



Paducah Gaseous Diffusion Plant
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Dear Mr. Alteri, Ms. Banister, and Mr. Rosnick:

SUBMITTAL OF THE NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS ANNUAL REPORT FOR 2013 U.S. DEPARTMENT OF ENERGY EMISSIONS AT THE PADUCAH GASEOUS DIFFUSION PLANT (PAD-REG-1022)

Enclosed is the calendar year 2013 Annual National Emissions Standards for Hazardous Air Pollutants Report, required by 40 *CFR* § 61, Subpart H. This report summarizes airborne radionuclide emissions from the Paducah Site, including both the U.S. Department of Energy (DOE) and United States Enrichment Corporation (USEC) emissions for calendar year 2013. The total 2013 dose resulting from both DOE and USEC emissions was 0.003 mrem. This is well below the annual limit of 10 mrem per year. DOE's contribution to total emissions was 0.000025 mrem.

If you have any questions or require additional information, please contact Don Dihel at (270) 441-6824.

Sincerely,

A handwritten signature in cursive script that reads "Jennifer Woodard".

Jennifer Woodard
Paducah Site Lead
Portsmouth/Paducah Project Office

Enclosures:

1. Certification Sheet
2. National Emissions Standards for Hazardous Air Pollutants Annual Report for 2013

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CERTIFICATION

Document Identification: *National Emissions Standards for Hazardous Air Pollutants Annual Report for 2013 U.S. Department of Energy Emissions at the Paducah Gaseous Diffusion Plant, PAD-REG-1022*

This certification pertains to the following U.S. Department of Energy emission sources:

Northwest Plume Treatment Facility (LATA Kentucky)
Northeast Plume Treatment Facility (LATA Kentucky)
Depleted Uranium Hexafluoride Conversion Facility (BWCS)
Fugitive and Diffuse Sources

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment. (See 18 U.S.C. 1001.)



Mark J. Duff, Paducah Project Manager
LATA Environmental Services of Kentucky, LLC

6-27-14

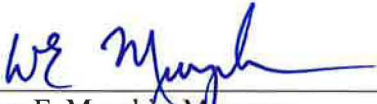
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Date Signed



William E. Murphy, Manager
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6/30/14

Date Signed

**National Emissions Standards for Hazardous Air Pollutants
Annual Report for 2013 U.S. Department of Energy
Emissions at the Paducah Gaseous Diffusion Plant**



This document is approved for public release per review by:

Robert Jones
LATA Kentucky Classification Support

6-25-14
Date

PAD-REG-1022

**National Emissions Standards for Hazardous Air Pollutants
Annual Report for 2013 U.S. Department of Energy
Emissions at the Paducah Gaseous Diffusion Plant**

Date Issued—June 2014

Prepared for the
U.S. DEPARTMENT OF ENERGY
Office of Environmental Management

Prepared by
LATA ENVIRONMENTAL SERVICES OF KENTUCKY, LLC
managing the
Environmental Remediation Activities at the
Paducah Gaseous Diffusion Plant
under contract DE-AC30-10CC40020

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FIGURE

1.	Location of Paducah Site Ambient Air Monitoring Stations	8
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ACRONYMS

ATU	alternate treatment unit
CAP-88	Clean Air Act Assessment Package-1988
<i>CFR</i>	<i>Code of Federal Regulations</i>
DOE	U.S. Department of Energy
EDE	effective dose equivalent
EPA	U.S. Environmental Protection Agency
<i>KAR</i>	<i>Kentucky Administrative Regulations</i>
NESHAP	National Emission Standards for Hazardous Air Pollutants
PGDP	Paducah Gaseous Diffusion Plant
USEC	United States Enrichment Corporation

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EXECUTIVE SUMMARY

The Kentucky Division for Air Quality regulates air emissions of radionuclides, other than radon, from U.S. Department of Energy (DOE) facilities under 401 *KAR* 57:002. The Kentucky regulations cite 40 *CFR* Part 61, Subpart H, regulations. Submission of this report fulfills the annual reporting requirements of 40 *CFR* § 61.94.

DOE owns the Paducah Gaseous Diffusion Plant, which has radionuclide air emissions from DOE operations. DOE leases a portion of the site to United States Enrichment Corporation (USEC) whose operations also have radionuclide air emissions. DOE and USEC operations were included in the estimate of the Paducah Site resultant dose to the public; however, DOE certifies the information relating to its operations only. USEC submits a separate National Emission Standards for Hazardous Air Pollutants report relating to emissions from its activities.

The dose to the public is calculated using the computer modeling program (CAP-88) specified in 40 *CFR* § 61.93. Inputs to the computer program for both DOE and USEC sources are obtained through continuous monitoring, periodic confirmatory measurements, engineering estimates, emission factors, and other U.S. Environmental Protection Agency-approved methods. Subpart H requires an annual compliance report covering site emissions from the previous year. This report meets the annual reporting requirements and establishes the total annual effective dose equivalent to the maximally exposed member of the public from both USEC and DOE emissions to be 0.03 mrem for calendar year 2013. This is well below the annual limit of 10 mrem per year. DOE emissions contribution to this total was 0.000025 mrem.

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1. FACILITY DESCRIPTION

Site Name: Paducah Gaseous Diffusion Plant (PGDP)

Location: Paducah, Kentucky

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2. INTRODUCTION

The DOE Paducah Site includes the PGDP, which is leased to the United States Enrichment Corporation (USEC). DOE managed the remaining nonleased facilities at the Paducah Site in 2013. The DOE-managed facilities consist of various waste management facilities, inactive buildings, depleted uranium hexafluoride (DUF₆) storage facilities, a DUF₆ conversion facility, and environmental restoration facilities.

Emissions from both DOE and USEC activities were analyzed together. DOE certifies only the information related to its emissions. DOE understands that USEC will be submitting a separate National Emission Standards for Hazardous Air Pollutants (NESHAP) report addressing a more detailed analysis of emissions from USEC operations. The combined emissions of both DOE and USEC were used to calculate the resultant dose. The reports have been separated to ease review and approval by the separate organizations.

3. SITE DESCRIPTION

PGDP is a uranium enrichment facility consisting of a diffusion cascade system and extensive support facilities. The cascade system, including product and tails withdrawal, is housed in six large process buildings. The plant is located on a reservation consisting of approximately 3,500 acres in western

McCracken County, 10 miles west of Paducah, Kentucky, and 3.5 miles south of the Ohio River. Roughly 650 acres of the reservation are enclosed within a fenced security area. An uninhabited buffer zone of at least 400 yards surrounds the entire fenced area. During World War II, Kentucky Ordnance Works, a trinitrotoluene production facility, was operated in an area southwest of the plant on what is now a wildlife management area.

Construction of the PGDP facility began in 1951 and the plant was fully operational by 1955, supplying enriched uranium for commercial reactors and defense uses. Enriched uranium is defined as uranium in which the concentration of the fissionable uranium-235 (U-235) isotope has been increased from its natural assay. Natural uranium is primarily uranium-238 (U-238), with about 0.71% U-235 and 0.0055% uranium-234 (U-234). Uranium mills process the ores to produce concentrated uranium oxide [triuranium octoxide (U_3O_8)], which then is converted commercially to uranium hexafluoride (UF_6). The UF_6 then is sent to PGDP for enrichment. In 2011, DOE began operation of a facility to convert the stored DUF_6 to a more stable uranium oxide, primarily U_3O_8 .

The radioactive materials used at PGDP are associated with enrichment of the uranium isotope, U-235, by utilizing a gaseous diffusion process. During enriching operations from 1953 to 1975, UF_6 feed material derived from recycled uranium (called "reactor tails") from government reactors also was used intermittently in addition to the UF_6 processed from uranium ore, which typically was used. Reactor tails were the spent fuel from nuclear reactors that is depleted in U-235 content that had been reprocessed to remove most of the fission products. The reactor fuel assemblies were processed at other DOE facilities (where most of the fission products were removed), and the enriched uranium and the remaining fission products were fed into the PGDP cascade system in the chemical form of UF_6 . Use of the reactor tails resulted in the introduction of technetium-99 (Tc-99), a fission by-product, and transuranics, most notably neptunium-237 (Np-237) and plutonium-239 (Pu-239), into the cascade.

The West Kentucky Wildlife Management Area and lightly populated farmlands are in the immediate environs of PGDP. Based on population data from the 2010 census, the population within a 50-mile radius is approximately 534,000 persons. Of these, 44,000 live within 10 miles of the plant and 104,000 live within 20 miles of the plant. The unincorporated communities of Grahamville and Heath are 1.24 and 1.86 miles east of the plant, respectively. Portions of 28 counties—11 of which are in Kentucky, 4 in Missouri, 10 in Illinois, and 3 in Tennessee—are included within the 50-mile radius of the plant. Larger cities in the region include Paducah, Kentucky, located 10 air miles east of the plant; Cape Girardeau, Missouri, located 40 air miles to the west; and Metropolis, Illinois, located 6 air miles to the northeast. The nearest neighbor residences in each direction are observed and entered into the dose modeling software. The results of the dose modeling are presented in Section 6.

Paducah is located in the humid continental zone. Summers generally are dry; precipitation occurs mainly in the spring and fall. Winters are characterized by moderately cold days; the average temperature during the coldest month, January, is about 35°F. Summers are warm and humid; the average temperature in July is 79°F. Yearly precipitation averages about 44 inches. The prevailing wind direction is south to southwest.

Although DOE still owns all of the facilities at PGDP, in 1993, the enrichment facilities were leased to USEC, which has been responsible for the enrichment operations. During 2013, USEC announced it plans to cease enrichment operations in 2014.

4. DOE SOURCE HANDLING AND PROCESSING DESCRIPTION

The description of the handling and processing that the radioactive materials undergo with DOE operations at the Paducah Site is described in the following sections. Radioactive materials that are involved in DOE operations include containerized waste, DUF_6 managed in cylinders, and radioactive contamination on equipment and facilities. Radioactive materials also were processed during conversion of DUF_6 to U_3O_8 . DOE understands that USEC will submit a separate NESHAP report addressing more detailed analysis of USEC emissions from USEC operations. USEC provided their emission information that is used to estimate the combined resultant dose for the site.

4.1 DEPLETED URANIUM HEXAFLUORIDE CONVERSION FACILITY

The DUF_6 conversion facility has operated since 2011. The facility converts DUF_6 stored in cylinders to a more stable uranium oxide, primarily U_3O_8 . Radioactive emissions from the conversion operations are continuously monitored.

4.2 NORTHWEST PLUME INTERIM REMEDIAL ACTION PROJECT

On September 1, 1995, DOE began operation of a treatment plant designed to remove trichloroethene and Tc-99 from contaminated groundwater at the PGDP. The facility, C-612, is located at the northwest corner of the PGDP site security area. The facility consists of an air stripper to remove volatile organics.

Historical sampling has shown very little change in the concentration of Tc-99 as the water passes through the air stripper. Emissions of Tc-99 were estimated using 40 *CFR* § 61, Subpart H, Appendix D, emission factors and the analysis of the groundwater. The exhaust from the air stripper is passed through a carbon adsorption unit prior to release to the atmosphere. Data has shown that Tc-99 is not retained in the carbon; therefore, no reduction in Tc-99 emissions due to the use of the adsorption unit was assumed. The results of the analysis of the estimated emissions are reported in Section 6.

4.3 NORTHEAST PLUME CONTAINMENT SYSTEM

DOE began normal operation of the Northeast Plume Containment System (Northeast Plume Treatment System), a second treatment system on February 28, 1997, as an interim remedial action also to treat contaminated groundwater. The C-614 system extracts contaminated groundwater and pumps it to an air stripper for removal of trichloroethene. Initially, the contaminated groundwater did not contain radionuclides; however, low concentration Tc-99 was detected in the groundwater and, consequently, could have been emitted to the air since 2005. Emissions of Tc-99 were estimated using 40 *CFR* Part 61, Subpart H, Appendix D, emission factors and the analysis of the groundwater.

In June 2013 USEC ceased operation of the cooling tower that was the emission point for the Northeast Plume Treatment System. DOE ceased Northeast Plume Treatment System operations until an alternate treatment unit (ATU) containing an air stripper was installed. The Northeast Plume Treatment System resumed operation in September 2013, with the ATU as the emission point. As with the initial system, emissions of Tc-99 from the ATU were estimated using 40 *CFR* Part 61, Subpart H, Appendix D emission factors, and the analysis of the groundwater.

The results of the analysis of the estimated emissions are reported in Section 6.

4.4 FUGITIVE AND DIFFUSE SOURCES

Diffuse/fugitive emission sources include any source that is distributed spatially, diffuse in nature, or not emitted with forced air from a stack, vent, or other confined conduit. In this case, radionuclides are transported entirely by diffusion and/or thermally driven air currents. Typical examples of diffuse/fugitive emissions include emissions from building breathing; resuspension of contaminated soils, debris, or other materials; unventilated tanks; ponds, lakes, and streams; wastewater treatment systems; outdoor storage and processing areas; and leaks in piping, valves, or other process equipment. DOE has identified many potential fugitive and diffuse emission sources such as inactive facilities, building roofs, scrap metal storage yards, landfills, and various contamination areas. Specific activities that could generate fugitive emissions include transport and disposal of waste, demolition of contaminated facilities such as the C-340 Building (demolished in 2013), decontamination of contaminated equipment, and most environmental remediation activities. The use of ambient air monitors to evaluate emissions from fugitive and diffuse sources is described in Section 9.

5. WAIVER OF CONSTRUCTION AND MODIFICATION ACTIVITIES

Use of the cooling towers for stripping TCE and 1,1 DCE from the Northeast Plume groundwater was discontinued in the reporting year and replaced by engineered water treatment units that used air stripping. Emissions from this modification are less than one percent of the 40 *CFR* § 61.92 standard.

6. DOE SOURCE CHARACTERISTICS AND AIR EMISSIONS DATA

Tables 1 through 4 contain specific emission information for each DOE emission point. Table 1 lists the emission points and efficiency of control devices as required by 40 *CFR* § 61.94 (b) (4) and (5). Note that it is assumed that control for the Northwest Plume Treatment System has 0% efficiency because no credit is taken for any Tc-99 removal as a result of carbon filtration. Table 2 lists the distances from each emission point to receptors of concern as listed in 40 *CFR* § 61.94 (b) (6). Table 3 contains emission point information required to estimate the resulting potential exposure as required by 40 *CFR* § 61.94 (b) (7). Table 4 contains a list of site radioactive materials and their emission rates as required by 40 *CFR* § 61.94 (b) (2).

Table 1. Emission Point Effluent Controls and Efficiencies

Emission Points	Type Control	Efficiency%
Northwest Plume Treatment System	Carbon	0
Northeast Plume Treatment System Cooling Tower	None	0
Northeast Plume Treatment System Alternate Treatment Unit	None	0
DUF ₆ Conversion Facility	High-efficiency particulate air	99.9

Table 2. Distances to Selected Receptors

Emission Points	Distances (m) to Selected Receptors		
	Nearest Farm	Nearest Business	Nearest School
Northwest Plume Treatment System	1,100	2,550	5,150
Northeast Plume Treatment System Cooling Tower	1,400	2,100	4,200
Northeast Plume Treatment System Alternate Treatment Unit	1,330	1,800	3,660
DUF ₆ Conversion Facility	2,550	3,250	3,400

Table 3. Characteristics of Stacks, Vents, or Other Emission Points that Emit Radionuclides

Emission Points	Type	Height (m)	Diameter (m)	Gas Exit Velocity (m/s)	Gas Exit Temp. (°C)	Distance (m) & Direction to Maximally Exposed Individual for Each Source
Northwest Plume Treatment System	Point	7.0	0.35	9.45	37.8	1,080 NNE
Northeast Plume Treatment System Cooling Tower	Point	10.22	8.18	4.84	Ambient	1,360 SE
Northeast Plume Treatment System Alternate Treatment Unit	Point	5.94	0.19	10.8	Ambient	987 SE
DUF ₆ Conversion Facility	Point	21.95	1.067	16.19	33.9	2,171 S

Table 4. Radionuclide Materials and Emissions Data (Curies)

Nuclide	Northwest Plume Treatment Facility	Northeast Plume Treatment Facility Cooling Tower	Northeast Plume Treatment System Alternate Treatment Unit	DUF ₆ Conversion Facility	Total DOE Emissions	Total Site Emissions *
U-234	0	0		1.57E-07	1.57E-07	5.46E-03
U-235	0	0		7.19E-09	7.19E-09	1.90E-04
U-238	0	0		3.85E-07	3.85E-07	2.54E-03
Tc-99	1.27E-04	2.26E-06	1.28E-06		1.31E-04	4.60E-03
Th-230	0	0				5.84E-06
Th-231	0	0		2.80E-08	2.80E-08	2.80E-08
Th-234	0	0		2.56E-06	2.56E-06	2.56E-06
Np-237	0	0				6.18E-04
Pu-239	0	0				1.34E-06
Pa-234m	0	0		2.56E-06	2.56E-06	2.56E-06
Total Curies/Year	1.27E-04	2.26E-06	1.28E-06	5.70E-06	1.36E-04	1.34E-02

*The total site emissions reflect both USEC and DOE emissions; however, the source-specific columns show only DOE emissions.

7. DOSE ASSESSMENT

7.1 DESCRIPTION OF DOSE MODEL

The radiation dose calculations were performed using the Clean Air Act Assessment Package-1988 (CAP-88) package of computer codes that were converted from the mainframe CAP-88 version. This package contains the U.S. Environmental Protection Agency's (EPA's) version of the AIRDOS-EPA computer code, which implements a steady-state, Gaussian plume, atmospheric dispersion model to calculate environmental concentrations of released radionuclides and then uses Regulatory Guide 1.109 food chain models to calculate human exposures, both internal and external, to the environmental concentrations. The human exposure values then are used by the EPA's version of the DARTAB computer code to calculate radiation doses to man from radionuclides released during the year. The dose calculations use dose conversion factors contained in the RADRISK data file, which is provided by EPA with the CAP-88 package. Selection of the dose conversion factors follows guidance given by EPA in its Federal Guidance Report No. 11.

7.2 SUMMARY OF INPUT PARAMETERS

Default input parameters are used except for those provided in Section 6 and immediately below. Meteorological input information is from the National Weather Service at Paducah, except for the on-site joint frequency distribution information. The average mixing layer height was derived from area upper air data from 2007 and supplied by Oak Ridge National Laboratory.

Joint frequency distribution: Five-year stability array (STAR) distribution from 60-m station on PGDP meteorological tower for the years 1988 through 1992.

Rainfall rate: 153.14 cm/year

Average air temperature: 13.8°C

Average mixing layer height: 659 m

Fraction of foodstuffs from (rural default values):

	<u>Local Area</u>	<u>50-Mile Radius</u>	<u>Beyond 50 Miles</u>
Vegetables and produce:	0.700	0.300	0.000
Meat:	0.442	0.558	0.000
Milk:	0.399	0.601	0.000

7.3 DOSE ESTIMATE

Effective dose equivalent (EDE) to maximally exposed individual for each individual point source and the plant is provided in Table 5. The dose estimate is based on both the DOE and USEC point sources combined (data provided by USEC).

Table 5. Dose Analysis

USEC Emission Sources*	Dose to the Maximum Exposed Individual for Each Source (mrem)	Dose to the Maximum Exposed Individual for the Plant (mrem)
C-400 Group	1.3E-03	1.3E-03
C-400 Cylinder Drying Station	1.6E-06	1.6E-06
C-709/C-710 Laboratory Hoods	1.1E-03	1.1E-03
C-310 Stack	8.0E-04	7.6E-04
Seal Exhaust/Wet Air Group	2.7E-02	2.7E-02
C-409 Group	4.2E-07	4.2E-07
C-360	1.8E-04	8.1E-05
Total from USEC Sources		3.0E-02
DOE Emission Sources		
Northwest Plume Treatment System	2.5E-05	2.5E-05
Northeast Plume Treatment System Cooling Tower	1.7E-07	1.3E-07
Northeast Plume Treatment System Alternate Treatment Unit	1.9E-07	8.9E-08
DUF ₆ Conversion Facility	2.5E-07	1.7E-07
Total from DOE Sources		2.5E-05
Total from All Sources		3.0E-02

*Certified by USEC in its annual report.

The maximally exposed individual from all plant emissions is located 2,430 m north of the C-310 stack (a USEC source).

Based on population data from the 2010 census, the total collective EDE to the 50-mile population (approximately 534,000 persons) was 0.2 person-rem.

8. UNPLANNED RELEASES

There were no DOE unplanned radioactive airborne releases in 2013.

9. AMBIENT AIR MONITORING

In accordance with the *National Emission Standards for Hazardous Air Pollutants Management Plan Gaseous Diffusion Plant for Emission of Radionuclides for the Department of Energy Operations at the Paducah Site, Paducah, Kentucky* PAD-REG-1017, November 2013, DOE used ambient air monitoring data to verify insignificant levels of radionuclides in off-site ambient air. Ambient air stations collect radionuclide samples at sites surrounding the plant. The ambient air monitors capture airborne radionuclides emitted from all sources, including fugitive and diffuse sources. The locations of the ambient air monitoring stations are shown in Figure 1.

Analysis of the ambient air monitoring results indicate that plant-derived radionuclides were not detected in concentrations greater than 40 CFR § 61, Appendix E (3), Table 2, concentrations. The actual results of each air monitoring station are listed in Tables 6 and 7 of this report.

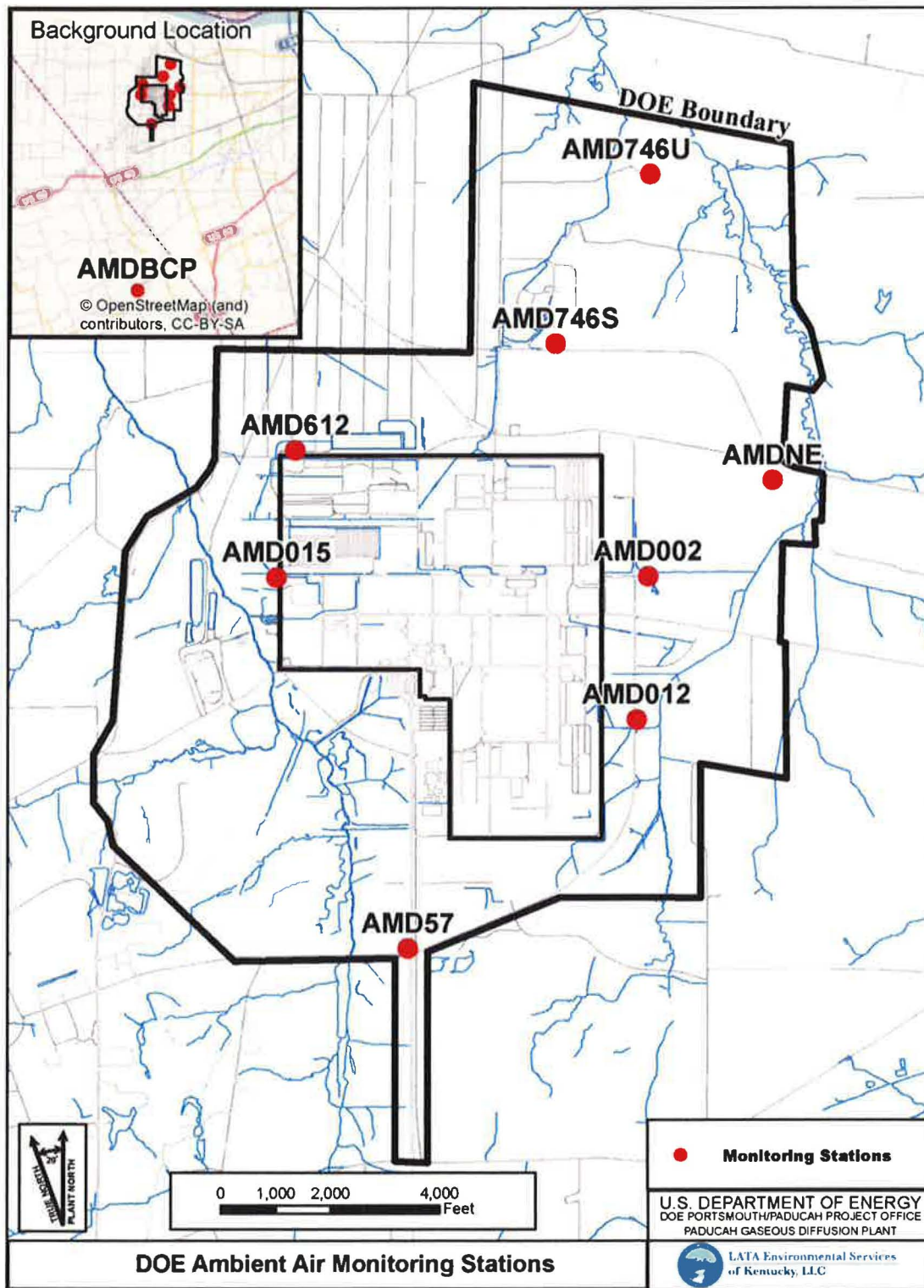


Figure 1. Location of Paducah Site Ambient Air Monitoring Stations

Table 6. Ambient Air Monitoring 2013 Results

1st Quarter January through March								
Station	Analysis	Result	Units	Qualifier	Concentration (pCi/ m ³)	Concentration (Ci/m ³)	Standard (Ci/m ³)	Fraction of Standard
AMD002	Quarter Air Flow	7,330	m ³					
AMD002	Americium-241	-1.32	pCi/sample	U	-1.80E-04	-1.80E-16	1.90E-15	-9.48E-02
AMD002	Neptunium-237	3.91	pCi/sample	U	5.33E-04	5.33E-16	1.20E-15	4.44E-01
AMD002	Plutonium-238	-0.0109	pCi/sample	U	-1.49E-06	-1.49E-18	2.10E-15	-7.08E-04
AMD002	Plutonium-239/240	0.0836	pCi/sample	U	1.14E-05	1.14E-17	2.00E-15	5.70E-03
AMD002	Technetium-99	6.22	pCi/sample		8.49E-04	8.49E-16	1.40E-13	6.06E-03
AMD002	Thorium-234	14.7	pCi/sample	U	2.01E-03	2.01E-15	2.20E-12	9.12E-04
AMD002	Uranium-234	2.64	pCi/sample	T	3.60E-04	3.60E-16	7.70E-15	4.68E-02
AMD002	Uranium-235	0.198	pCi/sample	T	2.70E-05	2.70E-17	7.10E-15	3.80E-03
AMD002	Uranium-238	1.22	pCi/sample	T	1.66E-04	1.66E-16	8.30E-15	2.01E-02
Sum of the Fractions of the Standard								4.32E-01
AMD012	Quarter Air Flow	7,395	m ³					
AMD012	Americium-241	-0.971	pCi/sample	U	-1.31E-04	-1.31E-16	1.90E-15	-6.91E-02
AMD012	Neptunium-237	-0.0721	pCi/sample	U	-9.75E-06	-9.75E-18	1.20E-15	-8.13E-03
AMD012	Plutonium-238	0.0367	pCi/sample	U	4.96E-06	4.96E-18	2.10E-15	2.36E-03
AMD012	Plutonium-239/240	-0.0119	pCi/sample	U	-1.61E-06	-1.61E-18	2.00E-15	-8.05E-04
AMD012	Technetium-99	3.21	pCi/sample	U	4.34E-04	4.34E-16	1.40E-13	3.10E-03
AMD012	Thorium-234	-7.8	pCi/sample	U	-1.05E-03	-1.05E-15	2.20E-12	-4.79E-04
AMD012	Uranium-234	0.885	pCi/sample	UT	1.20E-04	1.20E-16	7.70E-15	1.55E-02
AMD012	Uranium-235	0.0812	pCi/sample	UT	1.10E-05	1.10E-17	7.10E-15	1.55E-03
AMD012	Uranium-238	0.757	pCi/sample	UT	1.02E-04	1.02E-16	8.30E-15	1.23E-02
Sum of the Fractions of the Standard								-4.36E-02
AMD015	Quarter Air Flow	6,836	m ³					
AMD015	Americium-241	1.66	pCi/sample	U	2.43E-04	2.43E-16	1.90E-15	1.28E-01
AMD015	Neptunium-237	3.33	pCi/sample	U	4.87E-04	4.87E-16	1.20E-15	4.06E-01
AMD015	Plutonium-238	0.00763	pCi/sample	U	1.12E-06	1.12E-18	2.10E-15	5.31E-04
AMD015	Plutonium-239/240	0.0356	pCi/sample	U	5.21E-06	5.21E-18	2.00E-15	2.60E-03
AMD015	Technetium-99	4.32	pCi/sample		6.32E-04	6.32E-16	1.40E-13	4.51E-03
AMD015	Thorium-234	11.6	pCi/sample	U	1.70E-03	1.70E-15	2.20E-12	7.71E-04
AMD015	Uranium-234	0.405	pCi/sample	U	5.92E-05	5.92E-17	7.70E-15	7.69E-03
AMD015	Uranium-235	0.0909	pCi/sample	U	1.33E-05	1.33E-17	7.10E-15	1.87E-03
AMD015	Uranium-238	0.369	pCi/sample	U	5.40E-05	5.40E-17	8.30E-15	6.50E-03
Sum of the Fractions of the Standard								5.58E-01

Table 6. Ambient Air Monitoring 2013 Results^{a,b} (Continued)

1st Quarter January through March (Continued)								
Station	Analysis	Result	Units	Qualifier	Concentration (pCi/ m ³)	Concentration (Ci/m ³)	Standard (Ci/m ³)	Fraction of Standard
AMD57	Quarter Air Flow	7,392	m ³					
AMD57	Americium-241	1.37	pCi/sample	U	1.85E-04	1.85E-16	1.90E-15	9.75E-02
AMD57	Neptunium-237	0.691	pCi/sample	U	9.35E-05	9.35E-17	1.20E-15	7.79E-02
AMD57	Plutonium-238	0.00882	pCi/sample	U	1.19E-06	1.19E-18	2.10E-15	5.68E-04
AMD57	Plutonium-239/240	0.0415	pCi/sample	U	5.61E-06	5.61E-18	2.00E-15	2.81E-03
AMD57	Technetium-99	5.49	pCi/sample		7.43E-04	7.43E-16	1.40E-13	5.30E-03
AMD57	Thorium-234	-5.34	pCi/sample	U	-7.22E-04	-7.22E-16	2.20E-12	-3.28E-04
AMD57	Uranium-234	0.723	pCi/sample	UT	9.78E-05	9.78E-17	7.70E-15	1.27E-02
AMD57	Uranium-235	0.0477	pCi/sample	UT	6.45E-06	6.45E-18	7.10E-15	9.09E-04
AMD57	Uranium-238	0.196	pCi/sample	UT	2.65E-05	2.65E-17	8.30E-15	3.19E-03
Sum of the Fractions of the Standard								2.01E-01
AMD612	Quarter Air Flow	7,352	m ³					
AMD612	Americium-241	2.84	pCi/sample	U	3.86E-04	3.86E-16	1.90E-15	2.03E-01
AMD612	Neptunium-237	0.58	pCi/sample	U	7.89E-05	7.89E-17	1.20E-15	6.57E-02
AMD612	Plutonium-238	0.0293	pCi/sample	U	3.99E-06	3.99E-18	2.10E-15	1.90E-03
AMD612	Plutonium-239/240	0.0507	pCi/sample	U	6.90E-06	6.90E-18	2.00E-15	3.45E-03
AMD612	Technetium-99	2.83	pCi/sample	U	3.85E-04	3.85E-16	1.40E-13	2.75E-03
AMD612	Thorium-234	-22.3	pCi/sample	U	-3.03E-03	-3.03E-15	2.20E-12	-1.38E-03
AMD612	Uranium-234	1.02	pCi/sample	UT	1.39E-04	1.39E-16	7.70E-15	1.80E-02
AMD612	Uranium-235	0.0825	pCi/sample	UT	1.12E-05	1.12E-17	7.10E-15	1.58E-03
AMD612	Uranium-238	0.363	pCi/sample	UT	4.94E-05	4.94E-17	8.30E-15	5.95E-03
Sum of the Fractions of the Standard								3.01E-01
AMD746S	Quarter Air Flow	6,837	m ³					
AMD746S	Americium-241	-1.01	pCi/sample	U	-1.48E-04	-1.48E-16	1.90E-15	-7.77E-02
AMD746S	Neptunium-237	1.18	pCi/sample	U	1.73E-04	1.73E-16	1.20E-15	1.44E-01
AMD746S	Plutonium-238	-0.00232	pCi/sample	U	-3.39E-07	-3.39E-19	2.10E-15	-1.62E-04
AMD746S	Plutonium-239/240	0.0152	pCi/sample	U	2.22E-06	2.22E-18	2.00E-15	1.11E-03
AMD746S	Technetium-99	2.77	pCi/sample	U	4.05E-04	4.05E-16	1.40E-13	2.89E-03
AMD746S	Thorium-234	-4.98	pCi/sample	U	-7.28E-04	-7.28E-16	2.20E-12	-3.31E-04
AMD746S	Uranium-234	0.341	pCi/sample	UT	4.99E-05	4.99E-17	7.70E-15	6.48E-03

Table 6. Ambient Air Monitoring 2013 Results^{a,b} (Continued)

1st Quarter January through March (Continued)								
Station	Analysis	Result	Units	Qualifier	Concentration (pCi/m ³)	Concentration (Ci/m ³)	Standard (Ci/m ³)	Fraction of Standard
AMD746S	Quarter Air Flow	6,837	m ³					
AMD746S	Uranium-235	0.0328	pCi/sample	UT	4.80E-06	4.80E-18	7.10E-15	6.76E-04
AMD746S	Uranium-238	0.241	pCi/sample	UT	3.52E-05	3.52E-17	8.30E-15	4.25E-03
Sum of the Fractions of the Standard								8.10E-02
AMD746U	Quarter Air Flow	7,394	m ³					
AMD746U	Americium-241	-0.79	pCi/sample	U	-1.07E-04	-1.07E-16	1.90E-15	-5.62E-02
AMD746U	Neptunium-237	-1.53	pCi/sample	U	-2.07E-04	-2.07E-16	1.20E-15	-1.72E-01
AMD746U	Plutonium-238	-0.00232	pCi/sample	U	-3.14E-07	-3.14E-19	2.10E-15	-1.49E-04
AMD746U	Plutonium-239/240	-0.0118	pCi/sample	U	-1.60E-06	-1.60E-18	2.00E-15	-7.98E-04
AMD746U	Technetium-99	6.42	pCi/sample		8.68E-04	8.68E-16	1.40E-13	6.20E-03
AMD746U	Thorium-234	0.482	pCi/sample	U	6.52E-05	6.52E-17	2.20E-12	2.96E-05
AMD746U	Uranium-234	0.383	pCi/sample	UT	5.18E-05	5.18E-17	7.70E-15	6.73E-03
AMD746U	Uranium-235	0.0748	pCi/sample	UT	1.01E-05	1.01E-17	7.10E-15	1.42E-03
AMD746U	Uranium-238	0.204	pCi/sample	UT	2.76E-05	2.76E-17	8.30E-15	3.32E-03
Sum of the Fractions of the Standard								-2.12E-01
AMDBCP	Quarter Air Flow	7,396	m ³					
AMDBCP	Americium-241	2.79	pCi/sample	U	3.77E-04	3.77E-16	1.90E-15	1.99E-01
AMDBCP	Neptunium-237	-1.16	pCi/sample	U	-1.57E-04	-1.57E-16	1.20E-15	-1.31E-01
AMDBCP	Plutonium-238	-0.0111	pCi/sample	U	-1.50E-06	-1.50E-18	2.10E-15	-7.15E-04
AMDBCP	Plutonium-239/240	0.00565	pCi/sample	U	7.64E-07	7.64E-19	2.00E-15	3.82E-04
AMDBCP	Technetium-99	3.37	pCi/sample	U	4.56E-04	4.56E-16	1.40E-13	3.25E-03
AMDBCP	Thorium-234	18.3	pCi/sample	U	2.47E-03	2.47E-15	2.20E-12	1.12E-03
AMDBCP	Uranium-234	0.308	pCi/sample	UT	4.16E-05	4.16E-17	7.70E-15	5.41E-03
AMDBCP	Uranium-235	0.0505	pCi/sample	UT	6.83E-06	6.83E-18	7.10E-15	9.62E-04
AMDBCP	Uranium-238	0.0968	pCi/sample	UT	1.31E-05	1.31E-17	8.30E-15	1.58E-03
Sum of the Fractions of the Standard								7.98E-02
AMDNE	Quarter Air Flow	7,334	m ³					
AMDNE	Americium-241	2.08	pCi/sample	U	2.84E-04	2.84E-16	1.90E-15	1.49E-01
AMDNE	Neptunium-237	1.83	pCi/sample	U	2.50E-04	2.50E-16	1.20E-15	2.08E-01
AMDNE	Plutonium-238	0.0173	pCi/sample	U	2.36E-06	2.36E-18	2.10E-15	1.12E-03
AMDNE	Technetium-99	2.57	pCi/sample	U	3.50E-04	3.50E-16	1.40E-13	2.50E-03
AMDNE	Thorium-234	7.13	pCi/sample	U	9.72E-04	9.72E-16	2.20E-12	4.42E-04
AMDNE	Uranium-234	0.236	pCi/sample	UT	3.22E-05	3.22E-17	7.70E-15	4.18E-03
AMDNE	Uranium-235	0.075	pCi/sample	UT	1.02E-05	1.02E-17	7.10E-15	1.44E-03

Table 6. Ambient Air Monitoring 2013 Results^{a,b} (Continued)

1st Quarter January through March (Continued)								
Station	Analysis	Result	Units	Qualifier	Concentration (pCi/m ³)	Concentration (Ci/m ³)	Standard (Ci/m ³)	Fraction of Standard
AMDNE	Quarter Air Flow	7,334	m ³					
AMDNE	Plutonium-239/240	-0.00315	pCi/sample	U	-4.29E-07	-4.29E-19	2.00E-15	-2.15E-04
AMDNE	Technetium-99	2.57	pCi/sample	U	3.50E-04	3.50E-16	1.40E-13	2.50E-03
AMDNE	Thorium-234	7.13	pCi/sample	U	9.72E-04	9.72E-16	2.20E-12	4.42E-04
AMDNE	Uranium-234	0.236	pCi/sample	UT	3.22E-05	3.22E-17	7.70E-15	4.18E-03
AMDNE	Uranium-235	0.075	pCi/sample	UT	1.02E-05	1.02E-17	7.10E-15	1.44E-03
AMDNE	Uranium-238	0.26	pCi/sample	UT	3.54E-05	3.54E-17	8.30E-15	4.27E-03
Sum of the Fractions of the Standard								3.71E-01

2nd Quarter April through June								
Station	Analysis	Result	Units	Qualifier	Concentration (pCi/m ³)	Concentration (Ci/m ³)	Standard (Ci/m ³)	Fraction of Standard
AMD002	Quarter Air Flow	7,408	m ³					
AMD002	Americium-241	2.41	pCi/sample	U	3.25E-04	3.25E-16	1.90E-15	1.71E-01
AMD002	Neptunium-237	1.34	pCi/sample	U	1.81E-04	1.81E-16	1.20E-15	1.51E-01
AMD002	Plutonium-238	0.0108	pCi/sample	U	1.46E-06	1.46E-18	2.10E-15	6.94E-04
AMD002	Plutonium-239/240	-0.00283	pCi/sample	U	-3.82E-07	-3.82E-19	2.00E-15	-1.91E-04
AMD002	Technetium-99	-1.18	pCi/sample	U	-1.59E-04	-1.59E-16	1.40E-13	-1.14E-03
AMD002	Thorium-234	19.8	pCi/sample	U	2.67E-03	2.67E-15	2.20E-12	1.21E-03
AMD002	Uranium-234	7.78	pCi/sample	U	1.05E-03	1.05E-15	7.70E-15	1.36E-01
AMD002	Uranium-235	0.189	pCi/sample	U	2.55E-05	2.55E-17	7.10E-15	3.59E-03
AMD002	Uranium-238	4.2	pCi/sample	U	5.67E-04	5.67E-16	8.30E-15	6.83E-02
Sum of the Fractions of the Standard								5.31E-01
AMD012	Quarter Air Flow	7,401	m ³					
AMD012	Americium-241	-0.472	pCi/sample	U	-6.38E-05	-6.38E-17	1.90E-15	-3.36E-02
AMD012	Neptunium-237	-0.7	pCi/sample	U	-9.46E-05	-9.46E-17	1.20E-15	-7.88E-02
AMD012	Plutonium-238	0.0216	pCi/sample	U	2.92E-06	2.92E-18	2.10E-15	1.39E-03
AMD012	Plutonium-239/240	-0.00185	pCi/sample	U	-2.50E-07	-2.50E-19	2.00E-15	-1.25E-04
AMD012	Technetium-99	0.528	pCi/sample	U	7.13E-05	7.13E-17	1.40E-13	5.10E-04
AMD012	Thorium-234	45.7	pCi/sample	U	6.17E-03	6.17E-15	2.20E-12	2.81E-03
AMD012	Uranium-234	7.78	pCi/sample	U	1.05E-03	1.05E-15	7.70E-15	1.37E-01
AMD012	Uranium-235	0.189	pCi/sample	U	2.55E-05	2.55E-17	7.10E-15	3.60E-03

Table 6. Ambient Air Monitoring 2013 Results^{a,b} (Continued)

2nd Quarter April through June (Continued)								
Station	Analysis	Result	Units	Qualifier	Concentration (pCi/m ³)	Concentration (Ci/m ³)	Standard (Ci/m ³)	Fraction of Standard
AMD012	Quarter Air Flow	7,401	m ³					
AMD012	Uranium-238	4.2	pCi/sample	U	5.67E-04	5.67E-16	8.30E-15	6.84E-02
Sum of the Fractions of the Standard								1.01E-01
AMD015	Quarter Air Flow	5,934	m ³					
AMD015	Americium-241	5.62	pCi/sample	U	9.47E-04	9.47E-16	1.90E-15	4.98E-01
AMD015	Neptunium-237	0.514	pCi/sample	U	8.66E-05	8.66E-17	1.20E-15	7.22E-02
AMD015	Plutonium-238	-0.00935	pCi/sample	U	-1.58E-06	-1.58E-18	2.10E-15	-7.50E-04
AMD015	Plutonium-239/240	-0.0119	pCi/sample	U	-2.01E-06	-2.01E-18	2.00E-15	-1.00E-03
AMD015	Technetium-99	3.19	pCi/sample	U	5.38E-04	5.38E-16	1.40E-13	3.84E-03
AMD015	Thorium-234	-21.1	pCi/sample	U	-3.56E-03	-3.56E-15	2.20E-12	-1.62E-03
AMD015	Uranium-234	7.78	pCi/sample	U	1.31E-03	1.31E-15	7.70E-15	1.70E-01
AMD015	Uranium-235	0.189	pCi/sample	U	3.18E-05	3.18E-17	7.10E-15	4.49E-03
AMD015	Uranium-238	4.2	pCi/sample	U	7.08E-04	7.08E-16	8.30E-15	8.53E-02
Sum of the Fractions of the Standard								8.31E-01
AMD57	Quarter Air Flow	7,401	m ³					
AMD57	Americium-241	3.06	pCi/sample	U	4.13E-04	4.13E-16	1.90E-15	2.18E-01
AMD57	Neptunium-237	-0.194	pCi/sample	U	-2.62E-05	-2.62E-17	1.20E-15	-2.18E-02
AMD57	Plutonium-238	0.000643	pCi/sample	U	8.69E-08	8.69E-20	2.10E-15	4.14E-05
AMD57	Plutonium-239/240	0.0186	pCi/sample	U	2.51E-06	2.51E-18	2.00E-15	1.26E-03
AMD57	Technetium-99	-2.24	pCi/sample	U	-3.03E-04	-3.03E-16	1.40E-13	-2.16E-03
AMD57	Thorium-234	-4.64	pCi/sample	U	-6.27E-04	-6.27E-16	2.20E-12	-2.85E-04
AMD57	Uranium-234	7.78	pCi/sample	U	1.05E-03	1.05E-15	7.70E-15	1.37E-01
AMD57	Uranium-235	0.189	pCi/sample	U	2.55E-05	2.55E-17	7.10E-15	3.60E-03
AMD57	Uranium-238	4.2	pCi/sample	U	5.67E-04	5.67E-16	8.30E-15	6.84E-02
Sum of the Fractions of the Standard								4.03E-01
AMD612	Quarter Air Flow	5,931	m ³					
AMD612	Americium-241	-3.64	pCi/sample	U	-6.14E-04	-6.14E-16	1.90E-15	-3.23E-01
AMD612	Neptunium-237	-2.01	pCi/sample	U	-3.39E-04	-3.39E-16	1.20E-15	-2.82E-01
AMD612	Plutonium-238	0.0104	pCi/sample	U	1.75E-06	1.75E-18	2.10E-15	8.35E-04
AMD612	Plutonium-239/240	-0.00187	pCi/sample	U	-3.15E-07	-3.15E-19	2.00E-15	-1.58E-04
AMD612	Technetium-99	0.57	pCi/sample	U	9.61E-05	9.61E-17	1.40E-13	6.86E-04
AMD612	Thorium-234	19.7	pCi/sample	U	3.32E-03	3.32E-15	2.20E-12	1.51E-03
AMD612	Uranium-234	7.78	pCi/sample	U	1.31E-03	1.31E-15	7.70E-15	1.70E-01

Table 6. Ambient Air Monitoring 2013 Results^{a,b} (Continued)

2nd Quarter April through June (Continued)								
Station	Analysis	Result	Units	Qualifier	Concentration (pCi/m ³)	Concentration (Ci/m ³)	Standard (Ci/m ³)	Fraction of Standard
AMD612	Uranium-235	0.189	pCi/sample	U	3.19E-05	3.19E-17	7.10E-15	4.49E-03
AMD612	Uranium-238	4.2	pCi/sample	U	7.08E-04	7.08E-16	8.30E-15	8.53E-02
Sum of the Fractions of the Standard								-3.42E-01
AMD746S	Quarter Air Flow	7,960	m ³					
AMD746S	Americium-241	-2.82	pCi/sample	U	-3.54E-04	-3.54E-16	1.90E-15	-1.86E-01
AMD746S	Neptunium-237	-0.163	pCi/sample	U	-2.05E-05	-2.05E-17	1.20E-15	-1.71E-02
AMD746S	Plutonium-238	-0.0292	pCi/sample	U	-3.67E-06	-3.67E-18	2.10E-15	-1.75E-03
AMD746S	Plutonium-239/240	-0.0403	pCi/sample	U	-5.06E-06	-5.06E-18	2.00E-15	-2.53E-03
AMD746S	Technetium-99	-2.11	pCi/sample	U	-2.65E-04	-2.65E-16	1.40E-13	-1.89E-03
AMD746S	Thorium-234	30	pCi/sample	U	3.77E-03	3.77E-15	2.20E-12	1.71E-03
AMD746S	Uranium-234	7.78	pCi/sample	U	9.77E-04	9.77E-16	7.70E-15	1.27E-01
AMD746S	Uranium-235	0.189	pCi/sample	U	2.37E-05	2.37E-17	7.10E-15	3.34E-03
AMD746S	Uranium-238	4.2	pCi/sample	U	5.28E-04	5.28E-16	8.30E-15	6.36E-02
Sum of the Fractions of the Standard								-1.41E-02
AMD746U	Quarter Air Flow	7,401	m ³					
AMD746U	Americium-241	4.63	pCi/sample	U	6.26E-04	6.26E-16	1.90E-15	3.29E-01
AMD746U	Neptunium-237	-1.03	pCi/sample	U	-1.39E-04	-1.39E-16	1.20E-15	-1.16E-01
AMD746U	Plutonium-238	0.0107	pCi/sample	U	1.45E-06	1.45E-18	2.10E-15	6.88E-04
AMD746U	Plutonium-239/240	-0.000856	pCi/sample	U	-1.16E-07	-1.16E-19	2.00E-15	-5.78E-05
AMD746U	Technetium-99	2.51	pCi/sample	U	3.39E-04	3.39E-16	1.40E-13	2.42E-03
AMD746U	Thorium-234	21.4	pCi/sample	U	2.89E-03	2.89E-15	2.20E-12	1.31E-03
AMD746U	Uranium-234	7.78	pCi/sample	U	1.05E-03	1.05E-15	7.70E-15	1.37E-01
AMD746U	Uranium-235	0.189	pCi/sample	U	2.55E-05	2.55E-17	7.10E-15	3.60E-03
AMD746U	Uranium-238	4.2	pCi/sample	U	5.67E-04	5.67E-16	8.30E-15	6.84E-02
Sum of the Fractions of the Standard								4.26E-01
AMDBCP	Quarter Air Flow	7,569	m ³					
AMDBCP	Americium-241	-3.48	pCi/sample	U	-4.60E-04	-4.60E-16	1.90E-15	-2.42E-01
AMDBCP	Neptunium-237	0.574	pCi/sample	U	7.58E-05	7.58E-17	1.20E-15	6.32E-02
AMDBCP	Plutonium-238	0.0101	pCi/sample	U	1.33E-06	1.33E-18	2.10E-15	6.35E-04
AMDBCP	Plutonium-239/240	-0.00951	pCi/sample	U	-1.26E-06	-1.26E-18	2.00E-15	-6.28E-04
AMDBCP	Technetium-99	-1.67	pCi/sample	U	-2.21E-04	-2.21E-16	1.40E-13	-1.58E-03

Table 6. Ambient Air Monitoring 2013 Results^{a,b} (Continued)

2nd Quarter April through June (Continued)								
Station	Analysis	Result	Units	Qualifier	Concentration (pCi/m ³)	Concentration (Ci/m ³)	Standard (Ci/m ³)	Fraction of Standard
AMDBCP	Thorium-234	-12.4	pCi/sample	U	-1.64E-03	-1.64E-15	2.20E-12	-7.45E-04
AMDBCP	Uranium-234	7.78	pCi/sample	U	1.03E-03	1.03E-15	7.70E-15	1.33E-01
AMDBCP	Uranium-235	0.189	pCi/sample	U	2.50E-05	2.50E-17	7.10E-15	3.52E-03
AMDBCP	Uranium-238	4.2	pCi/sample	U	5.55E-04	5.55E-16	8.30E-15	6.69E-02
Sum of the Fractions of the Standard								2.28E-02
AMDNE	Quarter Air Flow	5,392	m ³					
AMDNE	Americium-241	1.98	pCi/sample	U	3.67E-04	3.67E-16	1.90E-15	1.93E-01
AMDNE	Neptunium-237	-2.35	pCi/sample	U	-4.36E-04	-4.36E-16	1.20E-15	-3.63E-01
AMDNE	Plutonium-238	0.000592	pCi/sample	U	1.10E-07	1.10E-19	2.10E-15	5.23E-05
AMDNE	Plutonium-239/240	0.0175	pCi/sample	U	3.25E-06	3.25E-18	2.00E-15	1.62E-03
AMDNE	Technetium-99	-1.18	pCi/sample	U	-2.19E-04	-2.19E-16	1.40E-13	-1.56E-03
AMDNE	Thorium-234	-10.5	pCi/sample	U	-1.95E-03	-1.95E-15	2.20E-12	-8.85E-04
AMDNE	Uranium-234	7.78	pCi/sample	U	1.44E-03	1.44E-15	7.70E-15	1.87E-01
AMDNE	Uranium-235	0.189	pCi/sample	U	3.51E-05	3.51E-17	7.10E-15	4.94E-03
AMDNE	Uranium-238	4.2	pCi/sample	U	7.79E-04	7.79E-16	8.30E-15	9.39E-02
Sum of the Fractions of the Standard								1.15E-01

3rd Quarter July through September								
Station	Analysis	Result	Units	Qualifier	Concentration (pCi/m ³)	Concentration (Ci/m ³)	Standard (Ci/m ³)	Fraction of Standard
AMD002	Quarter Air Flow	7,968	m ³					
AMD002	Americium-241	1.55	pCi/sample	U	1.95E-04	1.95E-16	1.90E-15	1.02E-01
AMD002	Neptunium-237	0.909	pCi/sample	U	1.14E-04	1.14E-16	1.20E-15	9.51E-02
AMD002	Plutonium-238	-0.0251	pCi/sample	U	-3.15E-06	-3.15E-18	2.10E-15	-1.50E-03
AMD002	Plutonium-239/240	-0.018	pCi/sample	U	-2.26E-06	-2.26E-18	2.00E-15	-1.13E-03
AMD002	Technetium-99	1.51	pCi/sample	U	1.90E-04	1.90E-16	1.40E-13	1.35E-03
AMD002	Thorium-234	-22.2	pCi/sample	U	-2.79E-03	-2.79E-15	2.20E-12	-1.27E-03
AMD002	Uranium-234	7.78	pCi/sample	U	9.76E-04	9.76E-16	7.70E-15	1.27E-01
AMD002	Uranium-235	0.189	pCi/sample	U	2.37E-05	2.37E-17	7.10E-15	3.34E-03
AMD002	Uranium-238	4.2	pCi/sample	U	5.27E-04	5.27E-16	8.30E-15	6.35E-02
Sum of the Fractions of the Standard								3.89E-01

Table 6. Ambient Air Monitoring 2013 Results^{a,b} (Continued)

3rd Quarter July through September (Continued)								
Station	Analysis	Result	Units	Qualifier	Concentration (pCi/m ³)	Concentration (Ci/m ³)	Standard (Ci/m ³)	Fraction of Standard
AMD012	Quarter Air Flow	7,399	m ³					
AMD012	Americium-241	-2.43	pCi/sample	U	-3.28E-04	-3.28E-16	1.90E-15	-1.73E-01
AMD012	Neptunium-237	-0.563	pCi/sample	U	-7.61E-05	-7.61E-17	1.20E-15	-6.34E-02
AMD012	Plutonium-238	0.00543	pCi/sample	U	7.34E-07	7.34E-19	2.10E-15	3.49E-04
AMD012	Plutonium-239/240	-0.0117	pCi/sample	U	-1.58E-06	-1.58E-18	2.00E-15	-7.91E-04
AMD012	Technetium-99	0.104	pCi/sample	U	1.41E-05	1.41E-17	1.40E-13	1.00E-04
AMD012	Thorium-234	11.4	pCi/sample	U	1.54E-03	1.54E-15	2.20E-12	7.00E-04
AMD012	Uranium-234	7.78	pCi/sample	U	1.05E-03	1.05E-15	7.70E-15	1.37E-01
AMD012	Uranium-235	0.189	pCi/sample	U	2.55E-05	2.55E-17	7.10E-15	3.60E-03
AMD012	Uranium-238	4.2	pCi/sample	U	5.68E-04	5.68E-16	8.30E-15	6.84E-02
Sum of the Fractions of the Standard								-2.74E-02
AMD015	Quarter Air Flow	7,399	m ³					
AMD015	Americium-241	-0.662	pCi/sample	U	-8.95E-05	-8.95E-17	1.90E-15	-4.71E-02
AMD015	Neptunium-237	1.52	pCi/sample	U	2.05E-04	2.05E-16	1.20E-15	1.71E-01
AMD015	Plutonium-238	-0.0049	pCi/sample	U	-6.62E-07	-6.62E-19	2.10E-15	-3.15E-04
AMD015	Plutonium-239/240	0.00902	pCi/sample	U	1.22E-06	1.22E-18	2.00E-15	6.10E-04
AMD015	Technetium-99	0.476	pCi/sample	U	6.43E-05	6.43E-17	1.40E-13	4.60E-04
AMD015	Thorium-234	2.96	pCi/sample	U	4.00E-04	4.00E-16	2.20E-12	1.82E-04
AMD015	Uranium-234	7.78	pCi/sample	U	1.05E-03	1.05E-15	7.70E-15	1.37E-01
AMD015	Uranium-235	0.189	pCi/sample	U	2.55E-05	2.55E-17	7.10E-15	3.60E-03
AMD015	Uranium-238	4.2	pCi/sample	U	5.68E-04	5.68E-16	8.30E-15	6.84E-02
Sum of the Fractions of the Standard								3.34E-01
AMD57	Quarter Air Flow	7,399	m ³					
AMD57	Americium-241	2.75	pCi/sample	U	3.72E-04	3.72E-16	1.90E-15	1.96E-01
AMD57	Neptunium-237	-0.151	pCi/sample	U	-2.04E-05	-2.04E-17	1.20E-15	-1.70E-02
AMD57	Plutonium-238	0.00785	pCi/sample	U	1.06E-06	1.06E-18	2.10E-15	5.05E-04
AMD57	Plutonium-239/240	-0.022	pCi/sample	U	-2.97E-06	-2.97E-18	2.00E-15	-1.49E-03
AMD57	Technetium-99	-0.228	pCi/sample	U	-3.08E-05	-3.08E-17	1.40E-13	-2.20E-04
AMD57	Thorium-234	-2.48	pCi/sample	U	-3.35E-04	-3.35E-16	2.20E-12	-1.52E-04
AMD57	Uranium-234	7.78	pCi/sample	U	1.05E-03	1.05E-15	7.70E-15	1.37E-01
AMD57	Uranium-235	0.189	pCi/sample	U	2.55E-05	2.55E-17	7.10E-15	3.60E-03
AMD57	Uranium-238	4.2	pCi/sample	U	5.68E-04	5.68E-16	8.30E-15	6.84E-02
Sum of the Fractions of the Standard								3.86E-01

Table 6. Ambient Air Monitoring 2013 Results^{a,b} (Continued)

3rd Quarter July through September (Continued)								
Station	Analysis	Result	Units	Qualifier	Concentration (pCi/m ³)	Concentration (Ci/m ³)	Standard (Ci/m ³)	Fraction of Standard
AMD612	Quarter Air Flow	7,398	m ³					
AMD612	Americium-241	-0.0674	pCi/sample	U	-9.11E-06	-9.11E-18	1.90E-15	-4.80E-03
AMD612	Neptunium-237	0.71	pCi/sample	U	9.60E-05	9.60E-17	1.20E-15	8.00E-02
AMD612	Plutonium-238	0.0199	pCi/sample	U	2.69E-06	2.69E-18	2.10E-15	1.28E-03
AMD612	Plutonium-239/240	-0.031	pCi/sample	U	-4.19E-06	-4.19E-18	2.00E-15	-2.10E-03
AMD612	Technetium-99	-1.99	pCi/sample	U	-2.69E-04	-2.69E-16	1.40E-13	-1.92E-03
AMD612	Thorium-234	-12.1	pCi/sample	U	-1.64E-03	-1.64E-15	2.20E-12	-7.43E-04
AMD612	Uranium-234	7.78	pCi/sample	U	1.05E-03	1.05E-15	7.70E-15	1.37E-01
AMD612	Uranium-235	0.189	pCi/sample	U	2.55E-05	2.55E-17	7.10E-15	3.60E-03
AMD612	Uranium-238	4.2	pCi/sample	U	5.68E-04	5.68E-16	8.30E-15	6.84E-02
Sum of the Fractions of the Standard								2.80E-01
AMD746S	Quarter Air Flow	7,678	m ³					
AMD746S	Americium-241	2.07	pCi/sample	U	2.70E-04	2.70E-16	1.90E-15	1.42E-01
AMD746S	Neptunium-237	-1.96	pCi/sample	U	-2.55E-04	-2.55E-16	1.20E-15	-2.13E-01
AMD746S	Plutonium-238	0.0077	pCi/sample	U	1.00E-06	1.00E-18	2.10E-15	4.78E-04
AMD746S	Plutonium-239/240	0.0151	pCi/sample	U	1.97E-06	1.97E-18	2.00E-15	9.83E-04
AMD746S	Technetium-99	-1.26	pCi/sample	U	-1.64E-04	-1.64E-16	1.40E-13	-1.17E-03
AMD746S	Thorium-234	-9.37	pCi/sample	U	-1.22E-03	-1.22E-15	2.20E-12	-5.55E-04
AMD746S	Uranium-234	7.78	pCi/sample	U	1.01E-03	1.01E-15	7.70E-15	1.32E-01
AMD746S	Uranium-235	0.189	pCi/sample	U	2.46E-05	2.46E-17	7.10E-15	3.47E-03
AMD746S	Uranium-238	4.2	pCi/sample	U	5.47E-04	5.47E-16	8.30E-15	6.59E-02
Sum of the Fractions of the Standard								1.30E-01
AMD746U	Quarter Air Flow	7,400	m ³					
AMD746U	Americium-241	2.2	pCi/sample	U	2.97E-04	2.97E-16	1.90E-15	1.56E-01
AMD746U	Neptunium-237	1.89	pCi/sample	U	2.55E-04	2.55E-16	1.20E-15	2.13E-01
AMD746U	Plutonium-238	0.00767	pCi/sample	U	1.04E-06	1.04E-18	2.10E-15	4.94E-04
AMD746U	Plutonium-239/240	-0.00287	pCi/sample	U	-3.88E-07	-3.88E-19	2.00E-15	-1.94E-04
AMD746U	Technetium-99	0.559	pCi/sample	U	7.55E-05	7.55E-17	1.40E-13	5.40E-04
AMD746U	Thorium-234	6.65	pCi/sample	U	8.99E-04	8.99E-16	2.20E-12	4.08E-04
AMD746U	Uranium-234	7.78	pCi/sample	U	1.05E-03	1.05E-15	7.70E-15	1.37E-01
AMD746U	Uranium-235	0.189	pCi/sample	U	2.55E-05	2.55E-17	7.10E-15	3.60E-03
AMD746U	Uranium-238	4.2	pCi/sample	U	5.68E-04	5.68E-16	8.30E-15	6.84E-02
Sum of the Fractions of the Standard								5.79E-01

Table 6. Ambient Air Monitoring 2013 Results^{a,b} (Continued)

3rd Quarter July through September (Continued)								
Station	Analysis	Result	Units	Qualifier	Concentration (pCi/m ³)	Concentration (Ci/m ³)	Standard (Ci/m ³)	Fraction of Standard
AMDBCP	Quarter Air Flow	7,768	m ³					
AMDBCP	Americium-241	1.2	pCi/sample	U	1.54E-04	1.54E-16	1.90E-15	8.13E-02
AMDBCP	Neptunium-237	0.378	pCi/sample	U	4.87E-05	4.87E-17	1.20E-15	4.06E-02
AMDBCP	Plutonium-238	-0.0049	pCi/sample	U	-6.31E-07	-6.31E-19	2.10E-15	-3.00E-04
AMDBCP	Plutonium-239/240	-0.0379	pCi/sample	U	-4.88E-06	-4.88E-18	2.00E-15	-2.44E-03
AMDBCP	Technetium-99	-0.725	pCi/sample	U	-9.33E-05	-9.33E-17	1.40E-13	-6.67E-04
AMDBCP	Thorium-234	-4.39	pCi/sample	U	-5.65E-04	-5.65E-16	2.20E-12	-2.57E-04
AMDBCP	Uranium-234	7.78	pCi/sample	U	1.00E-03	1.00E-15	7.70E-15	1.30E-01
AMDBCP	Uranium-235	0.189	pCi/sample	U	2.43E-05	2.43E-17	7.10E-15	3.43E-03
AMDBCP	Uranium-238	4.2	pCi/sample	U	5.41E-04	5.41E-16	8.30E-15	6.51E-02
Sum of the Fractions of the Standard								3.17E-01
AMDNE	Quarter Air Flow	2,271	m ³					
AMDNE	Americium-241	1.78	pCi/sample	U	7.84E-04	7.84E-16	1.90E-15	4.13E-01
AMDNE	Neptunium-237	3.84	pCi/sample	U	1.69E-03	1.69E-15	1.20E-15	1.41E+00
AMDNE	Plutonium-238	-0.00341	pCi/sample	U	-1.50E-06	-1.50E-18	2.10E-15	-7.15E-04
AMDNE	Plutonium-239/240	-0.0387	pCi/sample	U	-1.70E-05	-1.70E-17	2.00E-15	-8.52E-03
AMDNE	Technetium-99	-0.621	pCi/sample	U	-2.73E-04	-2.73E-16	1.40E-13	-1.95E-03
AMDNE	Thorium-234	-20	pCi/sample	U	-8.81E-03	-8.81E-15	2.20E-12	-4.00E-03
AMDNE	Uranium-234	7.78	pCi/sample	U	3.43E-03	3.43E-15	7.70E-15	4.45E-01
AMDNE	Uranium-235	0.189	pCi/sample	U	8.32E-05	8.32E-17	7.10E-15	1.17E-02
AMDNE	Uranium-238	4.2	pCi/sample	U	1.85E-03	1.85E-15	8.30E-15	2.23E-01
Sum of the Fractions of the Standard								2.49E+00

4th Quarter October through December

Station	Analysis	Result	Units	Qualifier	Concentration (pCi/m ³)	Concentration (Ci/m ³)	Standard (Ci/m ³)	Fraction of Standard
AMD002	Quarter Air Flow	5,734	m ³					
AMD002	Americium-241	-2.69	pCi/sample	U	-4.69E-04	-4.69E-16	1.90E-15	-2.47E-01
AMD002	Neptunium-237	-1.22	pCi/sample	U	-2.13E-04	-2.13E-16	1.20E-15	-1.77E-01
AMD002	Plutonium-238	0.0286	pCi/sample	U	4.99E-06	4.99E-18	2.10E-15	2.37E-03
AMD002	Plutonium-239/240	0.00373	pCi/sample	U	-6.50E-07	-6.50E-19	2.00E-15	-3.25E-04
AMD002	Technetium-99	0.636	pCi/sample	U	1.11E-04	1.11E-16	1.40E-13	7.92E-04
AMD002	Thorium-234	-11.1	pCi/sample	U	-1.94E-03	-1.94E-15	2.20E-12	-8.80E-04

Table 6. Ambient Air Monitoring 2013 Results^{a,b} (Continued)

4th Quarter October through December (Continued)								
Station	Analysis	Result	Units	Qualifier	Concentration (pCi/m ³)	Concentration (Ci/m ³)	Standard (Ci/m ³)	Fraction of Standard
AMD002	Quarter Air Flow	5,734	m ³					
AMD002	Uranium-234	7.78	pCi/sample	U	1.36E-03	1.36E-15	7.70E-15	1.76E-01
AMD002	Uranium-235	0.189	pCi/sample	U	3.30E-05	3.30E-17	7.10E-15	4.64E-03
AMD002	Uranium-238	4.2	pCi/sample	U	7.32E-04	7.32E-16	8.30E-15	8.82E-02
Sum of the Fractions of the Standard								-1.53E-01
AMD012	Quarter Air Flow	7,404	m ³					
AMD012	Americium-241	5.2	pCi/sample	U	7.02E-04	7.02E-16	1.90E-15	3.70E-01
AMD012	Neptunium-237	2.55	pCi/sample	U	3.44E-04	3.44E-16	1.20E-15	2.87E-01
AMD012	Plutonium-238	0.00443	pCi/sample	U	5.98E-07	5.98E-19	2.10E-15	2.85E-04
AMD012	Plutonium-239/240	0.0174	pCi/sample	U	2.35E-06	2.35E-18	2.00E-15	1.18E-03
AMD012	Technetium-99	1.29	pCi/sample		1.74E-04	1.74E-16	1.40E-13	1.24E-03
AMD012	Thorium-234	51	pCi/sample	U	6.89E-03	6.89E-15	2.20E-12	3.13E-03
AMD012	Uranium-234	7.78	pCi/sample	U	1.05E-03	1.05E-15	7.70E-15	1.36E-01
AMD012	Uranium-235	0.189	pCi/sample	U	2.55E-05	2.55E-17	7.10E-15	3.60E-03
AMD012	Uranium-238	4.2	pCi/sample	U	5.67E-04	5.67E-16	8.30E-15	6.83E-02
Sum of the Fractions of the Standard								8.71E-01
AMD015	Quarter Air Flow	7,404	m ³					
AMD015	Americium-241	4.66	pCi/sample	U	6.29E-04	6.29E-16	1.90E-15	3.31E-01
AMD015	Neptunium-237	2.04	pCi/sample	U	2.76E-04	2.76E-16	1.20E-15	2.30E-01
AMD015	Plutonium-238	0.0386	pCi/sample	U	5.21E-06	5.21E-18	2.10E-15	2.48E-03
AMD015	Plutonium-239/240	-0.042	pCi/sample	U	-5.67E-06	-5.67E-18	2.00E-15	-2.84E-03
AMD015	Technetium-99	0.909	pCi/sample	U	1.23E-04	1.23E-16	1.40E-13	8.77E-04
AMD015	Thorium-234	-0.356	pCi/sample	U	-4.81E-05	-4.81E-17	2.20E-12	-2.19E-05
AMD015	Uranium-234	7.78	pCi/sample	U	1.05E-03	1.05E-15	7.70E-15	1.36E-01
AMD015	Uranium-235	0.189	pCi/sample	U	2.55E-05	2.55E-17	7.10E-15	3.60E-03
AMD015	Uranium-238	4.2	pCi/sample	U	5.67E-04	5.67E-16	8.30E-15	6.83E-02
Sum of the Fractions of the Standard								7.70E-01
AMD57	Quarter Air Flow	7,292	m ³					
AMD57	Americium-241	-6.28	pCi/sample	U	-8.61E-04	-8.61E-16	1.90E-15	-4.53E-01
AMD57	Neptunium-237	1.55	pCi/sample	U	2.13E-04	2.13E-16	1.20E-15	1.77E-01
AMD57	Plutonium-238	-0.0137	pCi/sample	U	-1.88E-06	-1.88E-18	2.10E-15	-8.95E-04
AMD57	Plutonium-239/240	0.0174	pCi/sample	U	2.39E-06	2.39E-18	2.00E-15	1.19E-03
AMD57	Technetium-99	1.09	pCi/sample		1.49E-04	1.49E-16	1.40E-13	1.07E-03

Table 6. Ambient Air Monitoring 2013 Results^{a,b} (Continued)

4th Quarter October through December (Continued)								
Station	Analysis	Result	Units	Qualifier	Concentration (pCi/m ³)	Concentration (Ci/m ³)	Standard (Ci/m ³)	Fraction of Standard
AMD57	Quarter Air Flow	7,292	m ³					
AMD57	Thorium-234	17.5	pCi/sample	U	2.40E-03	2.40E-15	2.20E-12	1.09E-03
AMD57	Uranium-234	7.78	pCi/sample	U	1.07E-03	1.07E-15	7.70E-15	1.39E-01
AMD57	Uranium-235	0.189	pCi/sample	U	2.59E-05	2.59E-17	7.10E-15	3.65E-03
AMD57	Uranium-238	4.2	pCi/sample	U	5.76E-04	5.76E-16	8.30E-15	6.94E-02
Sum of the Fractions of the Standard								-6.21E-02
AMD612	Quarter Air Flow	7,403	m ³					
AMD612	Americium-241	-1.83	pCi/sample	U	-2.47E-04	-2.47E-16	1.90E-15	-1.30E-01
AMD612	Neptunium-237	2.47	pCi/sample	U	3.34E-04	3.34E-16	1.20E-15	2.78E-01
AMD612	Plutonium-238	0.0258	pCi/sample	U	3.49E-06	3.49E-18	2.10E-15	1.66E-03
AMD612	Plutonium-239/240	0.0176	pCi/sample	U	2.38E-06	2.38E-18	2.00E-15	1.19E-03
AMD612	Technetium-99	0.227	pCi/sample	U	3.07E-05	3.07E-17	1.40E-13	2.19E-04
AMD612	Thorium-234	29.8	pCi/sample	U	4.03E-03	4.03E-15	2.20E-12	1.83E-03
AMD612	Uranium-234	7.78	pCi/sample	U	1.05E-03	1.05E-15	7.70E-15	1.36E-01
AMD612	Uranium-235	0.189	pCi/sample	U	2.55E-05	2.55E-17	7.10E-15	3.60E-03
AMD612	Uranium-238	4.2	pCi/sample	U	5.67E-04	5.67E-16	8.30E-15	6.84E-02
Sum of the Fractions of the Standard								3.61E-01
AMD746S	Quarter Air Flow	8,438	m ³					
AMD746S	Americium-241	-2.99	pCi/sample	U	-3.54E-04	-3.54E-16	1.90E-15	-1.86E-01
AMD746S	Neptunium-237	-1.26	pCi/sample	U	-1.49E-04	-1.49E-16	1.20E-15	-1.24E-01
AMD746S	Plutonium-238	0.00525	pCi/sample	U	6.22E-07	6.22E-19	2.10E-15	2.96E-04
AMD746S	Plutonium-239/240	0.0303	pCi/sample	U	3.59E-06	3.59E-18	2.00E-15	1.80E-03
AMD746S	Technetium-99	0.409	pCi/sample	U	4.85E-05	4.85E-17	1.40E-13	3.46E-04
AMD746S	Thorium-234	-2.49	pCi/sample	U	-2.95E-04	-2.95E-16	2.20E-12	-1.34E-04
AMD746S	Uranium-234	7.78	pCi/sample	U	9.22E-04	9.22E-16	7.70E-15	1.20E-01
AMD746S	Uranium-235	0.189	pCi/sample	U	2.24E-05	2.24E-17	7.10E-15	3.15E-03
AMD746S	Uranium-238	4.2	pCi/sample	U	4.98E-04	4.98E-16	8.30E-15	6.00E-02
Sum of the Fractions of the Standard								-1.26E-01
AMD746U	Quarter Air Flow	7,741	m ³					
AMD746U	Americium-241	4.15	pCi/sample	U	5.36E-04	5.36E-16	1.90E-15	2.82E-01
AMD746U	Neptunium-237	0.22	pCi/sample	U	2.84E-05	2.84E-17	1.20E-15	2.37E-02
AMD746U	Plutonium-238	0.00537	pCi/sample	U	6.94E-07	6.94E-19	2.10E-15	3.30E-04
AMD746U	Plutonium-239/240	0.00631	pCi/sample	U	8.15E-07	8.15E-19	2.00E-15	4.08E-04
AMD746U	Technetium-99	0.737	pCi/sample	U	9.52E-05	9.52E-17	1.40E-13	6.80E-04

Table 6. Ambient Air Monitoring 2013 Results^{a,b} (Continued)

4th Quarter October through December (Continued)								
Station	Analysis	Result	Units	Qualifier	Concentration (pCi/m ³)	Concentration (Ci/m ³)	Standard (Ci/m ³)	Fraction of Standard
AMD746U	Quarter Air Flow	7,741	m ³					
AMD746U	Thorium-234	67.4	pCi/sample	U	8.71E-03	8.71E-15	2.20E-12	3.96E-03
AMD746U	Uranium-234	7.78	pCi/sample	U	1.01E-03	1.01E-15	7.70E-15	1.31E-01
AMD746U	Uranium-235	0.189	pCi/sample	U	2.44E-05	2.44E-17	7.10E-15	3.44E-03
AMD746U	Uranium-238	4.2	pCi/sample	U	5.43E-04	5.43E-16	8.30E-15	6.54E-02
Sum of the Fractions of the Standard								5.11E-01
AMDBCP	Quarter Air Flow	7,774	m ³					
AMDBCP	Americium-241	3.83	pCi/sample	U	4.93E-04	4.93E-16	1.90E-15	2.59E-01
AMDBCP	Neptunium-237	1.73	pCi/sample	U	2.23E-04	2.23E-16	1.20E-15	1.85E-01
AMDBCP	Plutonium-238	0.0174	pCi/sample	U	2.24E-06	2.24E-18	2.10E-15	1.07E-03
AMDBCP	Plutonium-239/240	-0.00206	pCi/sample	U	-2.65E-07	-2.65E-19	2.00E-15	-1.33E-04
AMDBCP	Technetium-99	0.389	pCi/sample	U	5.00E-05	5.00E-17	1.40E-13	3.57E-04
AMDBCP	Thorium-234	5.53	pCi/sample	U	7.11E-04	7.11E-16	2.20E-12	3.23E-04
AMDBCP	Uranium-234	7.78	pCi/sample	U	1.00E-03	1.00E-15	7.70E-15	1.30E-01
AMDBCP	Uranium-235	0.189	pCi/sample	U	2.43E-05	2.43E-17	7.10E-15	3.42E-03
AMDBCP	Uranium-238	4.2	pCi/sample	U	5.40E-04	5.40E-16	8.30E-15	6.51E-02
Sum of the Fractions of the Standard								6.45E-01
AMDNE	Quarter Air Flow	7,405	m ³					
AMDNE	Americium-241	2.99	pCi/sample	U	4.04E-04	4.04E-16	1.90E-15	2.13E-01
AMDNE	Neptunium-237	-1.98	pCi/sample	U	-2.67E-04	-2.67E-16	1.20E-15	-2.23E-01
AMDNE	Plutonium-238	-0.00448	pCi/sample	U	-6.05E-07	-6.05E-19	2.10E-15	-2.88E-04
AMDNE	Plutonium-239/240	-0.0135	pCi/sample	U	-1.82E-06	-1.82E-18	2.00E-15	-9.12E-04
AMDNE	Technetium-99	1.08	pCi/sample		1.46E-04	1.46E-16	1.40E-13	1.04E-03
AMDNE	Thorium-234	-12.2	pCi/sample	U	-1.65E-03	-1.65E-15	2.20E-12	-7.49E-04
AMDNE	Uranium-234	7.78	pCi/sample	U	1.05E-03	1.05E-15	7.70E-15	1.36E-01
AMDNE	Uranium-235	0.189	pCi/sample	U	2.55E-05	2.55E-17	7.10E-15	3.60E-03
AMDNE	Uranium-238	4.2	pCi/sample	U	5.67E-04	5.67E-16	8.30E-15	6.83E-02
Sum of the Fractions of the Standard								1.97E-01

Note:

Qualifier U indicates not detected.

Qualifier T indicates that the tracer recovery is elevated. Results are considered to be biased high.

Table 7. Ambient Air Monitoring 2013 Individual Sample Isotopic Concentrations

T qualifier indicates that the tracer recovery is elevated. Results are considered to be biased high.

Station	Date Collected	Chemical Name	Method	Results	Units	Result Qualifier	Reporting Limit/ MDA	Rad Error	TPU
AMD612	27-Jun-13	Plutonium-239/240	RL-7128	-0.00187	pCi/sample	U	0.162	0.00191	0.0625
AMD612	27-Jun-13	Technetium-99	RL-7100	0.57	pCi/sample	U	4.4	2.87	2.87
AMD612	27-Jun-13	Thorium-234	RL-7124	19.7	pCi/sample	U	58	39.5	39.5
AMD612	27-Jun-13	Uranium-234	ST7106	7.78	pCi/sample	U	7.78	N/A	N/A
AMD612	27-Jun-13	Uranium-235	ST7106	0.189	pCi/sample	U	0.189	N/A	N/A
AMD612	27-Jun-13	Uranium-238	ST7106	4.2	pCi/sample	U	4.2	N/A	N/A
AMD612	26-Sep-13	Americium-241	RL-7124	-0.0674	pCi/sample	U	6.66	0.135	3.9
AMD612	26-Sep-13	Neptunium-237	RL-7124	0.71	pCi/sample	U	4.83	1.42	2.85
AMD612	26-Sep-13	Plutonium-238	RL-7128	0.0199	pCi/sample	U	0.572	0.0447	0.237
AMD612	26-Sep-13	Plutonium-239/240	RL-7128	-0.031	pCi/sample	U	0.265	0.0459	0.109
AMD612	26-Sep-13	Technetium-99	RL-7100	-1.99	pCi/sample	U	4.16	2.63	2.64
AMD612	26-Sep-13	Thorium-234	RL-7124	-12.1	pCi/sample	U	39.7	24.2	24.2
AMD612	26-Sep-13	Uranium-234	ST7106	7.78	pCi/sample	U	7.78	N/A	N/A
AMD612	26-Sep-13	Uranium-235	ST7106	0.189	pCi/sample	U	0.189	N/A	N/A
AMD612	26-Sep-13	Uranium-238	ST7106	4.2	pCi/sample	U	4.2	N/A	N/A
AMD612	26-Dec-13	Americium-241	RL-7124	-1.83	pCi/sample	U	12	3.67	7.07
AMD612	26-Dec-13	Neptunium-237	RL-7124	2.47	pCi/sample	U	5.34	4.93	4.93
AMD612	26-Dec-13	Plutonium-238	RL-7128	0.0258	pCi/sample	U	0.56	0.0369	0.231
AMD612	26-Dec-13	Plutonium-239/240	RL-7128	0.0176	pCi/sample	U	0.265	0.0301	0.106
AMD612	26-Dec-13	Technetium-99	RL-7100	0.227	pCi/sample	U	0.986	0.656	0.657
AMD612	26-Dec-13	Thorium-234	RL-7124	29.8	pCi/sample	U	55.9	59.6	59.6
AMD612	26-Dec-13	Uranium-234	ST7106	7.78	pCi/sample	U	7.78	N/A	N/A
AMD612	26-Dec-13	Uranium-235	ST7106	0.189	pCi/sample	U	0.189	N/A	N/A
AMD612	26-Dec-13	Uranium-238	ST7106	4.2	pCi/sample	U	4.2	N/A	N/A

Table 7. Ambient Air Monitoring 2013 Individual Sample Isotopic Concentrations (Continued)

Station	Date Collected	Chemical Name	Method	Results	Units	Result Qualifier	Reporting Limit/ MDA	Rad Error	TPU
AMD746S	02-May-13	Americium-241	RL-7124	-1.01	pCi/sample	U	6.29	2.02	3.68
AMD746S	02-May-13	Neptunium-237	RL-7124	1.18	pCi/sample	U	4.84	2.35	3.14
AMD746S	02-May-13	Plutonium-238	RL-7128	-0.00232	pCi/sample	U	0.131	0	0.0629
AMD746S	02-May-13	Plutonium-239/240	RL-7128	0.0152	pCi/sample	U	0.215	0.0274	0.0844
AMD746S	02-May-13	Technetium-99	RL-7100	2.77	pCi/sample	U	4.07	2.65	2.65
AMD746S	02-May-13	Thorium-234	RL-7124	-4.98	pCi/sample	U	39.9	9.96	21.7
AMD746S	02-May-13	Uranium-234	RL-7128	0.341	pCi/sample	UT	1.82	0.12	0.788
AMD746S	02-May-13	Uranium-235	RL-7128	0.0328	pCi/sample	UT	0.172	0.0457	0.0781
AMD746S	02-May-13	Uranium-238	RL-7128	0.241	pCi/sample	UT	0.966	0.0934	0.322
AMD746S	27-Jun-13	Americium-241	RL-7124	-2.82	pCi/sample	U	10.1	5.63	5.85
AMD746S	27-Jun-13	Neptunium-237	RL-7124	-0.163	pCi/sample	U	4.98	0.325	3.05
AMD746S	27-Jun-13	Plutonium-238	RL-7128	-0.0292	pCi/sample	U	0.145	0.0333	0.0575
AMD746S	27-Jun-13	Plutonium-239/240	RL-7128	-0.0403	pCi/sample	U	0.2	0.0479	0.0736
AMD746S	27-Jun-13	Technetium-99	RL-7100	-2.11	pCi/sample	U	4.4	2.75	2.76
AMD746S	27-Jun-13	Thorium-234	RL-7124	30	pCi/sample	U	58.3	60	60
AMD746S	27-Jun-13	Uranium-234	ST7106	7.78	pCi/sample	U	7.78	N/A	N/A
AMD746S	27-Jun-13	Uranium-235	ST7106	0.189	pCi/sample	U	0.189	N/A	N/A
AMD746S	27-Jun-13	Uranium-238	ST7106	4.2	pCi/sample	U	4.2	N/A	N/A
AMD746S	26-Sep-13	Americium-241	RL-7124	2.07	pCi/sample	U	6.58	4.14	4.14
AMD746S	26-Sep-13	Neptunium-237	RL-7124	-1.96	pCi/sample	U	4.39	3.93	3.93
AMD746S	26-Sep-13	Plutonium-238	RL-7128	0.0077	pCi/sample	U	0.575	0.0252	0.234
AMD746S	26-Sep-13	Plutonium-239/240	RL-7128	0.0151	pCi/sample	U	0.274	0.036	0.117
AMD746S	26-Sep-13	Technetium-99	RL-7100	-1.26	pCi/sample	U	4.16	2.65	2.65
AMD746S	26-Sep-13	Thorium-234	RL-7124	-9.37	pCi/sample	U	40.8	18.7	22.6
AMD746S	26-Sep-13	Uranium-234	ST7106	7.78	pCi/sample	U	7.78	N/A	N/A
AMD746S	26-Sep-13	Uranium-235	ST7106	0.189	pCi/sample	U	0.189	N/A	N/A
AMD746S	26-Sep-13	Uranium-238	ST7106	4.2	pCi/sample	U	4.2	N/A	N/A

Table 7. Ambient Air Monitoring 2013 Individual Sample Isotopic Concentrations (Continued)

Station	Date Collected	Chemical Name	Method	Results	Units	Result Qualifier	Reporting Limit/ MDA	Rad Error	TPU
AMD746S	26-Dec-13	Americium-241	RL-7124	-2.99	pCi/sample	U	11.7	5.99	6.97
AMD746S	26-Dec-13	Neptunium-237	RL-7124	-1.26	pCi/sample	U	5.37	2.52	3.18
AMD746S	26-Dec-13	Plutonium-238	RL-7128	0.00525	pCi/sample	U	0.562	0.0227	0.229
AMD746S	26-Dec-13	Plutonium-239/240	RL-7128	0.0303	pCi/sample	U	0.268	0.0393	0.109
AMD746S	26-Dec-13	Technetium-99	RL-7100	0.409	pCi/sample	U	0.986	0.664	0.664
AMD746S	26-Dec-13	Thorium-234	RL-7124	-2.49	pCi/sample	U	55	4.97	31.3
AMD746S	26-Dec-13	Uranium-234	ST7106	7.78	pCi/sample	U	7.78	N/A	N/A
AMD746S	26-Dec-13	Uranium-235	ST7106	0.189	pCi/sample	U	0.189	N/A	N/A
AMD746S	26-Dec-13	Uranium-238	ST7106	4.2	pCi/sample	U	4.2	N/A	N/A
AMD746U	02-May-13	Americium-241	RL-7124	-0.79	pCi/sample	U	6.17	1.58	3.89
AMD746U	02-May-13	Neptunium-237	RL-7124	-1.53	pCi/sample	U	4.58	3.05	3.05
AMD746U	02-May-13	Plutonium-238	RL-7128	-0.00232	pCi/sample	U	0.138	0	0.0629
AMD746U	02-May-13	Plutonium-239/240	RL-7128	-0.0118	pCi/sample	U	0.222	0.0152	0.0926
AMD746U	02-May-13	Technetium-99	RL-7100	6.42	pCi/sample		4.07	2.74	2.76
AMD746U	02-May-13	Thorium-234	RL-7124	0.482	pCi/sample	U	40.3	0.963	21.8
AMD746U	02-May-13	Uranium-234	RL-7128	0.383	pCi/sample	UT	1.84	0.137	0.791
AMD746U	02-May-13	Uranium-235	RL-7128	0.0748	pCi/sample	UT	0.189	0.0677	0.0933
AMD746U	02-May-13	Uranium-238	RL-7128	0.204	pCi/sample	UT	0.977	0.0972	0.309
AMD746U	27-Jun-13	Americium-241	RL-7124	4.63	pCi/sample	U	11.3	9.25	9.25
AMD746U	27-Jun-13	Neptunium-237	RL-7124	-1.03	pCi/sample	U	5.1	2.06	3.19
AMD746U	27-Jun-13	Plutonium-238	RL-7128	0.0107	pCi/sample	U	0.139	0.0221	0.0516
AMD746U	27-Jun-13	Plutonium-239/240	RL-7128	-0.000856	pCi/sample	U	0.163	0.00394	0.0697
AMD746U	27-Jun-13	Technetium-99	RL-7100	2.51	pCi/sample	U	4.4	2.95	2.95
AMD746U	27-Jun-13	Thorium-234	RL-7124	21.4	pCi/sample	U	57.7	42.7	42.7
AMD746U	27-Jun-13	Uranium-234	ST7106	7.78	pCi/sample	U	7.78	N/A	N/A
AMD746U	27-Jun-13	Uranium-235	ST7106	0.189	pCi/sample	U	0.189	N/A	N/A
AMD746U	27-Jun-13	Uranium-238	ST7106	4.2	pCi/sample	U	4.2	N/A	N/A

Table 7. Ambient Air Monitoring 2013 Individual Sample Isotopic Concentrations (Continued)

Station	Date Collected	Chemical Name	Method	Results	Units	Result Qualifier	Reporting Limit/ MDA	Rad Error	TPU
AMD746U	26-Sep-13	Americium-241	RL-7124	2.2	pCi/sample	U	6.63	4.41	4.41
AMD746U	26-Sep-13	Neptunium-237	RL-7124	1.89	pCi/sample	U	4.86	3.79	3.79
AMD746U	26-Sep-13	Plutonium-238	RL-7128	0.00767	pCi/sample	U	0.571	0.0251	0.235
AMD746U	26-Sep-13	Plutonium-239/240	RL-7128	-0.00287	pCi/sample	U	0.268	0	0.139
AMD746U	26-Sep-13	Technetium-99	RL-7100	0.559	pCi/sample	U	4.16	2.71	2.71
AMD746U	26-Sep-13	Thorium-234	RL-7124	6.65	pCi/sample	U	41.5	13.3	22.5
AMD746U	26-Sep-13	Uranium-234	ST7106	7.78	pCi/sample	U	7.78	N/A	N/A
AMD746U	26-Sep-13	Uranium-235	ST7106	0.189	pCi/sample	U	0.189	N/A	N/A
AMD746U	26-Sep-13	Uranium-238	ST7106	4.2	pCi/sample	U	4.2	N/A	N/A
AMD746U	26-Dec-13	Americium-241	RL-7124	4.15	pCi/sample	U	12	8.3	8.3
AMD746U	26-Dec-13	Neptunium-237	RL-7124	0.22	pCi/sample	U	5.33	0.441	3.09
AMD746U	26-Dec-13	Plutonium-238	RL-7128	0.00537	pCi/sample	U	0.559	0.023	0.231
AMD746U	26-Dec-13	Plutonium-239/240	RL-7128	0.00631	pCi/sample	U	0.266	0.0201	0.103
AMD746U	26-Dec-13	Technetium-99	RL-7100	0.737	pCi/sample	U	0.986	0.673	0.674
AMD746U	26-Dec-13	Thorium-234	RL-7124	67.4	pCi/sample	U	55.8	135	135
AMD746U	26-Dec-13	Uranium-234	ST7106	7.78	pCi/sample	U	7.78	N/A	N/A
AMD746U	26-Dec-13	Uranium-235	ST7106	0.189	pCi/sample	U	0.189	N/A	N/A
AMD746U	26-Dec-13	Uranium-238	ST7106	4.2	pCi/sample	U	4.2	N/A	N/A
AMDBCP	02-May-13	Americium-241	RL-7124	2.79	pCi/sample	U	6.92	5.58	5.58
AMDBCP	02-May-13	Neptunium-237	RL-7124	-1.16	pCi/sample	U	4.39	2.31	2.7
AMDBCP	02-May-13	Plutonium-238	RL-7128	-0.0111	pCi/sample	U	0.133	0.0176	0.0479
AMDBCP	02-May-13	Plutonium-239/240	RL-7128	0.00565	pCi/sample	U	0.215	0.0197	0.0822
AMDBCP	02-May-13	Technetium-99	RL-7100	3.37	pCi/sample	U	4.07	2.65	2.66
AMDBCP	02-May-13	Thorium-234	RL-7124	18.3	pCi/sample	U	41.3	36.7	36.7
AMDBCP	02-May-13	Uranium-234	RL-7128	0.308	pCi/sample	UT	1.82	0.108	0.786
AMDBCP	02-May-13	Uranium-235	RL-7128	0.0505	pCi/sample	UT	0.169	0.0397	0.0751
AMDBCP	02-May-13	Uranium-238	RL-7128	0.0968	pCi/sample	UT	0.965	0.0682	0.235

Table 7. Ambient Air Monitoring 2013 Individual Sample Isotopic Concentrations (Continued)

Station	Date Collected	Chemical Name	Method	Results	Units	Result Qualifier	Reporting Limit/ MDA	Rad Error	TPU
AMDBCP	27-Jun-13	Americium-241	RL-7124	-3.48	pCi/sample	U	10.9	6.95	6.95
AMDBCP	27-Jun-13	Neptunium-237	RL-7124	0.574	pCi/sample	U	5.13	1.15	3.09
AMDBCP	27-Jun-13	Plutonium-238	RL-7128	0.0101	pCi/sample	U	0.14	0.0208	0.0511
AMDBCP	27-Jun-13	Plutonium-239/240	RL-7128	-0.00951	pCi/sample	U	0.164	0.0134	0.0762
AMDBCP	27-Jun-13	Technetium-99	RL-7100	-1.67	pCi/sample	U	4.4	2.78	2.78
AMDBCP	27-Jun-13	Thorium-234	RL-7124	-12.4	pCi/sample	U	56.4	24.7	30.3
AMDBCP	27-Jun-13	Uranium-234	ST7106	7.78	pCi/sample	U	7.78	N/A	N/A
AMDBCP	27-Jun-13	Uranium-235	ST7106	0.189	pCi/sample	U	0.189	N/A	N/A
AMDBCP	27-Jun-13	Uranium-238	ST7106	4.2	pCi/sample	U	4.2	N/A	N/A
AMDBCP	26-Sep-13	Americium-241	RL-7124	1.2	pCi/sample	U	6.88	2.41	3.97
AMDBCP	26-Sep-13	Neptunium-237	RL-7124	0.378	pCi/sample	U	4.77	0.756	3.18
AMDBCP	26-Sep-13	Plutonium-238	RL-7128	-0.0049	pCi/sample	U	0.57	0	0.329
AMDBCP	26-Sep-13	Plutonium-239/240	RL-7128	-0.0379	pCi/sample	U	0.266	0.0461	0.109
AMDBCP	26-Sep-13	Technetium-99	RL-7100	-0.725	pCi/sample	U	4.16	2.68	2.68
AMDBCP	26-Sep-13	Thorium-234	RL-7124	-4.39	pCi/sample	U	40.3	8.78	22.1
AMDBCP	26-Sep-13	Uranium-234	ST7106	7.78	pCi/sample	U	7.78	N/A	N/A
AMDBCP	26-Sep-13	Uranium-235	ST7106	0.189	pCi/sample	U	0.189	N/A	N/A
AMDBCP	26-Sep-13	Uranium-238	ST7106	4.2	pCi/sample	U	4.2	N/A	N/A
AMDBCP	26-Dec-13	Americium-241	RL-7124	3.83	pCi/sample	U	12.2	7.67	7.83
AMDBCP	26-Dec-13	Neptunium-237	RL-7124	1.73	pCi/sample	U	5.54	3.45	3.45
AMDBCP	26-Dec-13	Plutonium-238	RL-7128	0.0174	pCi/sample	U	0.564	0.0332	0.231
AMDBCP	26-Dec-13	Plutonium-239/240	RL-7128	-0.00206	pCi/sample	U	0.271	0.00335	0.106
AMDBCP	26-Dec-13	Technetium-99	RL-7100	0.389	pCi/sample	U	0.986	0.668	0.668
AMDBCP	26-Dec-13	Thorium-234	RL-7124	5.53	pCi/sample	U	56.1	11.1	31.9
AMDBCP	26-Dec-13	Uranium-234	ST7106	7.78	pCi/sample	U	7.78	N/A	N/A
AMDBCP	26-Dec-13	Uranium-235	ST7106	0.189	pCi/sample	U	0.189	N/A	N/A
AMDBCP	26-Dec-13	Uranium-238	ST7106	4.2	pCi/sample	U	4.2	N/A	N/A

Table 7. Ambient Air Monitoring 2013 Individual Sample Isotopic Concentrations (Continued)

Station	Date Collected	Chemical Name	Method	Results	Units	Result Qualifier	Reporting Limit/ MDA	Rad Error	TPU
AMDNE	02-May-13	Americium-241	RL-7124	2.08	pCi/sample	U	6.78	4.16	4.16
AMDNE	02-May-13	Neptunium-237	RL-7124	1.83	pCi/sample	U	5.2	3.65	3.65
AMDNE	02-May-13	Plutonium-238	RL-7128	0.0173	pCi/sample	U	0.134	0.0277	0.0525
AMDNE	27-Jun-13	Plutonium-239/240	RL-7128	0.0175	pCi/sample	U	0.16	0.0287	0.0626
AMDNE	27-Jun-13	Technetium-99	RL-7100	-1.18	pCi/sample	U	4.4	2.84	2.84
AMDNE	27-Jun-13	Thorium-234	RL-7124	-10.5	pCi/sample	U	54.5	20.9	29
AMDNE	27-Jun-13	Uranium-234	ST7106	7.78	pCi/sample	U	7.78	N/A	N/A
AMDNE	27-Jun-13	Uranium-235	ST7106	0.189	pCi/sample	U	0.189	N/A	N/A
AMDNE	27-Jun-13	Uranium-238	ST7106	4.2	pCi/sample	U	4.2	N/A	N/A
AMDNE	26-Sep-13	Americium-241	RL-7124	1.78	pCi/sample	U	6.39	3.57	3.63
AMDNE	26-Sep-13	Neptunium-237	RL-7124	3.84	pCi/sample	U	5.04	7.68	7.68
AMDNE	26-Sep-13	Plutonium-238	RL-7128	-0.00341	pCi/sample	U	0.571	0.00299	0.234
AMDNE	26-Sep-13	Plutonium-239/240	RL-7128	-0.0387	pCi/sample	U	0.264	0.0359	0.105
AMDNE	26-Sep-13	Technetium-99	RL-7100	-0.621	pCi/sample	U	4.16	2.72	2.72
AMDNE	26-Sep-13	Thorium-234	RL-7124	-20	pCi/sample	U	39.4	40	40
AMDNE	26-Sep-13	Uranium-234	ST7106	7.78	pCi/sample	U	7.78	N/A	N/A
AMDNE	26-Sep-13	Uranium-235	ST7106	0.189	pCi/sample	U	0.189	N/A	N/A
AMDNE	26-Sep-13	Uranium-238	ST7106	4.2	pCi/sample	U	4.2	N/A	N/A
AMDNE	26-Dec-13	Americium-241	RL-7124	2.99	pCi/sample	U	12.1	5.97	7.03
AMDNE	26-Dec-13	Neptunium-237	RL-7124	-1.98	pCi/sample	U	5.08	3.96	3.96
AMDNE	26-Dec-13	Plutonium-238	RL-7128	-0.00448	pCi/sample	U	0.565	0.00326	0.23
AMDNE	26-Dec-13	Plutonium-239/240	RL-7128	-0.0135	pCi/sample	U	0.269	0.0196	0.103
AMDNE	26-Dec-13	Technetium-99	RL-7100	1.08	pCi/sample		0.986	0.682	0.685
AMDNE	26-Dec-13	Thorium-234	RL-7124	-12.2	pCi/sample	U	54.3	24.4	31.2
AMDNE	26-Dec-13	Uranium-234	ST7106	7.78	pCi/sample	U	7.78	N/A	N/A
AMDNE	26-Dec-13	Uranium-235	ST7106	0.189	pCi/sample	U	0.189	N/A	N/A
AMDNE	26-Dec-13	Uranium-238	ST7106	4.2	pCi/sample	U	4.2	N/A	N/A

Table 7. Ambient Air Monitoring 2013 Individual Sample Isotopic Concentrations (Continued)

Station	Date Collected	Chemical Name	Method	Results	Units	Result Qualifier	Reporting Limit/ MDA	Rad Error	TPU
AMDNE	02-May-13	Plutonium-239/240	RL-7128	-0.00315	pCi/sample	U	0.217	0.0021	0.084
AMDNE	02-May-13	Technetium-99	RL-7100	2.57	pCi/sample	U	4.07	2.64	2.65
AMDNE	02-May-13	Thorium-234	RL-7124	7.13	pCi/sample	U	40	14.3	21.4
AMDNE	02-May-13	Uranium-234	RL-7128	0.236	pCi/sample	UT	1.82	0.1	0.784
AMDNE	02-May-13	Uranium-235	RL-7128	0.075	pCi/sample	UT	0.173	0.0627	0.0899
AMDNE	02-May-13	Uranium-238	RL-7128	0.26	pCi/sample	UT	0.967	0.0961	0.329
AMDNE	27-Jun-13	Americium-241	RL-7124	1.98	pCi/sample	U	10.9	3.96	6.09
AMDNE	27-Jun-13	Neptunium-237	RL-7124	-2.35	pCi/sample	U	5.1	4.71	4.71
AMDNE	27-Jun-13	Plutonium-238	RL-7128	0.000592	pCi/sample	U	0.137	0.00181	0.0541
AMD002	02-May-13	Americium-241	RL-7124	-1.32	pCi/sample	U	6.58	2.65	4.19
AMD002	02-May-13	Neptunium-237	RL-7124	3.91	pCi/sample	U	5.59	7.83	7.83
AMD002	02-May-13	Plutonium-238	RL-7128	-0.0109	pCi/sample	U	0.136	0.0172	0.0568
AMD002	02-May-13	Plutonium-239/240	RL-7128	0.0836	pCi/sample	U	0.227	0.0621	0.102
AMD002	02-May-13	Technetium-99	RL-7100	6.22	pCi/sample		4.07	2.74	2.76
AMD002	02-May-13	Thorium-234	RL-7124	14.7	pCi/sample	U	41.4	29.4	29.4
AMD002	02-May-13	Uranium-234	RL-7128	2.64	pCi/sample	T	1.82	0.282	0.933
AMD002	02-May-13	Uranium-235	RL-7128	0.198	pCi/sample	T	0.174	0.0835	0.109
AMD002	02-May-13	Uranium-238	RL-7128	1.22	pCi/sample	T	0.968	0.193	0.467
AMD002	27-Jun-13	Americium-241	RL-7124	2.41	pCi/sample	U	10.9	4.82	6.09
AMD002	27-Jun-13	Neptunium-237	RL-7124	1.34	pCi/sample	U	4.94	2.69	3.15
AMD002	27-Jun-13	Plutonium-238	RL-7128	0.0108	pCi/sample	U	0.14	0.0223	0.0579
AMD002	27-Jun-13	Plutonium-239/240	RL-7128	-0.00283	pCi/sample	U	0.162	0	0.0784
AMD002	27-Jun-13	Technetium-99	RL-7100	-1.18	pCi/sample	U	4.4	2.78	2.78
AMD002	27-Jun-13	Thorium-234	RL-7124	19.8	pCi/sample	U	58.5	39.5	39.5
AMD002	27-Jun-13	Uranium-234	ST7106	7.78	pCi/sample	U	7.78	N/A	N/A
AMD002	27-Jun-13	Uranium-235	ST7106	0.189	pCi/sample	U	0.189	N/A	N/A
AMD002	27-Jun-13	Uranium-238	ST7106	4.2	pCi/sample	U	4.2	N/A	N/A

Table 7. Ambient Air Monitoring 2013 Individual Sample Isotopic Concentrations (Continued)

Station	Date Collected	Chemical Name	Method	Results	Units	Result Qualifier	Reporting Limit/ MDA	Rad Error	TPU
AMD002	26-Sep-13	Americium-241	RL-7124	1.55	pCi/sample	U	6.51	3.1	3.72
AMD002	26-Sep-13	Neptunium-237	RL-7124	0.909	pCi/sample	U	4.82	1.82	2.83
AMD002	26-Sep-13	Plutonium-238	RL-7128	-0.0251	pCi/sample	U	0.574	0.0285	0.234
AMD002	26-Sep-13	Plutonium-239/240	RL-7128	-0.018	pCi/sample	U	0.271	0.0303	0.116
AMD002	26-Sep-13	Technetium-99	RL-7100	1.51	pCi/sample	U	4.16	2.76	2.76
AMD002	26-Sep-13	Thorium-234	RL-7124	-22.2	pCi/sample	U	38.8	44.4	44.4
AMD002	26-Sep-13	Uranium-234	ST7106	7.78	pCi/sample	U	7.78	N/A	N/A
AMD002	26-Sep-13	Uranium-235	ST7106	0.189	pCi/sample	U	0.189	N/A	N/A
AMD002	26-Sep-13	Uranium-238	ST7106	4.2	pCi/sample	U	4.2	N/A	N/A
AMD002	26-Dec-13	Americium-241	RL-7124	-2.69	pCi/sample	U	11.6	5.38	6.87
AMD002	26-Dec-13	Neptunium-237	RL-7124	-1.22	pCi/sample	U	5.11	2.44	3.02
AMD002	26-Dec-13	Plutonium-238	RL-7128	0.0286	pCi/sample	U	0.563	0.0401	0.232
AMD002	26-Dec-13	Plutonium-239/240	RL-7128	-0.00373	pCi/sample	U	0.272	0	0.143
AMD002	26-Dec-13	Technetium-99	RL-7100	0.636	pCi/sample	U	0.986	0.671	0.672
AMD002	26-Dec-13	Thorium-234	RL-7124	-11.1	pCi/sample	U	53.5	22.2	30.6
AMD002	26-Dec-13	Uranium-234	ST7106	7.78	pCi/sample	U	7.78	N/A	N/A
AMD002	26-Dec-13	Uranium-235	ST7106	0.189	pCi/sample	U	0.189	N/A	N/A
AMD002	26-Dec-13	Uranium-238	ST7106	4.2	pCi/sample	U	4.2	N/A	N/A
AMD012	02-May-13	Americium-241	RL-7124	-0.971	pCi/sample	U	6.53	1.94	3.82
AMD012	02-May-13	Neptunium-237	RL-7124	-0.0721	pCi/sample	U	4.55	0.144	2.71
AMD012	02-May-13	Plutonium-238	RL-7128	0.0367	pCi/sample	U	0.134	0.039	0.0596
AMD012	02-May-13	Plutonium-239/240	RL-7128	-0.0119	pCi/sample	U	0.217	0.0153	0.0858
AMD012	02-May-13	Technetium-99	RL-7100	3.21	pCi/sample	U	4.07	2.67	2.67
AMD012	02-May-13	Thorium-234	RL-7124	-7.8	pCi/sample	U	39.9	15.6	21.8
AMD012	02-May-13	Uranium-234	RL-7128	0.885	pCi/sample	UT	1.83	0.183	0.812
AMD012	02-May-13	Uranium-235	RL-7128	0.0812	pCi/sample	UT	0.177	0.0555	0.0851
AMD012	02-May-13	Uranium-238	RL-7128	0.757	pCi/sample	UT	0.97	0.161	0.417

Table 7. Ambient Air Monitoring 2013 Individual Sample Isotopic Concentrations (Continued)

Station	Date Collected	Chemical Name	Method	Results	Units	Result Qualifier	Reporting Limit/ MDA	Rad Error	TPU
AMD012	27-Jun-13	Americium-241	RL-7124	-0.472	pCi/sample	U	10.5	0.945	5.93
AMD012	27-Jun-13	Neptunium-237	RL-7124	-0.7	pCi/sample	U	5.01	1.4	3.1
AMD012	27-Jun-13	Plutonium-238	RL-7128	0.0216	pCi/sample	U	0.146	0.0309	0.0561
AMD012	27-Jun-13	Plutonium-239/240	RL-7128	-0.00185	pCi/sample	U	0.167	0.00195	0.0629
AMD012	27-Jun-13	Technetium-99	RL-7100	0.528	pCi/sample	U	4.4	2.84	2.84
AMD012	27-Jun-13	Thorium-234	RL-7124	45.7	pCi/sample	U	36.5	46.8	47.2
AMD012	27-Jun-13	Uranium-234	ST7106	7.78	pCi/sample	U	7.78	N/A	N/A
AMD012	27-Jun-13	Uranium-235	ST7106	0.189	pCi/sample	U	0.189	N/A	N/A
AMD012	27-Jun-13	Uranium-238	ST7106	4.2	pCi/sample	U	4.2	N/A	N/A
AMD012	26-Sep-13	Americium-241	RL-7124	-2.43	pCi/sample	U	6.22	4.87	4.87
AMD012	26-Sep-13	Neptunium-237	RL-7124	-0.563	pCi/sample	U	4.66	1.13	2.84
AMD012	26-Sep-13	Plutonium-238	RL-7128	0.00543	pCi/sample	U	0.569	0.0207	0.233
AMD012	26-Sep-13	Plutonium-239/240	RL-7128	-0.0117	pCi/sample	U	0.261	0.0177	0.0999
AMD012	26-Sep-13	Technetium-99	RL-7100	0.104	pCi/sample	U	4.16	2.55	2.55
AMD012	26-Sep-13	Thorium-234	RL-7124	11.4	pCi/sample	U	41.5	22.8	22.8
AMD012	26-Sep-13	Uranium-234	ST7106	7.78	pCi/sample	U	7.78	N/A	N/A
AMD012	26-Sep-13	Uranium-235	ST7106	0.189	pCi/sample	U	0.189	N/A	N/A
AMD012	26-Sep-13	Uranium-238	ST7106	4.2	pCi/sample	U	4.2	N/A	N/A
AMD012	26-Dec-13	Americium-241	RL-7124	5.2	pCi/sample	U	12.3	10.4	10.4
AMD012	26-Dec-13	Neptunium-237	RL-7124	2.55	pCi/sample	U	5.37	5.09	5.09
AMD012	26-Dec-13	Plutonium-238	RL-7128	0.00443	pCi/sample	U	0.56	0.0211	0.229
AMD012	26-Dec-13	Plutonium-239/240	RL-7128	0.0174	pCi/sample	U	0.267	0.0298	0.106
AMD012	26-Dec-13	Technetium-99	RL-7100	1.29	pCi/sample		0.986	0.692	0.695
AMD012	26-Dec-13	Thorium-234	RL-7124	51	pCi/sample	U	55.5	102	102
AMD012	26-Dec-13	Uranium-234	ST7106	7.78	pCi/sample	U	7.78	N/A	N/A
AMD012	26-Dec-13	Uranium-235	ST7106	0.189	pCi/sample	U	0.189	N/A	N/A
AMD012	26-Dec-13	Uranium-238	ST7106	4.2	pCi/sample	U	4.2	N/A	N/A

Table 7. Ambient Air Monitoring 2013 Individual Sample Isotopic Concentrations (Continued)

Station	Date Collected	Chemical Name	Method	Results	Units	Result Qualifier	Reporting Limit/ MDA	Rad Error	TPU
AMD015	02-May-13	Americium-241	RL-7124	1.66	pCi/sample	U	6.69	3.32	3.78
AMD015	02-May-13	Neptunium-237	RL-7124	3.33	pCi/sample	U	5.07	6.65	6.65
AMD015	02-May-13	Plutonium-238	RL-7128	0.00763	pCi/sample	U	0.138	0.0199	0.0488
AMD015	02-May-13	Plutonium-239/240	RL-7128	0.0356	pCi/sample	U	0.215	0.0398	0.0895
AMD015	02-May-13	Technetium-99	RL-7100	4.32	pCi/sample		4.07	2.68	2.69
AMD015	02-May-13	Thorium-234	RL-7124	11.6	pCi/sample	U	40.7	23.2	23.2
AMD015	02-May-13	Uranium-234	RL-7128	0.405	pCi/sample	U	1.83	0.15	0.794
AMD015	02-May-13	Uranium-235	RL-7128	0.0909	pCi/sample	U	0.183	0.0658	0.0923
AMD015	02-May-13	Uranium-238	RL-7128	0.369	pCi/sample	U	0.976	0.134	0.362
AMD015	27-Jun-13	Americium-241	RL-7124	5.62	pCi/sample	U	11.2	11.2	11.2
AMD015	27-Jun-13	Neptunium-237	RL-7124	0.514	pCi/sample	U	4.55	1.03	2.72
AMD015	27-Jun-13	Plutonium-238	RL-7128	-0.00935	pCi/sample	U	0.144	0.0181	0.0588
AMD015	27-Jun-13	Plutonium-239/240	RL-7128	-0.0119	pCi/sample	U	0.166	0.0181	0.0661
AMD015	27-Jun-13	Technetium-99	RL-7100	3.19	pCi/sample	U	4.4	2.94	2.95
AMD015	27-Jun-13	Thorium-234	RL-7124	-21.1	pCi/sample	U	55	42.1	42.1
AMD015	27-Jun-13	Uranium-234	ST7106	7.78	pCi/sample	U	7.78	N/A	N/A
AMD015	27-Jun-13	Uranium-235	ST7106	0.189	pCi/sample	U	0.189	N/A	N/A
AMD015	27-Jun-13	Uranium-238	ST7106	4.2	pCi/sample	U	4.2	N/A	N/A
AMD015	26-Sep-13	Americium-241	RL-7124	-0.662	pCi/sample	U	6.41	1.32	3.78
AMD015	26-Sep-13	Neptunium-237	RL-7124	1.52	pCi/sample	U	5.3	3.05	3.1
AMD015	26-Sep-13	Plutonium-238	RL-7128	-0.0049	pCi/sample	U	0.575	0	0.329
AMD015	26-Sep-13	Plutonium-239/240	RL-7128	0.00902	pCi/sample	U	0.264	0.0238	0.101
AMD015	26-Sep-13	Technetium-99	RL-7100	0.476	pCi/sample	U	4.16	2.75	2.75
AMD015	26-Sep-13	Thorium-234	RL-7124	2.96	pCi/sample	U	41.1	5.92	22.4
AMD015	26-Sep-13	Uranium-234	ST7106	7.78	pCi/sample	U	7.78	N/A	N/A
AMD015	26-Sep-13	Uranium-235	ST7106	0.189	pCi/sample	U	0.189	N/A	N/A
AMD015	26-Sep-13	Uranium-238	ST7106	4.2	pCi/sample	U	4.2	N/A	N/A

Table 7. Ambient Air Monitoring 2013 Individual Sample Isotopic Concentrations (Continued)

Station	Date Collected	Chemical Name	Method	Results	Units	Result Qualifier	Reporting Limit/ MDA	Rad Error	TPU
AMD015	26-Dec-13	Americium-241	RL-7124	4.66	pCi/sample	U	12.1	9.33	9.33
AMD015	26-Dec-13	Neptunium-237	RL-7124	2.04	pCi/sample	U	5.59	4.09	4.09
AMD015	26-Dec-13	Plutonium-238	RL-7128	0.0386	pCi/sample	U	0.563	0.0447	0.233
AMD015	26-Dec-13	Plutonium-239/240	RL-7128	-0.042	pCi/sample	U	0.271	0.0383	0.108
AMD015	26-Dec-13	Technetium-99	RL-7100	0.909	pCi/sample	U	0.986	0.679	0.681
AMD015	26-Dec-13	Thorium-234	RL-7124	-0.356	pCi/sample	U	54.9	0.711	31.2
AMD015	26-Dec-13	Uranium-234	ST7106	7.78	pCi/sample	U	7.78	N/A	N/A
AMD015	26-Dec-13	Uranium-235	ST7106	0.189	pCi/sample	U	0.189	N/A	N/A
AMD015	26-Dec-13	Uranium-238	ST7106	4.2	pCi/sample	U	4.2	N/A	N/A
AMD57	02-May-13	Americium-241	RL-7124	1.37	pCi/sample	U	6.75	2.75	3.83
AMD57	02-May-13	Neptunium-237	RL-7124	0.691	pCi/sample	U	5.05	1.38	2.97
AMD57	02-May-13	Plutonium-238	RL-7128	0.00882	pCi/sample	U	0.139	0.0223	0.0498
AMD57	02-May-13	Plutonium-239/240	RL-7128	0.0415	pCi/sample	U	0.223	0.0536	0.0965
AMD57	02-May-13	Technetium-99	RL-7100	5.49	pCi/sample		4.07	2.72	2.74
AMD57	02-May-13	Thorium-234	RL-7124	-5.34	pCi/sample	U	40.2	10.7	22
AMD57	02-May-13	Uranium-234	RL-7128	0.723	pCi/sample	UT	1.82	0.154	0.802
AMD57	02-May-13	Uranium-235	RL-7128	0.0477	pCi/sample	UT	0.172	0.0407	0.0755
AMD57	02-May-13	Uranium-238	RL-7128	0.196	pCi/sample	UT	0.967	0.0903	0.304
AMD57	27-Jun-13	Americium-241	RL-7124	3.06	pCi/sample	U	11.1	6.12	6.19
AMD57	27-Jun-13	Neptunium-237	RL-7124	-0.194	pCi/sample	U	4.98	0.388	3.05
AMD57	27-Jun-13	Plutonium-238	RL-7128	0.000643	pCi/sample	U	0.14	0.00192	0.0549
AMD57	27-Jun-13	Plutonium-239/240	RL-7128	0.0186	pCi/sample	U	0.162	0.0304	0.0633
AMD57	27-Jun-13	Technetium-99	RL-7100	-2.24	pCi/sample	U	4.4	2.8	2.8
AMD57	27-Jun-13	Thorium-234	RL-7124	-4.64	pCi/sample	U	56.5	9.29	30.1
AMD57	27-Jun-13	Uranium-234	ST7106	7.78	pCi/sample	U	7.78	N/A	N/A
AMD57	27-Jun-13	Uranium-235	ST7106	0.189	pCi/sample	U	0.189	N/A	N/A
AMD57	27-Jun-13	Uranium-238	ST7106	4.2	pCi/sample	U	4.2	N/A	N/A

Table 7. Ambient Air Monitoring 2013 Individual Sample Isotopic Concentrations (Continued)

Station	Date Collected	Chemical Name	Method	Results	Units	Result Qualifier	Reporting Limit/ MDA	Rad Error	TPU
AMD57	26-Sep-13	Americium-241	RL-7124	2.75	pCi/sample	U	6.85	5.5	5.5
AMD57	26-Sep-13	Neptunium-237	RL-7124	-0.151	pCi/sample	U	4.95	0.302	2.99
AMD57	26-Sep-13	Plutonium-238	RL-7128	0.00785	pCi/sample	U	0.571	0.0255	0.235
AMD57	26-Sep-13	Plutonium-239/240	RL-7128	-0.022	pCi/sample	U	0.265	0.0271	0.102
AMD57	26-Sep-13	Technetium-99	RL-7100	-0.228	pCi/sample	U	4.16	2.71	2.71
AMD57	26-Sep-13	Thorium-234	RL-7124	-2.48	pCi/sample	U	40	4.96	21.7
AMD57	26-Sep-13	Uranium-234	ST7106	7.78	pCi/sample	U	7.78	N/A	N/A
AMD57	26-Sep-13	Uranium-235	ST7106	0.189	pCi/sample	U	0.189	N/A	N/A
AMD57	26-Sep-13	Uranium-238	ST7106	4.2	pCi/sample	U	4.2	N/A	N/A
AMD57	26-Dec-13	Americium-241	RL-7124	-6.28	pCi/sample	U	11.7	12.6	12.6
AMD57	26-Dec-13	Neptunium-237	RL-7124	1.55	pCi/sample	U	5.48	3.09	3.13
AMD57	26-Dec-13	Plutonium-238	RL-7128	-0.0137	pCi/sample	U	0.565	0.0151	0.231
AMD57	26-Dec-13	Plutonium-239/240	RL-7128	0.0174	pCi/sample	U	0.284	0.0299	0.106
AMD57	26-Dec-13	Technetium-99	RL-7100	1.09	pCi/sample		0.986	0.685	0.687
AMD57	26-Dec-13	Thorium-234	RL-7124	17.5	pCi/sample	U	56.1	35	35
AMD57	26-Dec-13	Uranium-234	ST7106	7.78	pCi/sample	U	7.78	N/A	N/A
AMD57	26-Dec-13	Uranium-235	ST7106	0.189	pCi/sample	U	0.189	N/A	N/A
AMD57	26-Dec-13	Uranium-238	ST7106	4.2	pCi/sample	U	4.2	N/A	N/A
AMD612	02-May-13	Americium-241	RL-7124	2.84	pCi/sample	U	6.93	5.69	5.69
AMD612	02-May-13	Neptunium-237	RL-7124	0.58	pCi/sample	U	4.93	1.16	2.9
AMD612	02-May-13	Plutonium-238	RL-7128	0.0293	pCi/sample	U	0.135	0.0365	0.0578
AMD612	02-May-13	Plutonium-239/240	RL-7128	0.0507	pCi/sample	U	0.219	0.0617	0.101
AMD612	02-May-13	Technetium-99	RL-7100	2.83	pCi/sample	U	4.07	2.64	2.65
AMD612	02-May-13	Thorium-234	RL-7124	-22.3	pCi/sample	U	38.7	44.6	44.6
AMD612	02-May-13	Uranium-234	RL-7128	1.02	pCi/sample	UT	1.83	0.191	0.82
AMD612	02-May-13	Uranium-235	RL-7128	0.0825	pCi/sample	UT	0.176	0.0564	0.0858
AMD612	02-May-13	Uranium-238	RL-7128	0.363	pCi/sample	UT	0.97	0.125	0.359

Table 7. Ambient Air Monitoring 2013 Individual Sample Isotopic Concentrations (Continued)

Station	Date Collected	Chemical Name	Method	Results	Units	Result Qualifier	Reporting Limit/ MDA	Rad Error	TPU
AMD612	27-Jun-13	Americium-241	RL-7124	-3.64	pCi/sample	U	10.1	7.28	7.28
AMD612	27-Jun-13	Neptunium-237	RL-7124	-2.01	pCi/sample	U	4.97	4.01	4.01
AMD612	27-Jun-13	Plutonium-238	RL-7128	0.0104	pCi/sample	U	0.138	0.0214	0.0513

Note:

Qualifier U indicates not detected.

Qualifier T indicates that the tracer recovery is elevated. Results are considered to be biased high.

10. STATUS OF 40 *CFR* PART 61, SUBPART H, COMPLIANCE

DOE remains in compliance with 40 *CFR* Part 61, Subpart H. Kentucky Division for Air Quality has received a delegation of authority to administer the NESHAP program. An update to the NESHAP Management Plan was approved by EPA Region 4 on February 6, 2014.

Ambient air monitors measure radionuclide emissions from DOE and USEC point sources, fugitive air emission sources, and background levels of radionuclides. In accordance with the NESHAP Management Plan, ambient air monitors are used to confirm that radiological emissions from the site produce a dose less than the levels allowed by 40 *CFR* Part 61, Subpart H.

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