
K65	8.16E-16	39	4.59E-15	.01	1.52E+07
K67	9.90E-16	44	5.94E-15	.01	7.00E+06
K72	1.81E-15	15	3.04E-15	.38	2.19E+09
<b>TOTAL</b>				<b>4.91</b>	<b>1.96E+09</b>

July 1, 2009 - December 31, 2009					
Stack	Average Concentration (μCi/ml)	Error Estimate (%)	Average LLD (μCi/ml)**	Quantity (μCi)	Flow (m <sup>3</sup> )
Radionuclide: Rn-220					
K03	7.63E-09	6	---	6.55E+04	8.59E+06
K31	1.93E-07	6	---	2.32E+05	1.20E+06
K37	1.69E-08	7	---	1.94E+04	1.15E+06
K72	8.48E-08	6	---	1.39E+06	1.64E+07
<b>TOTAL</b>				<b>1.71E+06</b>	<b>2.74E+07</b>

\* 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 – no counting instruments. Concentrations and volumes are for periods when E-perms were present.

Liquid Effluent*					
July 1, 2009 – December 31, 2009					
Constituent	Concentration ( $\mu\text{Ci/ml}$ )	Error Estimate (%)	LLD ( $\mu\text{Ci/ml}$ )	Quantity (Ci)	Liquid Volume ( $\text{m}^3$ )
U	<1.25E-07	19	**	<0.005	3.67E+04
Tc-99	<5.51E-07	88	**	<0.020	
Total Ci				<0.025	

\* 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.