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

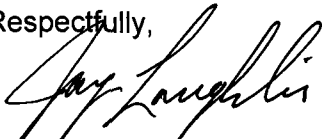
Louisiana Energy Services, LLC
NRC Docket No. 70-3103

Subject: Semi-Annual Radiological Effluent Release Report for July 1, 2012 through
December 31, 2012

Pursuant to 10 CFR 70.59, Louisiana Energy Services, LLC (dba "UUSA") herewith
submits the subject report (see Enclosure). This report specifically addresses release of
licensed, principal radionuclides in liquid or gaseous form to uncontrolled areas.

Should there be any questions concerning this submittal, please contact Harrison Orr,
Environmental Compliance Officer, at 575.394.5102.

Respectfully,



Jay Laughlin
Chief Nuclear Officer and Head of Technical Services

Enclosure: Semi-Annual Radiological Effluent Release Report for July 1, 2012
through December 31, 2012

445501

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ATTACHMENT 1

Report of Radioactivity in Effluent Liquid for the Period July – December 2012

ATTACHMENT 1

REPORT OF RADIOACTIVITY IN EFFLUENT LIQUID FOR THE PERIOD JULY - DECEMBER 2012

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 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 13,000 gallons per day as reported in the URENCO USA Environmental Report, Revision 21 (UUSA, 2012).

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.

All detected radionuclide activity values in domestic wastewater samples collected from Lift Station 1 were below the license basis lower level of detection (LLD) of 3.0E-9 microCuries per milliliter (uCi/mL) (UUSA, 2012).

Detected isotopic uranium in liquid effluent samples from Lift Station 1 were not the result of facility operations when compared to pre-operational data.

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1-1	Lift Station 1 Wastewater Effluent - Radionuclides
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TABLE 1-1

LIFT STATION 1 WASTEWATER EFFLUENT - RADIONUCLIDES

URENCO USA

Lea County, New Mexico

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Radionuclide	Sample Date	Sample Period	Total Time (days)	Results (uCi/mL)	Counting Uncertainty (uCi/mL)	Combined Standard Uncertainty (2-sigma) (uCi/mL)	MDA (uCi/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 - July-December 2012										
Uranium - 234	12/18/12 10:30	7/1/12 - 12/18/12	170	2.70E-09	1.89E-10	3.75E-10	6.15E-11	13,000	2.26E-05	0.09%
Uranium - 235	12/18/12 10:30	7/1/12 - 12/18/12	170	3.32E-11	3.25E-11	3.27E-11	4.58E-11	13,000	Result below MDA	Result below MDA
Uranium - 238	12/18/12 10:30	7/1/12 - 12/18/12	170	1.12E-09	1.21E-10	1.79E-10	2.57E-11	13,000	9.39E-06	0.04%

NOTES:

1. uCi/mL = microCuries per milliliter.
2. MDA = minimum detectable activity.
3. Radionuclides analyzed using method EML U-02 Modified by GEL Laboratories, LLC of Charleston, SC.
4. All detected activity values were less than the facility-required lower level of detection of 3.0E-9 uCi/mL which is less than 2% of the limits in 10 CFR 20 Appendix B Table 3 Effluent Concentrations (Environmental Report, UUSA, 2012).
5. * = Table 3.4-4 "Anticipated Normal Plant Water Consumption" lists "Total Personnel Water Use" as approximately 13,000 gallons per day (UUSA, 2012).
6. 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.
7. Quantity released is calculated if the result equals or exceeds the MDA.

ATTACHMENT 2

Report of Radioactivity in Effluent Air for the Period July – December 2012

ATTACHMENT 2

REPORT OF RADIOACTIVITY IN EFFLUENT AIR FOR THE PERIOD JULY - DECEMBER 2012

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 (uCi/mL) as defined in the Environmental Report Revision 21 (UUSA, 2012) 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
CENTRIFUGE TEST AND POST MORTEM FACILITIES (CTPMF)
EXHAUST FILTRATION SYSTEM GASEOUS EFFLUENT - GROSS ALPHA
URENCO USA
Lea County, New Mexico

Sample ID	Sample Date	Sample Period	Gross Alpha (uCi/mL)				Total CTPM Exhaust Filtration System Flow (m ³)	Quantity Released (Ci)
			Gross Alpha Results	Counting Uncertainty	Combined Standard Uncertainty (2-sigma)	Gross Alpha MDA		
1300-562-1MA1								
1300-562-1MA1 120711	07/11/12 10:09	07/05/12 - 07/11/12	-5.44E-17	3.54E-16	3.54E-16	9.22E-16	2.53E+06	Result below MDA
1300-562-1MA1 120718	07/18/12 13:36	07/11/12 - 07/18/12	1.93E-16	3.28E-16	3.29E-16	6.96E-16	3.05E+06	Result below MDA
1300-562-1MA1 120725	07/25/12 15:25	07/18/12 - 07/25/12	8.79E-17	2.72E-16	2.73E-16	6.33E-16	3.03E+06	Result below MDA
1300-562-1MA1 120801	08/01/12 09:15	07/25/12 - 08/01/12	-9.76E-17	3.02E-16	3.03E-16	8.27E-16	2.89E+06	Result below MDA
1300-562-1MA1 120808	08/08/12 09:08	08/01/12 - 08/08/12	0.00E+00	3.82E-16	3.82E-16	9.16E-16	3.00E+06	Result below MDA
1300-562-1MA1 120815	08/15/12 10:43	08/08/12 - 08/15/12	-4.65E-17	2.41E-16	2.41E-16	6.69E-16	3.00E+06	Result below MDA
1300-562-1MA1 120822	08/22/12 09:09	08/15/12 - 08/22/12	-4.76E-16	4.76E-16	4.79E-16	1.29E-15	2.97E+06	Result below MDA
1300-562-1MA1 1200829	08/29/12 08:11	08/22/12 - 08/29/12	1.48E-16	3.20E-16	3.20E-16	7.08E-16	2.97E+06	Result below MDA
1300-562-1MA1 120905	09/05/12 08:54	08/29/12 - 09/05/12	1.92E-17	3.77E-17	3.77E-17	8.15E-17	3.00E+06	Result below MDA
1300-562-1MA1 120912	09/12/12 13:21	09/05/12 - 09/12/12	-6.77E-16	4.42E-16	4.48E-16	1.28E-15	3.08E+06	Result below MDA
1300-562-1MA1 120919	09/19/12 09:04	09/12/12 - 09/19/12	9.39E-17	2.91E-16	2.91E-16	6.76E-16	2.92E+06	Result below MDA
1300-562-1MA1 120924	09/24/12 11:02	09/19/12 - 09/24/12	1.83E-16	3.58E-16	3.59E-16	7.75E-16	3.03E+06	Result below MDA
1300-562-1MA1 121003	10/03/12 09:19	09/24/12 - 10/03/13	9.71E-17	3.56E-16	3.56E-16	8.23E-16	2.97E+06	Result below MDA
1300-562-1MA1 121010	10/10/12 08:44	10/03/12 - 10/10/12	1.44E-16	1.63E-16	1.64E-16	1.44E-16	2.97E+06	4.29E-10*
1300-562-1MA1 121019	10/19/12 13:01	10/10/12 - 10/19/12	-1.59E-16	2.69E-16	2.70E-16	7.58E-16	3.94E+06	Result below MDA
1300-562-1MA1 121025	10/25/12 09:09	10/19/12 - 10/25/12	-3.54E-16	4.90E-16	4.91E-16	1.34E-15	2.50E+06	Result below MDA
1300-562-1MA1 121031	10/31/12 09:04	10/25/12 - 10/31/12	5.85E-17	2.56E-16	2.56E-16	6.47E-16	2.56E+06	Result below MDA
1300-562-1MA1 121107	11/07/12 10:12	10/31/12 - 11/07/12	-3.60E-16	3.05E-16	3.08E-16	9.45E-16	3.03E+06	Result below MDA
1300-562-1MA1 121114	11/14/12 10:02	11/07/12 - 11/14/12	-8.03E-17	2.49E-16	2.49E-16	6.81E-16	3.43E+06	Result below MDA
1300-562-1MA1 121128	11/28/12 10:10	11/14/12 - 11/28/12	4.78E-17	6.62E-17	6.64E-17	7.17E-17	5.57E+06	Result below MDA
1300-562-1MA1 121205	12/05/12 10:03	11/28/12 - 12/05/12	-4.08E-16	4.26E-16	4.28E-16	1.17E-15	3.00E+06	Result below MDA
1300-562-1MA1 121212	12/12/12 10:38	12/05/12 - 12/12/12	-2.10E-16	2.06E-16	2.07E-16	7.57E-16	3.00E+06	Result below MDA
1300-562-1MA1 121219	12/19/12 10:10	12/12/12 - 12/19/12	-5.20E-16	4.33E-16	4.36E-16	1.27E-15	3.00E+06	Result below MDA
1300-562-1MA1 010213	01/02/13 11:34	12/19/12 - 01/02/13	9.06E-17	1.26E-16	1.26E-16	2.50E-16	6.00E+06	Result below MDA

NOTES:

1. uCi/mL = microCuries per milliliter.
2. m³ = cubic meters.
3. MDA = minimum detectable activity.
4. Gross alpha analyzed using method LANL MLR-100 Modified by Eberline Services of Oak Ridge, TN.
5. All detected activity values were less than the facility-required lower level of detection of 1.0E-14 uCi/mL which is less than 1% of the limits in 10 CFR 20 Appendix B Table 2 Effluent Concentrations (Environmental Report, UUSA, 2012).
6. *Quantity released is calculated if the result equals or exceeds the MDA.

TABLE 2-2
CENTRIFUGE TEST AND POST MORTEM FACILITIES (CTPMF)
EXHAUST FILTRATION SYSTEM GASEOUS EFFLUENT - GROSS BETA
 URENCO USA
 Lea County, New Mexico

Sample ID	Sample Date	Sample Period	Gross Beta (uCi/mL)				Total CTPM Exhaust Filtration System Flow (m ³)	Quantity Released (Ci)
			Gross Beta Results	Counting Uncertainty	Combined Standard Uncertainty (2-sigma)	Gross Beta MDA		
1300-562-1MA1								
1300-562-1MA1 120711	07/11/12 10:09	07/05/12 - 07/11/12	6.04E-16	1.21E-15	1.21E-15	2.51E-15	2.53E+06	Result below MDA
1300-562-1MA1 120718	07/18/12 13:36	07/11/12 - 07/18/12	-1.43E-16	8.86E-16	8.86E-16	1.92E-15	3.05E+06	Result below MDA
1300-562-1MA1 120725	07/25/12 15:25	07/18/12 - 07/25/12	4.31E-16	8.33E-16	8.35E-16	1.74E-15	3.03E+06	Result below MDA
1300-562-1MA1 120801	08/01/12 09:15	07/25/12 - 08/01/12	-5.02E-16	9.56E-16	9.59E-16	2.11E-15	2.89E+06	Result below MDA
1300-562-1MA1 120808	08/08/12 09:08	08/01/12 - 08/08/12	-1.79E-16	8.30E-16	8.30E-16	1.80E-15	3.00E+06	Result below MDA
1300-562-1MA1 120815	08/15/12 10:43	08/08/12 - 08/15/12	5.54E-17	9.24E-16	9.24E-16	1.98E-15	3.00E+06	Result below MDA
1300-562-1MA1 120822	08/22/12 09:09	08/15/12 - 08/22/12	-3.62E-16	9.81E-16	9.83E-16	2.14E-15	2.97E+06	Result below MDA
1300-562-1MA1 120829	08/29/12 08:11	08/22/12 - 08/29/12	0.00E+00	1.05E-15	1.05E-15	2.24E-15	2.97E+06	Result below MDA
1300-562-1MA1 120905	09/05/12 08:54	08/29/12 - 09/05/12	4.65E-17	1.05E-16	1.05E-16	2.19E-16	3.00E+06	Result below MDA
1300-562-1MA1 120912	09/12/12 13:21	09/05/12 - 09/12/12	-7.13E-16	1.04E-15	1.04E-15	2.28E-15	3.08E+06	Result below MDA
1300-562-1MA1 120919	09/19/12 09:04	09/12/12 - 09/19/12	2.71E-17	9.35E-16	9.35E-16	2.00E-15	2.92E+06	Result below MDA
1300-562-1MA1 120924	09/24/12 11:02	09/19/12 - 09/24/12	-7.36E-16	9.80E-16	9.85E-16	2.18E-15	3.03E+06	Result below MDA
1300-562-1MA1 121003	10/03/12 09:19	09/24/12 - 10/03/13	7.98E-16	9.42E-16	9.48E-16	1.92E-15	2.97E+06	Result below MDA
1300-562-1MA1 121010	10/10/12 08:44	10/03/12 - 10/10/12	-5.07E-16	9.72E-16	9.74E-16	2.14E-15	2.97E+06	Result below MDA
1300-562-1MA1 121019	10/19/12 13:01	10/10/12 - 10/19/12	-1.50E-15	8.61E-16	8.85E-16	1.99E-15	3.94E+06	Result below MDA
1300-562-1MA1 121025	10/25/12 09:09	10/19/12 - 10/25/12	5.44E-16	1.15E-15	1.15E-15	2.39E-15	2.50E+06	Result below MDA
1300-562-1MA1 121031	10/31/12 09:04	10/25/12 - 10/31/12	-4.01E-16	1.09E-15	1.09E-15	2.39E-15	2.56E+06	Result below MDA
1300-562-1MA1 121107	11/07/12 10:12	10/31/12 - 11/07/12	5.02E-16	8.27E-16	8.30E-16	1.72E-15	3.03E+06	Result below MDA
1300-562-1MA1 121114	11/14/12 10:02	11/07/12 - 11/14/12	-2.63E-16	7.75E-16	7.76E-16	1.70E-15	3.43E+06	Result below MDA
1300-562-1MA1 121128	11/28/12 10:10	11/14/12 - 11/28/12	-5.59E-17	4.93E-16	4.93E-16	1.06E-15	5.57E+06	Result below MDA
1300-562-1MA1 121205	12/05/12 10:03	11/28/12 - 12/05/12	-8.25E-17	1.08E-15	1.08E-15	2.31E-15	3.00E+06	Result below MDA
1300-562-1MA1 121212	12/12/12 10:38	12/05/12 - 12/12/12	-9.78E-16	1.08E-15	1.09E-15	2.42E-15	3.00E+06	Result below MDA
1300-562-1MA1 121219	12/19/12 10:10	12/12/12 - 12/19/12	-5.93E-17	1.05E-15	1.05E-15	2.25E-15	3.00E+06	Result below MDA
1300-562-1MA1 010213	01/02/13 11:34	12/19/12 - 01/02/13	2.30E-16	4.42E-16	4.43E-16	9.21E-16	6.00E+06	Result below MDA

NOTES:

1. uCi/mL = microCuries per milliliter.
2. m³ = cubic meters.
3. MDA = minimum detectable activity.
4. Gross beta analyzed using method LANL MLR-100 Modified by Eberline Services of Oak Ridge, TN.
5. All detected activity values were less than the minimum procedural lower level of detection of 1.0E-14 uCi/mL for gaseous effluent samples (EN-3-1000-02, UUSA, 2010).
6. Quantity released is calculated if the result equals or exceeds the MDA.

TABLE 2-3
CENTRIFUGE TEST AND POST MORTEM FACILITIES (CTPMF)
EXHAUST FILTRATION SYSTEM GASEOUS EFFLUENT
QUARTERLY FILTER COMPOSITE RESULTS - RADIONUCLIDES
 URENCO USA
 Lea County, New Mexico

Page 1 of 1

Radionuclide / Sample ID	Sample Date	Sample Period	Results (uCi/mL)	Counting Uncertainty (uCi/mL)	Combined Standard Uncertainty (2-sigma) (uCi/mL)	MDA (uCi/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-234 / 1300-562-1MA1 QTR3 2012	10/3/12 9:19 AM	07/05/12 - 10/03/12	5.44E-18	1.66E-17	1.66E-17	3.94E-17	3.84E+07	Result below MDA	Result below MDA
Uranium-234 / 1300-562-1MA1 QTR4 2012	1/2/13 11:34 AM	10/04/12 - 01/02/13	1.99E-17	3.87E-17	3.87E-17	7.24E-17	3.90E+07	Result below MDA	Result below MDA
Uranium-235 / 1300-562-1MA1 QTR3 2012	10/3/12 9:19 AM	07/05/12 - 10/03/12	1.02E-17	2.82E-17	2.82E-17	6.09E-17	3.84E+07	Result below MDA	Result below MDA
Uranium-235 / 1300-562-1MA1 QTR4 2012	1/2/13 11:34 AM	10/04/12 - 01/02/13	-1.61E-17	2.92E-17	2.93E-17	8.94E-17	3.90E+07	Result below MDA	Result below MDA
Uranium-238 / 1300-562-1MA1 QTR3 2012	10/3/12 9:19 AM	07/05/12 - 10/03/12	-1.39E-18	1.63E-17	1.63E-17	3.42E-17	3.84E+07	Result below MDA	Result below MDA
Uranium-238 / 1300-562-1MA1 QTR4 2012	1/2/13 11:34 AM	10/04/12 - 01/02/13	3.26E-17	4.40E-17	4.41E-17	6.90E-17	3.90E+07	Result below MDA	Result below MDA

NOTES:

1. uCi/mL = microCuries per milliliter.
2. m³ = cubic meters.
3. MDA = minimum detectable activity.
4. Radionuclides analyzed using method EML U-02 Modified by Eberline Services of Oak Ridge, TN.
5. All detected activity values were less than the facility-required lower level of detection of 1.0E-14 uCi/mL which is less than 1% of the limits in 10 CFR 20 Appendix B Table 2 Effluent Concentrations (Environmental Report, UUSA, 2012).
6. Quantity released is calculated if the result equals or exceeds the MDA.

TABLE 2-4

SEPARATION BUILDING MODULE-1001 (SBM-1001)
PUMPED EXTRACT GASEOUS EFFLUENT VENT SYSTEM - GROSS ALPHA

URENCO USA

Lea County, New Mexico

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			Gross Alpha (uCi/mL)					
Sample ID	Sample Date	Sample Period	Gross Alpha Results	Counting Uncertainty	Combined Standard Uncertainty (2-sigma)	Gross Alpha MDA	Total Vent System Flow (m ³)	Quantity Released (Ci)
1001-562-1MA1								
1001-562-1MA1 120711	07/11/12 12:39	07/05/12 - 07/11/12	-3.12E-16	3.82E-16	3.83E-16	1.09E-15	9.54E+04	Result below MDA
1001-562-1MA1 120718	07/18/12 10:55	07/11/12 - 07/18/12	-1.43E-16	2.09E-16	2.10E-16	6.88E-16	1.07E+05	Result below MDA
1001-562-1MA1 120725	07/25/12 09:32	07/18/12 - 07/25/12	1.93E-16	3.28E-16	3.28E-16	6.95E-16	1.03E+05	Result below MDA
1001-562-1MA1 120801	08/01/12 10:36	07/25/12 - 08/01/12	-1.90E-16	2.64E-16	2.65E-16	8.07E-16	1.02E+05	Result below MDA
1001-562-1MA1 120808	08/08/12 09:08	08/01/12 - 08/08/12	-2.18E-16	3.31E-16	3.32E-16	9.16E-16	3.00E+06	Result below MDA
1001-562-1MA1 120815	08/15/12 13:26	08/08/12 - 08/15/12	1.39E-16	3.01E-16	3.01E-16	6.67E-16	1.03E+05	Result below MDA
1001-562-1MA1 120822	08/22/12 09:22	08/15/12 - 08/22/12	-7.06E-16	3.87E-16	3.95E-16	1.20E-15	9.94E+04	Result below MDA
1001-562-1MA1 120905	09/05/12 13:14	08/29/12 - 09/05/12	-4.07E-17	2.11E-16	2.11E-16	5.86E-16	1.04E+05	Result below MDA
1001-562-1MA1 120912	09/12/12 14:20	09/05/12 - 09/12/12	7.99E-17	2.93E-16	2.93E-16	6.78E-16	1.05E+05	Result below MDA
1001-562-1MA1 120919	09/19/12 08:51	09/12/12 - 09/19/12	-8.35E-16	4.62E-16	4.70E-16	1.40E-15	9.08E+04	Result below MDA
1001-562-1MA1 120926	09/26/12 10:18	09/19/12 - 09/26/12	0.00E+00	2.47E-16	2.47E-16	6.42E-16	1.01E+05	Result below MDA
1001-562-1MA1 121003	10/03/12 12:47	09/26/12 - 10/03/12	-1.33E-16	2.62E-16	2.62E-16	7.54E-16	1.03E+05	Result below MDA
1001-562-1MA1 121010	10/10/12 13:56	10/03/12 - 10/10/12	-5.20E-16	6.31E-16	6.34E-16	1.65E-15	1.00E+04	Result below MDA
1001-562-1MA1 121017	10/17/12 14:33	10/10/12 - 10/17/12	2.67E-16	3.27E-16	3.28E-16	6.41E-16	9.96E+04	Result below MDA
1001-562-1MA1 121025	10/25/12 12:32	10/17/12 - 10/25/12	-2.74E-16	2.76E-16	2.78E-16	8.22E-16	1.16E+05	Result below MDA
1001-562-1MA1 121031	10/31/12 10:04	10/25/12 - 10/31/12	1.73E-16	4.94E-16	4.94E-16	1.11E-15	8.84E+04	Result below MDA
1001-562-1MA1 121107	11/07/12 13:14	10/31/12 - 11/07/12	-4.54E-16	4.54E-16	4.57E-16	1.23E-15	1.09E+05	Result below MDA
1001-562-1MA1 121114	11/14/12 10:30	11/07/12 - 11/14/12	-4.58E-17	3.91E-16	3.91E-16	9.63E-16	1.03E+05	Result below MDA
1001-562-1MA1 121122	11/22/12 05:30	11/14/12 - 11/22/12	-5.97E-16	4.88E-16	4.92E-16	1.40E-15	1.17E+05	Result below MDA
1001-562-1MA1 121128	11/28/12 11:17	11/22/12 - 11/28/12	-1.87E-16	2.59E-16	2.60E-16	7.93E-16	9.43E+04	Result below MDA
1001-562-1MA1 121205	12/05/12 13:13	11/28/12 - 12/05/12	-2.47E-16	2.55E-16	2.57E-16	7.87E-16	1.07E+05	Result below MDA
1001-562-1MA1 121213	12/13/12 10:45	12/05/12 - 12/13/12	-1.88E-16	3.20E-16	3.21E-16	8.53E-16	1.20E+05	Result below MDA
1001-562-1MA1 121219	12/19/12 10:50	12/13/12 - 12/19/12	-4.36E-17	3.31E-16	3.31E-16	8.34E-16	9.13E+04	Result below MDA
1001-562-1MA1 121226	12/26/12 11:18	12/19/12 - 12/26/12	0.00E+00	2.51E-16	2.51E-16	6.26E-16	1.07E+05	Result below MDA
1001-562-1MA1 010213	01/02/13 10:05	12/26/12 - 01/02/13	1.48E-16	2.91E-16	2.91E-16	6.29E-16	1.05E+05	Result below MDA

TABLE 2-4
SEPARATION BUILDING MODULE-1001 (SBM-1001)
PUMPED EXTRACT GASEOUS EFFLUENT VENT SYSTEM - GROSS ALPHA
 URENCO USA
 Lea County, New Mexico

			Gross Alpha (uCi/mL)					
Sample ID	Sample Date	Sample Period	Gross Alpha Results	Counting Uncertainty	Combined Standard Uncertainty (2-sigma)	Gross Alpha MDA	Total Vent System Flow (m ³)	Quantity Released (Ci)
1001-562-1MA2								
1001-562-1MA2 120711	07/11/12 12:33	07/05/12 - 07/11/12	1.70E-16	3.68E-16	3.69E-16	8.16E-16	9.99E+04	Result below MDA
1001-562-1MA2 120718	07/18/12 10:51	07/11/12 - 07/18/12	-4.73E-17	2.45E-16	2.45E-16	6.81E-16	1.12E+05	Result below MDA
1001-562-1MA2 120725	07/25/12 09:23	07/18/12 - 07/25/12	0.00E+00	2.63E-16	2.63E-16	6.82E-16	1.09E+05	Result below MDA
1001-562-1MA2 120801	08/01/12 10:39	07/25/12 - 08/01/12	-9.69E-17	3.00E-16	3.00E-16	8.21E-16	1.09E+05	Result below MDA
1001-562-1MA2 120808	08/08/12 11:51	08/01/12 - 08/08/12	-2.62E-16	3.21E-16	3.22E-16	9.19E-16	1.08E+05	Result below MDA
1001-562-1MA2 120815	08/15/12 13:47	08/08/12 - 08/15/12	9.23E-17	2.86E-16	2.86E-16	6.64E-16	1.09E+05	Result below MDA
1001-562-1MA2 120822	08/22/12 09:14	08/15/12 - 08/22/12	-9.94E-17	3.08E-16	3.08E-16	8.42E-16	1.05E+05	Result below MDA
1001-562-1MA2 120829	08/29/12 10:36	08/22/12 - 08/29/12	-1.81E-16	3.55E-16	3.56E-16	9.52E-16	1.09E+05	Result below MDA
1001-562-1MA2 120905	09/05/12 13:06	08/29/12 - 09/05/12	1.41E-16	3.05E-16	3.06E-16	6.76E-16	1.10E+05	Result below MDA
1001-562-1MA2 120919	09/19/12 08:59	09/12/12 - 09/19/12	-7.54E-16	4.52E-16	4.59E-16	1.37E-15	9.35E+04	Result below MDA
1001-562-1MA2 120926	09/26/12 09:02	09/19/12 - 09/26/12	-1.55E-16	2.26E-16	2.27E-16	7.43E-16	1.05E+05	Result below MDA
1001-562-1MA2 121003	10/03/12 10:25	09/26/12 - 10/03/12	0.00E+00	3.22E-16	3.22E-16	8.04E-16	1.08E+05	Result below MDA
1001-562-1MA2 121010*	10/10/12 13:59	10/03/12 - 10/10/12	-6.65E-08*	1.01E-07*	1.01E-07*	2.80E-07*	---	---

NOTES:

1. uCi/mL = microCuries per milliliter.
2. m³ = cubic meters.
3. MDA = minimum detectable activity.
4. Gross alpha analyzed using method LANL MLR-100 Modified by Eberline Services of Oak Ridge, TN.
5. All detected activity values were less than the facility-required lower level of detection of 1.0E-14 uCi/mL which is less than 1% of the limits in 10 CFR 20 Appendix B Table 2 Effluent Concentrations (Environmental Report, UUSA, 2012).
6. A gross alpha result from 1001-562-1MA2 on 9/12/12 is unavailable.
7. * = Result units in microCuries per sample because of an equipment malfunction on 10/4/2012. A quantity released has not been calculated. The monitor has not been repaired.
8. Quantity released is calculated if the result equals or exceeds the MDA.

TABLE 2-5

SEPARATION BUILDING MODULE-1001 (SBM-1001)

PUMPED EXTRACT GASEOUS EFFLUENT VENT SYSTEM - GROSS BETA

URENCO USA

Lea County, New Mexico

Page 1 of 2

			Gross Beta (uCi/mL)					
Sample ID	Sample Date	Sample Period	Gross Beta Results	Counting Uncertainty	Combined Standard Uncertainty (2-sigma)	Gross Beta MDA	Total Vent System Flow (m ³)	Quantity Released (Ci)
1001-562-1MA1								
1001-562-1MA1 120711	07/11/12 12:39	07/05/12 - 07/11/12	-8.15E-16	1.07E-15	1.07E-15	2.38E-15	9.54E+04	Result below MDA
1001-562-1MA1 120718	07/18/12 10:55	07/11/12 - 07/18/12	-1.69E-16	8.74E-16	8.75E-16	1.90E-15	1.07E+05	Result below MDA
1001-562-1MA1 120725	07/25/12 09:32	07/18/12 - 07/25/12	1.20E-15	9.56E-16	9.70E-16	1.91E-15	1.03E+05	Result below MDA
1001-562-1MA1 120801	08/01/12 10:36	07/25/12 - 08/01/12	3.26E-16	9.77E-16	9.78E-16	2.05E-15	1.02E+05	Result below MDA
1001-562-1MA1 120808	08/08/12 09:08	08/01/12 - 08/08/12	3.08E-16	8.58E-16	8.59E-16	1.80E-15	3.00E+06	Result below MDA
1001-562-1MA1 120815	08/15/12 13:26	08/08/12 - 08/15/12	1.38E-16	9.26E-16	9.26E-16	1.97E-15	1.03E+05	Result below MDA
1001-562-1MA1 120822	08/22/12 09:22	08/15/12 - 08/22/12	-9.04E-16	8.79E-16	8.87E-16	1.99E-15	9.94E+04	Result below MDA
1001-562-1MA1 120905	09/05/12 13:14	08/29/12 - 09/05/12	-5.92E-16	8.34E-16	8.38E-16	1.85E-15	1.04E+05	Result below MDA
1001-562-1MA1 120912	09/12/12 14:20	09/05/12 - 09/12/12	-2.73E-16	8.37E-16	8.38E-16	1.82E-15	1.05E+05	Result below MDA
1001-562-1MA1 120919	09/19/12 08:51	09/12/12 - 09/19/12	-5.46E-16	1.14E-15	1.14E-15	2.48E-15	9.08E+04	Result below MDA
1001-562-1MA1 120926	09/26/12 10:18	09/19/12 - 09/26/12	5.93E-16	9.19E-16	9.23E-16	1.90E-15	1.01E+05	Result below MDA
1001-562-1MA1 121003	10/03/12 12:47	09/26/12 - 10/03/12	-3.45E-16	9.74E-16	9.75E-16	2.12E-15	1.03E+05	Result below MDA
1001-562-1MA1 121010	10/10/12 13:56	10/03/12 - 10/10/12	-1.40E-15	1.02E-15	1.04E-15	2.39E-15	1.00E+04	Result below MDA
1001-562-1MA1 121017	10/17/12 14:33	10/10/12 - 10/17/12	6.37E-16	8.52E-16	8.57E-16	1.75E-15	9.96E+04	Result below MDA
1001-562-1MA1 121025	10/25/12 12:32	10/17/12 - 10/25/12	-2.29E-16	7.43E-16	7.43E-16	1.62E-15	1.16E+05	Result below MDA
1001-562-1MA1 121031	10/31/12 10:04	10/25/12 - 10/31/12	-1.12E-15	1.44E-15	1.44E-15	3.16E-15	8.84E+04	Result below MDA
1001-562-1MA1 121107	11/07/12 13:14	10/31/12 - 11/07/12	-1.06E-15	9.38E-16	9.49E-16	2.12E-15	1.09E+05	Result below MDA
1001-562-1MA1 121114	11/14/12 10:30	11/07/12 - 11/14/12	-1.57E-16	9.56E-16	9.57E-16	2.06E-15	1.03E+05	Result below MDA
1001-562-1MA1 121122	11/22/12 05:30	11/14/12 - 11/22/12	-9.54E-16	1.24E-15	1.24E-15	2.73E-15	1.17E+05	Result below MDA
1001-562-1MA1 121128	11/28/12 11:17	11/22/12 - 11/28/12	-2.71E-16	8.65E-16	8.66E-16	1.89E-15	9.43E+04	Result below MDA
1001-562-1MA1 121205	12/05/12 13:13	11/28/12 - 12/05/12	-1.06E-15	8.73E-16	8.85E-16	1.98E-15	1.07E+05	Result below MDA
1001-562-1MA1 121213	12/13/12 10:45	12/05/12 - 12/13/12	-6.83E-16	7.59E-16	7.65E-16	1.70E-15	1.20E+05	Result below MDA
1001-562-1MA1 121219	12/19/12 10:50	12/13/12 - 12/19/12	-3.72E-16	7.55E-16	7.57E-16	1.68E-15	9.13E+04	Result below MDA
1001-562-1MA1 121226	12/26/12 11:18	12/19/12 - 12/26/12	-1.11E-16	6.95E-16	6.96E-16	1.51E-15	1.07E+05	Result below MDA
1001-562-1MA1 010213	01/02/13 10:05	12/26/12 - 01/02/13	-3.26E-16	7.33E-16	7.35E-16	1.61E-15	1.05E+05	Result below MDA

TABLE 2-5
SEPARATION BUILDING MODULE-1001 (SBM-1001)
PUMPED EXTRACT GASEOUS EFFLUENT VENT SYSTEM - GROSS BETA
 URENCO USA
 Lea County, New Mexico

			Gross Beta (uCi/mL)					
Sample ID	Sample Date	Sample Period	Gross Beta Results	Counting Uncertainty	Combined Standard Uncertainty (2-sigma)	Gross Beta MDA	Total Vent System Flow (m ³)	Quantity Released (Ci)
1001-562-1MA2								
1001-562-1MA2 120711	07/11/12 12:33	07/05/12 - 07/11/12	9.81E-16	1.10E-15	1.11E-15	2.24E-15	9.99E+04	Result below MDA
1001-562-1MA2 120718	07/18/12 10:51	07/11/12 - 07/18/12	3.07E-16	8.94E-16	8.95E-16	1.88E-15	1.12E+05	Result below MDA
1001-562-1MA2 120725	07/25/12 09:23	07/18/12 - 07/25/12	1.12E-15	9.36E-16	9.49E-16	1.87E-15	1.09E+05	Result below MDA
1001-562-1MA2 120801	08/01/12 10:39	07/25/12 - 08/01/12	-4.15E-16	9.54E-16	9.56E-16	2.09E-15	1.09E+05	Result below MDA
1001-562-1MA2 120808	08/08/12 11:51	08/01/12 - 08/08/12	2.83E-16	8.60E-16	8.61E-16	1.81E-15	1.08E+05	Result below MDA
1001-562-1MA2 120815	08/15/12 13:47	08/08/12 - 08/15/12	4.12E-16	9.38E-16	9.40E-16	1.96E-15	1.09E+05	Result below MDA
1001-562-1MA2 120822	08/22/12 09:14	08/15/12 - 08/22/12	-4.26E-16	9.78E-16	9.80E-16	2.14E-15	1.05E+05	Result below MDA
1001-562-1MA2 120829	08/29/12 10:36	08/22/12 - 08/29/12	2.66E-17	8.75E-16	8.75E-16	1.87E-15	1.09E+05	Result below MDA
1001-562-1MA2 120905	09/05/12 13:06	08/29/12 - 09/05/12	5.60E-17	9.34E-16	9.34E-16	2.00E-15	1.10E+05	Result below MDA
1001-562-1MA2 120919	09/19/12 08:59	09/12/12 - 09/19/12	-1.47E-15	9.76E-16	9.96E-16	2.26E-15	9.35E+04	Result below MDA
1001-562-1MA2 120926	09/26/12 09:02	09/19/12 - 09/26/12	-6.00E-17	1.09E-15	1.09E-15	2.34E-15	1.05E+05	Result below MDA
1001-562-1MA2 121003	10/03/12 10:25	09/26/12 - 10/03/12	-1.21E-15	9.45E-16	9.59E-16	2.16E-15	1.08E+05	Result below MDA
1001-562-1MA2 121010*	10/10/12 13:59	10/03/12 - 10/10/12	2.73E-07*	2.91E-07*	2.93E-07*	5.92E-07*	---	---

NOTES:

1. uCi/mL = microCuries per milliliter.
2. m³ = cubic meters.
3. MDA = minimum detectable activity.
4. Gross beta analyzed using method LANL MLR-100 Modified by Eberline Services of Oak Ridge, TN.
5. All detected activity values were less than the minimum procedural lower level of detection of 1.0E-14 uCi/mL for gaseous effluent samples (EN-3-1000-02, UUSA, 2010).
6. A gross beta result from 1001-562-1MA2 on 9/12/12 is unavailable.
7. * = Result units in microCuries per sample because of an equipment malfunction on 10/4/2012. A quantity released has not been calculated. The monitor has not been repaired.
8. Quantity released is calculated if the result equals or exceeds the MDA.

TABLE 2-6
SEPARATION BUILDING MODULE-1001 (SBM-1001)
PUMPED EXTRACT GASEOUS EFFLUENT VENT SYSTEM
QUARTERLY FILTER COMPOSITE RESULTS - RADIONUCLIDES
 URENCO USA
 Lea County, New Mexico

Radionuclide / Sample ID	Sample Date	Sample Period	Results (uCi/mL)	Counting Uncertainty	Combined Standard Uncertainty (2-sigma)	MDA (uCi/mL)	Total Flow (m ³)	Quantity Released (Ci)	% of Table 2 of Appendix B to 10 CFR Part 20 Values
1001-562-1MA1									
Uranium-234 / 1001-562-1MA1 QTR3 2012	10/3/12 12:47 PM	07/05/12 - 10/03/12	2.27E-17	4.89E-17	4.89E-17	9.49E-17	4.12E+06	Result below MDA	Result below MDA
Uranium-234 / 1001-562-1MA1 QTR4 2012	1/2/13 10:05 AM	10/04/12 - 01/02/13	3.59E-17	7.49E-17	7.50E-17	1.43E-16	1.36E+06	Result below MDA	Result below MDA
Uranium-235 / 1001-562-1MA1 QTR3 2012	10/3/12 12:47 PM	07/05/12 - 10/03/12	-1.74E-17	3.63E-17	3.64E-17	1.08E-16	4.12E+06	Result below MDA	Result below MDA
Uranium-235 / 1001-562-1MA1 QTR4 2012	1/2/13 10:05 AM	10/04/12 - 01/02/13	-1.92E-17	4.74E-17	4.74E-17	1.35E-16	1.36E+06	Result below MDA	Result below MDA
Uranium-238 / 1001-562-1MA1 QTR3 2012	10/3/12 12:47 PM	07/05/12 - 10/03/12	-4.48E-17	3.60E-17	3.62E-17	1.38E-16	4.12E+06	Result below MDA	Result below MDA
Uranium-238 / 1001-562-1MA1 QTR4 2012	1/2/13 10:05 AM	10/04/12 - 01/02/13	4.85E-17	6.27E-17	6.28E-17	8.71E-17	1.36E+06	Result below MDA	Result below MDA
1001-562-1MA2									
Uranium-234 / 1001-562-1MA2 QTR3 2012	10/3/12 10:25	07/05/12 - 10/03/12	1.72E-17	2.63E-17	2.63E-17	3.92E-17	1.28E+06	Result below MDA	Result below MDA
Uranium-234 / 1001-562-1MA2 QTR4 2012*	10/10/12 13:59	10/04/12 - 01/02/13	9.77E-08*	1.11E-07*	1.12E-07*	1.47E-07*	---	---	---
Uranium-235 / 1001-562-1MA2 QTR3 2012	10/3/12 10:25	07/05/12 - 10/03/12	-1.97E-18	2.30E-17	2.30E-17	4.83E-17	1.28E+06	Result below MDA	Result below MDA
Uranium-235 / 1001-562-1MA2 QTR4 2012*	10/10/12 13:59	10/04/12 - 01/02/13	0.00E-00*	9.58E-08*	9.58E-08*	2.07E-07*	---	---	---
Uranium-238 / 1001-562-1MA2 QTR3 2012	10/3/12 10:25	07/05/12 - 10/03/12	4.39E-18	2.75E-17	2.75E-17	6.64E-17	1.28E+06	Result below MDA	Result below MDA
Uranium-238 / 1001-562-1MA2 QTR4 2012*	10/10/12 13:59	10/04/12 - 01/02/13	1.84E-08*	5.62E-08*	5.63E-08*	1.33E-07*	---	---	---

NOTES:

1. uCi/mL = microCuries per milliliter.
2. m³ = cubic meters.
3. MDA = minimum detectable activity.
4. Radionuclides analyzed using method EML U-02 Modified by Eberline Services of Oak Ridge, TN.
5. All detected activity values were less than the facility-required lower level of detection of 1.0E-14 uCi/mL which is less than 1% of the limits in 10 CFR 20 Appendix B Table 2 Effluent Concentrations (Environmental Report, UUSA, 2012).
6. * = Result units in microCuries per sample because of an equipment malfunction on 10/4/2012. A quantity released has not been calculated. The monitor has not been repaired.
7. Quantity released is calculated if the result equals or exceeds the MDA.

TABLE 2-7
SEPARATION BUILDING MODULE-1003 (SBM-1003)
PUMPED EXTRACT GASEOUS EFFLUENT VENT SYSTEM - GROSS ALPHA
URENCO USA
Lea County, New Mexico

			Gross Alpha (uCi/mL)					
Sample ID	Sample Date	Sample Period	Gross Alpha Results	Counting Uncertainty	Combined Standard Uncertainty (2-sigma)	Gross Alpha MDA	Total Vent System Flow (m ³)	Quantity Released (Ci)
1003-562-1MA1								
1003-562-1MA1 120912	09/12/12 14:49	09/05/12 - 09/12/12	-4.07E-16	5.28E-16	5.29E-16	1.38E-15	8.28E+04	Result below MDA
1003-562-1MA1 120919	09/19/12 10:14	09/12/12 - 09/19/12	0.00E+00	3.66E-16	3.66E-16	9.14E-16	9.03E+04	Result below MDA
1003-562-1MA1 120926	09/26/12 12:35	09/19/12 - 09/26/12	-8.29E-16	4.58E-16	4.67E-16	1.39E-15	9.27E+04	Result below MDA
1003-562-1MA1 121003	10/03/12 13:11	09/26/12 - 10/03/12	4.98E-17	2.93E-16	2.93E-16	7.17E-16	9.91E+04	Result below MDA
1003-562-1MA1 121010	10/10/12 15:14	10/03/12 - 10/10/12	-1.52E-16	2.98E-16	2.98E-16	8.58E-16	1.02E+05	Result below MDA
1003-562-1MA1 121017	10/17/12 15:16	10/10/12 - 10/17/12	0.00E+00	4.02E-16	4.02E-16	9.79E-16	9.94E+04	Result below MDA
1003-562-1MA1 121025	10/25/12 13:16	10/17/12 - 10/25/12	2.98E-16	3.23E-16	3.24E-16	6.12E-16	1.09E+05	Result below MDA
1003-562-1MA1 121031	10/31/12 10:38	10/25/12 - 10/31/12	-4.65E-16	3.95E-16	3.98E-16	1.22E-15	8.71E+04	Result below MDA
1003-562-1MA1 121107	11/07/12 13:49	10/31/12 - 11/07/12	-2.86E-16	2.95E-16	2.97E-16	9.11E-16	9.11E+04	Result below MDA
1003-562-1MA1 121114	11/14/12 10:51	11/07/12 - 11/14/12	-6.91E-16	5.00E-16	5.06E-16	1.45E-15	8.60E+04	Result below MDA
1003-562-1MA1 121121	11/21/12 12:20	11/14/12 - 11/21/12	0.00E+00	4.51E-16	4.51E-16	1.08E-15	9.35E+04	Result below MDA
1003-562-1MA1 121128	11/28/12 11:38	11/21/12 - 11/28/12	-3.48E-16	4.87E-16	4.88E-16	1.28E-15	9.27E+04	Result below MDA
1003-562-1MA1 121205	12/05/12 14:13	11/28/12 - 12/05/12	1.94E-16	3.80E-16	3.81E-16	8.22E-16	9.62E+04	Result below MDA
1003-562-1MA1 121212	12/12/12 11:04	12/05/12 - 12/12/12	-1.97E-16	3.34E-16	3.35E-16	9.41E-16	1.13E+05	Result below MDA
1003-562-1MA1 121226	12/26/12 11:52	12/12/12 - 12/26/12	-3.32E-17	3.12E-16	3.12E-16	7.54E-16	1.87E+05	Result below MDA
1003-562-1MA1 010213	01/02/13 10:24	12/26/12 - 01/02/13	6.00E-16	3.40E-16	3.46E-16	1.50E-16	9.96E+04	5.98E-11
1003-562-1MA2								
1003-562-1MA2 120905	09/05/12 15:36	07/22/12 - 09/05/12	2.08E-14	5.28E-14	5.28E-14	1.18E-13	4.63E+05	Result below MDA
1003-562-1MA2 120912	09/12/12 14:47	09/05/12 - 09/12/12	-1.29E-16	3.03E-16	3.03E-16	8.19E-16	9.16E+04	Result below MDA
1003-562-1MA2 120919	09/19/12 10:03	09/12/12 - 09/19/12	-1.70E-16	2.89E-16	2.89E-16	8.13E-16	9.88E+04	Result below MDA
1003-562-1MA2 120926	09/26/12 12:42	09/19/12 - 09/26/12	-1.22E-16	2.40E-16	2.40E-16	6.91E-16	1.02E+05	Result below MDA
1003-562-1MA2 121003	10/03/12 13:16	09/26/12 - 10/03/12	-8.80E-17	2.73E-16	2.73E-16	7.46E-16	1.06E+05	Result below MDA
1003-562-1MA2 121010	10/10/12 15:23	10/03/12 - 10/10/12	-2.86E-16	3.66E-16	3.68E-16	9.92E-16	1.09E+05	Result below MDA
1003-565-1MA2 121017	10/17/12 15:12	10/10/12 - 10/17/12	-1.14E-15	5.12E-16	5.27E-16	1.62E-15	1.06E+05	Result below MDA
1003-565-1MA2 121031	10/31/12 10:41	10/17/12 - 10/31/12	-1.52E-16	1.53E-16	1.54E-16	4.56E-16	2.09E+05	Result below MDA
1003-562-1MA2 121107	11/07/12 13:54	10/31/12 - 11/07/12	-2.15E-16	1.29E-16	1.31E-16	3.90E-16	3.08E+05	Result below MDA
1003-562-1MA2 121114	11/14/12 13:51	11/07/12 - 11/14/12	-5.98E-16	4.27E-16	4.32E-16	1.22E-15	9.59E+04	Result below MDA
1003-562-1MA2 121121	11/21/12 12:11	11/14/12 - 11/21/12	-3.07E-16	3.54E-16	3.56E-16	9.97E-16	9.91E+04	Result below MDA
1003-562-1MA2 121128	11/28/12 11:41	11/21/12 - 11/28/12	-2.58E-16	2.66E-16	2.68E-16	8.21E-16	9.99E+04	Result below MDA
1003-562-1MA2 121205	12/05/12 14:08	11/28/12 - 12/05/12	-5.71E-16	3.75E-16	3.80E-16	1.13E-15	1.03E+05	Result below MDA
1003-562-1MA2 121213	12/13/12 11:05	12/05/12 - 12/13/12	-4.03E-17	2.62E-16	2.62E-16	6.83E-16	1.20E+05	Result below MDA

TABLE 2-7
SEPARATION BUILDING MODULE-1003 (SBM-1003)
PUMPED EXTRACT GASEOUS EFFLUENT VENT SYSTEM - GROSS ALPHA
 URENCO USA
 Lea County, New Mexico

Sample ID	Sample Date	Sample Period	Gross Alpha (uCi/mL)				Total Vent System Flow (m ³)	Quantity Released (Ci)
			Gross Alpha Results	Counting Uncertainty	Combined Standard Uncertainty (2-sigma)	Gross Alpha MDA		
1003-562-1MA2 121219	12/19/12 11:34	12/13/12 - 12/19/12	-4.68E-16	4.44E-16	4.47E-16	1.26E-15	9.05E+04	Result below MDA
1003-562-1MA2 121226	12/26/12 11:57	12/19/12 - 12/26/12	-4.32E-16	3.52E-16	3.56E-16	1.01E-15	1.09E+05	Result below MDA
1003-562-1MA2 010213	01/02/13 10:30	12/26/12 - 01/02/13	-8.63E-17	2.67E-16	2.67E-16	7.31E-16	1.06E+05	Result below MDA

NOTES:

1. uCi/mL = microCuries per milliliter.
2. m³ = cubic meters.
3. MDA = minimum detectable activity.
4. Gross alpha analyzed using method LANL MLR-100 Modified by Eberline Services of Oak Ridge, TN.
5. All detected activity values were less than the facility-required lower level of detection of 1.0E-14 uCi/mL which is less than 1% of the limits in 10 CFR 20 Appendix B Table 2 Effluent Concentrations (Environmental Report, UUSA, 2012).
6. Quantity released is calculated if the result equals or exceeds the MDA.

TABLE 2-8
SEPARATION BUILDING MODULE-1003 (SBM-1003)
PUMPED EXTRACT GASEOUS EFFLUENT VENT SYSTEM - GROSS BETA
URENCO USA
Lea County, New Mexico

Sample ID	Sample Date	Sample Period	Gross Beta (uCi/mL)				Total Vent System Flow (m ³)	Quantity Released (Ci)
			Gross Beta Results	Counting Uncertainty	Combined Standard Uncertainty (2-sigma)	Gross Beta MDA		
1003-562-1MA1								
1003-562-1MA1 120912	09/12/12 14:49	09/05/12 - 09/12/12	-1.07E-15	1.01E-15	1.02E-15	2.29E-15	8.28E+04	Result below MDA
1003-562-1MA1 120919	09/19/12 10:14	09/12/12 - 09/19/12	-1.52E-15	1.08E-15	1.10E-15	2.48E-15	9.03E+04	Result below MDA
1003-562-1MA1 120926	09/26/12 12:35	09/19/12 - 09/26/12	-2.03E-15	1.06E-15	1.09E-15	2.47E-15	9.27E+04	Result below MDA
1003-562-1MA1 121003	10/03/12 13:11	09/26/12 - 10/03/12	4.32E-16	1.01E-15	1.02E-15	2.12E-15	9.91E+04	Result below MDA
1003-562-1MA1 121010	10/10/12 15:14	10/03/12 - 10/10/12	-1.45E-16	1.00E-15	1.00E-15	2.16E-15	1.02E+05	Result below MDA
1003-562-1MA1 121017	10/17/12 15:16	10/10/12 - 10/17/12	-1.81E-16	9.48E-16	9.49E-16	2.06E-15	9.94E+04	Result below MDA
1003-562-1MA1 121025	10/25/12 13:16	10/17/12 - 10/25/12	3.55E-16	7.98E-16	7.99E-16	1.67E-15	1.09E+05	Result below MDA
1003-562-1MA1 121031	10/31/12 10:38	10/25/12 - 10/31/12	-6.81E-16	1.08E-15	1.09E-15	2.41E-15	8.71E+04	Result below MDA
1003-562-1MA1 121107	11/07/12 13:49	10/31/12 - 11/07/12	-1.01E-15	1.18E-15	1.19E-15	2.61E-15	9.11E+04	Result below MDA
1003-562-1MA1 121114	11/14/12 10:51	11/07/12 - 11/14/12	-7.73E-16	1.12E-15	1.13E-15	2.48E-15	8.60E+04	Result below MDA
1003-562-1MA1 121121	11/21/12 12:20	11/14/12 - 11/21/12	-4.39E-16	1.06E-15	1.06E-15	2.32E-15	9.35E+04	Result below MDA
1003-562-1MA1 121128	11/28/12 11:38	11/21/12 - 11/28/12	-1.74E-15	1.09E-15	1.11E-15	2.50E-15	9.27E+04	Result below MDA
1003-562-1MA1 121205	12/05/12 14:13	11/28/12 - 12/05/12	1.12E-16	9.20E-16	9.20E-16	1.96E-15	9.62E+04	Result below MDA
1003-562-1MA1 121212	12/12/12 11:04	12/05/12 - 12/12/12	-1.82E-15	1.01E-15	1.04E-15	2.37E-15	1.13E+05	Result below MDA
1003-562-1MA1 121226	12/26/12 11:52	12/12/12 - 12/26/12	-5.85E-16	6.72E-16	6.77E-16	1.51E-15	1.87E+05	Result below MDA
1003-562-1MA1 010213	01/02/13 10:24	12/26/12 - 01/02/13	2.64E-16	9.79E-16	9.80E-16	2.07E-15	9.96E+04	Result below MDA
1003-562-1MA2								
1003-562-1MA2 120905	09/05/12 15:36	07/22/12 - 09/05/12	1.59E-13	1.37E-13	1.39E-13	2.75E-13	4.63E+05	Result below MDA
1003-562-1MA2 120912	09/12/12 14:47	09/05/12 - 09/12/12	3.32E-16	8.91E-16	8.92E-16	1.87E-15	9.16E+04	Result below MDA
1003-562-1MA2 120919	09/19/12 10:03	09/12/12 - 09/19/12	-8.00E-17	8.70E-16	8.70E-16	1.88E-15	9.88E+04	Result below MDA
1003-562-1MA2 120926	09/26/12 12:42	09/19/12 - 09/26/12	1.59E-15	7.73E-16	8.03E-16	1.45E-15	1.02E+05	1.62E-10
1003-562-1MA2 121003	10/03/12 13:16	09/26/12 - 10/03/12	-6.20E-16	9.16E-16	9.20E-16	2.02E-15	1.06E+05	Result below MDA
1003-562-1MA2 121010	10/10/12 15:23	10/03/12 - 10/10/12	-1.91E-16	8.62E-16	8.63E-16	1.86E-15	1.09E+05	Result below MDA
1003-562-1MA2 121017	10/17/12 15:12	10/10/12 - 10/17/12	-6.83E-16	1.13E-15	1.14E-15	2.49E-15	1.06E+05	Result below MDA
1003-562-1MA2 121031	10/31/12 10:41	10/17/12 - 10/31/12	7.63E-17	4.55E-16	4.55E-16	9.66E-16	2.09E+05	Result below MDA
1003-562-1MA2 121107	11/07/12 13:54	10/31/12 - 11/07/12	-3.73E-16	2.96E-16	3.00E-16	6.73E-16	3.08E+05	Result below MDA
1003-562-1MA2 121114	11/14/12 13:51	11/07/12 - 11/14/12	-8.28E-16	8.39E-16	8.47E-16	1.90E-15	9.59E+04	Result below MDA
1003-562-1MA2 121121	11/21/12 12:11	11/14/12 - 11/21/12	-3.40E-16	8.73E-16	8.74E-16	1.91E-15	9.91E+04	Result below MDA
1003-562-1MA2 121128	11/28/12 11:41	11/21/12 - 11/28/12	-6.19E-16	8.66E-16	8.70E-16	1.94E-15	9.99E+04	Result below MDA
1003-562-1MA2 121205	12/05/12 14:08	11/28/12 - 12/05/12	-5.52E-16	8.61E-16	8.64E-16	1.91E-15	1.03E+05	Result below MDA
1003-562-1MA2 121213	12/13/12 11:05	12/05/12 - 12/13/12	-3.40E-16	8.07E-16	8.08E-16	1.76E-15	1.20E+05	Result below MDA
1003-562-1MA2 121219	12/19/12 11:34	12/13/12 - 12/19/12	-7.30E-16	1.07E-15	1.08E-15	2.38E-15	9.05E+04	Result below MDA
1003-562-1MA2 121226	12/26/12 11:57	12/19/12 - 12/26/12	-1.35E-15	8.37E-16	8.58E-16	1.94E-15	1.09E+05	Result below MDA
1003-562-1MA2 010213	01/02/13 10:30	12/26/12 - 01/02/13	1.25E-16	8.14E-16	8.14E-16	1.73E-15	1.06E+05	Result below MDA

NOTES:

1. uCi/mL = microCuries per milliliter.
2. m³ = cubic meters.
3. MDA = minimum detectable activity.
4. Gross beta analyzed using method LANL MLR-100 Modified by Eberline Services of Oak Ridge, TN.
5. All detected activity values were less than the minimum procedural lower level of detection of 1.0E-14 uCi/mL for gaseous effluent samples (EN-3-1000-02, UUSA, 2010).
6. Quantity released is calculated if the result equals or exceeds the MDA.

TABLE 2-9
SEPARATION BUILDING MODULE-1003 (SBM-1003)
PUMPED EXTRACT GASEOUS EFFLUENT VENT SYSTEM
QUARTERLY FILTER COMPOSITE RESULTS - RADIONUCLIDES
 URENCO USA
 Lea County, New Mexico

Radionuclide / Sample ID	Sample Date	Sample Period	Results (uCi/mL)	Counting Uncertainty	Combined Standard Uncertainty (2-sigma)	MDA (uCi/mL)	Total Flow (m ³)	Quantity Released (Ci)	% of Table 2 of Appendix B to 10 CFR Part 20 Values
1003-562-1MA1									
Uranium-234 / 1003-562-1MA1 QTR3 2012	10/03/12 13:11	07/05/12 - 10/03/12	8.96E-17	1.37E-16	1.37E-16	2.04E-16	3.65E+05	Result below MDA	Result below MDA
Uranium-234 / 1003-562-1MA1 QTR4 2012	1/2/13 10:24	10/04/12 - 01/02/13	-6.07E-18	1.85E-17	1.85E-17	5.03E-17	1.26E+06	Result below MDA	Result below MDA
Uranium-235 / 1003-562-1MA1 QTR3 2012	10/03/12 13:11	07/05/12 - 10/03/12	0.00E+00	1.67E-16	1.67E-16	3.62E-16	3.65E+05	Result below MDA	Result below MDA
Uranium-235 / 1003-562-1MA1 QTR4 2012	1/2/13 10:24	10/04/12 - 01/02/13	-1.87E-18	2.19E-17	2.19E-17	4.59E-17	1.26E+06	Result below MDA	Result below MDA
Uranium-238 / 1003-562-1MA1 QTR3 2012	10/03/12 13:11	07/05/12 - 10/03/12	-8.28E-18	9.69E-17	9.69E-17	2.03E-16	3.65E+05	Result below MDA	Result below MDA
Uranium-238 / 1003-562-1MA1 QTR4 2012	1/2/13 10:24	10/04/12 - 01/02/13	1.91E-17	3.10E-17	3.10E-17	5.32E-17	1.26E+06	Result below MDA	Result below MDA
1003-562-1MA2									
Uranium-234 / 1003-562-1MA2 QTR3 2012	10/03/12 13:16	07/05/12 - 10/03/12	6.91E-17	8.94E-17	8.95E-17	1.24E-16	8.62E+05	Result below MDA	Result below MDA
Uranium-234 / 1003-562-1MA2 QTR4 2012	1/2/13 10:30	10/04/12 - 01/02/13	7.11E-18	1.71E-17	1.71E-17	3.44E-17	1.56E+06	Result below MDA	Result below MDA
Uranium-235 / 1003-562-1MA2 QTR3 2012	10/03/12 13:16	07/05/12 - 10/03/12	6.41E-17	1.09E-16	1.09E-16	1.92E-16	8.62E+05	Result below MDA	Result below MDA
Uranium-235 / 1003-562-1MA2 QTR4 2012	1/2/13 10:30	10/04/12 - 01/02/13	8.95E-19	1.25E-17	1.25E-17	3.57E-17	1.56E+06	Result below MDA	Result below MDA
Uranium-238 / 1003-562-1MA2 QTR3 2012	10/03/12 13:16	07/05/12 - 10/03/12	-1.32E-17	5.29E-17	5.29E-17	1.36E-16	8.62E+05	Result below MDA	Result below MDA
Uranium-238 / 1003-562-1MA2 QTR4 2012	1/2/13 10:30	10/04/12 - 01/02/13	8.82E-18	1.35E-17	1.35E-17	2.01E-17	1.56E+06	Result below MDA	Result below MDA

NOTES:

1. uCi/mL = microCuries per milliliter.
2. m³ = cubic meters.
3. MDA = minimum detectable activity.
4. Radionuclides analyzed using method EML U-02 Modified by Eberline Services of Oak Ridge, TN.
5. All detected activity values were less than the facility-required lower level of detection of 1.0E-14 uCi/mL which is less than 1% of the limits in 10 CFR 20 Appendix B Table 2 Effluent Concentrations (Environmental Report, UUSA, 2012).
6. Quantity released is calculated if the result equals or exceeds the MDA.

TABLE 2-10
SEPARATION BUILDING MODULE-1100 (SBM-1100)
PUMPED EXTRACT GASEOUS EFFLUENT VENT SYSTEM - GROSS ALPHA
URENCO USA
Lea County, New Mexico

Sample ID	Sample Date	Sample Period	Gross Alpha (uCi/mL)				Total Vent System Flow (m³)	Quantity Released (Ci)
			Gross Alpha Results	Counting Uncertainty	Combined Standard Uncertainty (2-sigma)	Gross Alpha MDA		
1100-562-1MA1								
1100-562-1MA1 121017	10/17/12 16:07	10/11/12 - 10/17/12	-1.33E-16	3.98E-16	3.98E-16	1.01E-15	1.52E+05	Result below MDA
1100-562-1MA1 121031	10/31/12 12:03	10/17/12 - 10/31/12	-1.13E-16	1.57E-16	1.58E-16	4.30E-16	3.46E+05	Result below MDA
1100-562-1MA1 121107	11/07/12 14:23	10/31/12 - 11/07/12	-2.16E-16	2.23E-16	2.24E-16	6.88E-16	1.82E+05	Result below MDA
1100-562-1MA1 121114	11/14/12 11:06	11/07/12 - 11/14/12	-3.61E-16	3.32E-16	3.34E-16	9.32E-16	1.77E+05	Result below MDA
1100-562-1MA1 121121	11/21/12 13:26	11/14/12 - 11/21/12	3.79E-17	2.68E-16	2.68E-16	6.42E-16	1.82E+05	Result below MDA
1100-562-1MA1 121128	11/28/12 11:52	11/21/12 - 11/28/12	-2.31E-16	2.38E-16	2.39E-16	7.34E-16	1.74E+05	Result below MDA
1100-562-1MA1 121205	12/05/12 13:48	11/28/12 - 12/05/12	-4.31E-16	3.15E-16	3.18E-16	9.27E-16	1.81E+05	Result below MDA
1100-562-1MA1 121213	12/13/12 11:21	12/05/12 - 12/13/12	-6.94E-17	2.15E-16	2.15E-16	5.89E-16	1.96E+05	Result below MDA
1100-562-1MA1 121219	12/19/12 11:16	12/13/12 - 12/19/12	-6.06E-16	4.45E-16	4.50E-16	1.34E-15	4.58E+06	Result below MDA
1100-562-1MA1 121226	12/26/12 14:22	12/19/12 - 12/26/12	-3.84E-16	3.14E-16	3.17E-16	9.01E-16	1.75E+05	Result below MDA
1100-562-1MA1 010213	01/02/13 11:18	12/26/12 - 01/02/13	3.95E-17	1.73E-16	1.73E-16	4.37E-16	1.70E+05	Result below MDA
1100-562-1MA2								
1100-562-1MA2 121018	10/18/12 12:59	10/11/12 - 10/18/12	-6.65E-16	4.81E-16	4.86E-16	1.39E-15	1.76E+05	Result below MDA
1100-562-1MA2 121031	10/31/12 11:56	10/18/12 - 10/31/12	-5.40E-16	2.42E-16	2.49E-16	7.65E-16	3.27E+05	Result below MDA
1100-562-1MA2 121107	11/07/12 14:26	10/31/12 - 11/07/12	-1.34E-16	3.60E-16	3.60E-16	9.37E-16	1.89E+05	Result below MDA
1100-562-1MA2 121114	11/14/12 11:14	11/07/12 - 11/14/12	8.88E-17	2.13E-16	2.13E-16	4.91E-16	1.82E+05	Result below MDA
1100-562-1MA2 121121	11/21/12 13:30	11/14/12 - 11/21/12	-3.78E-17	2.87E-16	2.87E-16	7.23E-16	1.87E+05	Result below MDA
1100-562-1MA2 121128	11/28/12 11:50	11/21/12 - 11/28/12	5.27E-17	2.31E-16	2.31E-16	5.83E-16	1.78E+05	Result below MDA
1100-562-1MA2 121205	12/05/12 13:43	11/28/12 - 12/05/12	-8.82E-17	2.12E-16	2.12E-16	6.35E-16	1.87E+05	Result below MDA
1100-562-1MA2 121213	12/13/12 11:23	12/05/12 - 12/13/12	4.16E-17	2.44E-16	2.45E-16	5.99E-16	2.04E+05	Result below MDA
1100-562-1MA2 121219	12/19/12 11:11	12/13/12 - 12/19/12	-8.51E-16	4.73E-16	4.82E-16	1.41E-15	1.54E+05	Result below MDA
1100-562-1MA2 121226	12/26/12 14:24	12/19/12 - 12/26/12	-9.40E-17	3.45E-16	3.45E-16	8.98E-16	1.82E+05	Result below MDA
1100-562-1MA2 010213	01/02/13 11:23	12/26/12 - 01/02/13	5.19E-16	3.39E-16	3.44E-16	1.73E-16	1.76E+05	9.13E-11
1100-562-2MA1								
1100-562-2MA1 121018	10/18/12 13:01	10/11/12 - 10/18/12	-3.61E-16	3.64E-16	3.67E-16	1.08E-15	5.12E+06	Result below MDA
1100-562-2MA1 121031	10/31/12 11:49	10/18/12 - 10/31/12	-2.47E-16	2.53E-16	2.54E-16	6.68E-16	9.59E+06	Result below MDA
1100-562-2MA1 121107	11/07/12 14:29	10/31/12 - 11/07/12	-1.42E-16	1.42E-16	1.43E-16	3.85E-16	1.39E+07	Result below MDA
1100-562-2MA1 121114	11/14/12 11:19	11/07/12 - 11/14/12	-1.21E-15	4.74E-16	4.92E-16	1.49E-15	5.30E+06	Result below MDA
1100-562-2MA1 121121	11/21/12 13:34	11/14/12 - 11/21/12	-4.51E-16	4.33E-16	4.36E-16	1.17E-15	5.25E+06	Result below MDA
1100-562-2MA1 121128	11/28/12 11:49	11/21/12 - 11/28/12	-3.27E-16	3.20E-16	3.22E-16	9.29E-16	5.17E+06	Result below MDA
1100-562-2MA1 121205	12/05/12 13:39	11/28/12 - 12/05/12	-2.15E-16	2.79E-16	2.80E-16	8.21E-16	5.25E+06	Result below MDA
1100-562-2MA1 121213	12/13/12 11:25	12/05/12 - 12/13/12	-4.18E-16	3.06E-16	3.09E-16	9.00E-16	5.89E+06	Result below MDA
1100-562-2MA1 121219	12/19/12 11:06	12/13/12 - 12/19/12	-5.52E-17	3.59E-16	3.59E-16	9.36E-16	4.53E+06	Result below MDA
1100-562-2MA1 121226	12/26/12 14:27	12/19/12 - 12/26/12	-4.23E-16	3.51E-16	3.54E-16	1.03E-15	5.25E+06	Result below MDA
1100-562-2MA1 010213	01/02/13 11:26	12/26/12 - 01/02/13	-4.53E-17	2.95E-16	2.95E-16	7.69E-16	5.17E+02	Result below MDA

TABLE 2-10
SEPARATION BUILDING MODULE-1100 (SBM-1100)
PUMPED EXTRACT GASEOUS EFFLUENT VENT SYSTEM - GROSS ALPHA
URENCO USA
Lea County, New Mexico

			Gross Alpha (uCi/mL)					
Sample ID	Sample Date	Sample Period	Gross Alpha Results	Counting Uncertainty	Combined Standard Uncertainty (2-sigma)	Gross Alpha MDA	Total Vent System Flow (m ³)	Quantity Released (Ci)
1100-562-2MA2								
1100-562-2MA2 121017	10/17/12 15:59	10/11/12 - 10/17/12	-5.61E-17	3.65E-16	3.65E-16	9.52E-16	4.61E+06	Result below MDA
1100-562-2MA2 121031	10/31/12 11:45	10/17/12 - 10/31/12	-9.68E-17	1.34E-16	1.35E-16	4.10E-16	1.06E+07	Result below MDA
1100-562-2MA2 121107	11/07/12 14:31	10/31/12 - 11/07/12	2.92E-16	2.34E-16	2.36E-16	1.46E-16	4.42E+06	1.29E-09
1100-562-2MA2 121114	11/14/12 11:23	11/07/12 - 11/14/12	-2.92E-16	3.02E-16	3.04E-16	9.31E-16	5.28E+06	Result below MDA
1100-562-2MA2 121121	11/21/12 13:55	11/14/12 - 11/21/12	-4.97E-17	2.58E-16	2.58E-16	7.16E-16	5.38E+06	Result below MDA
1100-562-2MA2 121128	11/28/12 11:48	11/21/12 - 11/28/12	-8.78E-16	5.26E-16	5.35E-16	1.54E-15	5.30E+02	Result below MDA
1100-562-2MA2 121205	12/05/12 13:34	11/28/12 - 12/05/12	1.95E-16	1.91E-16	1.93E-16	1.47E-16	5.33E+06	1.04E-09
1100-562-2MA2 121213	12/13/12 11:27	12/05/12 - 12/13/12	8.23E-17	1.98E-16	1.98E-16	4.55E-16	6.00E+06	Result below MDA
1100-562-2MA2 121219	12/19/12 11:00	12/13/12 - 12/19/12	-2.93E-16	3.81E-16	3.82E-16	1.12E-15	4.55E+06	Result below MDA
1100-562-2MA2 121226	12/26/12 14:30	12/19/12 - 12/26/12	4.95E-17	1.53E-16	1.53E-16	3.56E-16	1.00E+07	Result below MDA
1100-562-2MA2 010213	01/02/13 11:30	12/26/12 - 01/02/13	1.11E-16	1.54E-16	1.54E-16	1.66E-16	5.30E+02	Result below MDA

NOTES:

1. uCi/mL = microCuries per milliliter.
2. m³ = cubic meters.
3. MDA = minimum detectable activity.
4. Gross alpha analyzed using method LANL MLR-100 Modified by Eberline Services of Oak Ridge, TN
5. All detected activity values were less than the facility-required lower level of detection of 1.0E-14 uCi/mL which is less than 1% of the limits in 10 CFR 20 Appendix B Table 2 Effluent Concentrations (Environmental Report, UUSA, 2012).
6. Quantity released is calculated if the result equals or exceeds the MDA.

TABLE 2-11

SEPARATION BUILDING MODULE-1100 (SBM-1100)

PUMPED EXTRACT GASEOUS EFFLUENT VENT SYSTEM - GROSS BETA

URENCO USA

Lea County, New Mexico

Sample ID	Sample Date	Sample Period	Gross Beta (uCi/mL)				Total Vent System Flow (m ³)	Quantity Released (Ci)
			Gross Beta Results	Counting Uncertainty	Combined Standard Uncertainty (2-sigma)	Gross Beta MDA		
1100-562-1MA1								
1100-562-1MA1 121017	10/17/12 16:07	10/11/12 - 10/17/12	-1.58E-16	8.93E-16	8.93E-16	1.93E-15	1.52E+05	Result below MDA
1100-562-1MA1 121031	10/31/12 12:03	10/17/12 - 10/31/12	-2.25E-17	3.84E-16	3.84E-16	8.25E-16	3.46E+05	Result below MDA
1100-562-1MA1 121107	11/07/12 14:23	10/31/12 - 11/07/12	-4.29E-16	7.31E-16	7.34E-16	1.62E-15	1.82E+05	Result below MDA
1100-562-1MA1 121114	11/14/12 11:06	11/07/12 - 11/14/12	-2.16E-17	7.33E-16	7.33E-16	1.57E-15	1.77E+05	Result below MDA
1100-562-1MA1 121121	11/21/12 13:26	11/14/12 - 11/21/12	-3.84E-16	7.56E-16	7.58E-16	1.66E-15	1.82E+05	Result below MDA
1100-562-1MA1 121128	11/28/12 11:52	11/21/12 - 11/28/12	-4.34E-16	7.82E-16	7.84E-16	1.73E-15	1.74E+05	Result below MDA
1100-562-1MA1 121205	12/05/12 13:48	11/28/12 - 12/05/12	-3.66E-16	7.09E-16	7.11E-16	1.57E-15	1.81E+05	Result below MDA
1100-562-1MA1 121213	12/13/12 11:21	12/05/12 - 12/13/12	-4.50E-16	6.87E-16	6.90E-16	1.52E-15	1.96E+05	Result below MDA
1100-562-1MA1 121219	12/19/12 11:16	12/13/12 - 12/19/12	-7.73E-16	1.14E-15	1.14E-15	2.52E-15	4.58E+06	Result below MDA
1100-562-1MA1 121226	12/26/12 14:22	12/19/12 - 12/26/12	-7.36E-16	7.70E-16	7.77E-16	1.72E-15	1.75E+05	Result below MDA
1100-562-1MA1 010213	01/02/13 11:18	12/26/12 - 01/02/13	-3.30E-16	7.75E-16	7.76E-16	1.70E-15	1.70E+05	Result below MDA
1100-562-1MA2								
1100-562-1MA2 121018	10/18/12 12:59	10/11/12 - 10/18/12	-1.24E-15	1.06E-15	1.07E-15	2.40E-15	1.76E+05	Result below MDA
1100-562-1MA2 121031	10/31/12 11:56	10/18/12 - 10/31/12	-3.08E-16	5.35E-16	5.37E-16	1.18E-15	3.27E+05	Result below MDA
1100-562-1MA2 121107	11/07/12 14:26	10/31/12 - 11/07/12	-1.61E-16	8.07E-16	8.07E-16	1.76E-15	1.89E+05	Result below MDA
1100-562-1MA2 121114	11/14/12 11:14	11/07/12 - 11/14/12	-4.87E-16	7.97E-16	8.00E-16	1.78E-15	1.82E+05	Result below MDA
1100-562-1MA2 121121	11/21/12 13:30	11/14/12 - 11/21/12	-4.55E-17	7.33E-16	7.33E-16	1.58E-15	1.87E+05	Result below MDA
1100-562-1MA2 121128	11/28/12 11:50	11/21/12 - 11/28/12	-1.06E-15	9.33E-16	9.45E-16	2.15E-15	1.78E+05	Result below MDA
1100-562-1MA2 121205	12/05/12 13:43	11/28/12 - 12/05/12	-1.78E-16	8.36E-16	8.36E-16	1.82E-15	1.87E+05	Result below MDA
1100-562-1MA2 121213	12/13/12 11:23	12/05/12 - 12/13/12	4.75E-17	7.65E-16	7.65E-16	1.64E-15	2.04E+05	Result below MDA
1100-562-1MA2 121219	12/19/12 11:11	12/13/12 - 12/19/12	3.89E-16	8.89E-16	8.90E-16	1.86E-15	1.54E+05	Result below MDA
1100-562-1MA2 121226	12/26/12 14:24	12/19/12 - 12/26/12	-9.24E-16	8.97E-16	9.06E-16	2.04E-15	1.82E+05	Result below MDA
1100-562-1MA2 010213	01/02/13 11:23	12/26/12 - 01/02/13	1.35E-16	1.12E-15	1.12E-15	2.39E-15	1.76E+05	Result below MDA
1100-562-2MA1								
1100-562-2MA1 121018	10/18/12 13:01	10/11/12 - 10/18/12	-6.04E-17	1.07E-15	1.07E-15	2.29E-15	5.12E+06	Result below MDA
1100-562-2MA1 121031	10/31/12 11:49	10/18/12 - 10/31/12	-5.24E-16	4.53E-16	4.59E-16	1.03E-15	9.59E+06	Result below MDA
1100-562-2MA1 121107	11/07/12 14:29	10/31/12 - 11/07/12	-2.79E-16	2.97E-16	3.00E-16	6.65E-16	1.39E+07	Result below MDA
1100-562-2MA1 121114	11/14/12 11:19	11/07/12 - 11/14/12	2.41E-16	9.75E-16	9.76E-16	2.06E-15	5.30E+06	Result below MDA
1100-562-2MA1 121121	11/21/12 13:34	11/14/12 - 11/21/12	-7.47E-16	8.08E-16	8.15E-16	1.82E-15	5.25E+06	Result below MDA
1100-562-2MA1 121128	11/28/12 11:49	11/21/12 - 11/28/12	-3.16E-16	8.14E-16	8.15E-16	1.78E-15	5.17E+06	Result below MDA
1100-562-2MA1 121205	12/05/12 13:39	11/28/12 - 12/05/12	-4.85E-16	8.74E-16	8.76E-16	1.94E-15	5.25E+06	Result below MDA
1100-562-2MA1 121213	12/13/12 11:25	12/05/12 - 12/13/12	-3.13E-16	6.91E-16	6.92E-16	1.52E-15	5.89E+06	Result below MDA
1100-562-2MA1 121219	12/19/12 11:06	12/13/12 - 12/19/12	-8.71E-16	1.08E-15	1.09E-15	2.42E-15	4.53E+06	Result below MDA
1100-562-2MA1 121226	12/26/12 14:27	12/19/12 - 12/26/12	-3.46E-16	8.85E-16	8.87E-16	1.93E-15	5.25E+06	Result below MDA
1100-562-2MA1 010213	01/02/13 11:26	12/26/12 - 01/02/13	4.59E-16	8.22E-16	8.24E-16	1.71E-15	5.17E+02	Result below MDA

TABLE 2-11
SEPARATION BUILDING MODULE-1100 (SBM-1100)
PUMPED EXTRACT GASEOUS EFFLUENT VENT SYSTEM - GROSS BETA
 URENCO USA
 Lea County, New Mexico

			Gross Beta (uCi/mL)					
Sample ID	Sample Date	Sample Period	Gross Beta Results	Counting Uncertainty	Combined Standard Uncertainty (2-sigma)	Gross Beta MDA	Total Vent System Flow (m³)	Quantity Released (Ci)
1100-562-2MA2								
1100-562-2MA2 121017	10/17/12 15:59	10/11/12 - 10/17/12	5.69E-16	1.02E-15	1.02E-15	2.12E-15	4.61E+06	Result below MDA
1100-562-2MA2 121031	10/31/12 11:45	10/17/12 - 10/31/12	-2.16E-16	4.63E-16	4.64E-16	1.02E-15	1.06E+07	Result below MDA
1100-562-2MA2 121107	11/07/12 14:31	10/31/12 - 11/07/12	1.28E-15	9.29E-16	9.45E-16	1.83E-15	4.42E+06	Result below MDA
1100-562-2MA2 121114	11/14/12 11:23	11/07/12 - 11/14/12	-1.15E-15	1.15E-15	1.16E-15	2.56E-15	5.28E+06	Result below MDA
1100-562-2MA2 121121	11/21/12 13:55	11/14/12 - 11/21/12	-2.89E-17	9.80E-16	9.80E-16	2.10E-15	5.38E+06	Result below MDA
1100-562-2MA2 121128	11/28/12 11:48	11/21/12 - 11/28/12	-1.00E-15	1.05E-15	1.06E-15	2.36E-15	5.30E+02	Result below MDA
1100-562-2MA2 121205	12/05/12 13:34	11/28/12 - 12/05/12	3.06E-17	9.92E-16	9.92E-16	2.13E-15	5.33E+06	Result below MDA
1100-562-2MA2 121213	12/13/12 11:27	12/05/12 - 12/13/12	1.01E-15	8.37E-16	8.49E-16	1.67E-15	6.00E+06	Result below MDA
1100-562-2MA2 121219	12/19/12 11:00	12/13/12 - 12/19/12	5.29E-16	1.08E-15	1.09E-15	2.26E-15	4.55E+06	Result below MDA
1100-562-2MA2 121226	12/26/12 14:30	12/19/12 - 12/26/12	1.30E-16	5.02E-16	5.02E-16	1.06E-15	1.00E+07	Result below MDA
1100-562-2MA2 010213	01/02/13 11:30	12/26/12 - 01/02/13	-5.56E-16	1.09E-15	1.09E-15	2.42E-15	5.30E+02	Result below MDA

NOTES:

1. uCi/mL = microCuries per milliliter.
2. m³ = cubic meters.
3. MDA = minimum detectable activity.
4. Gross beta analyzed using method LANL MLR-100 Modified by Eberline Services of Oak Ridge, TN
5. All detected activity values were less than the minimum procedural lower level of detection of 1.0E-14 uCi/mL for gaseous effluent samples (EN-3-1000-02, UUSA, 2010)
6. Quantity released is calculated if the result equals or exceeds the MDA.

TABLE 2-12
SEPARATION BUILDING MODULE-1100 (SBM-1100)
PUMPED EXTRACT GASEOUS EFFLUENT VENT SYSTEM
QUARTERLY FILTER COMPOSITE RESULTS - RADIONUCLIDES
 URENCO USA
 Lea County, New Mexico

Radionuclide / Sample ID	Sample Date	Sample Period	Results (uCi/mL)	Counting Uncertainty	Combined Standard Uncertainty (2-sigma)	MDA (uCi/mL)	Total Flow (m ³)	Quantity Released (Ci)	% of Table 2 of Appendix B to 10 CFR Part 20 Values
1100-562-1MA1									
Uranium-234 / 1100-562-1MA1 QTR4 2012	1/2/13 11:18	10/10/12 - 01/02/13	6.59E-18	1.94E-17	1.94448E-17	4.24E-17	6.51E+06	Result below MDA	Result below MDA
Uranium-235 / 1100-562-1MA1 QTR4 2012	1/2/13 11:18	10/10/12 - 01/02/13	1.78E-17	2.89E-17	2.89227E-17	4.97E-17	6.51E+06	Result below MDA	Result below MDA
Uranium-238 / 1100-562-1MA1 QTR4 2012	1/2/13 11:18	10/10/12 - 01/02/13	-1.02E-17	1.48E-17	1.47916E-17	4.76E-17	6.51E+06	Result below MDA	Result below MDA
1100-562-1MA2									
Uranium-234 / 1100-562-1MA2 QTR4 2012	1/2/13 11:23	10/10/12 - 01/02/13	3.35E-17	3.42E-17	3.42474E-17	4.59E-17	2.14E+06	Result below MDA	Result below MDA
Uranium-235 / 1100-562-1MA2 QTR4 2012	1/2/13 11:23	10/10/12 - 01/02/13	2.85E-17	3.43E-17	3.43384E-17	4.84E-17	2.14E+06	Result below MDA	Result below MDA
Uranium-238 / 1100-562-1MA2 QTR4 2012	1/2/13 11:23	10/10/12 - 01/02/13	1.49E-17	2.41E-17	2.41642E-17	4.15E-17	2.14E+06	Result below MDA	Result below MDA
1100-562-2MA1									
Uranium-234 / 1100-562-2MA1 QTR4 2012	1/2/13 11:26	10/10/12 - 01/02/13	1.58E-17	2.36E-17	2.36292E-17	3.84E-17	6.52E+07	Result below MDA	Result below MDA
Uranium-235 / 1100-562-2MA1 QTR4 2012	1/2/13 11:26	10/10/12 - 01/02/13	-4.28E-18	1.72E-17	1.71532E-17	4.40E-17	6.52E+07	Result below MDA	Result below MDA
Uranium-238 / 1100-562-2MA1 QTR4 2012	1/2/13 11:26	10/10/12 - 01/02/13	3.32E-18	1.38E-17	1.38445E-17	3.55E-17	6.52E+07	Result below MDA	Result below MDA
1100-562-2MA2									
Uranium-234 / 1100-562-2MA2 QTR4 2012	1/2/13 11:30	10/10/12 - 01/02/13	9.80E-18	1.86E-17	1.8661E-17	3.45E-17	5.61E+07	Result below MDA	Result below MDA
Uranium-235 / 1100-562-2MA2 QTR4 2012	1/2/13 11:30	10/10/12 - 01/02/13	8.11E-18	2.25E-17	2.25107E-17	4.86E-17	5.61E+07	Result below MDA	Result below MDA
Uranium-238 / 1100-562-2MA2 QTR4 2012	1/2/13 11:30	10/10/12 - 01/02/13	2.40E-17	2.60E-17	2.6032E-17	3.13E-17	5.61E+07	Result below MDA	Result below MDA

NOTES:

1. uCi/mL = microCuries per milliliter.
2. m³ = cubic meters.
3. MDA = minimum detectable activity.
4. Radionuclides analyzed using method EML U-02 Modified by Eberline Services of Oak Ridge, TN.
5. All detected activity values were less than the facility-required lower level of detection of 1.0E-14 uCi/mL which is less than 1% of the limits in 10 CFR 20 Appendix B Table 2 Effluent Concentrations (Environmental Report, UUSA, 2012).
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 July - December 2012

ATTACHMENT 3

DOSE TO MEMBERS OF THE PUBLIC FOR THE PERIOD JULY - DECEMBER 2012

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 2-3, 2-6, 2-9, 2-12). 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 0.04% - 0.09% 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.