

Environmental Protection Division Ecology and Air Quality Group P.O. Box 1663, MS J978 Los Alamos, New Mexico 87545 (505) 665-8855/FAX: (505) 665-8858

Date: October 23, 2008 Refer to: ENV-EAQ:08-248

Compliance Reporting Manager New Mexico Environment Department Air Quality Bureau 1301 Siler Road, Building B Santa Fe, New Mexico 87507

IDEA ID 856 – LOS ALAMOS NATIONAL LABORATORY 2008 THIRD QUARTER BERYLLIUM EMISSIONS REPORT JULY 1– SEPTEMBER 30, 2008 AIR QUALITY PERMIT NO. 634-M2

Dear Compliance Reporting Manager:

Attached as Enclosure 1 you will find a copy of the sampling data obtained from the continuous air monitor installed on the main exhaust stack at the Beryllium Technology Facility (BTF) at Los Alamos National Laboratory (LANL) for the **Third quarter of calendar year 2008**. This submission of the quarterly emissions data, collected from this source, is required by permit condition 5.f of NMED Air Quality Permit #634-M2 dated October 30, 1998. Furthermore, this quarterly report is transmitted within the allowed 60 days after the end of the calendar quarter, as specified in the permit.

As specified in permit #634-M2, 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. As can be seen on the attached data sheet, the highest daily emission rate (HDER) during the third quarter of calendar year 2008 was $< 1.87 \times 10^{-5}$ grams per 24 hours, which is well below the daily permit limit. The total amount of beryllium emitted for the third quarter of calendar year 2008 was $< 1.52 \times 10^{-3}$ grams. Additionally, the total for the first three quarters of calendar year 2008 is $< 4.85 \times 10^{-3}$ grams, which is well below the 3.5 gram per year limit specified in the permit. Based on the attached information, LANL is in compliance with condition #2 of NMED Air Quality Permit #634-M2.

If you have any questions or comments regarding this submittal or would like to discuss this in greater detail, please feel free to contact Steve Story at 665-2169 or Kathleen Gorman-Bates at 665-1338.

An Equal Opportunity Employer / Operated by Los Alamos National Security LLC for DOE/NNSA

Compliance Reporting Manager ENV-EAQ:08-248 LA-UR:08-07056

Sincerely,

6 WI

Dianne Wilburn Ecology & Air Quality Group

KGB/DW:alb

Enc: a/s

Cy: Jan Van Prooyen, DIR, A100 Michael Mallory, PADOPS, A102 Richard Watkins, ADESH&Q, K491 IRM-RMSS0, A150 ESH&Q File, K491 S. Fong, DOE-LA-SO, A316 V. George, ENV-DO, J978 P. Dunn, MST-6, G770 S. Abeln, MST-6, G770 P. Wardwell, LC-ESH, A187 M. Gallegos, ENV-EAQ, E509 S. Story, ENV-EAQ, J978 K.Gorman-Bates, ENV-EAQ, J978 ENV-EAQ Records Room, Title V Beryllium Permit #634 Quarterly Reports ENV-EAQ File

1

Approved for public release; distribution is unlimited.

| Title: | 2008 Third Quarter Beryllium Emissions Report July 1 - September 30, 2008 Air Quality Permit No. 634-M2 Los Alamos National Laboratory |
|---------------|--|
| Author(s): | Kathleen Gorman-Bates, ENV-EAQ |
| Intended for: | Compliance Reporting Manager New Mexico Environment Department Air Quality Bureau 1301 Siler Road; Building B Santa Fe, New Mexico 87507 |



Los Alamos National Laboratory, an affirmative action/equal opportunity employer, is operated by the Los Alamos National Security, LLC for the National Nuclear Security Administration of the U.S. Department of Energy under contract DE-AC52-06NA25396. By acceptance of this article, the publisher recognizes that the U.S. Government retains a nonexclusive, royalty-free license to publish or reproduce the published form of this contribution, or to allow others to do so, for U.S. Government purposes. Los Alamos National Laboratory requests that the publisher identify this article as work performed under the auspices of the U.S. Department of Energy. Los Alamos National Laboratory and a researcher's right to publish; as an institution, however, the Laboratory does not endorse the viewpoint of a publication or guarantee its technical correctness.

Form 836 (7/06)



New Mexico Environment Department Air Quality Bureau Compliance and Enforcement Section 1301 Siler Road Building B Santa Fe, NM 87507 Phone (505) 476-4300 Fax (505) 476-4375



| NMED | USE ONLY |
|---------|-----------|
| I TITLE | 002 01121 |

REPORTING SUBMITTAL FORM

NMED USE ONLY
Staff

| DT | s | REPO | KIIN | GSUI | SIVIL. | LIA | LFO | KIVI | 0 | blan | | |
|--|--|------------------------------|--|-------------------------|-------------------------|-----------------------|--|------------------|--|-------------------------|------------------------|---------|
| TEMP | 0 | ET F UNK (Friddling - 1893) | an ann an tha an th | | | CODINE CONTRACTOR | | | Ad | min | | |
| PLEASE N | OTE: ® - Indicates required field | | | | | | | | | | | |
| | ION I - GENERAL COM | PANY AND | FACILIT | Y INFOR | | | | | | | | |
| | | | | | | acility Mamos Na | Name: ational Lab | oratory | | | | |
| B.1 ® C | Company Address: ox 1663 | | | | E.1®1 | 9100122-8801 - A.P.S. | Address: | | | | | |
| MS J97 | | | 1 | | | | | | | | | |
| B.2 ® (Los Ala | imos | B.3 ® State: NM | 87545 | | E.2 ® | | | | | and the contract of the | E.4 ® Zip: | |
| Dianne | | C.2 ® Title: | | | Steve | Story | Contact: | | Tea | | er, Compliance | |
| C.3 ® P | hone Number: | C.4 ® Fax I | Number: | | | Phone 65-216 | Number: 9 | | | ® Fax 1 5) 665-8 | Number: 858 | |
| | Email Address: @lanl.gov | | | | story@ |)lanl.go | | | | | | |
| | onsible Official: (Title V onlv): I S. Watkins | H. Title: Associate D | Director, ESH | 1&Q | | ne Num 367-421 | | | | ax Num 5) 665-3 | | |
| K. ® A 856 | Number: L. Title V P P100M2 | ermit Numbe | r: M. Ti 7/16/ | itle V Permit I 2007 | ssue Date | | . NSR Perr 634-M2 | nit Numbe | r: | O. NSI 10/30/1 | R Permit Issue 1998 | Date: |
| P. Repo From: | orting Period: 7/1/2008 To: | 9/30/2008 | Contrast Astronomy and Astronomy of the | OR Q. | Propose | d Test | Date: | OR | R. Act N/A | ual Tesi | t Date: | |
| SECTI | ON II – TYPE OF SUBM | ITTAL (che | eck one th | hat appli | es) | | and the second | Stavija | | | | |
| A. 🗌 | Title V Annual Compliance Certification | Permit Cond | ition(s): | Descriptio | | | | | | | | |
| в. 🗌 | Title V Semi-annual Monitoring Report | Permit Cond | lition(s): | Descriptio | on: | | | | - | | | |
| c. 🗌 | NSPS Requirement (40CFR60) | Regulation: | | Section(s | ction(s): Description: | | | | | | | |
| D. 🗌 | MACT Requirement (40CFR63) | Regulation: | | Section(s): | | | Descripti | on: | | | | |
| E. 🗌 | NMAC Requirement (20.2.xx) or NESHAP Requirement (40CFR61) | Regulation: | | Section(s | ection(s): Description: | | | | | | | |
| F. 🛛 | Permit or Notice of Intent (NOI) Requirement | Permit No.🖂: 634-M2 | or NOI No. | Condition 5.f | Report ben/lium emissi | | | ssions d Qtr. | sions data by the continuous air Qtr. | | | |
| G. Requirement of an Enforcement Action NOV No. : or SFO No. : or Other : or Other : or Other : or Other : or CD No. : or Other : or | | | Section(s |): | | Descripti | on: | | | | | |
| CECTU | ON III - PERIODIC EMI | CONC TO | CT NOTE | | IC TE | | OTOCO | | TEOT | | | |
| | . Test Report CMT: | B. Test Pr | | Notification | CMT: | SI FR | - | | | | | able) |
| т. 🗆 🗖 | Initial Compliance Period Test (EPA E. Test (Methods) | dic EPA D F. | RATA G | Oncoitu | Port H Ana | | | cription: (E | missio | 1 Units 1 | to be Tested) | |
| SECT | ION IV - CERTIFICATIO |)N | | | | | and the second state of the second | | | | | |
| 1000 C 1000 C | easonable inquiry, I | Dianne W. (nome of report | | cer | tify that | the info | ormation in | this subm | ittal is t | rue, acc | curate and con | nplete. |
| ® Sign | ature of Reporting Official: | /unive of rehold | ® Title: | | | ®D | ate | B Responsible | Official fo | r Title V? | | |
| 6 | I Wili- | | Group Lea | ader, EAQ | | 10/2 | 4/0x | Yes | | | No No | |

Reviewed By:

Date Reviewed:

Enclosure 1

Beryllium 2008 Stack Emissions TA-03-0141

| Weekly(1) Daily(2) Sum of veekly results must be Cannot Exceed 0.35 g/day 2/20/2007 1/3/2008 < 1.21E-04 < 8.66E-06 Run time due to Holiday. 1/3/2008 1/10/2008 < 1.21E-04 < 1.73E-05 I/10/2008 1/10/2008 1/17/2008 < 1.21E-04 < 1.73E-05 I/10/2008 1/17/2008 1/17/2008 < 1.21E-04 < 1.73E-05 I/10/2008 1/17/2008 1/31/2008 < 1.21E-04 < 1.74E-05 I/10/2008 Period #: 2 . 1/31/2008 2/1/2008 < 1.21E-04 < 1.74E-05 2/1/2008 2/1/2008 1.21E-04 < 1.74E-05 2/1/2008 2/1/2008 1.21E-04 < 1.74E-05 2/1/2008 2/21/2008 < 1.21E-04 < 1.74E-05 2/1/2008 2/28/2008 < 1.21E-04 < 1.74E-05 2/21/2008 2/28/2008 < 1.21E-04 < 1.74E-05 2/28/2008 3/07/2008 < 1.21E-04 < 1.74E-05 2/28/2008 1.21E-04 < 1.74E-05 | | Sampling dates | | |] | Emissions (g) | | Comments |
|--|-----------|----------------|-------------------|-------------------------------------|--------------|---------------|----------|--------------------------------|
| $\begin{tabular}{ c c c c c c } \hline Period #: 1 & & & & & & & & & & & & & & & & & & $ | | | | | Weekly(1) | | Daily(2) | BUREADADOARTA DI |
| $\frac{<3.5 \ g/year}{} \qquad g/day$ Period #: 1 2/20/2007 - 1/3/2008 - 1/3/2008 - 1/10/2008 - 1/10/2008 - 1/17/2008 - 1/17/2008 - 1/24/2008 - 1/24/2008 - 1/31/2004 - 1/31/200 | | | | Si | um of weekly | | | |
| Period #: 1 2/20/2007 - 1/3/2008 < | | | | | | Са | | |
| $\frac{2/20/2007}{1.00} - \frac{1/3/2008}{1.000} < 1.21E-04 < 8.66E-06 Run time due to Holiday. Run time due to 2 hour weather the Holiday. Run time due to 2 hour weather Holiday. Run time due to 2 hour delay. Run time$ | | Destad H. 1 | | <. | 3.5 g/year | | g/day | |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | | | | | | | | |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | | | | | | | | Run time due to Holiday. |
| $\frac{1}{17/2008} - \frac{1}{24/2008} < 1.21E-04 < 1.74E-05 \\ - \frac{1}{172E-05} + \frac{1}{271/2008} < 1.21E-04 < 1.74E-05 \\ - \frac{1}{271/2008} - \frac{2}{271/2008} < 1.21E-04 < 1.74E-05 \\ - \frac{1}{271/2008} - \frac{2}{271/2008} < 1.21E-04 < 1.74E-05 \\ - \frac{1}{271/2008} - \frac{2}{2721/2008} < 1.21E-04 < 1.74E-05 \\ - \frac{1}{272E-05} + \frac{1}{272E-05} + \frac{1}{272E-05} \\ - \frac{1}{272E-05} + \frac{1}{272E-$ | | | | | | | | |
| $\begin{array}{c c c c c c c c c c c c c c c c c c c $ | | - | | | | | | |
| Period 1 Sum: < 6.05E-04 1/31/2008 - 2/7/2008 1.21E-04 < | | . | | | | | | |
| Period #: 2 1/31/2008 2/7/2008 1.21E-04 < 1.74E-05 | 1/24/2008 | - | 1/31/2008 | | | < | 1.72E-05 | |
| 1/3/2008 - 2/7/2008 < | | D 110 | | Period 1 Sum: < | 6.05E-04 | | | |
| 2/7/2008 - 2/14/2008 < 1.21E-04 < 1.74E-05 2/14/2008 - 2/21/2008 < 1.21E-04 < 1.74E-05 2/21/2008 - 2/28/2008 < 1.21E-04 < 1.73E-05 Period 2 Sum: < 4.84E-04 Period #: 3 2/28/2008 - 3/6/2008 < 1.21E-04 < 1.70E-05 delay. Sample pump off. 3/6/2008 - 3/13/2008 < 1.21E-04 < 1.70E-05 Run time due to 2 hour weather delay. Sample pump off. 3/13/2008 - 3/20/2008 < 1.21E-04 < 1.71E-05 Run time due to 2 hour delay. 3/13/2008 - 3/20/2008 < 1.21E-04 < 1.73E-05 3/20/2008 - 3/27/2008 < 1.21E-04 < 1.73E-05 Period 3 Sum: < 6.05E-04 | 1 | Period #: 2 | and and the state | | | | 2 | |
| 2/14/2008 - 2/21/2008 < 1.21E-04 < 1.74E-05 2/21/2008 - 2/28/2008 < 1.21E-04 < 1.73E-05 Period 2 Sum: < 4.84E-04 Period #: 3 2/28/2008 - 3/6/2008 < 1.21E-04 < 1.70E-05 delay. Sample pump off. 3/6/2008 - 3/13/2008 < 1.21E-04 < 1.70E-05 Run time due to 2 hour weather delay. Sample pump off. Run time due to 2 hour delay. 3/13/2008 - 3/20/2008 < 1.21E-04 < 1.71E-05 Run time due to 2 hour delay. 3/20/2008 - 3/27/2008 < 1.21E-04 < 1.73E-05 Period 3 Sum: < 6.05E-04 < 1.73E-05 | | H 0 | | < | | < | | |
| 2/21/2008 - 2/28/2008 < | | Ξ. | 2/14/2008 | < | 1.21E-04 | < | 1.74E-05 | |
| Period #: 3 2/28/2008 - 3/6/2008 < | 2/14/2008 | - | 2/21/2008 | < | 1.21E-04 | < | 1.74E-05 | |
| Period #: 3 2/28/2008 - 3/6/2008 < | 2/21/2008 | - | 2/28/2008 | < | 1.21E-04 | < | 1.73E-05 | |
| 2/28/2008 - 3/6/2008 < | | | | Period 2 Sum: < | 4.84E-04 | | | |
| 2/28/2008 - 3/6/2008 < | Pe | riod #: 3 | Martin | | | | | |
| 3/6/2008 - 3/13/2008 < | | | | | | | | Run time due to 2 hour weather |
| 3/13/2008 - 3/20/2008 < | 2/28/2008 | - | 3/6/2008 | < | 1.21E-04 | < | 1.70E-05 | delay. Sample pump off. |
| 3/20/2008 - 3/27/2008 < 1.21E-04 < 1.73E-05 3/27/2008 - 4/3/2008 < 1.21E-04 < 1.75E-05 Period 3 Sum: < 6.05E-04 | 3/6/2008 | | 3/13/2008 | < | 1.21E-04 | < | 1.76E-05 | Run time due to 2 hour delay. |
| 3/27/2008 - 4/3/2008 < 1.21E-04 < 1.75E-05 Period 3 Sum: < 6.05E-04 | 3/13/2008 | - | 3/20/2008 | < | 1.21E-04 | < | 1.71E-05 | |
| Period 3 Sum: < 6.05E-04 | 3/20/2008 | | 3/27/2008 | < | 1.21E-04 | < | 1.73E-05 | |
| | 3/27/2008 | - | 4/3/2008 | < | 1.21E-04 | < | 1.75E-05 | |
| | | | | Period 3 Sum: < | 6.05E-04 | | | |
| | | | — | And the second second second second | | | | |

^a HDER = Highest Daily Emission Rate

Beryllium 2008 Stack Emissions TA-03-0141

| | | | | | 0111 | | |
|-----------|-----------|-----|-----------|-----------------|----------|---|----------|
| α. | Period #: | 4 | | | | | |
| 4/3/2008 | 3 - | | 4/10/2008 | < | 1.21E-04 | < | 1.75E-05 |
| 4/10/2008 | 3 - | | 4/17/2008 | < | J.21E-04 | < | 1.73E-05 |
| 4/17/2008 | 3 - | | 4/24/2008 | < | 1.21E-04 | < | 1.74E-05 |
| 4/24/2008 | 3 - | (*) | 5/1/2008 | < | 1.21E-04 | < | 1.73E-05 |
| | | | | Period 4 Sum: < | 4.84E-04 | | |
| | Period #: | 5 | | | | | |
| 5/1/2008 | 3 - | | 5/8/2008 | < | 1.27E-04 | < | 1.82E-05 |
| 5/8/2008 | 3 - | | 5/15/2008 | < | 1.27E-04 | < | 1.82E-05 |
| 5/15/2008 | - 3 | | 5/22/2008 | < | 1.27E-04 | < | 1.82E-05 |
| 5/22/2008 | 3 - | | 5/29/2008 | < | 1.27E-04 | < | 1.82E-05 |
| | | | | Period 5 Sum: < | 5.08E-04 | | |
| | Period #: | 6 | | | | | |
| 5/29/2008 | 3 - | | 6/5/2008 | < | 1.27E-04 | < | 1.82E-05 |
| 6/5/2008 | 3 - | | 6/12/2008 | < | 1.27E-04 | < | 1.82E-05 |
| 6/12/2008 | 3 - | | 6/19/2008 | < | 1.27E-04 | < | 1.82E-05 |
| 6/19/2008 | 3 - | | 6/26/2008 | < | 1.27E-04 | < | 1.82E-05 |
| 6/26/2008 | 3 - | | 7/3/2008 | < | 1.27E-04 | < | 1.80E-05 |
| | | | | Period 6 Sum: < | 6.35E-04 | | |
| | | | | | | | |

| 2nd Quarter Total: < | 1 (27 1)2 | HDER | ~ | 1020.07 |
|----------------------|-----------|------|---|----------|
| 2nd Quarter Fotal. < | 1.63E-03 | IDEN | | 1.82E-05 |

^a HDER = Highest Daily Emission Rate

Beryllium 2008 Stack Emissions TA-03-0141

| | Period #: | 7 | | | | | | | |
|-----------|------------|---|-----------|----------------------|----------|------|---|----------|----------------|
| 7/3/2008 | 3 - | | 7/10/2008 | < | 1.27E-04 | | < | 1.77E-05 | |
| 7/10/2008 | 3 - | | 7/17/2008 | < | 1.27E-04 | | < | 1.85E-05 | |
| 7/17/2008 | - 3 | | 7/24/2008 | < | 1.27E-04 | | < | 1.87E-05 | |
| 7/24/2008 | 3 - | | 7/31/2008 | < | 1.27E-04 | | < | 1.82E-05 | |
| | Davie d He | Q | | Period 7 Sum: < | 5.08E-04 | | | | |
| | Period #: | 8 | | | | | | | |
| 7/31/2008 | 3 - | | 8/7/2008 | < | 1.27E-04 | | < | 1.82E-05 | |
| 8/7/2008 | 3 - | | 8/14/2008 | < | 1.27E-04 | | < | 1.82E-05 | |
| 8/14/2008 | 3 - | | 8/21/2008 | < | 1.27E-04 | | < | 1.81E-05 | |
| 8/21/2008 | 3 - | | 8/28/2008 | < | 1.27E-04 | | < | 1.84E-05 | |
| | | | | Period 8 Sum: < | 5.08E-04 | | | | |
| | Period #: | 9 | | | | | | | |
| 8/28/2008 | 3 - | | 9/4/2008 | < | 1,27E-04 | | < | 1.82E-05 | |
| 9/4/2008 | 3 - | | 9/11/2008 | < | 1.27E-04 | | < | 1.82E-05 | Stack fan off. |
| 9/11/2008 | 3 - | | 9/18/2008 | < | 1.27E-04 | | < | 1.82E-05 | |
| 9/18/2008 | 3 - | | 9/25/2008 | < | 1.27E-04 | | < | 1.82E-05 | |
| | | | | Period 9 Sum: < | 5.08E-04 | | | 8000 | |
| | | | | 3rd Quarter Total: < | 1.52E-03 | HDER | < | 1.87E-05 | |

^a HDER = Highest Daily Emission Rate