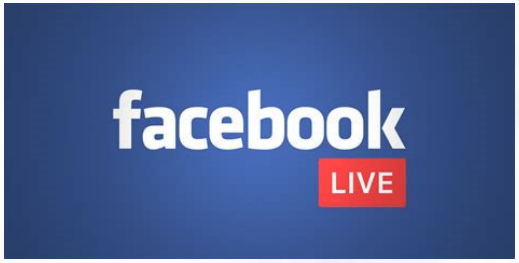
Holston Army Ammunition Plant

Community Meeting
11 April 2019
ETSU Allandale Campus

Agenda

- Welcome, Meeting Guidelines
- Introductions
- Accident on January 3rd
- Open Burning of Certain Solid Wastes
- Open Burning Alternatives
- Questions and Answers



Like us at [Holston Army Ammunition Plant]

Introductions

U.S. Army

COL Luis Ortiz
Commander,
Pine Bluff Arsenal

Joe Kennedy
Commander's Representative
Holston Army Ammunition Plant

Laura Peters
Environmental Engineer
Holston Army Ammunition Plant

Justine Barati
Director of Public &
Congressional Affairs
Joint Munitions Command

BAE Systems

Bob Winstead
BAE Systems Platforms and Services
Environmental Manager

William Shelton
Environmental Manager
Holston

Christopher Finley
Communications Manager

Participant Guidelines

Guidelines:

- All participants are to treat each other with courtesy and respect.
- When someone is speaking, do not interrupt them.
- Raise your hand if you have a question or comment.
- Keep questions and comments concise.
- Do not become verbally combative with other attendees or participants.

Recording Devices

- Authorized under Tennessee law

Failure to comply:

- First instance of non-compliance will receive a verbal reminder of the guidelines.
- Second instance of non-compliance will receive a verbal reminder of the guidelines and notification that a third instance will result in removal from the meeting.
- Third instance of non-compliance will result in the offender being removed from the meeting.

Accident on January 3rd

- **Accidental building fire on 3 January**
  - One person was sent to the hospital for observation, but was released.
  - Explosives caught fire, and there was an associated explosion.
  - Production workers were sent home that day.
- **Plant has resumed operations**
- **The accident is still under investigation**
- **Injuries and damages were minimized due to our safety procedures**

Accident on January 3rd Environmental Actions

- **Past/Current Actions**
  - Approximately 38 lbs of Nitrous Oxides (NOx) was calculated as the maximum release potential from combustion or detonation of explosives
    - Reported as required under regulations
  - Water samples from site runoff were analyzed for explosives
    - Water sample detection at Holston River was below the regulatory limit
    - Water samples in the river at the plant boundary were non-detect
  - Soil samples from site runoff path showed explosives only present at the incident scene
  - Any surface water run-off is contained to the site
  - Fragments outside the primary incident area were collected and disposed
- **Future Actions**
  - Once investigations are complete, continue debris removal and complete soil sampling
  - Execute any soil cleanup efforts

ASA Installation, Energy and Environment
Open Burning (OB) of Certain Solid Waste

Requirements Covered Under Phase 1 Effort

- Make a concerted effort to reduce reliance on OB
- Terminate OB of waste not contaminated with explosives residues in sufficient concentrations to pose an explosive hazard.

  - Determined volume, type, and sources of waste sent to OBG
  - Implementing evaluation program under DODI 4140.62, Material Potentially Presenting an Explosive Hazard
    - Identified and established Criteria for Expert Knowledge
    - Implementing Training Program for HSAAP personnel
    - Initiated some reductions in the past several years
      Laundered coveralls, boots, lab coats and hats have been diverted
    - Developing material assessment program for demolition projects

Open Burning Waste Diversion

- **Implementing a complete program to divert waste from the burning grounds**

Past	→	Present	→	Future
All production area wastes are burned		Wastes are evaluated and diverted if no potential for contamination		New program to evaluate and document demolition and some production wastes as safe

  - Started a deliberate process to further evaluate waste streams
  - It will be used for candidate waste streams across the production area
  - Ongoing training program and process changes for the first waste streams
  - Hiring additional personnel for the program

ASA Installation, Energy and Environment
Open Burning (OB) of Certain Solid Waste

Requirements Covered Under Other Efforts

- Identify, Plan and Budget to procure technology appropriate to accomplish requirements
- Procure closed-disposal technology no later than Fiscal Year 2024. Expedite if possible.
  - Phase 1 – initiated 2015
  - Phase 2 – initiated 2017
  - Phase 3 – initiated 2019
  - Phase 4 – initiate subsequent to positive completion of Phase 3

Open Burning Alternatives (Phase 2)

- **BAE submitted Certification Statement February 28, 2019, along with Army Selection Memo**
  - Identified a furnace technology to pursue as alternative to cage and pile burns
  - Identified a second technology for pan burns; requires additional information
- **Army selections were made based on the HSAAP study of available potential thermal and non-thermal alternatives to open burning**
- **HSAAP's study of open burning alternatives against site specific waste streams is presented in the Thermal/Non-Thermal report issued on April 1, 2019.**

Open Burning Alternatives (Phase 2)

- **Vendors providing potential technologies were identified through research and discussions with subject matter experts**
- **Vendor contact and other research identified 25 potential technologies**
- **Of the 25 technologies, 5 were identified as potentially viable for HSAAP waste**
  - 20 technologies were not considered potentially viable for HSAAP waste, because they did not meet the primary screening criteria:
    - Technology Maturity
      - Based on site specific waste
      - Based on treatment volume
    - Demonstration of Safety
    - Environmental Permit Attainability

Open Burning Alternatives (Phase 2)

- **5 potentially viable technologies were compared against 3 main secondary screening criteria**
  - Utility Accessibility
  - Operational Feasibility
  - Commercial Availability
- **A preliminary location availability assessment was also included in the study**

Open Burning Alternatives (Phase 2)

- **Potentially Viable Technologies**
  - Contained Burn Chamber
  - Flashing Furnace/Car Bottom Furnace
  - Moving Bed Reactor
  - Rotary Kiln Incinerator
  - Static Detonation Chamber

- **Moving Forward**
  - A Flashing Furnace/Car Bottom Furnace is being pursued as a potential alternative to pile and cage waste
  - The Moving Bed Reactor technology is undergoing additional research

Open Burning Alternatives (Phase 2)

- **Flashing Furnace/Car Bottom Furnace**
  - Furnace System that can burn combustibles or decontaminate non-combustibles
  - Contained system that collects and treats air emissions
  - Limits items to be treated to the size of the system's door and overall length
  - Expected to treat a large portion of cage and pile waste
  - Offered by multiple vendors

Open Burning Alternatives (Phase 2)

- **Moving Bed Reactor**
  - Furnace System that burns and/or detonates explosives safely in a chamber
  - Steel balls are gravity fed through the chamber with the explosives and gradually heated
  - System is built to safely withstand detonations per the designed volume of explosives
  - Offered by one vendor
  - Does not exist currently in the US (siting and permitting)
- **Conducting additional research to verify safety siting can be achieved and at what system size**
- **Additional work is dependent on outcome of additional research**

Design (Phase 3) / Construct (Phase 4)

- **Flashing Furnace/Car Bottom Furnace**

- **Anticipated Timeline**

Current → ***2021*** → ***2024***

Steps:

1. **Design Contract**
2. **Design, Permit (TDEC & EPA), Department of Defense Explosives Safety Board**
3. **Construction Contract**
4. **Construction & Commission**

Holston Army Ammunition Plant

Next Community Engagement

- **Commander's Community Meeting**
  July 10, 2019
  6:00 P.M. – 7:30 P.M.
  ETSU Allandale Campus

Information is Available

Our commitment to responding to your questions doesn't end tonight. Resources exist for you to research information on your own or ask questions of our personnel.

Resources

Facebook: Like us at Holston Army Ammunition Plant

Homepage: http://www.jmc.army.mil/Installations.aspx?id=Holston

Justine Barati
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Questions