

TITLE V PERMIT RENEWAL STATEMENT

Facility Name:	Holston Army Ammunition Plant	(HSAAP Area B)
City:	Kingsport	
County:	Hawkins	

Date Application Received:	December 23, 2013
Date Application Deemed Complete:	October 24, 2014

Emission Source Reference No.:	37-0028
Permit No.:	568188

INTRODUCTION

This narrative is being provided to assist the reader in understanding the content of the attached Title V operating permit. This Title V Permit Statement is written pursuant to Tennessee Air Pollution Control Rule 1200-03-09-.02(11)(f)1.(v). The primary purpose of the Title V operating permit is to consolidate and identify existing state and federal air requirements applicable to Holston Army Ammunition Plant and to provide practical methods for determining compliance with these requirements. The following narrative is designed to accompany the Title V Operating Permit. It initially describes the facility receiving the permit, then the applicable requirements and their significance, and finally the compliance status with those applicable requirements. This narrative is intended only as an adjunct for the reviewer and has no legal standing. Any revisions made to the permit in response to comments received during the public participation process will be described in an addendum to this narrative.

Acronyms

PSD - Prevention of Significant Deterioration
NESHAP - National Emission Standards for Hazardous Air Pollutants
NSPS - New Source Performance Standards
MACT - Maximum Achievable Control Technology
NSR - New Source Review

I. Identification Information

A. Source Description:

Listing and description of emission sources:

- (1) Fuel Burning Installation: (6) Coal Fired Boilers and (3) natural gas fired boilers (37-00028-01-09): for steam generation

- (2) Open Burning of Explosive Contaminated Waste (37-0028-10).
- (3) Refuse Incineration Units A & B (37-0028-11): noncontaminated refuse incineration
- (4) RDX Nitration Process (37-0028-12): chemical production of RDX explosive
- (5) RDX Nitration Process (37-0028-13): chemical production of RDX explosive
- (6) HMX Nitration Process (37-0028-14): chemical production of HMX explosive
- (7) RDX and HMX Nitration Process (37-0028-15): chemical production of RDX and HMX explosive
- (8) Filtering and Washing of Crude RDX (37-0028-16): purification of RDX
- (9) Filtering and Washing of Crude RDX and HMX (37-0028-17): purification of RDX and HMX
- (10) RDX Nitration Process (37-0028-18): chemical production of RDX explosive
- (11) RDX Nitration Process (37-0028-19): chemical production of RDX explosive
- (12) RDX Nitration Process (37-0028-20): chemical production of RDX explosive
- (13) RDX Nitration Process (37-0028-21): chemical production of RDX explosive
- (14) Recrystallization of RDX (37-0028-22): purification of RDX
- (15) Recrystallization of RDX or HMX (37-0028-23): purification of RDX or HMX
- (16) Recrystallization of RDX (37-0028-24): purification of RDX
- (17) Recrystallization of RDX (37-0028-25): purification of RDX
- (18) Recrystallization and Coating of RDX (37-0028-26, -27 and portion of 37-1029-39): purification of RDX
- (19) Filtering and Washing of HMX or RDX (37-0028-28): purification of RDX or HMX
- (20) Manufacturing of 61% Nitric Acid by Ammonia Oxidation Process (37-0028-43): chemical production nitric acid from ammonia, air and water
- (21) Nitric Acid Concentration by Magnesium Nitrate Process (37-0028-44, -45, -46, -47,-48, -63, -64,-65): concentration of 61% nitric acid to 99% nitric acid with magnesium nitrate catalyst.
- (22) Lime Storage and Handling (37-0028-49).
- (23) Open Burning of Explosive Waste (37-0028-53).
- (24) Manufacturing of 61% Nitric Acid by Ammonia Oxidation Process (37-0028-56): chemical production nitric acid from ammonia, air and water.
- (25) Manufacturing of 61% Nitric Acid by Ammonia Oxidation Process (37-0028-57): chemical production nitric acid from ammonia, air and water
- (26) Manufacturing of 61% Nitric Acid by Ammonia Oxidation Process (37-0028-58): chemical production nitric acid from ammonia, air and water
- (27) Ammonium Nitrate/Nitric Acid Solution Process (37-0028-67): reaction of ammonia and nitric acid
- (28) Recrystallization of HMX (37-0028-75): purification of HMX
- (29) Coating of HMX (37-0028-76): purification in solvent and lacquer coating of HMX for plastic explosives
- (30) Filtration and Washing of HMX (37-0028-78): purification of HMX
- (31) Recrystallization and Coating of RDX (37-0028-79): purification and coating of RDX for plastic explosives
- (32) Recrystallization of RDX (37-0028-80): purification of RDX
- (33) Coating of RDX (37-0028-81): purification and lacquer/ vistanex coating of RDX for plastic explosives
- (34) Coating of RDX (37-0028-82): purification and lacquer/vistanex coating of RDX for plastic explosives
- (35) Recrystallization of RDX (37-0028-83): purification of RDX
- (36) Recrystallization of RDX (37-0028-84): purification of RDX
- (37) Coating of RDX (37-0028-85): purification in solvent and lacquer/ vistanex coating of RDX for plastic explosives
- (38) Recrystallization of HMX (37-0028-86): purification of HMX
- (39) Recrystallization of HMX (37-0028-87): purification of HMX
- (40) Coating of RDX or HMX (37-0028-88): purification and coating of RDX or HMX
- (41) Coating of RDX or HMX (37-0028-89): purification in solvent and lacquer/ plasticizer coating of HMX for plastic explosives
- (42) Lacquer Preparation (37-0028-92): mixing of solvent and binder for lacquer coating of RDX and HMX explosives
- (43) Fly Ash Storage Bin (37-0028-97): boiler flyash storage and loadout to trucks
- (44) Lime Silo @ Building 224 (37-0028-98): lime unloading to wastewater treatment
- (45) Sodium Nitrate Recovery Process (~~37-1028-29~~, 37-0028-100): concentration and drying of sodium nitrate solution
- (46) Filtering and Washing of Crude RDX (~~37-1028-37~~, 37-0028-101): purification of RDX
- (47) Filtering and Washing of Crude RDX (~~37-1028-39~~, 37-0028-102): purification of RDX

- (48) Coating of RDX or HMX (~~37-1028-90~~, 37-0028-103): purification in solvent and lacquer coating of RDX to produce PBX plastic explosive
- (49) Coal Handling System (~~37-1028-96~~, 37-0028-104): for coal feed to Area B boilers; coal crushing, screening and conveying
- (50) Lacquer Preparation (~~37-1028-98~~, 37-0028-105): mixing of solvent and binder for lacquer coating of RDX or HMX explosives
- (51) Sodium Nitrate Sludge Drying Process (~~37-1028-99~~, 37-0028-106): double drum dryer
- (52) Plasma Arc Cutting Machine (~~37-1029-03~~, 37-0028-107): for cutting of steel plate/shapes
- (53) Recrystallization of RDX (~~37-1029-05~~, 37-0028-108): purification and coating of RDX
- (54) Coating of RDX (~~37-1029-06~~, 37-0028-109): production of PBX plastic explosive
- (55) HMX and RDX Nitration Process (~~37-1029-09~~, 37-0028-110): HMX and RDX production by chemical nitration
- (56) Coating of RDX or HMX (~~37-1029-14~~, 37-0028-111): purification in solvents and coating of RDX and HMX to produce PBX plastic explosive
- (57) Filtration and Washing of Crude RDX/HMX (37-0028-77): purification of RDX or HMX
- (58) Acetic Anhydride Production and Acetic Acid Concentration (~~37-1029-16~~, 37-0028-112)
- (59) Natural gas fired only Steam Generating Units (~~37-1029-17~~, 37-0028-113).
- (60) G-8 Nitration Process (~~37-1029-20~~, 37-0028-114).
- (61) Weak Acetic Acid Recovery Process (~~37-1029-24~~, 37-0028-115)
- (62) Tanks 16A and 16B for the Weak Acetic Acid Recovery Process (~~37-1029-25~~, 37-0028-116)

Permitting Activities Since Original Permit Issuance (Previous Permit 547262)

- 1. Significant modification to sources 37-0028-01-10, to replaces ESP control with fabric filters with sorbent injection systems for boiler MACT.
- 2. Significant modification to sources 37-0028-45, -46, -47, -48, -63, -64, and -65, to limit the sources to 249 TPY of NO_x for all these sources combined to avoid BART requirements.
- 3. Minor modification to sources 37-0028-26, -27 and ~~37-1028-39~~, 37-0028-102, to change NO_x emissions from 5 TPY to 15 TPY.
- 4. Remove sources 61 and 66.
- 5. Revised Conditions B5, C1, C2, and E2(b).

Permitting Activities Since Previous Permit Issuance 558406

- (1) The following Emission Source Referenced Numbers have been changed to the new Emission Source Referenced Numbers as follow:

<u>Previous Emission Source Referenced no.</u>	<u>New Emission Source Referenced no.</u>
37-1028-29	37-0028-100
37-1028-37	37-0028-101
37-1028-39	37-0028-102
37-1028-90	37-0028-103
37-1028-96	37-0028-104
37-1028-98	37-0028-105
37-1028-99	37-0028-106
37-1029-03	37-0028-107
37-1029-05	37-0028-108
37-1029-06	37-0028-109
37-1029-09	37-0028-110
37-1029-14	37-0028-111
37-1029-16	37-0028-112
37-1029-17	37-0028-113
37-1029-20	37-0028-114
37-1029-24	37-0028-115
37-1029-25	37-0028-116

- (2) New source ~~37-1029-16~~, 37-0028-112: January 14, 2014, construction permit no 967608P issued for Acetic Anhydride Production and Acetic Acid Concentration
- (3) New source (~~37-1029-17~~, 37-0028-113): . January 14, 2014, construction permit no 967609F issued for Natural gas fired only Steam Generating Units
- (4) New source ~~37-1029-20~~, 37-0028-114: January 14, 2014, construction permit no 967610P issued for G-8 Nitration Process.
- (5) New source ~~37-1029-24~~, 37-0028-115: December 10, 2010, construction permit no 963970P issued for Weak Acetic Acid Recovery Process
- (6) New source ~~37-1029-25~~, 37-0028-116: January 14, 2014, construction permit no 967612P issued for Tanks 16A and 16B for the Weak Acetic Acid Recovery Process
- (7) New source 37-0028-117, Eight Generates sets, Four Air Compressors, and Two pums
- (8) New Source 37-0028-118, Gasoline Storage and Dispensing
- (9) Remove sources 37-0028-11,-43, -56, -57, -58 and ~~37-108-99~~, 37-0028-106
- (10) Revised Conditions A12, B5, and E2(b)

B. Facility Classification

1. Attainment or Non-Attainment Area Location

Area is designated as an attainment area for all criteria pollutants.

2. Company is located in a Class II area.

C. Regulatory Status

1. PSD/NSR

This facility is an existing major source under PSD.

2. Title V Major Source Status by Pollutant

Pollutant	Is the pollutant emitted?	If emitted, what is the facility's status?	
		Major Source Status	Non-Major Source Status
PM	y	y	
PM ₁₀	y	y	
SO ₂	y	y	
VOC	y	y	
NO _x	y	y	
CO	y	y	
Individual HAP	y	y	
Total HAPs	y	y	

3. MACT and NSPS Standards

37-0028-01-04

(4) Coal Fired Boilers is subject to 40 CFR 63, Subpart DDDDD

~~Source 37-1029-16, 37-0028-112,~~ Acetic Anhydride Production and Acetic Acid Concentration Is subject to 40 CFR 60, Subpart VVa, 40 CFR 60, Subpart NNN, 40 CFR 60, Subpart RRR, and 40 CFR 63, Subpart DDDD
~~Source 37-1029-17, 37-0028-113 :~~ Natural gas fired only Steam Generating Units is subject to 40 CFR 60, Subpart Dc, 40 CFR 60, Subpart KKKK, 40 CFR 63, Subpart DDDDD, and 40 CFR 63, Subpart YYYY
~~Source 37-1029-24, 37-0028-115:~~ Weak Acetic Acid Recovery Process is subject to 40 CFR 60, Subpart VVa, 40 CFR 60, Subpart NNN.
~~Source 37-1029-25, 37-0028-116:~~ Tanks 16A and 16B for the Weak Acetic Acid Recovery Process is subject to 40 CFR 60, Subpart VVa, 40 CFR 60, Subpart Kb.

4. Program Applicability

Are the following programs applicable to the facility?

PSD: yes

NESHAP: yes

NSPS: yes

II. Compliance Information

A. Compliance Status

Is the facility currently in compliance with all applicable requirements? Yes

Industrial boilers, 40 CFR §63 Subpart DDDDD or the Boiler MACT: Compliance date extended to 1-31-2017..

III. Other Requirements

A. Emissions Trading

The facility is not involved in an emission-trading program.

B. Acid Rain Requirements

This facility is not subject to any requirements in Title IV of the Clean Air Act.

C. Prevention of Accidental Releases

This facility is subject to 40 CFR 68 as of June 21, 1999.

VI. THE FOLLOWING AGENCIES WERE NOTIFIED OF THE TITLE V DRAFT PERMIT FOR THIS COMPANY:

1. EPA, Region IV
2. The NC Dept. of Environment and Natural Resources
3. Virginia Department of Environmental Quality
4. Kentucky Division for Air Quality

V. ADDENDUM TO TITLE V PERMIT STATEMENT: SUMMARY OF COMMENTS

Facility Name:	Holston Army Ammunition Plant	(HSAAP Area B)
City:	Kingsport	
County:	Hawkins	

Date Application Received:	December 23, 2013
Date Application Deemed Complete:	October 24, 2014
Date of Public Notice:	May 18, 2016
Date of Public Hearing Notice:	July 8, 2016
Date of Public Hearing:	August 18, 2016

Emission Source Reference No.:	37-0028
Permit No.:	568188

Comments:

Comments were received during the initial 30-day public notice period and the public hearing conducted on August 18, 2016, including the 10-day period following the hearing. Because of the number of comments received, the summary of comments (with responses) is drafted as a separate document external to this statement of basis.

VI. Revisions to Draft Permit Incorporated for Proposed Permit Forwarded to EPA Post- Public Hearing

Condition E1: updated dates for present and next annual accounting periods under the fee table.

Condition A8. Updated and revised fee payment.

Conditions B5 and E2(a): updated Federal Register date and page numbers for Rule cite.

Add new conditions for Open Burning of Explosive Contaminated Materials for source 37-0028-10 as follows:

Condition E5-9(new) The open burning of materials, handling and disposal of ash and other waste generated from this burning process must be conducted in accordance with all applicable Tennessee Division of Solid Waste Management regulations.

TAPCR 1200-03-09-.03(8)

Condition E5-10 (new). The permittee shall not open burn demolition debris, or any other materials, that contain PCBs (e.g., pumps, motors, painted piping, painted masonry or wood, caulking, waste oil, etc.) without the permission of the United States Environmental Protection Agency (EPA).

Letter from Jon D. Johnston, Chief, Materials and Waste Management Branch, Resource Conservation and Restoration Division, EPA Region 4, dated March 25, 2016 enclosed as Attachment 24. TAPCR 1200-03-09-.03(8)

Condition E5-11 (new) The facility shall review available information related to alternatives to open burning of explosives and explosive-contaminated and or potentially explosive contaminated combustibles annually, and submit a statement signed by the Responsible Official certifying whether or not there are safe alternatives to open burning these materials. In the event a safe alternative is discovered, the statement shall include a plan and schedule to implement the new method of disposal explosive contaminated materials and explosive waste.

The statement shall be submitted by March 1st of each year beginning March 1, 2019. Hard copies or electronic copies (PDF) of the statement shall be submitted to both the Environmental Field Office and Nashville Central Office at the following addresses:

Adobe Portable Document Format (PDF) Copy to:

Hard Copy to:

Technical Secretary
Division of Air Pollution Control
Johnson City Environmental Field Office
2305 Silverdale Road
Johnson City, TN 37601-2162

APC.JCEFO@tn.gov

Technical Secretary
Division of Air Pollution Control
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, TN 37243

Air.Pollution.Control@tn.gov

TAPCR 1200-03-04-.04(1)(k), TAPCR 1200-03-10-.02(1)(a)

Add new conditions for Open Burning of Explosive Waste for Source 37-0028-53 as follows:

Condition E26-9 (new) The open burning of materials, handling and disposal of ash and other waste generated from this burning process must be conducted in accordance with all applicable Tennessee Division of Solid Waste Management regulations.

TAPCR 1200-03-09-.03(8)

Condition E26-10 (new). The permittee shall not open burn demolition debris, or any other materials, that contain PCBs (e.g., pumps, motors, painted piping, painted masonry or wood, caulking, waste oil, etc.) without the permission of the United States Environmental Protection Agency (EPA).

Letter from Jon D. Johnston, Chief, Materials and Waste Management Branch, Resource Conservation and Restoration Division, EPA Region 4, dated March 25, 2016 enclosed as Attachment 24. TAPCR 1200-03-09-.03(8)

Condition E26-11(new). The facility shall review available information related to alternatives to open burning of explosives and explosive-contaminated and or potentially explosive contaminated combustibles annually, and submit a statement signed by the Responsible Official certifying whether or not there are safe alternatives to open burning these materials. In the event a safe alternative is discovered, the statement shall include a plan and schedule to implement the new method of disposal explosive contaminated materials and explosive waste.

The statement shall be submitted by March 1st of each year beginning March 1, 2019. Hard copies or electronic copies (PDF) of the statement shall be submitted to both the Environmental Field Office and Nashville Central Office at the following addresses:

Adobe Portable Document Format (PDF) Copy to:

Hard Copy to:

Technical Secretary
Division of Air Pollution Control
Johnson City Environmental Field Office
2305 Silverdale Road
Johnson City, TN 37601-2162

APC.JCEFO@tn.gov

Technical Secretary
Division of Air Pollution Control
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, TN 37243

Air.Pollution.Control@tn.gov

TAPCR 1200-03-04-.04(1)(k), TAPCR 1200-03-10-.02(1)(a)