



Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director

## DEPARTMENT OF NATURAL RESOURCES

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APR 13 2016

Mr. Dave Zoghby  
Senior Director of Marketing  
General Dynamics – OTS Munition Services  
7872 Flint Hill Road  
New Tripoli, PA 18066

RE: New Source Review Permit Amendment - Permit Number: 082015-007A  
Project Number: 2016-03-072; Installation Number: 097-0138

Dear Mr. Zoghby:

On March 21, we received an updated application from you requesting authority to treat an additional propellant in the recently permitted nitrocellulose propellant thermal treatment facility. The thermal treatment facility was permitted in August 2015, Permit No. 082015-007. The additional propellant contains hazardous air pollutants that were not previously considered and that have the potential to emit above permitting thresholds. Due to the close proximity of this project with the August permit, this project is being viewed as an amendment to Permit No. 082015-007.

The new propellant to be treated contains the following hazardous air pollutants (HAPs): lead, dibutyl phthalate (DBP) and dinitro toluene (DNT). DBP was previously considered and contains a 10 tpy emission limit in Permit No. 082015-007. However, lead compounds and DNT were not previously considered. Potential emissions of these compounds are expected to be 0.20 and 0.026 tons per year, respectively. All other pollutants are expected to emit at the same levels as were previously reviewed. In order to ensure that these HAPs do not exceed their respective Screening Model Action Levels (SMALs), additional limits have been added as a part of this amendment. Testing is required to establish emission factors for these pollutants.

In addition, a special condition was added in this amendment requiring General Dynamics – OTS Munition Services to seek permission of treatment of propellants not previously considered that contain new HAPs or propellants that are significantly different in composition than previous propellants that were considered and tested.

Below is the updated emission summary for the nitrocellulose propellant thermal treatment facility. The only changes to the potential emit from the original permit is the addition of the two new HAPs.

Table 1: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Potential Emissions of the Project
PM	25.0	0.22
PM <sub>10</sub>	15.0	0.22
PM <sub>2.5</sub>	10.0	0.22
SO <sub>x</sub>	40.0	N/D
NO <sub>x</sub>	40.0	12.12
VOC	40.0	N/D
CO	100.0	3.68
GHG (CO <sub>2</sub> e)	N/A	1733.32
GHG (mass)	N/A	1733.32
HAPs	10.0/25.0	<10.0
DBP	10.0 / 10.0 <sup>1</sup>	<10.0
DEGDN	10.0 / 5.0 <sup>1</sup>	<5.0
Lead compound	0.6 / 0.01 <sup>1</sup>	<0.01
DNT	10.0 / 0.02 <sup>1</sup>	<0.02

N/A = Not Applicable; N/D = Not Determined

<sup>1</sup>This value represents the SMAL.

If you were adversely affected by this permit decision, you may be entitled to pursue an appeal before the administrative hearing commission pursuant to Sections 621.250 and 643.075.6 RSMo. To appeal, you must file a petition with the administrative hearing commission within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or

Mr. Zoghby  
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certified mail, it will be deemed filed on the date it is received by the administrative hearing commission, whose contact information is: Administrative Hearing Commission, United States Post Office Building, 131 West High Street, Third Floor, P.O. Box 1557, Jefferson City, Missouri 65102, phone: 573-751-2422, fax: 573-751-5018, website: [www.oa.mo.gov/ahc](http://www.oa.mo.gov/ahc).

If you have any questions regarding this amendment, please do not hesitate to contact Susan Heckenkamp, at the department's Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or at (573) 751-4817. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM



Kendall B. Hale  
Permits Section Chief

KBH:shs

Enclosures

c: Southwest Regional Office  
PAMS File: 2016-03-072

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

*The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority."*

**EBV Explosives Environmental Co.  
Jasper County, S25, T28N, R32**

1. **Annual Emission Limitation**
  - A. General Dynamics Ordnance and Tactical Systems Munition Services (GD-OTS MS) shall emit less than 0.01 tons of lead from the Nitrocellulose Based Propellant Treatment Unit (NCP TTU) stack (EP11) in any consecutive 12-month period.
  - B. GD-OTS MS shall emit less than 0.02 tons of dinitro toluene (DNT) (CAS 121-14-2) from the NCP TTU stack (EP11) in any consecutive 12-month period.
  - C. GD-OTS MS shall develop and use forms (paper or electronic) to demonstrate compliance with Special Condition 1.A and 1.B. The forms shall contain at a minimum the following information,
    - 1) Current month
    - 2) Current 12-month date range
    - 3) Amount and type of NCP treated (in tons) containing lead or DNT;
    - 4) Lead emission factor and DNT emission factor developed from source testing as required by Special Condition 3.A,
    - 5) Current month's lead emissions (in tons) as calculated using values from 3) and 4) of this special condition (in tons)
    - 6) Current month's DNT emissions (in tons) as calculated using values from 3) and 4) of this special condition (in tons)
    - 7) 12-month rolling total lead emissions (in tons)
    - 8) 12-month rolling total DNT emissions (in tons)
    - 9) Indication of compliance status with Special Condition 1.A and 1.B.
2. **Record Keeping and Reporting Requirements**
  - A. General Dynamics Ordnance and Tactical Systems Munition Services shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request.

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

- B. General Dynamics Ordnance and Tactical Systems Munition Services shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 10 days after the end of the month during which any record required by this permit show an exceedance of a limitation imposed by this permit.
3. Performance Testing
- A. GD-OTS MS shall conduct performance testing on the NCP TTU stack to develop an emission factor in pounds of lead per ton NCP burned and an emission factor in pounds of DNT per ton NCP burned.
  - B. Testing shall be conducted within 30 days of treating a propellant containing lead or DNT in the NCP TTU. The developed emission factors shall be used to demonstrate annual compliance with the limitations in Special Condition 1.A and 1.B.
  - C. Testing shall be conducted in accordance with the Stack Test Procedures outlined in the approved Comprehensive Performance Test Plan (CPTP).
  - D. The time frames associated with this performance testing condition may be extended upon written request of GD-OTS MS and approval by the Air Pollution Control Program staff director.
  - E. Performance tests shall be conducted under representative conditions. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test.
  - F. Two copies of a written report of the performance test results shall be submitted to the Air Pollution Control Program Director within 90 days of completion of any required testing. The report must include legible copies of the raw data sheets, analytical instrument laboratory data, and complete sample calculations from the required U.S. EPA Method for at least one sample run.
  - G. The test report is to fully account for all operational and emission parameters addressed both in the permit conditions as well as the approved CPTP.
4. Treatment of Other Propellants
- A. When considering the thermal treatment of new propellants in NCP TTU (EP11), GD-OTS MS shall calculate the potential emissions that will be emitted from the NCP TTU. When determining potential emissions, a control efficiency of 99% shall be used for particulate HAPs and a value of 99.99% shall be used for poly organic hydrocarbons.

**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

- B. GD-OTS MS shall seek approval from the Air Pollution Control Program before treatment of any propellant that 1) contains a HAP other than the individual HAPs listed in Table 1 or 2) that could increase the potential emissions of any pollutant above the levels stated in Table 1.
- C. GD-OTS MS shall retain the SDS of all propellants treated in NCP TTU (EP11) and all potential emissions calculations required in Special Condition 4.A.
- D. In the event the GD-OTS MS determines that the new propellant will increase the potential emissions above previously permitted levels as shown in Table 1, GD-OTS MS shall submit an application. The Air Pollution Control Program will determine from the submitted information whether an amendment or new permit is required.

**Table 1: Project Emissions (tons per year)**

Pollutant	Potential Emissions of the Project
PM	0.22
PM <sub>10</sub>	0.22
PM <sub>2.5</sub>	0.22
SO <sub>x</sub>	N/D
NO <sub>x</sub>	12.12
VOC	N/D
CO	3.68
GHG (CO <sub>2</sub> e)	1733.32
GHG (mass)	1733.32
HAPs	<10.0
DBP	<10.0
DEGDN	<5.0
Lead compound	<0.01
DNT	<0.02

N/D = Not Determined