



COPY

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Symbol: EPC-DO: 17-008

LAUR: 17-30014
 Date: JAN 17 2017

Locates Action No.: N/A

Mr. Ralph Gruebel
 Manager, Compliance and Enforcement Section
 New Mexico Environment Department
Air Quality Bureau
525 Camino de los Marquez, Suite 1
 Santa Fe, NM 87505-1816

Received

JAN 18 2017

Air Quality Bureau

Subject: IDEA ID 856 – Los Alamos National Laboratory 2016 Fourth Quarter Beryllium Emissions Report October 1–December 31, 2016, Air Quality Permit No. 634-M2

Dear Mr. Gruebel:

Attached is a copy of the sampling data for the **fourth quarter of calendar year 2016**. The attached emissions data were obtained from the continuous air monitor installed on the main exhaust stack at the **Beryllium Technology Facility (BTF)** at Los Alamos National Laboratory (LANL). This submission of the quarterly emissions data, collected from this source, is required by permit condition 5.f of the New Mexico Environment Department (NMED) New Source Review (NSR) Air Quality Permit #634-M2 dated October 30, 1998. This quarterly report is transmitted within the allowed 60 days after the end of the calendar quarter, as specified in NSR permit and incorporated in Title V permit P100-R2.

Air Quality Permit #634-M2 condition #2 requires that the beryllium stack emissions from the BTF shall not exceed 0.35 grams in a 24-hour time period and shall not exceed 3.5 grams per year. For this reporting period, the current quarterly data and the total emissions for calendar year 2016 were obtained from the attached data sheet and summarized below.

Reporting Period	Description of Data	Beryllium Emission Rate	NSR 634-M2/ Title V P100R2 Permit Limit
2016Q4	Highest daily emission rate	5.78×10^{-5} gm/24 hours	0.35 gm/ 24 hours
2016Q4	Total amount for 2016Q4	1.74×10^{-3} gm	3.5 gm/year
2016Q1Q2Q3Q4	Total amount for 2016 All Quarters	5.19×10^{-2} gm	3.5 gm/year

JAN 17 2017

Also, on the attached data sheet, you will note that the last data point for calendar year 2016 is December 22, 2016. This is due to the laboratory closure over the holidays during which time the facility did not process material. Stack samples are not collected during this time and are allowed to remain in the sample collector for two weeks. This two-week sample will be reported as part of the first quarter 2017 emission report for this facility. Based on the attached information, LANL is in compliance with condition #2 of NMED Air Quality Permit #634-M2.

If you have questions or comments regarding this submittal or would like to discuss this in greater detail, please feel free to contact Steven L. Story at (505) 665-2169 or Brinda Ramanathan at (505) 665-8879.



Anthony R. Grieggs (for AG)
Group Leader
Environmental Compliance Programs
Los Alamos National Security, LLC

ARG:SLS:BR/am

Enclosure: 1. Beryllium 2016 Stack Emissions

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Version 05.02.13

NMED USE ONLY	
TEMPO	

REPORTING SUBMITTAL FORM

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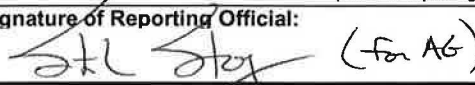
PLEASE NOTE: ® - Indicates required field

SECTION I - GENERAL COMPANY AND FACILITY INFORMATION									
A. ® Company Name: Los Alamos National Security, LLC					D. ® Facility Name: Los Alamos National Laboratory				
B.1 ® Company Address: P.O Box 1663 MS K490					E.1 ® Facility Address: Same as Company				
B.2 ® City: Los Alamos		B.3 ® State: NM	B.4 ® Zip: 87545		E.2 ® City:		E.3 ® State:	E.4 ® Zip:	
C.1 ® Company Environmental Contact: Anthony R. Grieggs			C.2 ® Title: Group Leader, EPC-CP		F.1 ® Facility Contact: Steven L. Story		F.2 ® Title: Team Leader, Air Quality Compliance		
C.3 ® Phone Number: (505) 665-0451			C.4 ® Fax Number: (505) 665-8858		F.3 ® Phone Number: (505) 665-2169		F.4 ® Fax Number: (505) 665-8858		
C.5 ® Email Address: grieggst@lanl.gov					F.5 ® Email Address: story@lanl.gov				
G. Responsible Official: (Title V only): Michael T. Brandt			H. Title: Associate Director, ADESH		I. Phone Number: (505) 667-4218		J. Fax Number: (505) 665-3811		
K. ® AI Number: 856		L. Title V Permit Number: P100-R2		M. Title V Permit Issue Date: 02/27/2015		N. NSR Permit Number: 634-M2		O. NSR Permit Issue Date: 10/30/1998	
P. Reporting Period: From: October 1, 2016 To: December 31, 2016									

SECTION II - TYPE OF SUBMITTAL (check one that applies)

A. ☐	Title V Annual Compliance Certification	Permit Condition(s):	Description:	
B. ☐	Title V Semi-annual Monitoring Report	Permit Condition(s):	Description:	
C. ☐	NSPS Requirement (40CFR60)	Regulation:	Section(s):	Description:
D. ☐	MACT Requirement (40CFR63)	Regulation:	Section(s):	Description:
E. ☐	NMAC Requirement (20.2.xx) or NESHAP Requirement (40CFR61)	Regulation:	Section(s):	Description:
F. ☒	Permit or Notice of Intent (NOI) Requirement	Permit No. ☒ or NOI No. ☐ 634-M2	Condition(s): 5.f	Description: 2016Q4 Report containing beryllium emissions data from the continuous air monitor of the exhaust stack, due within 60 days after calendar quarter.
G. ☐	Requirement of an Enforcement Action	NOV No. ☐ or SFO No. ☐ or CD No. ☐ or Other ☐	Section(s):	Description:

SECTION IV - CERTIFICATION

After reasonable inquiry, I <u>Anthony R. Grieggs</u> certify that the information in this submittal is true, accurate and complete. (name of reporting official)			
® Signature of Reporting Official:  (for AG)	® Title: Group Leader, EPC-CP	® Date: 1/13/2017	® Responsible Official for Title V? ☐ Yes ☒ No

Reviewed By: _____

Date Reviewed: _____

ENCLOSURE 1

Beryllium 2016 Stack Emissions

EPC-DO-17-008

LA-UR-17-20044

Date: JAN 17 2017

Los Alamos National Laboratory
TA-03-0141 Beryllium 2016 Stack Emissions

TA-03-0141**StackID: 03014101**

Sampling dates			Emissions (g)	
			Weekly(1)	Daily(2)
			<i>Sum of weekly results must be <3.5 g/year</i>	<i>Cannot Exceed 0.35 g/day</i>
Period #: 1				
12/24/2015	-	01/07/2016	< 1.22E-04	< 8.74E-06
01/07/2016	-	01/14/2016	< 1.22E-04	< 1.73E-05
01/14/2016	-	01/21/2016	< 1.22E-04	< 1.74E-05
01/21/2016	-	01/28/2016	< 1.22E-04	< 1.77E-05
01/28/2016	-	02/04/2016	< 1.22E-04	< 1.74E-05
Period 1 Sum: < 6.10E-04				
Period #: 2				
02/04/2016	-	02/11/2016	< 1.22E-04	< 1.75E-05
02/11/2016	-	02/18/2016	< 1.22E-04	< 1.73E-05
02/18/2016	-	02/25/2016	< 1.22E-04	< 1.75E-05
02/25/2016	-	03/03/2016	< 1.22E-04	< 1.76E-05
Period 2 Sum: < 4.88E-04				
Period #: 3				
03/03/2016	-	03/10/2016	< 1.22E-04	< 1.74E-05
03/10/2016	-	03/17/2016	< 1.22E-04	< 1.73E-05
03/17/2016	-	03/24/2016	< 1.22E-04	< 1.76E-05
03/24/2016	-	03/31/2016	< 1.22E-04	< 1.74E-05
Period 3 Sum: < 4.88E-04				
1st Quarter Total: < 1.59E-03			^aHDER < 1.77E-05	

^a HDER = Highest Daily Emission Rate
1/3/2017

Los Alamos National Laboratory
TA-03-0141 Beryllium 2016 Stack Emissions

TA-03-0141**StackID: 03014101****Sampling dates****Emissions (g)****Weekly(1)****Daily(2)**

*Sum of weekly
results must be
<3.5 g/year*

*Cannot Exceed 0.35
g/day*

Period #: 4

03/31/2016	-	04/07/2016
04/07/2016	-	04/14/2016
04/14/2016	-	04/21/2016
04/21/2016	-	04/28/2016

< 1.22E-04	< 1.75E-05
< 1.22E-04	< 1.75E-05
< 1.22E-04	< 1.75E-05
< 1.22E-04	< 1.74E-05

Period 4 Sum: < 4.88E-04**Period #: 5**

04/28/2016	-	05/05/2016
05/05/2016	-	05/12/2016
05/12/2016	-	05/19/2016
05/19/2016	-	05/26/2016
05/26/2016	-	06/02/2016

< 1.22E-04	< 1.74E-05
< 1.22E-04	< 1.74E-05
< 1.22E-04	< 1.75E-05
< 1.22E-04	< 1.74E-05
< 1.22E-04	< 1.75E-05

Period 5 Sum: < 6.10E-04**Period #: 6**

06/02/2016	-	06/09/2016
06/09/2016	-	06/16/2016
06/16/2016	-	06/23/2016
06/23/2016	-	06/30/2016

< 1.22E-04	< 1.74E-05
< 1.22E-04	< 1.75E-05
< 1.22E-04	< 1.75E-05
< 1.22E-04	< 1.79E-05

Period 6 Sum: < 4.88E-04**2nd Quarter Total: < 1.59E-03****^aHDER < 1.79E-05**

^a HDER = Highest Daily Emission Rate
1/3/2017

Los Alamos National Laboratory
TA-03-0141 Beryllium 2016 Stack Emissions

TA-03-0141**StackID: 03014101****Sampling dates****Emissions (g)****Weekly(1)****Daily(2)**

*Sum of weekly
results must be
<3.5 g/year*

*Cannot Exceed 0.35
g/day*

Period #: 7

06/30/2016	-	07/07/2016
07/07/2016	-	07/14/2016
07/14/2016	-	07/21/2016
07/21/2016	-	07/28/2016
07/28/2016	-	08/04/2016

< 1.22E-04	< 1.77E-05
< 1.22E-04	< 1.73E-05
< 1.22E-04	< 1.76E-05
4.55E-02	6.40E-03
< 1.22E-04	< 1.75E-05

Period 7 Sum: 4.60E-02**Period #: 8**

08/04/2016	-	08/11/2016
08/11/2016	-	08/18/2016
08/18/2016	-	08/25/2016
08/25/2016	-	09/01/2016

< 1.22E-04	< 1.74E-05
< 1.22E-04	< 1.76E-05
< 1.22E-04	< 1.75E-05
< 1.22E-04	< 1.73E-05

Period 8 Sum: < 4.88E-04**Period #: 9**

09/01/2016	-	09/08/2016
09/08/2016	-	09/15/2016
09/15/2016	-	09/22/2016
09/22/2016	-	09/29/2016

< 1.22E-04	< 1.73E-05
< 1.22E-04	< 1.77E-05
< 1.22E-04	< 1.74E-05
< 1.22E-04	< 1.74E-05

Period 9 Sum: < 4.88E-04**3rd Quarter Total: 4.70E-02****^aHDER 6.40E-03**

^a HDER = Highest Daily Emission Rate
1/3/2017

Los Alamos National Laboratory
TA-03-0141 Beryllium 2016 Stack Emissions

TA-03-0141**StackID: 03014101****Sampling dates****Emissions (g)****Weekly(1)****Daily(2)**

*Sum of weekly
results must be
<3.5 g/year*

*Cannot Exceed 0.35
g/day*

Period #: 10

09/29/2016	-	10/06/2016
10/06/2016	-	10/13/2016
10/13/2016	-	10/20/2016
10/20/2016	-	10/27/2016
10/27/2016	-	11/03/2016

4.01E-04	5.78E-05
< 1.22E-04	< 1.74E-05
< 1.22E-04	< 1.74E-05
< 1.22E-04	< 1.75E-05
< 1.22E-04	< 1.76E-05

Period 10 Sum: 8.89E-04**Period #: 11**

11/03/2016	-	11/09/2016
11/09/2016	-	11/17/2016
11/17/2016	-	11/22/2016
11/22/2016	-	12/01/2016

< 1.22E-04	< 1.92E-05
< 1.22E-04	< 1.59E-05
< 1.22E-04	< 2.30E-05
< 1.22E-04	< 1.41E-05

Period 11 Sum: < 4.88E-04**Period #: 12**

12/1/2016	-	12/8/2016
12/8/2016	-	12/15/2016
12/15/2016	-	12/22/2016

< 1.22E-04	< 1.73E-05
< 1.22E-04	< 1.75E-05
< 1.22E-04	< 1.75E-05

Period 12 Sum <: 3.66E-04**4th Quarter Total: 1.74E-03****^aHDER 5.78E-05****Sum of four quarters: 5.19E-02**

^a HDER = Highest Daily Emission Rate
1/3/2017