## Delgado, Paige

**From:** Malone, George
**Sent:** Wednesday, November 20, 2013 12:40 PM
**To:** Delgado, Paige
**Subject:** FW: Explo Systems, Inc./13-12046-S11, USBC, WD LA (UNCLASSIFIED)
**Attachments:** 17 Sep 13 CERCLAExplo-declaration2_PD 91313 Army DDESB Comments.docx

Here you go

-----Original Message-----
From: Malone, George
Sent: Monday, September 30, 2013 4:19 PM
To: Pearson, Evan
Subject: FW: Explo Systems, Inc./13-12046-S11, USBC, WD LA (UNCLASSIFIED)

Here is Paige's draft declaration, with comments by the Army. We did not address the Army's comments as a shorter declaration was used.

_____
From: Malone, George
Sent: Thursday, September 19, 2013 11:21 AM
To: Delgado, Paige
Subject: FW: Explo Systems, Inc./13-12046-S11, USBC, WD LA (UNCLASSIFIED)

Paige - there is really nothing to do with this for the time being. Your short declaration was used to oppose the sale of M6. This longer declaration was going to be used to support the La. motion to dismiss, and that is no longer necessary. I recommend you review it and we can discuss, but we don't have respond to the Army concerning this. Thanks.

-----Original Message-----
From: Lewis, Robert M CIV (US) [mailto:robert.m.lewis8.civ@mail.mil]
Sent: Tuesday, September 17, 2013 1:19 PM
To: Malone, George; Ives, James M CIV (US); Friedman, Scott J CPT USARMY HQDA OTJAG (US); Wright, Ann L CIV (US)
Cc: Thrall, Robert (USALAW); Thomas.Carroll@USDOJ.GOV; Edgar, Mary (ENRD); Blesi, Sam (ENRD)
Subject: RE: Explo Systems, Inc./13-12046-S11, USBC, WD LA (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Mr. Malone:

Attached are the Army's technical comments on the Delgado declaration for your consideration.

Robert M. Lewis

Senior Trial Attorney
U.S. Army Legal Services Agency
Environmental Law Division
9275 Gunston Rd, Suite 4305
FT Belvoir, VA 22060-5546
Phone: 703-693-0394
Fax: 703-806-0900

E-Mail: robert.lewis3@us.army.mil



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-----Original Message-----
From: Thrall, Robert (USALAW) [mailto:Robert.Thrall@usdoj.gov]
Sent: Tuesday, September 17, 2013 9:49 AM
To: Carroll, Thomas (ENRD); Edgar, Mary (ENRD); Blesi, Sam (ENRD); Malone, George (Malone.George@epa.gov); Chatelain, Elizabeth D. (ATF); Ives, James M CIV (US); Friedman, Scott J CPT USARMY HQDA OTJAG (US); Lewis, Robert M CIV (US); Wright, Ann L CIV (US)
Subject: Explo Systems, Inc./13-12046-S11, USBC, WD LA

More FYI.

Robert A. Thrall
Assistant United States Attorney
Western District of Louisiana
300 Fannin Street, Suite 3201
Shreveport, LA 71101
(318)676-3609/Cell (318)834-2063
Facsimile (318)676-3642
robert.thrall@usdoj.gov

Classification: UNCLASSIFIED
Caveats: NONE

IN THE UNITED STATES BANKRUPTCY COURT
WESTERN DISTRICT OF LOUISIANA
SHREVEPORT DIVISION

| | | |
|---|---|---|
| IN RE: | ) | |
| EXPLO SYSTEMS, INC. | ) | CASE NO. 13-120460 |
| DEBTOR | ) | CHAPTER 11 |

**DECLARATION OF PAIGE DELGADO**

I, Paige Delgado, state as follows to the best of my knowledge, information and belief:

1. I have reviewed EPA Region 6 files in preparing this declaration and/or have personal knowledge of facts set forth in this declaration.

2. I have been employed with the United States Environmental Protection Agency ("EPA"), Region 6 as an On-Scene Coordinator, since January 18, 2009. My current position is an On-Scene Coordinator in the Region 6 Superfund Division. Region 6 encompasses the states of New Mexico, Oklahoma, Arkansas, Louisiana, and Texas. Prior to my employment at EPA, I was employed by Weston Solutions, Inc. and worked as an EPA Superfund Technical Assistance and Response Team Contractor from 2001-2009. Since 2009, I have conducted several oil and hazardous materials emergency responses and removal actions as an On-Scene Coordinator in the Superfund Division. In performing my duties as the EPA On-Scene Coordinator, I coordinate on-going site issues with the State and Federal Agencies and provide advice and recommendations to final decision-makers throughout the Region and EPA Headquarters with respect to the Camp Minden Site, located in Webster Parish, Louisiana. I have successfully completed the Explosives

Safety Course for Explosives Handlers in compliance with the Louisiana Administrative Code Title 55, Part I, Chapter 15. Explosives Code.

3. As an EPA On-Scene Coordinator, my official responsibilities include assessing the need for removal response actions pursuant to Section 104(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, 42 U.S.C. § 9604(a), and 40 C.F.R. § 300.415(a) and (b), of the National Oil and Hazardous Substances Contingency Plan (NCP), codified at 40 C.F.R. Part 300 et seq. On-Scene Coordinator responsibilities encompass performing all aspects of the technical and administrative management of removal actions at Superfund sites. I exercise lead responsibility for conducting removal response actions using Superfund funds to clean up sites contaminated with hazardous substances, pollutants, or contaminants under CERCLA Section 104(a) and 40 C.F.R. § 300.415(e). I also exercise lead oversight authority for removal actions conducted by potentially responsible parties either under a CERCLA Section 104(a) agreement, or an order issued by EPA under CERCLA Section 106(a), 42 U.S.C. § 9606(a). The factors considered when assessing the need for conducting a removal response action under 40 C.F.R. § 300.415(b), due a release or threat of a release of hazardous substances into the environment from a facility is addressed below. The different types or removal response actions as provided in 40 C.F.R. § 300.415 (e), is also addressed below, and applied to the Explo Systems, Inc. facility located in Camp Minden Louisiana.

**BACKGROUND**

Removal Site Evaluation

4. The Explo Systems Site (Site) is located at 1600 Java Road, Minden, LA

71055-7924, within the boundaries of Camp Minden. The Site encompasses approximately 134 acres. On Camp Minden there are two other companies with operations similar to Explo Systems, Inc. (Explo). Java Road is the northern boundary of the Explo lease with the Louisiana National Guard. The remaining areas that border the Explo facility included undeveloped forested land. The town of Doyline, with an estimated population of 800 people, is located less than 4,000 feet south of the Explo facility. A railroad switching and storage yard is approximately 500 feet to the northwest of the Site. Paved roads and tank trails traverse the entire Camp Minden property. While Camp Minden is fenced and patrolled by on-duty National Guardsmen, deer hunting is allowed by permit on the base. The Louisiana National Guard Youth Challenge Program (school) and the Webster Parish Prison are also located on Camp Minden.

5. Explo Systems, Inc. (Explo) operated under several contracts with the U.S. Army (i.e., November 16, 2006 and March 24, 2010) or subcontract agreements with parties such as General Dynamics-OTS (i.e., September 19, 2011, and January 17, 2012) for the demilitarization or dismantling of munitions. One of Explo's processes included the dismantling of 750 lb. and 2,000 lb. bombs and recovering the explosive ~~charges~~fill, the metals found in the bombs, and other materials used for packing and transport of the weapons or charges. Another process addressed packaged dunnage bags of propellants. ~~The process of demilitarizing howitzer cartridges containing M6 propellant and~~ Explo System's improper storage of the M6 Propellant and other explosive materials most likely caused ~~resulted in~~ an ~~explosion~~ explosives incident occurring at the Site.

6. On 15 October 2012, the explosion of a magazine and two tractor trailers containing black powder and M6 propellant at Explo Systems shattered windows in Minden, LA (i.e., approximately 4 miles northeast from the explosion site) and generated a 7,000-foot

**Comment [k1]:** Not sure what is being addressed.

**Comment [JCK2]:** COL Bradley, "Recommend, This should be 155mm Propelling Charges. (Technically it should be D533, Charge, Propelling 155 M119A2.)

**Comment [JCK3]:** On what information is this based. The demilitarization process would not have contributed to the incident, as the incident occurred at a separate location. We have no information about what actually caused the incident or whether M6 was involved.

**Comment [k4]:** Not sure the investigation is completed, nor the real cause. We have been provided only information indicating an explosion occurred. We were informed it was M6. Propellant rapidly deflagrates, but in confinement it can cause a detonation.

mushroom cloud. The explosion resulted in the complete destruction of the storage magazine containing the material, the tractor trailers parked outside the magazine, damage to 10 railcars, and the release of unconsumed M6 propellant over ¼ mile from the site of the ~~explosion~~ explosive incident requiring remediation.

7. On 27 November 2012, the Louisiana State Police (LSP) identified approximately 10 million lbs. of unsecured M6 Propellant and other explosives at the Explo Systems Site. M6 propellant was stored in 60 lb. paper boxes, 140 lb. paper drums, and 880 lb. super sacks throughout the Explo Systems, Inc. buildings, hallways and outside the facility, where it was exposed to the elements (i.e., heat, wind, and rain).

8. During an action overseen by the Louisiana State Police, Explo Systems employees relocated the unsecured explosives to magazines. Explosives from Explo currently occupy 98 magazines at Camp Minden. The magazines storing the explosives are located ~~in explosive~~in explosive magazine storage areas known as L-2, L-3, and L-4. The magazines hold a maximum of 125,000 lbs. or 300,000 lbs, depending on the configuration of the magazine, the type of packaging, and type of explosives stored within each magazine.

**RELEASE OR THREATENED RELEASE INTO THE ENVIRONMENT**

Explosives and Materials found at the Site

9. Overall, approximately 18,000,000 pounds of M6 propellant and other explosives are stored within magazines at Camp Minden. The explosive materials stored on Site are as follows:

- 128 lbs. of black powder
- 200 lbs. of Composition H6
- Four 50-gallon drums of ammonium perchlorate
- Two 50-gallon drums and 3-50 lb. boxes of Explosive D (ammonium picrate)
- 109,000 lbs. of M30 propellant
- 320,000 lbs. of Clean Burning Incendiary (CBI)

- 661,000 lbs. of Nitrocellulose
- 1.817 million lbs. of Tritonal (aluminum/TNT) mixture
- 15 million lbs. of M6 propellant
- Unknown volume of Red Water (water contaminated with TNT)
- Effluent associated with the Super Critical Water Oxidation Unit (SCWO)

The inventory was initially provided to LANG by Explo Systems, Inc., and later modified by Department of Defense (~~DOD~~DOD), Explosives Safety Board (ESB) during Technical Assistance/Safety Assessments performed at the Explo Site, and documented by April 18, 2013, and June 20, 2013, Reports. In addition to the explosive materials stored at Camp Minden, an additional 2.6 – 3 million pounds of M6 is stored in Camden, Arkansas. The M6 propellant in Camden, Arkansas poses similar risk to the public health, welfare and the environment due to the stability concerns, and the potential for a loss of stabilizers to cause an auto-~~igniting~~ ignition ~~capability~~ of the M6 propellant.

**Comment [k5]:** Not factually correct, it was by an Army TAV from USATCES.

**Comment [JCK6]:** (Terry Trivitt "No one from DoD or Army has seen or evaluated the material at Camden, Arkansas. We don't know how it is stored, what packaging configuration it is in, if propellant lot identity has been lost"

10. The M6 propellant is a mixture of nitrocellulose, dinitrotoluene, dibutylphthalate, and diphenylamine. This mixture, primarily due to the nitrocellulose is extremely reactive and is characteristic hazardous waste, D003, as defined by 40 C.F.R. §261.23. Characteristic hazardous waste are hazardous substances under CERCLA Section 101(14), 42 U.S.C. § 9601(14). Dinitrotoluene and dibutylphthalate are listed hazardous substances under 40 C.F.R. §302.4. Dinitrotoluene is also a listed hazardous waste, D030, under 40 CFR 40 C.F.R. §261.30. The diphenylamine is a stabilizer.

11. The primary component of Tritonal (aluminum/TNT mixture) and a large portion of Composition H6 is trinitrotoluene (TNT). TNT can cause damage to the liver, anemia, and to the male reproductive system. Degradation of the Tritonal or aluminum/TNT mixture will result in the formation of pink or red water. Pink or red water from TNT is a listed hazardous waste (i.e., K047), under 40 C.F.R. §261.32. Listed hazardous waste are hazardous substances under CERCLA Section 101(14), 42 U.S.C. § 9601(14).

12. The M30 propellant is a mixture of nitrocellulose, nitroglycerin, nitroguanidine, and Centralite. Nitroglycerin is a listed hazardous substance under 40 CFR §302.4. Nitroguanidine is an extremely low sensitivity explosive with a high detonation velocity. A stabilizer is also added to the M30.

13. Nitrocellulose, found by itself and as a constituent of the propellants is extremely reactive and is a characteristic hazardous waste, D003, as defined by 40 CFR §261.23. Nitrocellulose is a listed hazardous material, UN 2556. Characteristic hazardous waste are hazardous substances under CERCLA Section 101(14), 42 U.S.C. § 9601(14).

14. Composition H6 is another mixture of TNT and aluminum but is 45% cyclotrimethylenetrinitramine, also known as RDX. RDX is another powerful explosive and is a characteristic hazardous waste, D003, as defined by 40 CFR §261.23. In the H6 mixture, its power is increased by the addition of aluminum.

15. Ammonium picrate is a hazardous substance under 40 CFR §302.4. It is highly explosive and can form crystals that are extremely shock sensitive.

16. The hazardous substances are designated in Section 101(14) of CERCLA, 42 U.S.C. §9601(14) and 40 CFR §302.4.

Previous Actions and Management of the Explosives at the Site

17. From 28 November – 17 May 2013, LSP and Explo employees secured the M6 Propellant (approximately 10 million lbs.) and other explosive materials within the magazines at Camp Minden. From 28 November – 7 December 2012, the town of Doyline, LA (approximately 400 homes) was evacuated during operational hours. Also, the Youth Challenge Program (school) at Camp Minden was evacuated as well as all non-essential personnel and operations at Camp Minden while the volume of unsecured M6 Propellant required a minimum of a 4,000-foot safe

distance, due to risk of explosion. The Webster Parish Prison at Camp Minden conducted a shelter-in-place while operations to secure the explosives occurred.

18. On April 2-3, 2013, at the request of the Louisiana National Guard (LANG), a team from the ~~DOD (US ARMY) Explosives Safety Board (ESB)~~Army's Technical Center for Explosives Safety, led by the Army's Military Representative to the DoD Explosives Safety Board (DDESB) conducted a safety assessment of the hazards associated with the M6 propellant at EXPLO Systems, Incorporated at Camp Minden, LA. ~~On~~ During May 7 ~~-~~ to 9, 2013, Army's US Army Technical Center for Explosives Safety, led by a member of the Army's DA G-4~~a team from the DOD (US ARMY) ESB~~ conducted, at the request of the LANG and LASP, an assessment of the potential hazards associated with approximately 130,000 pounds of Tritonal and TNT that Explo had stored in building 1650~~a safety assessment of all the explosive hazards associated with Explo Systems, including the Explo facility at "S-Line" and the storage magazines at Camp Minden~~. Reports included concerns about the stability of the M6 propellant ~~and other explosives~~ due to loss of lot integrity, improper storage conditions, and lack of a stability monitoring program. The ~~ESB~~ TAV team recommended the disposal of the ~~explosives~~ propellant and other explosives by open burn/open detonation (OBOD) at Camp Minden. During a meeting on August 1, 2013, the TAV, DoD representative ~~the ESB~~ indicated the likelihood of a magazine explosion increases within the next 2 years due to instability concerns (~~i.e.,~~e.g. ~~the~~, the stability of the explosives cannot be guaranteed due to the loss of lot integrity~~/~~ and identity, improper storage exposing propellant to heat and moisture) associated with the explosives at the Site. In light of the fact that it may take 1.5 years or more to dispose of the explosives at the Site, it is imperative that the disposition of the materials commence by January 1, 2014.

19. On 5 August, 2013 the Bureau of Alcohol, Tobacco and Firearms (ATF) revoked

**Comment [JCK7]:** Terry Trivitt "Due to uncertainty of stability, the likelihood of auto ignition of the M6 was expressed as occurring within a time frame of 2-10 years, not within the next 2 years."

**Comment [JCK8]:** Terry Trivitt "Improper outside storage of the M6 material also contributed to the uncertainty of the propellant stability. High temperatures and moisture accelerates degradation of the stabilizer thus affecting overall stability"

**Comment [k9]:** The only imperative is to re-establish the propellant stability management program, re-establishing a baseline of the stabilizer, with continued monitoring. This will provide a relative idea of the M6's propellant.

Explo Systems, Inc. explosives licenses as a result of the indictments of Explo's management and employees by the State of Louisiana. Without a valid explosives license, Explo Systems is restricted from the "control of explosives," thus impeding the handling, shipping, possessing or otherwise dealing with explosives 18U.S.C. § 842(i).

Current Actions to Address the Explosives

20. The previously unsecured explosives at S-Line are currently secured within 98 explosive storage magazines at Camp Minden in a manner consistent with DoD explosives safety criteria. Without valid explosives licenses with ATF and/or the State of Louisiana, Explo Systems cannot legally perform any action that "controls explosives." A stability monitoring program is not in place for the ~~explosives~~ propellant stored at Camp Minden. The deterioration of ~~the stability of the explosives~~stabilizer in the M6 ~~continually~~ increases the risk of auto-~~detonation~~ ignition of the ~~explosives~~ propellant accompanied by rapid deflagration. In confined areas, like a magazine, this may result in an ~~and a magazine explosion~~ explosive incident similar to that of October 2012.

Comment [JCK10]: COL Bradley, "The Department has no means of verifying this is true. The material is not in DoD-approved packaging, and may not have been stored in a manner consistent with DOD requirements, other than NEW.

21. On August 13, 2013, Explo filed for Chapter 11 Bankruptcy and the proceedings for the reorganization of the company, and reconciliation of debts is proceeding.

**THREATS TO PUBLIC HEALTH, WELFARE, AND THE ENVIRONMENT**

Risks to Public Health, and Welfare

22. Threat of Fire or Explosion per 40 C.F.R. § 300.415(b)(2)(vi): The primary threat from the 18 million lbs. of explosive materials stored in the magazines at Camp Minden is the explosion potential. Blast/explosion models created by the ~~DOD~~DOD ESB show that the town of Doyline, Youth Challenge Program School, Webster Parish Prison, and Command Center for

LANG at Camp Minden were within the danger zone where property damage, injury, and potential casualties were expected from the unsecured explosives at the Explo Site. The relocation of the M6 propellant into magazines mitigated the impact from a large chain-reaction explosion~~, but did not eliminate the threat to surrounding the population, property, and environment~~.

23. As it concerns M6 propellant, diphenylamine is added during manufacturing to increase the stability of the propellant overall, and specifically to counteract the inherent instability of nitrocellulose. M6 propellant is composed of approximately 86% nitrocellulose. According to the Department of the Army's, *Military Explosives*," ~~Only~~ only about one percent DPA (diphenylamine (stabilizer)) can be added to a propellant because its nitrated products change the ballistic properties." As nitrocellulose degrades, nitrogen oxides are lost, which increases the further degradation of the nitrocellulose and subsequently increases the degradation of the diphenylamine (stabilizer). "After a few years the reaction rate in samples of sufficient size is so fast that the propellant self-heats above the flame point and will self ignite," *Military Explosives*, Department of the Army.

24. Based on the above concerns, the ~~DOD ESB~~Army TAV report recommended that the ~~explosives~~ M6 propellant stored in the magazines undergo disposal or consumption rather than long-term storage due to stability concerns. As stated in the U.S. Army publication titled *Prediction of Safe Life of Propellants*, "…artillery propellants are subject to degradation with aging, the end result being spontaneous ignition." As propellant ages, the stabilizers in the propellants decrease. According to The U.S. Army Defense Ammunition Center's *Propellant Management Guide*, "Stabilizers are chemical ingredients added to propellant to prevent auto-ignition during the propellant's expected useful life." Exposure to heat accelerates the decrease of stabilizer. The improper storage practices of the M6 propellant at the Explo Site

**Comment [k11]:** This was true to an extent, but overstates. Propellant in proper storage (in storage igloos) is limited so as to contain an incident to a single magazine. Magazines are designed to vent through the roof and door. The damage would be expected to be localized and retained within Camp Minden.

**Comment [JCK12]:** Jim Young "Recommend deleting this, Mitigation does not imply it is eliminated,. In fact, the hazards were significantly reduced."

**Comment [JCK13]:** Terry Trivitt "With proper earth covered magazine storage of the M6 propellant, the threat to the general public has been mitigated. The threat to the occupants, property, and environment (on post at Camp Minden) still exists."

exposed the propellant to heat and weathering that increased the reduction of stabilizer in the material. According to the *Propellant Management Guide*, "nitrate ester-based propellants (principally nitrocellulose-based ones) have the propensity to self-ignite (auto-ignite) without warning while in static storage; catastrophic losses can result," with low percentage of stabilizer.

25. The stability monitoring program employed by Explo was inadequate according to the ~~DOD ESB~~Army's TAV report. Due to the mixing of the "Lots" assigned to the M6 propellant by Explo Systems, Inc., per the U.S Army's Propellant Monitoring Program detailed in the *Propellant Management Guide*, Explo cannot adequately predict the degradation of the propellant by Lot Number. The *Prediction of Safe Life of Propellants* states that, "the measurement of residual stabilizer content offers the best means of establishing the stability potential of these materials." The ~~DOD~~DOD ESB recommended reinstatement of a Propellant Stability Program of the M6 Propellant to predict stability issues within the 15 million lbs. of M6 propellant stored at Camp Minden. Without reinstatement of a stability testing/monitoring program, neither the M6 propellant, nor any of the other explosives located that the Site should be sold. The stability cannot be guaranteed unless the explosives are tested.

26. Explo Systems cannot establish a propellant monitoring program without a license to do so. Due to the current revocation of their explosives license by LSP and ATF, Explo cannot lawfully handle, process, ship, sell, or control explosive materials. The ~~DOD ESB~~Army TAV team indicated that propellant stability issues ~~will~~ may become severe within two years potentially causing an explosive incident~~explosions~~ similar to the ~~explosion~~ one that occurred in October 2012. Because on-site disposal of the M6 is estimated to take 1.5 years or more, the M6 propellant disposition process must commenced by January 1, 2014.

Weather Conditions that May Cause Hazardous Substances or Pollutants or Contaminants to Migrate or be Released per 40 C.F.R. § 300.415(b)(2)(v):

27. Camp Minden consists of 14,974 acres of pine forest, including extensive overgrowth around and on the earthen covering of the magazines. The area is suffering from severe drought conditions, yet recent rains have encouraged grass growth. Several grass fires occurred on Camp Minden during 2012 that required the base's fire brigade to respond. Grass and pine trees are growing heavily on and around the magazines. A lightning strike has the potential to ignite the dense vegetation and threaten one or more of the 98 magazines containing 18 million lbs. of explosives. A burning cinder or spark from a nearby fire ~~would~~ could be sufficient to ignite the ~~explosives~~ propellant if it were introduced into the magazine. Also, any ~~explosives~~ propellant in transport from any magazine have the potential to ignite if exposed to a lightning strike or fire in the vicinity.

Risk to the Environment and Remedial Systems in Place per 40 C.F.R. § 300.415(b)(2)(viii) and (d):

28. The Site is located on the former Louisiana Army Ammunition Plant (LAAP). LAAP was established in 1942 to produce explosives and propellants for World War II, the Korean War, and the Viet Nam War. In 2005, the United States Government deeded all of LAAP to the State of Louisiana. It is now under the control of the Louisiana Military Department and serves as a training base of the Louisiana National Guard. LAAP was placed on the National Priorities List (NPL), final listing on March 13, 1989. The listing was primarily based on pits with trinitrotoluene (TNT) and other explosives. Soil, surface water, and ground water were contaminated.

**Comment [JCK14]:** If - a big if - the structures are maintained properly, they are designed to preclude a fire of this nature from causing a problem.

**Comment [JCK15]:** This is overstated, and always somewhat true.

**Comment [JCK16]:** Not sure what the relationship actually is.

29. As part of the NPL "Operable Unit Installation-wide Groundwater Investigation and Remedial Investigation" conducted by EPA, nine areas throughout Camp Minden that exhibited shallow groundwater contamination for multiple constituents such as benzene, RDX, HMX, TNT, arsenic, dichloroethane, dieldrin, and tetrachloroethene defined by the risk management range from the revised risk assessments.

30. Currently, ~~forty-two (~~42~~)~~ groundwater monitoring wells are utilized for bi-annual monitoring for the constituents of concern identified during the Remedial Investigation conducted by EPA. Bi-annual groundwater monitoring of LAAP-010, the Installation-wide Operable Unit associated with potential groundwater contamination, is conducted in accordance with the NPL Site Close-Out Agreement between the EPA, LDEQ, Louisiana Military Department, and the U.S. Army.

31. The risk to the environment and remedial systems in place coincide with the threat of an explosion of one or more of the 98 magazines that currently contain potentially unstable M6 propellant and other explosives. On 15 October 2012, the explosion of one magazine and two tractor trailers containing black powder and M6 propellant at Explo Systems shattered windows in Minden, LA (approximately 4 miles northeast) and generated a 7,000-foot mushroom cloud. The explosion resulted in the complete destruction of the storage magazine containing the material, the tractor trailers parked outside the magazine, damage to 10 railcars, and the release of unconsumed M6 propellant over ¼ mile from the site of the explosion requiring remediation.

**Comment [JCK17]:** Doubt there is a relationship.

**Comment [JCK18]:** More of less correct, However, we do not know what was in the magazine involved in terms of material or NEW.

32. The existing remediation systems associated with the Remediation of the groundwater contamination at LAAP/Camp Minden are located within close proximity of L-1, L-2, and L-3 explosives magazine storage areas. The explosion of another magazine containing M6 propellant and/or other explosives will cause damage similar to the property damage observed

as a result of the magazine explosion in October 2012. Damage or destruction to the existing remediation systems, due to the force of an explosion and their close proximity is likely.

Comment [JCK19]:

Comment [JCK20]: If above ground and near the incident, is possible.

**LOUISIANA'S RESPONSE TO ADDRESS THE EXPLOSIVES**

33. On September 6, 2013, Governor of Louisiana Issued a proclamation declaring a State of Emergency at Camp Minden due to the threat of detonation of potentially unstable M6 propellant and other explosives which threaten the lives and property of the citizens of the State and public property located on Camp Minden.

34. If the State of Louisiana's motion to the U.S. Bankruptcy Court, Western District of Louisiana, Shreveport Division, to dismiss Chapter 11 Bankruptcy Case No. 13-12046 or for the relief from the automatic stay is granted, the State of Louisiana plans obtain the explosive materials through eviction proceedings or through seizure in accordance with Louisiana State Law.

35. Louisiana plans to remove, transport and dispose of the 18 million lbs. of M6 propellant and other explosive materials at Camp Minden within 18 months, as stated in the "Scope of Services for Disposal of Explosive Material, Camp Minden, Minden, Louisiana," within the State of Louisiana Military Department document titled *Emergency Disposal of Explosive Material*, dated 4 September 2013.

36. Although contractor bid proposals are pending review by the State of Louisiana, the predominant approach for the treatment of the explosives at Camp Minden is by open-burning of the explosives. On-site treatment by open-burning in compliance with State and Federal statutory requirements, aligns with the EPA's removal response program objectives to mitigate the threat to human health and the environment posed by the ~~explosives~~ propellant with an unknown, and unguaranteed stability content at Camp Minden, Louisiana and Camden, Arkansas.

37. The threats prompting the disposition or monitored consumption of the M6 propellant and other explosives due to stability concerns and the potential for auto-ignition and subsequent detonation are documented above.

38. Treatment on-site offers several benefits over off-site treatment or disposal. Off-site treatment requires transportation of potentially unstable explosives outside of Camp Minden, thus exposing populations to the risk of an explosive incident. Also, the majority of the materials are not currently packaged and labeled in compliance with DOT Regulations, which requires additional handling of the materials and increased risk of an explosion. The cost of on-site treatment is extensive, however, the cost of off-site is significantly greater than on-site treatment. Also, due to the total volume of materials, and the length of time required for off-site disposal due the capacity limitations of the facilities, off-site disposal of the explosives exceeds the target of 18months for the disposition of the material.

39. After thorough evaluation of the site background, threats to public health, welfare, and the environment, and the options for the safe removal of the 18 million lbs. of explosives at Camp Minden, I agree with and support the State of Louisiana in their proposal to conduct on-site treatment through open-burning in accordance with State and Federal Regulations. Any proposal to either sale or otherwise use the 18 million lbs. of explosives, or the 2.6-3 million pounds of M6 propellant located in Camden, Arkansas, must be tested for stability prior to such sale or controlled use based upon the stability testing results.

**Comment [JCK21]:** With regard Minden, onsite burning is what we recommended. We did not look at the other s

I declare under penalty of perjury that the foregoing is true and correct.

Executed on:

Troy Hill, TMDL Coord

Agency

Prevention and Response Branch
U.S. Environmental Protection
1445 Ross Avenue
Dallas, Texas 75202-2733