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**OSI DECEMBER 2013 TITLE V RENEWAL APPLICATION**

**37-0028-10 – POTENTIALLY EXPLOSIVE CONTAMINATED MATERIAL  
37-0028-53-WASTE EXPLOSIVES**

**SECTION 16**



**TITLE V PERMIT APPLICATION  
 OPEN BURNING**

**GENERAL IDENTIFICATION AND DESCRIPTION**

1. Company name: <b>BAE SYSTEMS Ordnance Systems Inc. (OSI), Holston Army Ammunition Plant (HSAAP)</b>		
Mailing address (ST/RD/P.O. BOX): <b>4509 West Stone Drive</b>	City, zip code: <b>Kingsport 37660</b>	
Address of burning site: <b>4509 West Stone Drive</b>	City: <b>Kingsport</b>	County where burn will be conducted: <b>Hawkins</b>
Name of official contact: <b>James Ogle</b>	Official's title: <b>BAE Environmental Affairs Specialist</b>	Telephone number (with area code): <b>423-578-6231</b>

**OPEN BURNING DESCRIPTION**

2. Material to be burned:		
	Pounds per day	
Trees, limbs, brush:	<u>N/A</u>	Total weight of material to be burned: <u>88 - 720*</u> tons/year
Wood products:	<u>1,500 lbs/burn</u>	On what date is it desired to begin such open burning? _____ <small>January 1st each year</small>
Household waste, except garbage:	<u>N/A</u>	How long will such open burning continue? <u>Indefinitely</u>
Petroleum waste:	<u>N/A</u>	During what hours of the day will burning be conducted: <u>08:30</u> to <u>19:30</u>
Other (describe):	<small>Potentially explosive contaminated material such as plastics, metals, wood, wood products, cardboard, dirt, concrete, paper, etc.</small>	Frequency of burning: <u>1-2</u> days/week

3. Give reasons which in your opinion justify disposal by burning rather than other methods creating less air pollution.  
 Open burning continues to be the only proven safe method of thermal decontamination for material potentially presenting an explosives hazard (MPPEH) at HSAAP. The current DOD instructions and supplemental guidance for MPPEH continues to recommend thermal decontamination for materials such as those processed at HSAAP. No other approved method is presently available for HSAAP material. Material decontaminated in the cages usually consist of materials from the buildings that could potentially become airborne if burned on the pile.  
 \*Based on 2,400 cubic yards of material but the weight varies with the type of material.

4. Will an air curtain destructor be used to conduct this burning (yes/no)?  
**No**

5. What plans have been made to reduce or eliminate open burning at this site?  
 HSAAP has a continuous effort to reduce potentially explosive contaminated waste generated; however, open burning continues to be the only approved safe method of decontamination for material potentially presenting an explosives hazard at HSAAP.

6. On a map with a scale of not less than 1:24,000, show the location of the following:  
 A. The burning site.  
 B. A road or highway within one mile of the site.  
 C. Airports, hospitals, schools, or nursing homes within one mile of the site.  
 D. Nearest incorporated town.  
 E. Sanitary landfill or similar facility, within 1000 feet of the site  
 F. Nearest residence not on the same property as the burning site.  
 G. National reservation, wildlife area, state park or forest within 1/2 mile of the burning site.  
**See map at the end of this section.**

7. Page number:	Revision number:	Date of revision:
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**TITLE V PERMIT APPLICATION  
 OPEN BURNING**

**GENERAL IDENTIFICATION AND DESCRIPTION**

1. Company name: <b>BAE SYSTEMS Ordnance Systems Inc. (OSI), Holston Army Ammunition Plant (HSAAP)</b>		
Mailing address (ST/RD/P.O. BOX): <b>4509 West Stone Drive</b>	City, zip code: <b>Kingsport 37660</b>	
Address of burning site: <b>4509 West Stone Drive</b>	City: <b>Kingsport</b>	County where burn will be conducted: <b>Hawkins</b>
Name of official contact: <b>James Ogle</b>	Official's title: <b>BAE Environmental Affairs Specialist</b>	Telephone number (with area code): <b>423-578-6231</b>
<b>OPEN BURNING DESCRIPTION</b>		
2. Material to be burned:		
Trees, limbs, brush:	Pounds per day * _____	Total weight of material to be burned: <b>576-720**</b> tons/year
Wood products:	<b>20,000 lbs/burn</b>	On what date is it desired to begin such open burning? _____ <small>January 1st each year</small>
Household waste, except garbage:	<b>N/A</b>	How long will such open burning continue? <b>Indefinitely</b>
Petroleum waste:	<b>&lt; 250 gallons</b>	During what hours of the day will burning be conducted: <b>08:30</b> to <b>19:30</b>
Other (describe): <small>Potentially explosive contaminated material such as plastics, metals, wood, wood products, cardboard, dirt, concrete, paper, etc.</small>	_____	Frequency of burning: <b>4 times per year</b> days/week
3. Give reasons which in your opinion justify disposal by burning rather than other methods creating less air pollution. <b>Open burning continues to be the only proven safe method of thermal decontamination for material potentially presenting an explosives hazard (MPPEH) at HSAAP. The current DOD instructions and supplemental guidance for MPPEH continues to recommend thermal decontamination for materials such as those processed at HSAAP. No other approved method is presently available for HSAAP material. Material decontaminated in the piles often consist of materials that are not combustible such as metal, dirt, and concrete but still must be decontaminated. Therefore wood is added so that its combustion aids in the thermal decontamination of these types of material.</b>  <small>*Woody material such as seasoned trees with the branches removed are used if enough clean wood from wood products such as pallets can not be collected.        **Based on 2,400 cubic yards of combustible material but the weight varies with the type of material. Also this amount does not include the non-combustible material which would provide an invalid scale.</small>		
4. Will an air curtain destructor be used to conduct this burning (yes/no)? <b>No</b>		
5. What plans have been made to reduce or eliminate open burning at this site? <b>HSAAP has a continuous effort to reduce potentially explosive contaminated waste generated; however, open burning continues to be the only approved safe method of decontamination for material potentially presenting an explosives hazard at HSAAP.</b>		
6. On a map with a scale of not less than 1:24,000, show the location of the following: A. The burning site. B. A road or highway within one mile of the site. C. Airports, hospitals, schools, or nursing homes within one mile of the site. D. Nearest incorporated town. E. Sanitary landfill or similar facility, within 1000 feet of the site F. Nearest residence not on the same property as the burning site. G. National reservation, wildlife area, state park or forest within 1/2 mile of the burning site.  <div style="text-align: right;"><b>See map at the end of this section.</b></div>		
7. Page number:	Revision number:	Date of revision:



**TITLE V PERMIT APPLICATION  
 OPEN BURNING**

**GENERAL IDENTIFICATION AND DESCRIPTION**

1. Company name: <b>BAE SYSTEMS Ordnance Systems Inc. (OSI), Holston Army Ammunition Plant (HSAAP)</b>		
Mailing address (ST/RD/P.O. BOX): <b>4509 West Stone Drive</b>	City, zip code: <b>Kingsport 37660</b>	
Address of burning site: <b>4509 West Stone Drive</b>	City: <b>Kingsport</b>	County where burn will be conducted: <b>Hawkins</b>
Name of official contact: <b>James Ogle</b>	Official's title: <b>BAE Environmental Affairs Specialist</b>	Telephone number (with area code): <b>423-578-6231</b>
<b>OPEN BURNING DESCRIPTION</b>		
2. Material to be burned:		
Trees, limbs, brush:	Pounds per day <u>N/A</u>	Total weight of material to be burned: <u>625</u> tons/year
Wood products:	<u>N/A</u>	On what date is it desired to begin such open burning? _____ <small>January 1st each year</small>
Household waste, except garbage:	<u>N/A</u>	How long will such open burning continue? <u>Indefinitely</u>
Petroleum waste:	<u>N/A</u>	During what hours of the day will burning be conducted: <u>12:00</u> to <u>16:00</u>
Other (describe): explosive waste, cellulosic igniters, plastic liners, and <u>explosive waste contaminants.</u>	Frequency of burning: <u>normally 1-2, max 5</u> days/week	
3. Give reasons which in your opinion justify disposal by burning rather than other methods creating less air pollution. Open burning continues to be the only proven safe method of thermal decontamination for material potentially presenting an explosives hazard (MPPEH) at HSAAP. The current DOD instructions and supplemental guidance for MPPEH continues to recommend thermal decontamination for materials such as those processed at HSAAP. No other approved method is presently available for HSAAP material. Material decontaminated on the pans usually consist of explosives or materials from the buildings where explosives are processed.		
4. Will an air curtain destructor be used to conduct this burning (yes/no)? <b>No</b>		
5. What plans have been made to reduce or eliminate open burning at this site? HSAAP has a continuous effort to reduce potentially explosive contaminated waste generated; however, open burning continues to be the only approved safe method of decontamination for material potentially presenting an explosives hazard at HSAAP.		
6. On a map with a scale of not less than 1:24,000, show the location of the following: A. The burning site. B. A road or highway within one mile of the site. C. Airports, hospitals, schools, or nursing homes within one mile of the site. D. Nearest incorporated town. E. Sanitary landfill or similar facility, within 1000 feet of the site F. Nearest residence not on the same property as the burning site. G. National reservation, wildlife area, state park or forest within 1/2 mile of the burning site.		
<b>See map at the end of this section.</b>		
7. Page number:	Revision number:	Date of revision:



**TITLE V PERMIT APPLICATION  
 COMPLIANCE CERTIFICATION - MONITORING AND REPORTING  
 DESCRIPTION OF METHODS USED FOR DETERMINING COMPLIANCE**

All sources that are subject to 1200-03-09-.02(11) of the Tennessee Air Pollution Control Regulations are required to certify compliance with all applicable requirements by including a statement within the permit application of the methods used for determining compliance. This statement must include a description of the monitoring, recordkeeping, and reporting requirements and test methods. In addition, the application must include a schedule for compliance certification submittals during the permit term. These submittals must be no less frequent than annually and may need to be more frequent if specified by the underlying applicable requirement or the Technical Secretary.

**GENERAL IDENTIFICATION AND DESCRIPTION**

1. Facility name: **BAE SYSTEMS Ordnance Systems Inc. Holston Army Ammunition Plant**
2. Process emission source, fuel burning installation, or incinerator (identify): **37-0028-10 and 37-0028-53 - HSAAP open burning ground.**
3. Stack ID or flow diagram point identification(s): **Open Burning of Explosives Waste in pans and Open Burning of Potentially Explosives Contaminated Wastes in pans, piles, or cages (see map at the end of the section)**

**METHODS OF DETERMINING COMPLIANCE**

4. This source as described under Item #2 of this application will use the following method(s) for determining compliance with applicable requirements (and special operating conditions from an existing permit). Check all that apply and attach the appropriate form(s)
  - Continuous Emission Monitoring (CEM) - APC 20  
Pollutant(s): \_\_\_\_\_
  - Emission Monitoring Using Portable Monitors - APC 21  
Pollutant(s): \_\_\_\_\_
  - Monitoring Control System Parameters or Operating Parameters of a Process - APC 22  
Pollutant(s): \_\_\_\_\_
  - Monitoring Maintenance Procedures - APC 23  
Pollutant(s): \_\_\_\_\_
  - Stack Testing - APC 24  
Pollutant(s): \_\_\_\_\_
  - Fuel Sampling & Analysis (FSA) - APC 25  
Pollutant(s): \_\_\_\_\_
  - Recordkeeping - APC 26  
Pollutant(s): **Hours log (date, start time, duration of each burn)**
  - Other (please describe) - APC 27  
Pollutant(s): **TATB alternative monitoring/limit**

5. Compliance certification reports will be submitted to the Division according to the following schedule:  
 Start date: **August 29th following the issuance of permit for the timeframe of Jul 1 to Jun 30**  
 And every **365** days thereafter.

6. Compliance monitoring reports will be submitted to the Division according to the following schedule:  
 Start date: **60 days following the accounting periods of Jan 1st - Jun 30th (August 29th) and Jul 1 - Dec 31 (March 1st)**  
 And every **180** days thereafter.

7. Page number: \_\_\_\_\_ Revision number: \_\_\_\_\_ Date of revision: \_\_\_\_\_





**TITLE V PERMIT APPLICATION  
 COMPLIANCE DEMONSTRATION BY OTHER METHOD(S)**

GENERAL IDENTIFICATION AND DESCRIPTION		
1. Facility name: <b>BAE SYSTEMS Ordnance Systems Inc. (OSI)            Holston Army Ammunition Plant (HSAAP)</b>	2. Stack ID or flow diagram point identification(s): <b>Waste explosives (pans) see section map</b>	
3. Emission source (identify): <b>37-0028-53 - Triamino-trinitro-benzene (TATB) Explosives burning</b>		
MONITORING DESCRIPTION		
4. Pollutant(s) or parameter being monitored: <b>TSP during burning of TATB</b>		
5. Description of the method of monitoring: <p><b>In lieu of limiting the total amount of TATB that can be burned* (condition E26-7) to ensure that the source does not significantly impact the Kingsport additional control area** for particulate matter specifically (total suspended particles (TSP)) OSI proposes the following:</b></p> <ul style="list-style-type: none"> <li>-TATB and any other similar material will be burned with easily combustible waste high explosives (HE) to ensure minimal particulate matter is emitted.</li> <li>-The ratio of the burn will be 60% waste high explosives (typically RDX or HMX mixtures) and 40% TATB. This ratio is derived from the burning of Composition B over the last 70 years at the ratio of 60% RDX and 40% TNT.</li> <li>-As required by the current permit condition (E26-7) proof of this mixture and its effectiveness may be required by the Technical Secretary.</li> </ul> <p>Under the provisions of TAPCR 1200-3-19-.05 the condition can be changed through this application request. Furthermore, it appears as though the current condition has expired.</p> <p>This is also requested to be used as a corrective action for the Notice of Violation dated 25 OCT 2013. This issue is referenced on APC31 in section 1 of this Title V application.</p> <p>*The condition limits seemed to have been arbitrarily established based on the predicted usage of the materials without direct correlation to impacts to the now expired additional control area.            **The Kingsport Additional Control Area means the following - (Sullivan County) - Area bounded by the South Fork of the Holston River on the south side, Wilcox Drive on the eastern side, East Sullivan Street on the northeast and West Sullivan Street on the northwest. There is no current monitoring of TSP associated with this area.</p>		
6. Compliance demonstration frequency (specify the frequency with which compliance will be demonstrated): <b>As requested by the Technical Secretary</b>		
7. Page number:	Revision number:	Date of revision:



**TITLE V PERMIT APPLICATION  
 CURRENT EMISSIONS REQUIREMENTS AND STATUS**

**GENERAL IDENTIFICATION AND DESCRIPTION**

1. Facility name: BAE SYSTEMS Ordnance Systems Inc. Holston Army Ammunition Plant	2. Emission source number Source Reference #'s: 37-0028-10 and 37-0028-53
3. Describe the process emission source / fuel burning installation / incinerator. HSAAP open burning ground. Open Burning of Explosives Waste in pans and Open Burning of Potentially Explosives Contaminated Wastes in pans, piles, or cages.	

**EMISSIONS AND REQUIREMENTS**

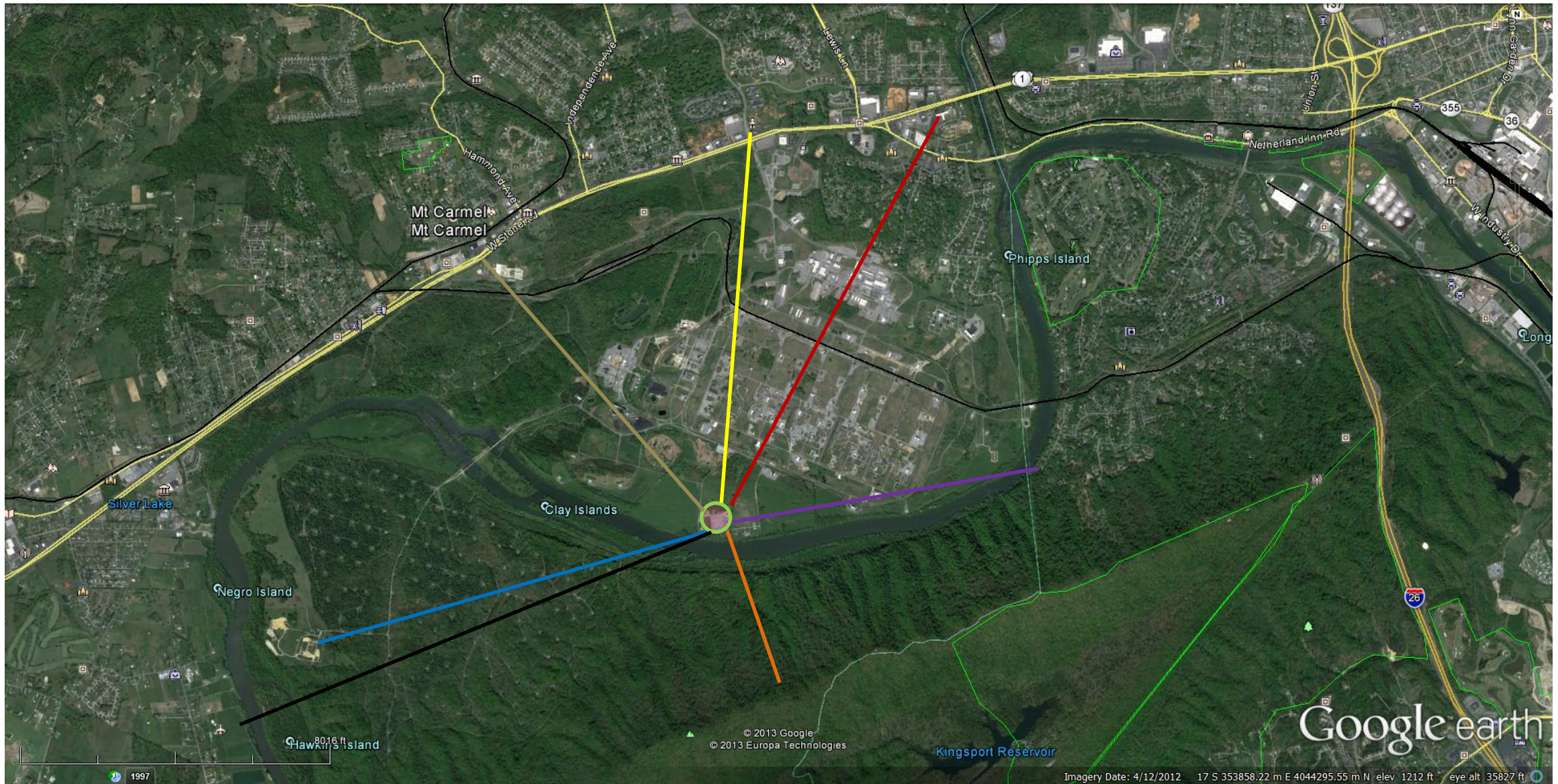
4. Identify if only a part of the source is subject to this requirement	5. Pollutant	6. Applicable requirement(s): TN Air Pollution Control Regulations, 40 CFR, permit restrictions, air quality based standards	7. Limitation	8. Maximum actual emissions	9. Compliance status ( In/Out )
37-0028-10 and 37-0028-53	<b>All</b>	Permit Conditions : Refer to current permit and Division rule 1200-3-4-.04(1)(k)	Various	NA	In









10. Other applicable requirements (new requirements that apply to this source during the term of this permit)					

11. Page number:	Revision number:	Date of revision:



## Map of HSAAP Open Burning Site Sources 37-0028-10 and 37-0028-53



 Open burning site	 0.75 Miles to nearest boundary with Bay's Mountain park
 2.0 Miles to on-site landfill	 1.9 Miles to nearest school
 1.5 Miles to nearest road, residence, and town	 2.5 Miles to nearest airfield (small craft i.e. ultralight)
 1.6 Miles to nearest Highway and Incorporated town	 2.2 Miles to nearest Nursing Home (Nearest hospital 3.0 miles away)