

AUG 21 2015

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

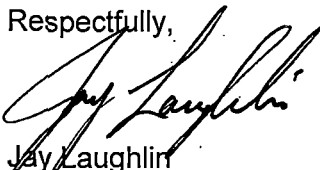
Louisiana Energy Services, LLC
NRC Docket No. 70-3103

Subject: Semi-Annual Radiological Effluent Release Report for January 1, 2015 through
June 30, 2015

Pursuant to 10 CFR 70.59, Louisiana Energy Services, LLC, dba URENCO USA,
herewith submits the subject report. This report specifies the quantities released of
licensed, principal radionuclides in liquid or gaseous form to uncontrolled areas.

Should there be any questions regarding this submittal, please contact Amy Johnson,
Licensing and Performance Assessment Manager, at 575-394-6203.

Respectfully,



Jay Laughlin
Chief Nuclear Officer and Head of Operations

Enclosures:

1. Semi-Annual Radiological Effluent Release Report for January 1,
2015 through June 30, 2015

NM5501

cc:

Mike G. Raddatz, Senior Project Manager
Three White Flint North
Mailstop: 13A12M
Washington, DC 20555-0001

Marvin Sykes
Branch Chief, Fuel Facility Branch 2
USNRC, Region II
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Atlanta, GA 30303-1257

ENCLOSURE 1

**Semi-Annual Radiological Effluent Release Report for
January 1, 2015 through June 30, 2015**



Haley & Aldrich, Inc.
600 S. Meyer Avenue
Suite 100
Tucson, AZ 85701
520.289.8600

13 August 2015
File No. 37262-084

Debra Edwards
Staff Chemistry and Environmental Specialist
URENCO USA
PO Box 1789
Eunice, New Mexico 88231

Subject: Purchase Order Number 4500067573
Semi-Annual Radioactive Effluent Release Report
January 1, 2015 through June 30, 2015
URENCO USA
Facility Operating License SNM-2010
Lea County, New Mexico

Dear Ms. Edwards:

Enclosed is the *Semi-Annual Radioactive Effluent Release Report* for the reporting period of January 1, 2015 through June 30, 2015 for the URENCO USA facility in Lea County, New Mexico. This report was prepared in accordance with 10 CFR 70.59, "Effluent Monitoring Reporting Requirements" and pursuant to NRC Regulatory Guide 4.16, "Monitoring and Reporting Radioactive Materials in Liquid and Gaseous Effluents from Nuclear Fuel Cycle Facilities, Revision 2" dated December 2010. Attachment 1 reports the Radioactivity in Effluent Liquid for the period January through June 2015. Attachment 2 reports the Radioactivity in Effluent Air for the period January through June 2015. Attachment 3 summarizes an evaluation of the dose to members of the public, during the period January through June 2015.

The liquid effluent and gaseous effluent data indicate there were no releases to the public during the reporting period that exceeded the requirements set forth in 10 CFR 20.1301, 10 CFR 20.1302, and 10 CFR 20.1101(d). The potential maximum doses directly at the discharge points for liquid effluent and gaseous effluent were shown to be less than 10% of the radionuclide concentrations which, if ingested or inhaled continuously over the course of a year, would produce an unacceptable total effective dose equivalent.

Please contact us if you have any questions or wish further discussion of this report.

Sincerely yours,
HALEY & ALDRICH, INC.



Laura A. Davis
Senior Project Manager



Nadia S. Glucksberg
Program Manager

Attachments:

- 1 – Report of Radioactivity in Effluent Liquid for the Period January - June 2015
- 2 – Report of Radioactivity in Effluent Air for the Period January - June 2015
- 3 – Report of Dose to Members of the Public for the Period January - June 2015

ATTACHMENT 1

Report of Radioactivity in Effluent Liquid for the Period January - June 2015

ATTACHMENT 1

REPORT OF RADIOACTIVITY IN EFFLUENT LIQUID FOR THE PERIOD JANUARY – JUNE 2015

The liquid effluent data indicate there were no releases to the public during the reporting period that exceeded regulatory requirements, and that detected isotopic uranium activities were comparable to pre-operational activities.

Domestic wastewater (sewage) generated at the URENCO USA facility is currently discharged off site to the Eunice Waste Water Treatment Plant. Domestic wastewater is not expected to contain process water, as the facility design does not allow discharge of process liquid effluent to the domestic wastewater system. Domestic wastewater is sampled semi-annually at Lift Station 1, which is a central collection point for all domestic waste generated at the URENCO USA facility prior to off-site discharge. The average estimated wastewater discharge to the Eunice Waste Water Treatment Plant is approximately 5,300 gallons per day as reported in the URENCO USA Environmental Report, Revision 23 (UUSA, 2015).

The liquid effluent data indicate there were no releases to the public during the reporting period that exceeded the requirements set forth in 10 CFR 20.1301 and 10 CFR 20.1302.

The Uranium-235/236 detected activity value in domestic wastewater samples collected from Lift Station 1 was less than the facility-required lower level of detection (LLD) of $3.0\text{E-}9$ microCuries per milliliter ($\mu\text{Ci/mL}$). The Uranium-233/234 and Uranium-238 detected activity values in Lift Station 1 samples exceeded the LLD. The LLD is less than 2% of the limits in 10 CFR 20 Appendix B Table 3 Effluent Concentrations (Environmental Report, UUSA, 2015).

Detected isotopic uranium in liquid effluent samples from Lift Station 1 were not the result of facility operations when compared to pre-operational data. Prior to operations, uranium activities in domestic wastewater samples ranged from $9\text{E-}10$ to $6.5\text{E-}09$ $\mu\text{Ci/mL}$ for Uranium-233/234, from $3\text{E-}11$ to $8\text{E-}10$ $\mu\text{Ci/mL}$ for Uranium-235/236, and from $3\text{E-}10$ to $6.2\text{E-}09$ $\mu\text{Ci/mL}$ for Uranium-238 (Semi-Annual Radioactive Effluent Release Reports for January 1 through June 30, 2009; July 1 through December 31, 2009; and January 1 through June 30, 2010). The Uranium-233/234, Uranium-235/236, and Uranium-238 activities for the current period ($3.00\text{E-}09$, $7.70\text{E-}11$, and $1.70\text{E-}09$ $\mu\text{Ci/mL}$) did not exceed the pre-operational range for domestic wastewater.

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TABLE 1-1
LIFT STATION 1 WASTEWATER EFFLUENT - RADIONUCLIDES
 URENCO USA
 Lea County, New Mexico

Radionuclide	Sample Date and Time	Sample Period	Total Time (days)	Results ($\mu\text{Ci/mL}$)	Uncertainty ($\mu\text{Ci/mL}$)	Total Flow (gallons/day)*	Quantity Released (Ci)	% of Table 3 of Appendix B to 10 CFR Part 20 Values - Monthly Average Releases to Sewers
LIFT STATION 1 - January - June 2015								
Uranium - 233/234	04/07/15 09:34	1/1/15-6/30/15	180	3.00E-09	4.00E-10	13,000	2.66E-05	0.10%
Uranium - 235/236	04/07/15 09:34	1/1/15-6/30/15	180	7.70E-11	2.00E-12	13,000	6.82E-07	0.003%
Uranium - 238	04/07/15 09:34	1/1/15-6/30/15	180	1.70E-09	3.00E-10	13,000	1.51E-05	0.06%

Notes:

1. $\mu\text{Ci/mL}$ = microCuries per milliliter.
2. Radionuclides analyzed using method EM ACS07 by Cardinal Laboratories of Hobbs, NM.
3. The Uranium-235/236 and Uranium-238 detected activity values were less than the facility-required lower level of detection (LLD) of $3.0\text{E-}9\mu\text{Ci/mL}$.
The LLD is less than 2% of the limits in 10 CFR 20 Appendix B Table 3 Effluent Concentrations (Environmental Report, UUSA, 2015).
4. * = Table 3.4-5 "Initial Average Plant Water Consumption" lists average domestic water usage rate as approximately 5,300 gallons per day (Environmental Report, UUSA, 2015).
5. New Mexico Administrative Code 20.6.2.7.AAA: "Water contaminant" means any substance that could alter if discharged or spilled they physical, chemical, biological or radiological qualities of water; "water contaminant" does not mean source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954.
6. Quantity released is calculated if the radionuclide is detected.

ATTACHMENT 2

Report of Radioactivity in Effluent Air for the Period January - June 2015

ATTACHMENT 2

REPORT OF RADIOACTIVITY IN EFFLUENT AIR FOR THE PERIOD JANUARY - JUNE 2015

The gaseous effluent data indicate there were no releases to the public during the reporting period that exceeded regulatory requirements.

All gaseous effluent gross alpha, gross beta, and isotopic uranium results were below the license basis lower level of detection (LLD) of $1.0\text{E-}14$ microCuries per milliliter ($\mu\text{Ci/mL}$) as defined in the Environmental Report Revision 23 (UUSA, 2015) for effluent samples.

The gaseous effluent data indicate there were no releases to the public during the reporting period that exceeded the requirements set forth in 10 CFR 20.1301, 10 CFR 20.1302, and 10 CFR 20.1101(d), as described in NRC Regulatory Guide 4.20 "Constraint on Releases of Airborne Radioactive Materials to the Environment for Licensees Other Than Power Reactors" dated December 1996.

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TABLE 2-1

Separations Building Module-1001 (SBM 1001)
Pumped Extract Exhaust Gaseous Effluent Vent System, 1001-562-1MA1
Gross Alpha & Gross Beta, Quarter 1, 2015
URENCO USA
Lea County, New Mexico

Sample ID	Sample Date and Time	Sample Period	Analyte	Gross Result (µCi/ml)	MDA (µCi/ml) @ 95 CL	Instrument Uncertainty (µCi/ml)	Total Vent System Flow (m³)	Quantity Released (Ci)
10015621MA1 020215	02/02/2015 0843	01/02/15 - 02/02/15	Gross Alpha	-3.02E-17	5.44E-16	1.52E-17	4.69E+05	Result Below MDA
10015621MA1 030215	03/02/2015 1112	02/02/15 - 03/02/15		-3.31E-17	5.96E-16	1.66E-17	4.23E+05	Result Below MDA
10015621MA1 040115	04/01/2015 0815	03/02/15 - 04/01/15		-2.94E-17	5.28E-16	1.48E-17	4.45E+05	Result Below MDA
10015621MA1 020215	02/02/2015 0843	01/02/15 - 02/02/15	Gross Beta	-4.80E-15	5.74E-15	7.17E-16	4.69E+05	Result Below MDA
10015621MA1 030215	03/02/2015 1112	02/02/15 - 03/02/15		-5.26E-15	6.30E-15	7.86E-16	4.23E+05	Result Below MDA
10015621MA1 040115	04/01/2015 0815	03/02/15 - 04/01/15		-4.66E-15	5.58E-15	6.96E-16	4.45E+05	Result Below MDA

Notes:

* No exceptions.

1. Ci = Curies.

2. µCi/ml = microCuries per milliliter.

3. CL = Confidence level.

4. m³ = cubic meters.

5. MDA = minimum detectable activity.

6. All detected activity values were less than 1.0E-14 µCi/mL which is less than the limits in 10 CFR 20 Appendix B table 2. Effluent Concentrations (Environmental Report, UUSA, 2015).

7. Quantity released is calculated if the result equals or exceeds the MDA.

TABLE 2-2

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Separations Building Module-1001 (SBM 1001)
Pumped Extract Exhaust Gaseous Effluent Vent System, 1001-562-1MA2
Gross Alpha & Gross Beta, Quarter 1, 2015
URENCO USA
Lea County, New Mexico

Sample ID	Sample Date and Time	Sample Period	Analyte	Gross Result (µCi/ml)	MDA (µCi/ml) @ 95 CL	Instrument Uncertainty (µCi/ml)	Total Vent System Flow (m³)	Quantity Released (Ci)
10015621MA2 020215	02/02/2015 0847	01/02/15 - 02/02/15	Gross Alpha	-3.66E-17	6.59E-16	1.84E-17	4.82E+05	Result Below MDA
10015621MA2 030215	03/02/2015 1115	02/02/15 - 03/02/15		-3.39E-17	6.11E-16	1.70E-17	4.39E+05	Result Below MDA
10015621MA2 040115	04/01/2015 0817	03/02/15 - 04/01/15		-2.62E-17	4.72E-16	1.32E-17	4.66E+05	Result Below MDA
10015621MA2 020215	02/02/2015 0847	01/02/15 - 02/02/15	Gross Beta	-4.17E-15	6.96E-15	1.20E-15	4.82E+05	Result Below MDA
10015621MA2 030215	03/02/2015 1115	02/02/15 - 03/02/15		-3.10E-15	6.45E-15	1.24E-15	4.39E+05	Result Below MDA
10015621MA2 040115	04/01/2015 0817	03/02/15 - 04/01/15		-4.75E-15	4.98E-15	4.62E-16	4.66E+05	Result Below MDA

Notes:

* No exceptions.

1. Ci = Curies.

2. µCi/ml = microCuries per milliliter.

3. CL = Confidence level.

4. m³ = cubic meters.

5. MDA = minimum detectable activity.

6. All detected activity values were less than 1.0E-14 µCi/mL which is less than the limits in 10 CFR 20 Appendix B table 2. Effluent Concentrations (Environmental Report, UUSA, 2015).

7. Quantity released is calculated if the result equals or exceeds the MDA.

TABLE 2-3

Separations Building Module-1003 (SBM 1003)
Pumped Extract Exhaust Gaseous Effluent Vent System, 1003-562-1MA1
Gross Alpha & Beta, Quarter 1, 2015
URENCO USA
Lea County, New Mexico

Page 1 of 1

Sample ID	Sample Date and Time	Sample Period	Analyte	Gross Result (µCi/ml)	MDA (µCi/ml) @ 95 CL	Instrument Uncertainty (µCi/ml)	Total Vent System Flow (m³)	Quantity Released (Ci)
10035621MA1 020215	02/02/2015 0859	01/02/15 - 02/02/15	Gross Alpha	-3.18E-17	5.73E-16	1.60E-17	3.91E+05	Result Below MDA
10035621MA1 030215	03/02/2015 1209	02/02/15 - 03/02/15		5.96E-17	5.48E-16	9.26E-17	3.48E+05	Result Below MDA
10035621MA1 040115	04/01/2015 0942	03/02/15 - 04/01/15		-3.21E-17	5.78E-16	1.61E-17	3.67E+05	Result Below MDA
10035621MA1 020215	02/02/2015 0859	01/02/15 - 02/02/15	Gross Beta	-5.05E-15	6.05E-15	7.55E-16	3.91E+05	Result Below MDA
10035621MA1 030215	03/02/2015 1209	02/02/15 - 03/02/15		-4.83E-15	5.79E-15	7.22E-16	3.48E+05	Result Below MDA
10035621MA1 040115	04/01/2015 0942	03/02/15 - 04/01/15		-4.01E-15	6.10E-15	9.84E-16	3.67E+05	Result Below MDA

Notes:

* No exceptions.

1. Ci = Curies.

2. µCi/ml = microCuries per milliliter.

3. CL = Confidence level.

4. m³ = cubic meters.

5. MDA = minimum detectable activity.

6. All detected activity values were less than 1.0E-14 µCi/mL which is less than the limits in 10 CFR 20 Appendix B table 2. Effluent Concentrations (Environmental Report, UUSA, 2015).

7. Quantity released is calculated if the result equals or exceeds the MDA.

TABLE 2-4

Separations Building Module-1003 (SBM 1003)
 Pumped Extract Exhaust Gaseous Effluent Vent System, 1003-562-1MA2
 Gross Alpha & Gross Beta, Quarter 1, 2015
 URENCO USA
 Lea County, New Mexico

Sample ID	Sample Date and Time	Sample Period	Analyte	Gross Result ($\mu\text{Ci/ml}$)	MDA ($\mu\text{Ci/ml}$) @ 95 CL	Instrument Uncertainty ($\mu\text{Ci/ml}$)	Total Vent System Flow (m^3)	Quantity Released (Ci)
10035621MA2 020215	02/02/2015 0903	01/02/15 - 02/02/15	Gross Alpha	-2.30E-17	4.14E-16	1.16E-17	4.23E+05	Result Below MDA
10035621MA2 030215	03/02/2015 1212	02/02/15 - 03/02/15		-2.56E-17	4.60E-16	1.28E-17	3.78E+05	Result Below MDA
10035621MA2 040115	04/01/2015 0945	03/02/15 - 04/01/15		-2.39E-17	4.31E-16	1.20E-17	4.02E+05	Result Below MDA
10035621MA2 020215	02/02/2015 0903	01/02/15 - 02/02/15	Gross Beta	-3.91E-15	4.37E-15	4.81E-16	4.23E+05	Result Below MDA
10035621MA2 030215	03/02/2015 1212	02/02/15 - 03/02/15		-3.37E-15	4.86E-15	7.28E-16	3.78E+05	Result Below MDA
10035621MA2 040115	04/01/2015 0945	03/02/15 - 04/01/15		-3.80E-15	4.55E-15	5.68E-16	4.02E+05	Result Below MDA

Notes:

* No exceptions.

1. Ci = Curies.

2. $\mu\text{Ci/ml}$ = microCuries per milliliter.

3. CL = Confidence level.

4. m^3 = cubic meters.

5. MDA = minimum detectable activity.

6. All detected activity values were less than $1.0\text{E-}14$ $\mu\text{Ci/mL}$ which is less than the limits in 10 CFR 20 Appendix B table 2. Effluent Concentrations (Environmental Report, UUSA, 2015).

7. Quantity released is calculated if the result equals or exceeds the MDA.

TABLE 2-5

Separations Building Module-1005 (SBM 1005)
Pumped Extract Exhaust Gaseous Effluent Vent System, 1005-562-1MA1
Gross Alpha & Gross Beta, Quarter 1, 2015
URENCO USA
Lea County, New Mexico

Page 1 of 1

Sample ID	Sample Date and Time	Sample Period	Analyte	Gross Result (µCi/ml)	MDA (µCi/ml) @ 95 CL	Instrument Uncertainty (µCi/ml)	Total Vent System Flow (m³)	Quantity Released (Ci)
10055621MA1 020215	02/02/2015 0946	01/12/15 - 02/02/15	Gross Alpha	-3.87E-17	6.96E-16	1.94E-17	1.65E+06	Result Below MDA
10055621MA1 030215	03/02/2015 1537	02/02/15 - 03/02/15		-4.10E-17	7.38E-16	2.06E-17	8.28E+05	Result Below MDA
10055621MA1 040115	04/01/2015 0958	03/02/15 - 04/01/15		-3.70E-17	6.65E-16	1.86E-17	8.38E+05	Result Below MDA
10055621MA1 020215	02/02/2015 0946	01/12/15 - 02/02/15	Gross Beta	-7.61E-15	7.36E-15	9.35E-16	1.65E+06	Result Below MDA
10055621MA1 030215	03/02/2015 1537	02/02/15 - 03/02/15		-6.50E-15	7.79E-15	9.72E-16	8.28E+05	Result Below MDA
10055621MA1 040115	04/01/2015 0958	03/02/15 - 04/01/15		-5.04E-15	7.03E-15	1.05E-15	8.38E+05	Result Below MDA

Notes:

* No exceptions. System operational 01/12/2015.

1. Ci = Curies.

2. µCi/ml = microCuries per milliliter.

3. CL = Confidence level.

4. m³ = cubic meters.

5. MDA = minimum detectable activity.

6. All detected activity values were less than 1.0E-14 µCi/mL which is less than the limits in 10 CFR 20 Appendix B table 2. Effluent Concentrations (Environmental Report, UUSA, 2015).

7. Quantity released is calculated if the result equals or exceeds the MDA.

TABLE 2-6

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Separations Building Module-1005 (SBM 1005)
Pumped Extract Exhaust Gaseous Effluent Vent System, 1005-562-1MA2
Gross Alpha & Gross Beta, Quarter 1, 2015
URENCO USA
Lea County, New Mexico

Sample ID	Sample Date and Time	Sample Period	Analyte	Gross Result (µCi/ml)	MDA (µCi/ml) @ 95 CL	Instrument Uncertainty (µCi/ml)	Total Vent System Flow (m³)	Quantity Released (Ci)
10055621MA2 020215	02/02/2015 0950	01/12/15 - 02/02/15	Gross Alpha	-3.98E-17	7.16E-16	2.00E-17	1.60E+06	Result Below MDA
10055621MA2 030215	03/02/2015 1540	02/02/15 - 03/02/15		-3.94E-17	7.10E-16	1.98E-17	8.17E+05	Result Below MDA
10055621MA2 040115	04/01/2015 1001	03/02/15 - 04/01/15		-3.70E-17	6.65E-16	1.86E-17	8.20E+05	Result Below MDA
10055621MA2 020215	02/02/2015 0950	01/12/15 - 02/02/15	Gross Beta	-4.53E-15	7.57E-15	1.31E-15	1.60E+06	Result Below MDA
10055621MA2 030215	03/02/2015 1540	02/02/15 - 03/02/15		-6.87E-15	7.50E-15	1.14E-15	8.17E+05	Result Below MDA
10055621MA2 040115	04/01/2015 1001	03/02/15 - 04/01/15		-6.29E-15	7.03E-15	7.72E-16	8.20E+05	Result Below MDA

Notes:

* No exceptions. System operational 01/12/2015.

1. Ci = Curies.

2. µCi/ml = microCuries per milliliter.

3. CL = Confidence level.

4. m³ = cubic meters.

5. MDA = minimum detectable activity.

6. All detected activity values were less than 1.0E-14 µCi/mL which is less than the limits in 10 CFR 20 Appendix B table 2. Effluent Concentrations (Environmental Report, UUSA, 2015).

7. Quantity released is calculated if the result equals or exceeds the MDA.

TABLE 2-7

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Cylinder Receipt and Dispatch Building-1100 (CRDB 1100)
 Local Extract Exhaust Gaseous Effluent Vent System, 1100-562-1MA1
 Gross Alpha & Gross Beta, Quarter 1, 2015
 URENCO USA
 Lea County, New Mexico

Sample ID	Sample Date and Time	Sample Period	Analyte	Gross Result (μCi/ml)	MDA (μCi/ml) @ 95 CL	Instrument Uncertainty (μCi/ml)	Total Vent System Flow (m ³)	Quantity Released (Ci)
11005621MA1 020215	02/02/2015 0918	01/02/15 - 02/02/15	Gross Alpha	-2.94E-17	5.28E-16	1.48E-17	7.21E+05	Result Below MDA
11005621MA1 030215	03/02/2015 1141	02/02/15 - 03/02/15		-3.94E-17	7.10E-16	1.98E-17	2.61E+05	Result Below MDA
11005621MA1 040115	04/01/2015 0842	03/02/15 - 04/01/15		-4.10E-17	7.38E-16	2.06E-17	2.38E+05	Result Below MDA
11005621MA1 020215	02/02/2015 0918	01/02/15 - 02/02/15	Gross Beta	-3.67E-15	5.58E-15	9.01E-16	7.21E+05	Result Below MDA
11005621MA1 030215	03/02/2015 1141	02/02/15 - 03/02/15		-7.15E-15	7.50E-15	6.95E-16	2.61E+05	Result Below MDA
11005621MA1 040115	04/01/2015 0842	03/02/15 - 04/01/15		-8.97E-15	7.79E-15	8.56E-16	2.38E+05	Result Below MDA

Notes:

* No exceptions.

1. Ci = Curies.

2. μCi/ml = microCuries per milliliter.

3. CL = Confidence level.

4. m³ = cubic meters.

5. MDA = minimum detectable activity.

6. All detected activity values were less than 1.0E-14 μCi/mL which is less than the limits in 10 CFR 20 Appendix B table 2. Effluent Concentrations (Environmental Report, UUSA, 2015):

7. Quantity released is calculated if the result equals or exceeds the MDA.

TABLE 2-8

Cylinder Receipt and Dispatch Building-1100 (CRDB 1100)
 Local Extract Exhaust Gaseous Effluent Vent System, 1100-562-1MA2
 Gross Alpha & Gross Beta, Quarter 1, 2015
 URENCO USA
 Lea County, New Mexico

Page 1 of 1

Sample ID	Sample Date and Time	Sample Period	Analyte	Gross Result (μCi/ml)	MDA (μCi/ml) @ 95 CL	Instrument Uncertainty (μCi/ml)	Total Vent System Flow (m³)	Quantity Released (Ci)
11005621MA2 020215	02/02/2015 0922	01/02/15 - 02/02/15	Gross Alpha	-2.78E-17	5.00E-16	1.40E-17	7.87E+05	Result Below MDA
11005621MA2 030215	03/02/2015 1144	02/02/15 - 03/02/15		-3.16E-17	5.69E-16	1.59E-17	7.04E+05	Result Below MDA
11005621MA2 040115	04/01/2015 0845	03/02/15 - 04/01/15		-2.96E-17	5.32E-16	1.49E-17	7.45E+05	Result Below MDA
11005621MA2 020215	02/02/2015 0922	01/02/15 - 02/02/15	Gross Beta	-3.47E-15	5.28E-15	8.52E-16	7.87E+05	Result Below MDA
11005621MA2 030215	03/02/2015 1144	02/02/15 - 03/02/15		-5.73E-15	6.01E-15	5.57E-16	7.04E+05	Result Below MDA
11005621MA2 040115	04/01/2015 0845	03/02/15 - 04/01/15		-4.69E-15	5.62E-15	7.01E-16	7.45E+05	Result Below MDA

Notes:

* No exceptions.

1. Ci = Curies.

2. μCi/ml = microCuries per milliliter.

3. CL = Confidence level.

4. m³ = cubic meters.

5. MDA = minimum detectable activity.

6. All detected activity values were less than 1.0E-14 μCi/mL which is less than the limits in 10 CFR 20 Appendix B table 2. Effluent Concentrations (Environmental Report, UUSA, 2015).

7. Quantity released is calculated if the result equals or exceeds the MDA.

TABLE 2-9

Cylinder Receipt and Dispatch Building-1100 (CRDB 1100)
 Local Extract Exhaust Gaseous Effluent Vent System, 1100-562-2MA1
 Gross Alpha & Gross Beta, Quarter 1, 2015
 URENCO USA
 Lea County, New Mexico

Sample ID	Sample Date and Time	Sample Period	Analyte	Gross Result ($\mu\text{Ci}/\text{ml}$)	MDA ($\mu\text{Ci}/\text{ml}$) @ 95 CL	Instrument Uncertainty ($\mu\text{Ci}/\text{ml}$)	Total Vent System Flow (m^3)	Quantity Released (Ci)
11005622MA1 020215	02/02/2015 0927	01/02/15 - 02/02/15	Gross Alpha	-2.74E-17	4.93E-16	1.38E-17	2.76E+05	Result Below MDA
11005622MA1 030215	03/02/2015 1147	02/02/15 - 03/02/15		4.70E-16	7.69E-16	2.60E-16	2.61E+07	Result Below MDA
11005622MA1 040115	04/01/2015 0847	03/02/15 - 04/01/15		2.31E-16	5.17E-16	1.50E-16	2.66E+07	Result Below MDA
11005622MA1 020215	02/02/2015 0927	01/02/15 - 02/02/15	Gross Beta	-2.81E-15	5.21E-15	9.47E-16	2.76E+05	Result Below MDA
11005622MA1 030215	03/02/2015 1147	02/02/15 - 03/02/15		-5.82E-15	8.12E-15	1.22E-15	2.61E+07	Result Below MDA
11005622MA1 040115	04/01/2015 0847	03/02/15 - 04/01/15		-2.63E-15	5.47E-15	1.05E-15	2.66E+07	Result Below MDA

Notes:

* No exceptions.

1. Ci = Curies.

2. $\mu\text{Ci}/\text{ml}$ = microCuries per milliliter.

3. CL = Confidence level.

4. m^3 = cubic meters.

5. MDA = minimum detectable activity.

6. All detected activity values were less than $1.0\text{E}-14$ $\mu\text{Ci}/\text{mL}$ which is less than the limits in 10 CFR 20 Appendix B table 2. Effluent Concentrations (Environmental Report, UUSA, 2015).

7. Quantity released is calculated if the result equals or exceeds the MDA.

TABLE 2-10

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Cylinder Receipt and Dispatch Building-1100 (CRDB 1100)
 Local Extract Exhaust Gaseous Effluent Vent System, 1100-562-2MA2
 Gross Alpha & Gross Beta, Quarter 1, 2015
 URENCO USA
 Lea County, New Mexico

Sample ID	Sample Date and Time	Sample Period	Analyte	Gross Result (μCi/ml)	MDA (μCi/ml) @ 95 CL	Instrument Uncertainty (μCi/ml)	Total Vent System Flow (m³)	Quantity Released (Ci)
11005622MA2 020215	02/02/2015 0930	01/02/15 - 02/02/15	Gross Alpha	7.44E-17	6.83E-16	1.16E-16	2.92E+05	Result Below MDA
11005622MA2 030215	03/02/2015 1151	02/02/15 - 03/02/15		3.35E-16	5.48E-16	1.85E-16	2.50E+07	Result Below MDA
11005622MA2 040115	04/01/2015 0850	03/02/15 - 04/01/15		7.80E-17	7.16E-16	1.21E-16	2.73E+07	Result Below MDA
11005622MA2 020215	02/02/2015 0930	01/02/15 - 02/02/15	Gross Beta	-4.74E-15	7.22E-15	1.17E-15	2.92E+05	Result Below MDA
11005622MA2 030215	03/02/2015 1151	02/02/15 - 03/02/15		-3.80E-15	5.79E-15	9.34E-16	2.50E+07	Result Below MDA
11005622MA2 040115	04/01/2015 0850	03/02/15 - 04/01/15		-5.42E-15	7.57E-15	1.13E-15	2.73E+07	Result Below MDA

Notes:

* No exceptions.

1. Ci = Curies.

2. μCi/ml = microCuries per milliliter.

3. CL = Confidence level.

4. m³ = cubic meters.

5. MDA = minimum detectable activity.

6. All detected activity values were less than 1.0E-14 μCi/mL which is less than the limits in 10 CFR 20 Appendix B table 2. Effluent Concentrations (Environmental Report, UUSA, 2015).

7. Quantity released is calculated if the result equals or exceeds the MDA.

TABLE 2-11

Centrifuge Test and Post Mortem Facilities - 1300 (CTPMF)
 Exhaust Filtration System Gaseous Effluent
 Gross Alpha & Gross Beta, Quarter 1, 2015
 URENCO USA
 Lea County, New Mexico

Sample ID	Sample Date and Time	Sample Period	Analyte	Gross Result ($\mu\text{Ci/ml}$)	MDA ($\mu\text{Ci/ml}$) @ 95 CL	Instrument Uncertainty ($\mu\text{Ci/ml}$)	Total Vent System Flow (m^3)	Quantity Released (Ci)
13005621MA1 020215	02/02/2015 1106	01/06/15 - 02/02/15	Gross Alpha	6.93E-17	6.37E-16	1.08E-16	1.15E+07	Result Below MDA
13005621MA1 030215	03/02/2015 1055	02/02/15 - 03/02/15		-3.54E-17	6.37E-16	1.78E-17	1.19E+07	Result Below MDA
13005621MA1 040115	04/01/2015 0935	03/02/15 - 04/01/15		-3.04E-17	5.48E-16	1.53E-17	1.27E+07	Result Below MDA
13005621MA1 020215	02/02/2015 1106	01/02/15 - 02/02/15	Gross Beta	-4.42E-15	6.73E-15	1.09E-15	1.15E+07	Result Below MDA
13005621MA1 030215	03/02/2015 1055	02/02/15 - 03/02/15		-4.42E-15	6.73E-15	1.09E-15	1.19E+07	Result Below MDA
13005621MA1 040115	04/01/2015 0935	03/02/15 - 04/01/15		-4.83E-15	5.79E-15	7.22E-16	1.27E+07	Result Below MDA

Notes:

* No exceptions.

1. Ci = Curies.

2. $\mu\text{Ci/ml}$ = microCuries per milliliter.

3. CL = Confidence level.

4. m^3 = cubic meters.

5. MDA = minimum detectable activity.

6. All detected activity values were less than $1.0\text{E}-14 \mu\text{Ci/mL}$ which is less than the limits in 10 CFR 20 Appendix B table 2. Effluent Concentrations (Environmental Report, UUSA, 2015).

7. Quantity released is calculated if the result equals or exceeds the MDA.

TABLE 2-12

Separations Building Module-1001 (SBM 1001)
Pumped Extract Exhaust Gaseous Effluent Vent System, 1001-562-1MA1
Gross Alpha & Gross Beta, Quarter 2, 2015
URENCO USA
Lea County, New Mexico

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Sample ID	Sample Date and Time	Sample Period	Analyte	Gross Result ($\mu\text{Ci}/\text{ml}$)	MDA ($\mu\text{Ci}/\text{ml}$) @ 95 CL	Instrument Uncertainty ($\mu\text{Ci}/\text{ml}$)	Total Vent System Flow (m^3)	Quantity Released (Ci)
10015621MA1 040115N	05/01/15 1011	04/01/15 - 05/01/15	Gross Alpha	0.00E+00	6.76E-16	0.00E+00	4.53E+05	Result Below MDA
10015621MA1 050115	06/01/15 1040	05/01/15 - 06/01/15		0.00E+00	6.38E-16	0.00E+00	4.69E+05	Result Below MDA
10015621MA1 060115	07/01/15 1414	06/01/15 - 07/01/15		0.00E+00	6.52E-16	0.00E+00	4.53E+05	Result Below MDA
10015621MA1 040115N	05/01/15 1011	04/01/15 - 05/01/15	Gross Beta	-3.08E-16	4.05E-15	9.26E-16	4.53E+05	Result Below MDA
10015621MA1 050115	06/01/15 1040	05/01/15 - 06/01/15		-2.91E-16	3.83E-15	8.75E-16	4.69E+05	Result Below MDA
10015621MA1 060115	07/01/15 1414	06/01/15 - 07/01/15		-2.97E-16	3.91E-15	8.94E-16	4.53E+05	Result Below MDA

Notes:

* No exceptions.

1. Ci = Curies.

2. $\mu\text{Ci}/\text{ml}$ = microCuries per milliliter.

3. CL = Confidence level.

4. m^3 = cubic meters.

5. MDA = minimum detectable activity.

6. All detected activity values were less than $1.0\text{E}-14$ $\mu\text{Ci}/\text{mL}$ which is less than the limits in 10 CFR 20 Appendix B table 2. Effluent Concentrations (Environmental Report, UUSA, 2015).

7. Quantity released is calculated if the result equals or exceeds the MDA.

8. Changed filter numbering system (Sample ID): the filter number is the functional location plus the filter on date. The N designates the change month.

TABLE 2-13

Separations Building Module-1001 (SBM 1001)
Pumped Extract Exhaust Gaseous Effluent Vent System, 1001-562-1MA2
Gross Alpha & Gross Beta, Quarter 2, 2015
URENCO USA
Lea County, New Mexico

Page 1 of 1

Sample ID	Sample Date and Time	Sample Period	Analyte	Gross Result (µCi/ml)	MDA (µCi/ml) @ 95 CL	Instrument Uncertainty (µCi/ml)	Total Vent System Flow (m³)	Quantity Released (Ci)
10015621MA2 040115N	05/01/15 1013	04/01/15 - 05/01/15	Gross Alpha	0.00E+00	6.34E-16	0.00E+00	4.82E+05	Result Below MDA
10015621MA2 050115	06/01/15 1042	05/01/15 - 06/01/15		7.92E-17	5.78E-16	7.92E-17	4.96E+05	Result Below MDA
10015621MA2 060115	07/01/15 1415	06/01/15 - 07/01/15		0.00E+00	6.21E-16	0.00E+00	4.77E+05	Result Below MDA
10015621MA2 040115N	05/01/15 1013	04/01/15 - 05/01/15	Gross Beta	0.00E+00	3.80E-15	9.17E-16	4.82E+05	Result Below MDA
10015621MA2 050115	06/01/15 1042	05/01/15 - 06/01/15		7.92E-16	3.47E-15	9.50E-16	4.96E+05	Result Below MDA
10015621MA2 060115	07/01/15 1415	06/01/15 - 07/01/15		1.82E-16	3.72E-15	1.07E-15	4.77E+05	Result Below MDA

Notes:

* No exceptions.

1. Ci = Curies.

2. µCi/ml = microCuries per milliliter.

3. CL = Confidence level.

4. m³ = cubic meters.

5. MDA = minimum detectable activity.

6. All detected activity values were less than 1.0E-14 µCi/mL which is less than the limits in 10 CFR 20 Appendix B table 2. Effluent Concentrations (Environmental Report, UUSA, 2015).

7. Quantity released is calculated if the result equals or exceeds the MDA.

8. Changed filter numbering system (Sample ID): the filter number is the functional location plus the filter on date. The N designates the change month.

TABLE 2-14

Separations Building Module-1003 (SBM 1003)
Pumped Extract Exhaust Gaseous Effluent Vent System, 1003-562-1MA1
Gross Alpha & Beta, Quarter 2, 2015
URENCO USA
Lea County, New Mexico

Page 1 of 1

Sample ID	Sample Date and Time	Sample Period	Analyte	Gross Result (µCi/ml)	MDA (µCi/ml) @ 95 CL	Instrument Uncertainty (µCi/ml)	Total Vent System Flow (m³)	Quantity Released (Ci)
10035621MA1 040115N	05/01/15 1034	04/01/15 - 05/01/15	Gross Alpha	0.00E+00	7.07E-16	0.00E+00	3.59E+05	Result Below MDA
10035621MA1 050115	06/01/15 1121	05/01/15 - 06/01/15		0.00E+00	7.18E-16	0.00E+00	3.80E+05	Result Below MDA
10035621MA1 060115	07/01/15 1437	06/01/15 - 07/01/15		0.00E+00	7.24E-16	0.00E+00	3.67E+05	Result Below MDA
10035621MA1 040115N	05/01/15 1034	04/01/15 - 05/01/15	Gross Beta	3.22E-16	4.24E-15	1.07E-15	3.59E+05	Result Below MDA
10035621MA1 050115	06/01/15 1121	05/01/15 - 06/01/15		-6.58E-16	4.30E-15	9.30E-16	3.80E+05	Result Below MDA
10035621MA1 060115	07/01/15 1437	06/01/15 - 07/01/15		6.63E-16	4.34E-15	1.15E-15	3.67E+05	Result Below MDA

Notes:

* No exceptions.

1. Ci = Curies.

2. µCi/ml = microCuries per milliliter.

3. CL = Confidence level.

4. m³ = cubic meters.

5. MDA = minimum detectable activity.

6. All detected activity values were less than 1.0E-14 µCi/mL which is less than the limits in 10 CFR 20 Appendix B table 2. Effluent Concentrations (Environmental Report, UUSA, 2015).

7. Quantity released is calculated if the result equals or exceeds the MDA.

8. Changed filter numbering system (Sample ID): the filter number is the functional location plus the filter on date. The N designates the change month.

TABLE 2-15

Separations Building Module-1003 (SBM 1003)
Pumped Extract Exhaust Gaseous Effluent Vent System, 1003-562-1MA2
Gross Alpha & Gross Beta, Quarter 2, 2015
URENCO USA
Lea County, New Mexico

Page 1 of 1

Sample ID	Sample Date and Time	Sample Period	Analyte	Gross Result (μCi/ml)	MDA (μCi/ml) @ 95 CL	Instrument Uncertainty (μCi/ml)	Total Vent System Flow (m ³)	Quantity Released (Ci)
10035621MA2 040115N	05/01/15 1039	04/01/15 - 05/01/15	Gross Alpha	0.00E+00	5.08E-16	0.00E+00	3.94E+05	Result Below MDA
10035621MA2 050115	06/01/15 1127	05/01/15 - 06/01/15		0.00E+00	4.97E-16	0.00E+00	4.21E+05	Result Below MDA
10035621MA2 060115	07/01/15 1441	06/01/15 - 07/01/15		0.00E+00	5.11E-16	0.00E+00	4.02E+05	Result Below MDA
10035621MA2 040115N	05/01/15 1039	04/01/15 - 05/01/15	Gross Beta	2.31E-16	3.04E-15	7.68E-16	3.94E+05	Result Below MDA
10035621MA2 050115	06/01/15 1127	05/01/15 - 06/01/15		2.26E-16	2.98E-15	7.51E-16	4.21E+05	Result Below MDA
10035621MA2 060115	07/01/15 1441	06/01/15 - 07/01/15		2.98E-16	3.06E-15	1.00E-15	4.02E+05	Result Below MDA

Notes:

* No exceptions.

1. Ci = Curies.
2. μCi/ml = microCuries per milliliter.
3. CL = Confidence level.
4. m³ = cubic meters.
5. MDA = minimum detectable activity.
6. All detected activity values were less than 1.0E-14 μCi/mL which is less than the limits in 10 CFR 20 Appendix B table 2. Effluent Concentrations (Environmental Report, UUSA, 2015).
7. Quantity released is calculated if the result equals or exceeds the MDA.
8. Changed filter numbering system (Sample ID): the filter number is the functional location plus the filter on date. The N designates the change month.

TABLE 2-16

Separations Building Module-1005 (SBM 1005)
Pumped Extract Exhaust Gaseous Effluent Vent System, 1005-562-1MA1
Gross Alpha & Gross Beta, Quarter 2, 2015
URENCO USA
Lea County, New Mexico

Page 1 of 1

Sample ID	Sample Date and Time	Sample Period	Analyte	Gross Result (µCi/ml)	MDA (µCi/ml) @ 95 CL	Instrument Uncertainty (µCi/ml)	Total Vent System Flow (m³)	Quantity Released (Ci)
10055621MA1 040115N	05/01/15 1215	04/01/15 - 05/01/15	Gross Alpha	0.00E+00	8.43E-16	0.00E+00	8.04E+05	Result Below MDA
10055621MA1 050115	06/01/15 1141	05/01/15 - 06/01/15		0.00E+00	8.13E-16	0.00E+00	8.38E+05	Result Below MDA
10055621MA1 060115	07/01/15 1450	06/01/15 - 07/01/15		1.17E-16	8.51E-16	1.17E-16	7.82E+05	Result Below MDA
10055621MA1 040115N	05/01/15 1215	04/01/15 - 05/01/15	Gross Beta	3.84E-16	5.06E-15	1.28E-15	8.04E+05	Result Below MDA
10055621MA1 050115	06/01/15 1141	05/01/15 - 06/01/15		-3.71E-16	4.88E-15	1.12E-15	8.38E+05	Result Below MDA
10055621MA1 060115	07/01/15 1450	06/01/15 - 07/01/15		-1.17E-15	5.10E-15	1.03E-15	7.82E+05	Result Below MDA

Notes:

* No exceptions.

1. Ci = Curies.

2. µCi/ml = microCuries per milliliter.

3. CL = Confidence level.

4. m³ = cubic meters.

5. MDA = minimum detectable activity.

6. All detected activity values were less than 1.0E-14 µCi/mL which is less than the limits in 10 CFR 20 Appendix B table 2. Effluent Concentrations (Environmental Report, UUSA, 2015).

7. Quantity released is calculated if the result equals or exceeds the MDA.

8. Changed filter numbering system (Sample ID): the filter number is the functional location plus the filter on date. The N designates the change month.

TABLE 2-17

Separations Building Module-1005 (SBM 1005)
Pumped Extract Exhaust Gaseous Effluent Vent System, 1005-562-1MA2
Gross Alpha & Gross Beta, Quarter 2, 2015
URENCO USA
Lea County, New Mexico

Sample ID	Sample Date and Time	Sample Period	Analyte	Gross Result (µCi/ml)	MDA (µCi/ml) @ 95 CL	Instrument Uncertainty (µCi/ml)	Total Vent System Flow (m³)	Quantity Released (Ci)
10055621MA2 040115N	05/01/15 1219	04/01/15 - 05/01/15	Gross Alpha	0.00E+00	8.06E-16	0.00E+00	8.04E+05	Result Below MDA
10055621MA2 050115	06/01/15 1147	05/01/15 - 06/01/15		0.00E+00	8.13E-16	0.00E+00	8.38E+05	Result Below MDA
10055621MA2 060115	07/01/15 1452	06/01/15 - 07/01/15		0.00E+00	8.21E-16	0.00E+00	7.79E+05	Result Below MDA
10055621MA2 040115N	05/01/15 1219	04/01/15 - 05/01/15	Gross Beta	0.00E+00	4.83E-15	1.17E-15	8.04E+05	Result Below MDA
10055621MA2 050115	06/01/15 1147	05/01/15 - 06/01/15		-7.45E-16	4.88E-15	1.05E-15	8.38E+05	Result Below MDA
10055621MA2 060115	07/01/15 1452	06/01/15 - 07/01/15		-2.01E-15	4.92E-15	1.07E-15	7.79E+05	Result Below MDA

Notes:

* No exceptions.

1. Ci = Curies.

2. µCi/ml = microCuries per milliliter.

3. CL = Confidence level.

4. m³ = cubic meters.

5. MDA = minimum detectable activity.

6. All detected activity values were less than 1.0E-14 µCi/mL which is less than the limits in 10 CFR 20 Appendix B table 2. Effluent Concentrations (Environmental Report, UUSA, 2015).

7. Quantity released is calculated if the result equals or exceeds the MDA.

8. Changed filter numbering system (Sample ID): the filter number is the functional location plus the filter on date. The N designates the change month.

TABLE 2-18

Cylinder Receipt and Dispatch Building-1100 (CRDB 1100)
 Local Extract Exhaust Gaseous Effluent Vent System, 1100-562-1MA1
 Gross Alpha & Gross Beta, Quarter 2, 2015
 URENCO USA
 Lea County, New Mexico

Page 1 of 1

Sample ID	Sample Date and Time	Sample Period	Analyte	Gross Result (µCi/ml)	MDA (µCi/ml) @ 95 CL	Instrument Uncertainty (µCi/ml)	Total Vent System Flow (m³)	Quantity Released (Ci)
11005621MA1 040115N	05/01/15 1124	04/01/15 - 05/01/15	Gross Alpha	0.00E+00	9.01E-16	0.00E+00	2.27E+05	Result Below MDA
11005621MA1 050115	06/01/15 1057	05/01/15 - 06/01/15		0.00E+00	8.13E-16	0.00E+00	2.40E+05	Result Below MDA
11005621MA1 060115	07/01/15 1423	06/01/15 - 07/01/15		1.05E-16	7.66E-16	1.05E-16	2.38E+05	Result Below MDA
11005621MA1 040115N	05/01/15 1124	04/01/15 - 05/01/15	Gross Beta	-4.11E-16	5.40E-15	1.24E-15	2.27E+05	Result Below MDA
11005621MA1 050115	06/01/15 1057	05/01/15 - 06/01/15		-3.71E-16	4.88E-15	1.12E-15	2.40E+05	Result Below MDA
11005621MA1 060115	07/01/15 1423	06/01/15 - 07/01/15		1.40E-15	4.59E-15	1.31E-15	2.38E+05	Result Below MDA

Notes:

* No exceptions.

1. Ci = Curies.

2. µCi/ml = microCuries per milliliter.

3. CL = Confidence level.

4. m³ = cubic meters.

5. MDA = minimum detectable activity.

6. All detected activity values were less than 1.0E-14 µCi/mL which is less than the limits in 10 CFR 20 Appendix B table 2. Effluent Concentrations (Environmental Report, UUSA, 2015).

7. Quantity released is calculated if the result equals or exceeds the MDA.

8. Changed filter numbering system (Sample ID): the filter number is the functional location plus the filter on date. The N designates the change month.

TABLE 2-19

Cylinder Receipt and Dispatch Building-1100 (CRDB 1100)
 Local Extract Exhaust Gaseous Effluent Vent System, 1100-562-1MA2
 Gross Alpha & Gross Beta, Quarter 2, 2015
 URENCO USA
 Lea County, New Mexico

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Sample ID	Sample Date and Time	Sample Period	Analyte	Gross Result (μCi/ml)	MDA (μCi/ml) @ 95 CL	Instrument Uncertainty (μCi/ml)	Total Vent System Flow (m³)	Quantity Released (Ci)
11005621MA2 040115N	05/01/15 1126	04/01/15 - 05/01/15	Gross Alpha	0.00E+00	7.02E-16	0.00E+00	7.42E+05	Result Below MDA
11005621MA2 050115	06/01/15 1059	05/01/15 - 06/01/15		0.00E+00	6.01E-16	0.00E+00	7.58E+05	Result Below MDA
11005621MA2 060115	07/01/15 1425	06/01/15 - 07/01/15		0.00E+00	8.06E-16	0.00E+00	7.34E+05	Result Below MDA
11005621MA2 040115N	05/01/15 1126	04/01/15 - 05/01/15	Gross Beta	3.20E-16	4.21E-15	1.06E-15	7.42E+05	Result Below MDA
11005621MA2 050115	06/01/15 1059	05/01/15 - 06/01/15		-2.74E-16	3.60E-15	8.24E-16	7.58E+05	Result Below MDA
11005621MA2 060115	07/01/15 1425	06/01/15 - 07/01/15		6.04E-16	4.83E-15	1.44E-15	7.34E+05	Result Below MDA

Notes:

* No exceptions.

1. Ci = Curies.

2. μCi/ml = microCuries per milliliter.

3. CL = Confidence level.

4. m³ = cubic meters.

5. MDA = minimum detectable activity.

6. All detected activity values were less than 1.0E-14 μCi/mL which is less than the limits in 10 CFR 20 Appendix B table 2. Effluent Concentrations (Environmental Report, UUSA, 2015).

7. Quantity released is calculated if the result equals or exceeds the MDA.

8. Changed filter numbering system (Sample ID): the filter number is the functional location plus the filter on date. The N designates the change month.

TABLE 2-20

Cylinder Receipt and Dispatch Building-1100 (CRDB 1100)
 Local Extract Exhaust Gaseous Effluent Vent System, 1100-562-2MA1
 Gross Alpha & Gross Beta, Quarter 2, 2015
 URENCO USA
 Lea County, New Mexico

Page 1 of 1

Sample ID	Sample Date and Time	Sample Period	Analyte	Gross Result (µCi/ml)	MDA (µCi/ml) @ 95 CL	Instrument Uncertainty (µCi/ml)	Total Vent System Flow (m³)	Quantity Released (Ci)
11005622MA1 040115N	05/01/15 1128	04/01/15 - 05/01/15	Gross Alpha	0.00E+00	6.47E-16	0.00E+00	2.71E+07	Result Below MDA
11005622MA1 050115	06/01/15 1102	05/01/15 - 06/01/15		5.27E-16	6.47E-16	2.15E-16	2.79E+07	Result Below MDA
11005622MA1 060115	07/01/15 1428	06/01/15 - 07/01/15		1.92E-16	7.02E-16	1.34E-16	2.76E+07	Result Below MDA
11005622MA1 040115N	05/01/15 1128	04/01/15 - 05/01/15	Gross Beta	2.95E-16	3.88E-15	9.79E-16	2.71E+07	Result Below MDA
11005622MA1 050115	06/01/15 1102	05/01/15 - 06/01/15		-8.87E-16	3.88E-15	7.82E-16	2.79E+07	Result Below MDA
11005622MA1 060115	07/01/15 1428	06/01/15 - 07/01/15		1.60E-15	4.21E-15	1.24E-15	2.76E+07	Result Below MDA

Notes:

* No exceptions.

1. Ci = Curies.

2. µCi/ml = microCuries per milliliter.

3. CL = Confidence level.

4. m³ = cubic meters.

5. MDA = minimum detectable activity.

6. All detected activity values were less than 1.0E-14 µCi/mL which is less than the limits in 10 CFR 20 Appendix B table 2. Effluent Concentrations (Environmental Report, UUSA, 2015).

7. Quantity released is calculated if the result equals or exceeds the MDA.

8. Changed filter numbering system (Sample ID): the filter number is the functional location plus the filter on date. The N designates the change month.

TABLE 2-21

Cylinder Receipt and Dispatch Building-1100 (CRDB 1100)
 Local Extract Exhaust Gaseous Effluent Vent System, 1100-562-2MA2
 Gross Alpha & Gross Beta, Quarter 2, 2015
 URENCO USA
 Lea County, New Mexico

Page 1 of 1

Sample ID	Sample Date and Time	Sample Period	Analyte	Gross Result ($\mu\text{Ci/ml}$)	MDA ($\mu\text{Ci/ml}$) @ 95 CL	Instrument Uncertainty ($\mu\text{Ci/ml}$)	Total Vent System Flow (m^3)	Quantity Released (Ci)
11005622MA2 040115N	05/01/15 1130	04/01/15 - 05/01/15	Gross Alpha	7.33E-16	9.01E-16	3.00E-16	2.76E+07	Result Below MDA
11005622MA2 050115	06/01/15 1105	05/01/15 - 06/01/15		-5.86E-17	7.47E-16	2.14E-19	2.81E+07	Result Below MDA
11005622MA2 060115	07/01/15 1428	06/01/15 - 07/01/15		4.78E-16	7.02E-16	2.13E-16	2.76E+07	Result Below MDA
11005622MA2 040115N	05/01/15 1130	04/01/15 - 05/01/15	Gross Beta	-5.61E-16	5.40E-15	1.44E-15	2.76E+07	Result Below MDA
11005622MA2 050115	06/01/15 1105	05/01/15 - 06/01/15		-1.85E-15	4.48E-15	1.29E-15	2.81E+07	Result Below MDA
11005622MA2 060115	07/01/15 1428	06/01/15 - 07/01/15		3.09E-15	4.21E-15	1.54E-15	2.76E+07	Result Below MDA

Notes:

* No exceptions.

1. Ci = Curies.

2. $\mu\text{Ci/ml}$ = microCuries per milliliter.

3. CL = Confidence level.

4. m^3 = cubic meters.

5. MDA = minimum detectable activity.

6. All detected activity values were less than $1.0\text{E}-14 \mu\text{Ci/mL}$ which is less than the limits in 10 CFR 20 Appendix B table 2. Effluent Concentrations (Environmental Report, UUSA, 2015).

7. Quantity released is calculated if the result equals or exceeds the MDA.

8. Changed filter numbering system (Sample ID): the filter number is the functional location plus the filter on date. The N designates the change month.

TABLE 2-22

Centrifuge Test and Post Mortem Facilities - 1300 (CTPMF)
 Exhaust Filtration System Gaseous Effluent
 Gross Alpha & Gross Beta, Quarter 2, 2015
 URENCO USA
 Lea County, New Mexico

Page 1 of 1

Sample ID	Sample Date and Time	Sample Period	Analyte	Gross Result (μCi/ml)	MDA (μCi/ml) @ 95 CL	Instrument Uncertainty (μCi/ml)	Total Vent System Flow (m³)	Quantity Released (Ci)
13005621MA1 040115N	04/29/15 1001	04/01/15 - 04/29/15	Gross Alpha	0.00E+00	7.85E-16	0.00E+00	1.18E+07	Result Below MDA
13005621MA1 042915	06/03/15 1023	04/29/15 - 06/03/15		0.00E+00	6.34E-16	0.00E+00	1.49E+07	Result Below MDA
13005621MA1 060315	07/01/15 0933	06/03/15 - 07/01/15		0.00E+00	7.07E-16	0.00E+00	1.19E+07	Result Below MDA
13005621MA1 040115N	04/29/15 1001	04/01/15 - 04/29/15	Gross Beta	-7.20E-16	4.71E-15	1.02E-15	1.18E+07	Result Below MDA
13005621MA1 042915	06/03/15 1023	04/29/15 - 06/03/15		-2.89E-16	3.80E-15	8.69E-16	1.49E+07	Result Below MDA
13005621MA1 060315	07/01/15 0933	06/03/15 - 07/01/15		-1.08E-15	4.24E-15	1.03E-15	1.19E+07	Result Below MDA

Notes:

* No exceptions.

1. Ci = Curies.

2. μCi/ml = microCuries per milliliter.

3. CL = Confidence level.

4. m³ = cubic meters.

5. MDA = minimum detectable activity.

6. All detected activity values were less than 1.0E-14 μCi/mL which is less than the limits in 10 CFR 20 Appendix B table 2. Effluent Concentrations (Environmental Report, UUSA, 2015).

7. Quantity released is calculated if the result equals or exceeds the MDA.

8. Changed filter numbering system (Sample ID): the filter number is the functional location plus the filter on date. The N designates the change month.

TABLE 2-23
SEPARATIONS BUILDING MODULE-1001 (SBM 1001) PUMPED EXTRACT EXHAUST GASEOUS EFFLUENT VENT SYSTEM
QUARTERLY FILTER COMPOSITE RESULTS - RADIONUCLIDES
URENCO USA
Lea County, New Mexico

Radionuclide / Sample ID	Sample Date	Sample Period	Results ($\mu\text{Ci/mL}$)	Uncertainty (2-sigma) ($\mu\text{Ci/mL}$)	Uncertainty (1-sigma) ($\mu\text{Ci/mL}$)	MDA ($\mu\text{Ci/mL}$)	Total Flow (m^3)	Quantity Released (Ci)	% of Table 2 of Appendix B to 10 CFR Part 20 Values
1001-562-1MA1									
Uranium-233/234 / 1001-562-1MA1 Qtr1 2015	4/1/2015	01/02/15 - 04/01/15	2.04E-19	8.27E-18	4.22E-18	2.32E-17	1.34E+06	Result Below MDA	Result Below MDA
Uranium-235/236 / 1001-562-1MA1 Qtr1 2015	4/1/2015	01/02/15 - 04/01/15	-2.99E-18	5.07E-18	2.59E-18	2.02E-17	1.34E+06	Result Below MDA	Result Below MDA
Uranium-238 / 1001-562-1MA1 Qtr1 2015	4/1/2015	01/02/15 - 04/01/15	-9.84E-19	8.58E-18	4.38E-18	2.47E-17	1.34E+06	Result Below MDA	Result Below MDA
Uranium-233/234 / 1001-562-1MA1 Qtr2 2015	7/1/2015	04/01/15 - 07/01/15	6.60E-18	1.11E-17	5.66E-18	2.61E-17	1.37E+06	Result Below MDA	Result Below MDA
Uranium-235/236 / 1001-562-1MA1 Qtr2 2015	7/1/2015	04/01/15 - 07/01/15	2.17E-19	5.27E-18	2.69E-18	1.82E-17	1.37E+06	Result Below MDA	Result Below MDA
Uranium-238 / 1001-562-1MA1 Qtr2 2015	7/1/2015	04/01/15 - 07/01/15	3.36E-18	6.91E-18	3.53E-18	1.71E-17	1.37E+06	Result Below MDA	Result Below MDA
1001-562-1MA2									
Uranium-233/234 / 1001-562-1MA2 Qtr1 2015	4/1/2015	01/02/15 - 04/01/15	-6.11E-18	7.00E-18	3.57E-18	2.50E-17	1.39E+06	Result Below MDA	Result Below MDA
Uranium-235/236 / 1001-562-1MA2 Qtr1 2015	4/1/2015	01/02/15 - 04/01/15	-1.51E-18	5.25E-18	2.68E-18	1.93E-17	1.39E+06	Result Below MDA	Result Below MDA
Uranium-238 / 1001-562-1MA2 Qtr1 2015	4/1/2015	01/02/15 - 04/01/15	-3.40E-18	8.19E-18	4.18E-18	2.57E-17	1.39E+06	Result Below MDA	Result Below MDA
Uranium-233/234 / 1001-562-1MA2 Qtr2 2015	7/1/2015	04/01/15 - 07/01/15	-1.56E-18	8.65E-18	4.41E-18	2.70E-17	1.45E+06	Result Below MDA	Result Below MDA
Uranium-235/236 / 1001-562-1MA2 Qtr2 2015	7/1/2015	04/01/15 - 07/01/15	-2.08E-18	4.09E-18	2.09E-18	1.99E-17	1.45E+06	Result Below MDA	Result Below MDA
Uranium-238 / 1001-562-1MA2 Qtr2 2015	7/1/2015	04/01/15 - 07/01/15	4.95E-18	7.30E-18	3.72E-18	1.59E-17	1.45E+06	Result Below MDA	Result Below MDA

Notes:

1. $\mu\text{Ci/mL}$ = microCuries per milliliter.
2. m^3 = cubic meters.
3. MDA = minimum detectable activity.
4. Radionuclides analyzed using Procedure WL-1017 Revision 2 by WIPP Laboratories of Carlsbad, New Mexico.
5. All detected activity values were less than the facility-required lower level of detection of $1.0\text{E-}14$ $\mu\text{Ci/mL}$ which is less than 1% of the limits in 10 CFR 20 Appendix B Table 2 Effluent Concentrations (Environmental Report, UUSA, 2015).
6. Quantity released is calculated if the result equals or exceeds the MDA.

TABLE 2-24
SEPARATIONS BUILDING MODULE-1003 (SBM1003) PUMPED EXTRACT EXHAUST GASEOUS EFFLUENT VENT SYSTEM
QUARTERLY FILTER COMPOSITE RESULTS-RADIONUCLIDES
URENCO USA
Lea County, New Mexico

Radionuclide / Sample ID	Sample Date	Sample Period	Results ($\mu\text{Ci/mL}$)	Uncertainty (2-sigma) ($\mu\text{Ci/mL}$)	Uncertainty (1-sigma) ($\mu\text{Ci/mL}$)	MDA ($\mu\text{Ci/mL}$)	Total Flow (m^3)	Quantity Released (Ci)	% of Table 2 of Appendix B to 10 CFR Part 20 Values
1003-562-1MA1									
Uranium-233/234 / 1003-562-1MA1 Qtr1 2015	4/1/2015	01/02/15 - 04/01/15	2.75E-18	4.68E-18	2.39E-18	1.05E-17	1.11E+06	Result Below MDA	Result Below MDA
Uranium-235/236 / 1003-562-1MA1 Qtr1 2015	4/1/2015	01/02/15 - 04/01/15	1.69E-18	4.70E-18	2.40E-18	1.30E-17	1.11E+06	Result Below MDA	Result Below MDA
Uranium-238 / 1003-562-1MA1 Qtr1 2015	4/1/2015	01/02/15 - 04/01/15	2.73E-18	5.37E-18	2.74E-18	1.31E-17	1.11E+06	Result Below MDA	Result Below MDA
Uranium-233/234 / 1003-562-1MA1 Qtr2 2015	7/1/2015	04/01/15 - 07/01/15	-2.67E-18	8.58E-18	4.38E-18	2.64E-17	1.11E+06	Result Below MDA	Result Below MDA
Uranium-235/236 / 1003-562-1MA1 Qtr2 2015	7/1/2015	04/01/15 - 07/01/15	1.71E-18	4.75E-18	2.42E-18	1.31E-17	1.11E+06	Result Below MDA	Result Below MDA
Uranium-238 / 1003-562-1MA1 Qtr2 2015	7/1/2015	04/01/15 - 07/01/15	6.37E-18	7.79E-18	3.97E-18	1.63E-17	1.11E+06	Result Below MDA	Result Below MDA
1003-562-1MA2									
Uranium-233/234 / 1003-562-1MA2 Qtr1 2015	4/1/2015	01/02/15 - 04/01/15	5.67E-19	6.44E-18	3.28E-18	1.79E-17	1.20E+06	Result Below MDA	Result Below MDA
Uranium-235/236 / 1003-562-1MA2 Qtr1 2015	4/1/2015	01/02/15 - 04/01/15	1.40E-19	4.57E-18	2.33E-18	1.44E-17	1.20E+06	Result Below MDA	Result Below MDA
Uranium-238 / 1003-562-1MA2 Qtr1 2015	4/1/2015	01/02/15 - 04/01/15	-4.30E-18	5.42E-18	2.77E-18	1.90E-17	1.20E+06	Result Below MDA	Result Below MDA
Uranium-233/234 / 1003-562-1MA2 Qtr2 2015	7/1/2015	04/01/15 - 07/01/15	-2.99E-18	6.23E-18	3.18E-18	2.04E-17	1.22E+06	Result Below MDA	Result Below MDA
Uranium-235/236 / 1003-562-1MA2 Qtr2 2015	7/1/2015	04/01/15 - 07/01/15	0.00E+00	2.69E-18	1.37E-18	1.05E-17	1.22E+06	Result Below MDA	Result Below MDA
Uranium-238 / 1003-562-1MA2 Qtr2 2015	7/1/2015	04/01/15 - 07/01/15	6.04E-18	6.41E-18	3.27E-18	1.24E-17	1.22E+06	Result Below MDA	Result Below MDA

Notes:

1. $\mu\text{Ci/mL}$ = microCuries per milliliter.
2. m^3 = cubic meters.
3. MDA = minimum detectable activity.
4. Radionuclides analyzed using Procedure WL-1017 Revision 2 by WIPP Laboratories of Carlsbad, New Mexico.
5. All detected activity values were less than the facility-required lower level of detection of $1.0\text{E-}14 \mu\text{Ci/mL}$ which is less than 1% of the limits in 10 CFR 20 Appendix B Table 2 Effluent Concentrations (Environmental Report, UUSA, 2015).
6. Quantity released is calculated if the result Equals or Exceeds the MDA.

TABLE 2-25
SEPARATIONS BUILDING MODULE-1005 (SBM-1005) PUMPED EXTRACT EXHAUST GASEOUS EFFLUENT VENT SYSTEM
QUARTERLY FILTER COMPOSITE RESULTS - RADIONUCLIDES
URENCO USA
Lea County, New Mexico

Radionuclide / Sample ID	Sample Date	Sample Period	Results ($\mu\text{Ci}/\text{mL}$)	Uncertainty (2-sigma) ($\mu\text{Ci}/\text{mL}$)	Uncertainty (1-sigma) ($\mu\text{Ci}/\text{mL}$)	MDA ($\mu\text{Ci}/\text{mL}$)	Total Flow (m^3)	Quantity Released (Ci)	% of Table 2 of Appendix B to 10 CFR Part 20 Values
1005-562-1MA1									
Uranium-233/234 / 1005-562-1MA1 Qtr1 2015	4/1/2015	01/02/15 - 04/01/15	1.81E-19	1.27E-17	6.46E-18	3.62E-17	3.32E+06	Result Below MDA	Result Below MDA
Uranium-235/236 / 1005-562-1MA1 Qtr1 2015	4/1/2015	01/02/15 - 04/01/15	-2.00E-18	8.99E-18	4.59E-18	3.15E-17	3.32E+06	Result Below MDA	Result Below MDA
Uranium-238 / 1005-562-1MA1 Qtr1 2015	4/1/2015	01/02/15 - 04/01/15	-5.55E-18	1.10E-17	5.62E-18	3.67E-17	3.32E+06	Result Below MDA	Result Below MDA
Uranium-233/234 / 1005-562-1MA1 Qtr2 2015	7/1/2015	04/01/15 - 07/01/15	1.59E-18	1.34E-17	6.84E-18	3.84E-17	2.42E+06	Result Below MDA	Result Below MDA
Uranium-235/236 / 1005-562-1MA1 Qtr2 2015	7/1/2015	04/01/15 - 07/01/15	0.00E+00	6.43E-18	3.28E-18	2.51E-17	2.42E+06	Result Below MDA	Result Below MDA
Uranium-238 / 1005-562-1MA1 Qtr2 2015	7/1/2015	04/01/15 - 07/01/15	1.75E-17	1.49E-17	7.60E-18	2.22E-17	2.42E+06	Result Below MDA	Result Below MDA
1005-562-1MA2									
Uranium-233/234 / 1005-562-1MA2 Qtr1 2015	4/1/2015	01/02/15 - 04/01/15	3.72E-18	1.22E-17	6.22E-18	3.18E-17	3.23E+06	Result Below MDA	Result Below MDA
Uranium-235/236 / 1005-562-1MA2 Qtr1 2015	4/1/2015	01/02/15 - 04/01/15	4.54E-19	8.24E-18	4.20E-18	2.59E-17	3.23E+06	Result Below MDA	Result Below MDA
Uranium-238 / 1005-562-1MA2 Qtr1 2015	4/1/2015	01/02/15 - 04/01/15	-1.09E-17	8.85E-18	4.51E-18	3.51E-17	3.23E+06	Result Below MDA	Result Below MDA
Uranium-233/234 / 1005-562-1MA2 Qtr2 2015	7/1/2015	04/01/15 - 07/01/15	5.84E-17	2.55E-17	1.30E-17	3.28E-17	2.42E+06	1.41E-10	0.0019%
Uranium-235/236 / 1005-562-1MA2 Qtr2 2015	7/1/2015	04/01/15 - 07/01/15	4.97E-18	8.46E-18	4.32E-18	1.90E-17	2.42E+06	Result Below MDA	Result Below MDA
Uranium-238 / 1005-562-1MA2 Qtr2 2015	7/1/2015	04/01/15 - 07/01/15	2.01E-17	1.40E-17	7.14E-18	1.94E-17	2.42E+06	4.86E-11	0.0007%

Notes:

1. $\mu\text{Ci}/\text{mL}$ = microCuries per milliliter.
2. m^3 = cubic meters.
3. MDA = minimum detectable activity.
4. Radionuclides analyzed using Procedure WL-1017 Revision 2 by WIPP Laboratories of Carlsbad, New Mexico.
5. All detected activity values were less than the facility-required lower level of detection of $1.0\text{E}-14$ $\mu\text{Ci}/\text{mL}$ which is less than 1% of the limits in 10 CFR 20 Appendix B Table 2 Effluent Concentrations (Environmental Report, UUSA, 2015).
6. Quantity released is calculated if the result equals or exceeds the MDA.

TABLE 2-26
CYLINDER RECEIPT AND DISPATCH BUILDING (CRDB 1100) FUME HOOD AND LOCAL EXTRACT EXHAUST GASEOUS EFFLUENT VENT SYSTEM
QUARTERLY FILTER COMPOSITE RESULTS - RADIONUCLIDES
URENCO USA
Lea County, New Mexico

Radionuclide / Sample ID	Sample Date	Sample Period	Results ($\mu\text{Ci/mL}$)	Uncertainty (2-sigma) ($\mu\text{Ci/mL}$)	Uncertainty (1-sigma) ($\mu\text{Ci/mL}$)	MDA ($\mu\text{Ci/mL}$)	Total Flow (m^3)	Quantity Released (Ci)	% of Table 2 of Appendix B to 10 CFR Part 20 Values
1100-562-1MA1									
Uranium-233/234 / 1100-562-1MA1 Qtr1 2015	4/1/2015	01/02/15 - 04/01/15	-9.51E-20	6.89E-18	3.52E-18	2.16E-17	1.22E+06	Result Below MDA	Result Below MDA
Uranium-235/236 / 1100-562-1MA1 Qtr1 2015	4/1/2015	01/02/15 - 04/01/15	0.00E+00	4.13E-18	2.11E-18	1.61E-17	1.22E+06	Result Below MDA	Result Below MDA
Uranium-238 / 1100-562-1MA1 Qtr1 2015	4/1/2015	01/02/15 - 04/01/15	4.91E-18	1.02E-17	5.20E-18	2.53E-17	1.22E+06	Result Below MDA	Result Below MDA
Uranium-233/234 / 1100-562-1MA1 Qtr2 2015	7/1/2015	04/01/15 - 07/01/15	-2.56E-18	1.05E-17	5.36E-18	3.25E-17	7.05E+05	Result Below MDA	Result Below MDA
Uranium-235/236 / 1100-562-1MA1 Qtr2 2015	7/1/2015	04/01/15 - 07/01/15	0.00E+00	6.41E-18	3.27E-18	2.22E-17	7.05E+05	Result Below MDA	Result Below MDA
Uranium-238 / 1100-562-1MA1 Qtr2 2015	7/1/2015	04/01/15 - 07/01/15	1.16E-17	1.10E-17	5.61E-18	1.95E-17	7.05E+05	Result Below MDA	Result Below MDA
1100-562-1MA2									
Uranium-233/234 / 1100-562-1MA2 Qtr1 2015	4/1/2015	01/02/15 - 04/01/15	2.87E-18	7.06E-18	3.60E-18	1.82E-17	2.24E+06	Result Below MDA	Result Below MDA
Uranium-235/236 / 1100-562-1MA2 Qtr1 2015	4/1/2015	01/02/15 - 04/01/15	1.79E-18	4.98E-18	2.54E-18	1.37E-17	2.24E+06	Result Below MDA	Result Below MDA
Uranium-238 / 1100-562-1MA2 Qtr1 2015	4/1/2015	01/02/15 - 04/01/15	2.81E-18	8.13E-18	4.15E-18	2.12E-17	2.24E+06	Result Below MDA	Result Below MDA
Uranium-233/234 / 1100-562-1MA2 Qtr2 2015	7/1/2015	04/01/15 - 07/01/15	-5.05E-18	7.30E-18	3.72E-18	2.60E-17	2.23E+06	Result Below MDA	Result Below MDA
Uranium-235/236 / 1100-562-1MA2 Qtr2 2015	7/1/2015	04/01/15 - 07/01/15	0.00E+00	5.13E-18	2.62E-18	1.77E-17	2.23E+06	Result Below MDA	Result Below MDA
Uranium-238 / 1100-562-1MA2 Qtr2 2015	7/1/2015	04/01/15 - 07/01/15	4.84E-18	7.09E-18	3.62E-18	1.56E-17	2.23E+06	Result Below MDA	Result Below MDA
1100-562-2MA1									
Uranium-233/234 / 1100-562-2MA1 Qtr1 2015	4/1/2015	01/02/15 - 04/01/15	1.84E-16	3.95E-17	2.02E-17	1.79E-17	5.30E+07	9.75E-09	0.0061%
Uranium-235/236 / 1100-562-2MA1 Qtr1 2015	4/1/2015	01/02/15 - 04/01/15	1.25E-17	9.32E-18	4.76E-18	1.19E-17	5.30E+07	6.63E-10	0.0004%
Uranium-238 / 1100-562-2MA1 Qtr1 2015	4/1/2015	01/02/15 - 04/01/15	4.95E-17	1.84E-17	9.39E-18	2.12E-17	5.30E+07	2.62E-09	0.0017%
Uranium-233/234 / 1100-562-2MA1 Qtr2 2015	7/1/2015	04/01/15 - 07/01/15	1.08E-16	3.06E-17	1.56E-17	2.64E-17	8.25E+07	8.91E-09	0.0036%
Uranium-235/236 / 1100-562-2MA1 Qtr2 2015	7/1/2015	04/01/15 - 07/01/15	0.00E+00	3.51E-18	1.79E-18	1.37E-17	8.25E+07	Result Below MDA	Result Below MDA
Uranium-238 / 1100-562-2MA1 Qtr2 2015	7/1/2015	04/01/15 - 07/01/15	3.65E-17	1.66E-17	8.47E-18	2.03E-17	8.25E+07	3.01E-09	0.0012%
1100-562-2MA2									
Uranium-233/234 / 1100-562-2MA2 Qtr1 2015	4/1/2015	01/02/15 - 04/01/15	2.42E-16	5.44E-17	2.78E-17	2.42E-17	5.26E+07	1.27E-08	0.0081%
Uranium-235/236 / 1100-562-2MA2 Qtr1 2015	4/1/2015	01/02/15 - 04/01/15	1.76E-17	1.32E-17	6.73E-18	1.68E-17	5.26E+07	9.26E-10	0.0008%
Uranium-238 / 1100-562-2MA2 Qtr1 2015	4/1/2015	01/02/15 - 04/01/15	5.84E-17	2.34E-17	1.19E-17	2.61E-17	5.26E+07	3.07E-09	0.0019%
Uranium-233/234 / 1100-562-2MA2 Qtr2 2015	7/1/2015	04/01/15 - 07/01/15	1.49E-16	4.09E-17	2.09E-17	3.13E-17	8.33E+07	1.24E-08	0.0050%
Uranium-235/236 / 1100-562-2MA2 Qtr2 2015	7/1/2015	04/01/15 - 07/01/15	9.30E-18	1.03E-17	5.26E-18	1.78E-17	8.33E+07	Result Below MDA	Result Below MDA
Uranium-238 / 1100-562-2MA2 Qtr2 2015	7/1/2015	04/01/15 - 07/01/15	6.58E-17	2.44E-17	1.24E-17	1.86E-17	8.33E+07	5.48E-09	0.0022%

Notes:

1. $\mu\text{Ci/mL}$ = microCuries per milliliter.
2. m^3 = cubic meters.
3. MDA = minimum detectable activity.
4. Radionuclides analyzed using Procedure WL-1017 Revision 2 by WIPP Laboratories of Carlsbad, New Mexico.
5. All detected activity values were less than the facility-required lower level of detection of $1.0\text{E-}14 \mu\text{Ci/mL}$ which is less than 1% of the limits in 10 CFR 20 Appendix B Table 2 Effluent Concentrations (Environmental Report, UUSA, 2015).
6. Quantity released is calculated if the result Equals or Exceeds the MDA.

TABLE 2-27
CENTRIFUGE TEST AND POST MORTEM FACILITIES-1300 (CTPMF)
EXHAUST FILTRATION SYSTEM GASEOUS EFFLUENT
QUARTERLY FILTER COMPOSITE RESULTS - RADIONUCLIDES
URENCO USA
Lea County, New Mexico

Radionuclide / Sample ID	Sample Date	Sample Period	Results ($\mu\text{Ci/mL}$)	Uncertainty (2-sigma) ($\mu\text{Ci/mL}$)	Uncertainty (1-sigma) ($\mu\text{Ci/mL}$)	MDA ($\mu\text{Ci/mL}$)	Total CTPM Exhaust Filtration System Flow (m^3)	Quantity Released (Ci)	% of Table 2 of Appendix B to 10 CFR Part 20 Values
1300-562-1MA1									
Uranium-233/234 / 1300-562-1MA1 Qtr1 2015	4/1/2015	01/02/15 - 04/01/15	-1.15E-18	3.84E-18	1.96E-18	1.38E-17	3.61E+07	Result Below MDA	Result Below MDA
Uranium-235/236 / 1300-562-1MA1 Qtr1 2015	4/1/2015	01/02/15 - 04/01/15	1.34E-18	3.73E-18	1.90E-18	1.03E-17	3.61E+07	Result Below MDA	Result Below MDA
Uranium-238 / 1300-562-1MA1 Qtr1 2015	4/1/2015	01/02/15 - 04/01/15	-1.21E-19	5.36E-18	2.73E-18	1.61E-17	3.61E+07	Result Below MDA	Result Below MDA
Uranium-233/234 / 1300-562-1MA1 Qtr2 2015	7/1/2015	04/01/15 - 07/01/15	1.49E-18	1.02E-17	5.20E-18	2.81E-17	3.86E+07	Result Below MDA	Result Below MDA
Uranium-235/236 / 1300-562-1MA1 Qtr2 2015	7/1/2015	04/01/15 - 07/01/15	-2.01E-18	3.94E-18	2.01E-18	1.92E-17	3.86E+07	Result Below MDA	Result Below MDA
Uranium-238 / 1300-562-1MA1 Qtr2 2015	7/1/2015	04/01/15 - 07/01/15	8.19E-18	8.60E-18	4.39E-18	1.59E-17	3.86E+07	Result Below MDA	Result Below MDA

Notes:

1. $\mu\text{Ci/mL}$ = microCuries per milliliter.
2. m^3 = cubic meters.
3. MDA = minimum detectable activity.
4. Radionuclides analyzed using Procedure WL-1017 Revision 2 by WIPP Laboratories of Carlsbad, New Mexico.
5. All detected activity values were less than the facility-required lower level of detection of $1.0\text{E-}14$ $\mu\text{Ci/mL}$ which is less than 1% of the limits in 10 CFR 20 Appendix B Table 2 Effluent Concentrations (Environmental Report, UUSA, 2015).
6. Quantity released is calculated if the result equals or exceeds the MDA.

ATTACHMENT 3

Report of Dose to Members of the Public for the Period January - June 2015

ATTACHMENT 3

DOSE TO MEMBERS OF THE PUBLIC FOR THE PERIOD JANUARY - JUNE 2015

The potential maximum doses directly at the discharge points for liquid and gaseous effluent were shown to be less than 10% of the radionuclide concentrations which, if ingested or inhaled continuously over the course of a year, would produce an unacceptable total effective dose equivalent.

In gaseous effluent, this is shown because the isotopic uranium activity was either below the MDA or less than 10% of values listed in 10 CFR 20, Appendix B, Table 2, "Effluent Concentrations – Class D Air" for U234, U235, and U238 (Attachment 2, Tables 2-23, 2-24, 2-25, 2-26, 2-27). The concentrations given in 10 CFR 20, Appendix B, Table 2 are equivalent to the radionuclide concentrations, which, if inhaled continuously over the course of a year, would produce a total effective dose equivalent of 0.05 rem (50 millirem). Because the maximum potential dose directly at the point of gaseous effluent discharge was acceptable, actual dose assessment was not performed.

The concentrations of isotopic uranium in gaseous effluent demonstrate compliance with 10 CFR 20.1301, 10 CFR 20.1302, and 10 CFR 20.1101(d), as described in NRC Regulatory Guide 4.20 "Constraint on Releases of Airborne Radioactive Materials to the Environment for Licensees other than Power Reactors" dated December 1996.

For liquid effluent, the potential maximum dose directly at the point of liquid effluent discharge is shown to be less than 10% of the radionuclide concentrations which, if ingested continuously over the course of a year, would produce an unacceptable total effective dose equivalent. This is shown because the domestic wastewater effluent activity ranged from 0.003% - 0.10% of the value listed in 10 CFR 20, Appendix B, Table 3, "Releases to Sewers" (Attachment 1, Table 1-1). The concentrations in 10 CFR 20, Appendix B, Table 3 are such that if the sewage released by the licensee (URENCO USA) were the only source of water ingested by a reference man during a year, it would result in a committed effective dose equivalent of 0.5 rem (500 millirem). Because the maximum potential dose directly at the point of liquid effluent discharge was acceptable, actual dose assessment was not performed.

The concentrations of isotopic uranium in liquid effluent demonstrate compliance with 10 CFR 20.1301 and 10 CFR 20.1302.

URENCO USA