

Notice of Final Permit Issuance and Response to Comments

The Tennessee Department of Environment and Conservation, Division of Air Pollution Control has completed the reopening for cause of an existing major source operating permit issued to **BAE Systems Ordnance Systems Inc. (BAE)**, subject to the provisions of paragraph 1200-03-09-.02(11) of the Tennessee Air Pollution Control Regulations and has responded in writing to comments submitted during the public comment period.

The Title V operating permit subject to the reopening is identified as follows: Division identification number 37-0028/568188. Copies of the final permit, statement of basis, and response to comments are attached to this notice.

Attachment #3: Response to Comments
BAE Systems Ordnance Systems, Inc., Holston Army Ammunition Plant (37-0028)
Reopen for Cause #1 to Title V Operating Permit 568188

I. Public Comments

Comment #1 – Open Burning of PFAS

Multiple commenters submitted comments opposing the open burning of PFAS (Per- and Polyfluoroalkyl Substances) at Holston Army Ammunition Plant, as summarized below.

I am writing out of concern regarding the burning of toxic chemicals at Holston Army Ammunition Plant. I ask you to consider the extremely harmful ramification of burning many of these listed below. As I am sure you know, PFOAs are "forever chemicals", and are known to cause birth defects and cancers. The citizens of the town of Hoosick Falls in NY state are battling the consequences of PFOAs in their water supply from a factory that manufactures Teflon products from PFOA chemicals. Elsewhere General Electric for many years used PCBs from their plants to cover dusty roads and outdoor cinema parking areas. Most people had now idea that PCBs were so dangerous. These are now contaminated sites. And GE has spent a fortune to dredge PCBs from the Hudson River. No doubt yourself and other staff at the DEC, share concern for the military men and women (and of course local citizens) whose health could and would be compromised by burning any of the below listed military waste. I sincerely hope that you will research any toxic waste constituents considered for burning as munition waste.

The Tennessee Department of Environment and Conservation, Division of Air Pollution Control is reopening two existing major source operating permits issued to BAE Systems Ordnance Systems Inc. (BAE) at Holston Army Ammunition Plant, subject to provisions of the Tennessee Air Pollution Control Regulations. A major source operating permit is required by both the Federal Clean Air Act and the Tennessee Air Pollution Control Regulations. EPA will perform a 45-day review concurrently with the state public comment period. Both agencies are accepting public comment on draft conditions and permit modifications.

The proposed permit modifications include a condition that expressly prohibits open burning of asbestos, which we support, but the condition fails to address other highly toxic waste constituents in this same waste treatment stream, particularly PFAS. Exposure to PFAS has been shown to affect growth and development, reproduction, thyroid function, the immune system, injure the liver and increase risk for certain cancers.

The current permit conditions allow Holston Army Ammunition Plant to annually open burn as much as 1,250,000 pounds of munitions wastes that may contain as much as 15% PFAS by weight. PFAS are not destroyed in an open fire and are therefore widely dispersed to the air and the surrounding environment where they accumulate in people, as well as fish, wildlife and food crops. At higher temperatures, poisonous hydrogen fluoride gas may be generated. Hydrogen fluoride is a listed hazardous air pollutant subject to regulation by U.S. EPA and authorized states under the Clean Air Act, as are other air emissions from open burning at Holston.

At other Department of Defense sites like the Blue Grass Army Depot in Kentucky, the military is expressly prohibited from open burning PFAS and dozens of other toxic wastes. Both Blue Grass and Holston are located in EPA Region 4. And we are adamant that Tennessee residents, workers and environment are afforded the same level of protection as their Kentucky neighbors.

Therefore, we request that the permit condition prohibiting open burning of asbestos (or other appropriate condition) be EXPANDED to include the following which are gleaned from the Blue Grass permit. Specifically, the Permittee shall not treat, by either open burning or open detonation, munitions or wastes that contain any of the items or substances listed below:

- *Hazardous waste from offsite sources*
- *Ammunition that is 0.50 caliber or smaller*
- *Municipal waste*
- *Dunnage*
- *Containerized gases*
- *Oil*
- *Pesticides*
- *Herbicides*
- *Ammonium perchlorates*

- *Dioxins or furans*
- *Titanium tetrachloride*
- *Polychlorinated biphenyls (PCBs)*
- *Flechettes*
- *Rounds containing submunitions*
- *White phosphorus*
- *Red phosphorous*
- *Colored smoke*
- *Hexachloroethane (HC) smoke*
- *Napalm*
- *Riot control agents*
- *Biological agents*
- *Choking agents*
- *Nerve agents*
- *Blood agents*
- *Blister agents*
- *Incapacitating agents*
- *Chemical warfare materiel*
- *Components of liquid filled rounds or chemical warfare materiel*
- *Nuclear components or devices*
- *Naturally occurring radioactive materials*
- *Depleted uranium (DU)*
- *Any liquids or items containing free liquids*
- *Asbestos*
- *Munitions wastes that are a potential source of Per- and polyfluoroalkyl substances (PFAS), including Teflon, Viton, and Viton-A. This also includes both short and long chain PFAS*
- *Waste Military Munitions with a different chemical composition from those already being treated at Holston*

Source document: *Hazardous Waste Facility Permit, Open Burning and Open/Buried Detonation (OB/OD) Section, Blue Grass Army Depot, KY8-213-820-105 AI: 2805 Activity: APE20040007, November 2018.*

Online at <https://cswab.org/wp-content/uploads/2018/12/Bluegrass-Army-Depot-OBOD-Final-Permit-Nov-2018.pdf>

IMPORTANT NOTE: *These public comments are not to be construed as supporting ANY open burning at Holston – the public notice specifies that regulators are only accepting comment on proposed conditions and permit modifications and our comments are submitted in this specific context. Thank your careful consideration of our comments and recommendations.*

Response: The specific conditions related to open burning, which might be applicable to PFAS, are not open for public comment⁵. However, because PFAS is emerging as a substance of concern due to the health effects associated with these substances (see <https://www.epa.gov/pfas/basic-information-pfas#health> for a summary), a general response to the commenters’ concerns is appropriate.

The Division’s authority to regulate PFAS-related emissions is limited, because PFAS compounds are not criteria pollutants or hazardous air pollutants and are not listed pollutants under Section 111 of the Clean Air Act. Our ability to address PFAS is also limited by the lack of available information on the amount of PFAS used by the facility. One commenter submitted a table showing the PFAS content of various explosives, but we still do not know actual PFAS use. However, EPA has added PFAS to the list of substances that must be reported in the TRI for 2020, and the TRI will better identify the specific compounds emitted at the facility.

In the longer term, Holston Army Ammunition Plant is working to phase out the open burning of explosives and explosive-contaminated materials using new treatment technologies for contaminated materials. The permittee is also assessing the viability of alternative technologies for explosive wastes. Alternative treatment technologies would be subject to additional requirements, such as the hazardous waste combustor MACT (40 CFR 63 Subpart EEE) or the standards of performance for

⁵ TAPCR 1200-03-09-.02(11)(f)6.(ii) states, “Proceedings to reopen and issue a permit shall follow the same proceedings as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists, and not the entire permit. Such reopening shall be made as expeditiously as practicable.”

commercial and industrial solid waste incinerators (40 CFR 60 Subpart CCCC), which would establish standards for products of combustion of PFAS, such as hydrogen fluoride.

Comment #2 – Open Burning of PVC

One commenter requested amendment of the permit to prohibit the open burning of materials that contain polyvinyl chloride (PVC), as follows:

In addition to signing the petition to prohibit open burning of items containing PFAS, etc, we would like to bring another issue to your attention. In the past, we saw a TDEC report that indicated that HSAAP was open burning conduits and perhaps other items which contain Polyvinyl Chloride (PVC). At a meeting with BAE, HSAAP and other attendees, we advised Colonel Ortiz and Joseph Kennedy of the contents of the report (or inspection). They both assured us that PVC was not being open burned at HSAAP and any information the contrary was inaccurate. However, when we asked them if they would agree to voluntarily amend their permits to expressly prohibit such activity, they refused.

We now ask that you include a specific prohibition in the permits to prohibit the open burning of any items contains PVC. As you well know, burning PVC release Vinyl Chloride Monomer, a compound that is extremely dangerous to humans.

Response: Vinyl chloride and some of its products of combustion (chlorine and hydrogen chloride) are hazardous air pollutants subject to regulation under Section 112 of the Clean Air Act, and the Division does have the authority to regulate emissions of these pollutants. As we noted above, amending the permit to prohibit the open burning of vinyl chloride would not be in accordance with the Title V regulations for reopening of a permit, because the requested change is not open for public comment.

The report to which the commenter refers is presumably the December 2018 site visit report. That report noted that PVC containing materials, such as conduit, might be burned in rare cases but that open burning of PVC was uncommon. Since that time, the facility has improved its waste segregation, and it is PVC-containing materials are no longer sent to the burn pile.

II. Comments submitted by U. S. EPA

1. *Conditions E61-16 and E61-17 refer to Attachment 27. Attachment 27 Table for General Provisions Applicability for 40 CFR 63 Subpart DDDDD includes an entry for the applicability of §63.10(d)(5). The table states that this regulation does not apply and refers to §63.7550(c)(11). This later citation does not exist in the code of federal regulations and a different citation should be added to the permit.*

Response: Attachment 27 of the permit was updated to correct the rule citation to §63.7550(c)(5)(xiii) (A compliance report must contain the following information depending on how the facility chooses to comply with the limits set in this rule... If a malfunction occurred during the reporting period, the report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by you during a malfunction of a boiler, process heater, or associated air pollution control device or CMS to minimize emissions in accordance with §63.7500(a)(3), including actions taken to correct the malfunction).

2. *The permit lists the NO_x emission limit in Condition E61-6 as 3.63 tons during any period of 12 consecutive months. The statement of basis for this condition states, “Increased allowable NO_x emissions from 2.2 tons/year to 3.5 tons/year.” The permitting authority may wish to change the statement of basis to match the permitted limit of 3.63 tons/year.*

Response: The statement of basis was updated to note the correct increase in the emission limit for Condition E61-6.

3. *The statement of basis includes two entries for Condition E61-8 on page 11. The second entry’s emission limit matches the permit. The first entry can likely be deleted.*

Response: The duplicate entry for Condition E61-8 was removed from the statement of basis.

4. *The EPA also recommends removing Table 5 on page 16 in the statement of basis to avoid confusion.*

Response: Table 5 was removed from the statement of basis.

STATE OF TENNESSEE
AIR POLLUTION CONTROL BOARD
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
NASHVILLE, TENNESSEE 37243



**REOPEN FOR CAUSE #1 TO
OPERATING PERMIT (TITLE V) Issued Pursuant to Tennessee Air Quality Act**

This permit fulfills the requirements of Title V of the Federal Clean Air Act (42 U.S.C. 7661a-7661e) and the federal regulations promulgated thereunder at 40 CFR Part 70. (FR Vol. 57, No. 140, Tuesday, July 21, 1992 p.32295-32312). This permit is issued in accordance with the provisions of Tennessee Air Pollution Control Regulations (TAPCR) 1200-03-09-.02(11). The permittee has been granted permission to operate an air contaminant source in accordance with emissions limitations and monitoring requirements set forth herein.

Date Issued: June 26, 2018

Permit Number: 568188

Modification Date: February 1, 2021

Date Expires: June 25, 2023

Issued To:

Holston Army Ammunition Plant
BAE Systems Ordnance Systems Inc.
(HSAAP Area B Operations)

Installation Address:

4509 West Stone Drive
Kingsport

Installation Description:

Explosives Manufacturing;
Chemical Processing Operations for Preparation of RDX and HMX Explosives;
Source Listing in Table of Contents

Emission Source Reference No.: 37-0028

Renewal Application Due Date: Between September 28, 2022 and December 27, 2022

Primary SIC: 28

Information Relied Upon:

Title V Permit renewal application dated December 16, 2013. Minor Modification Application dated October 24, 2014. Significant Modification #1 application dated April 17, 2017. Application dated January 9, 2020.

(Continued on the next page)


TECHNICAL SECRETARY

No Authority is Granted by this Permit to Operate, Construct, or Maintain any Installation in Violation of any Law, Statute, Code, Ordinance, Rule, or Regulation of the State of Tennessee or any of its Political Subdivisions.

POST AT INSTALLATION ADDRESS