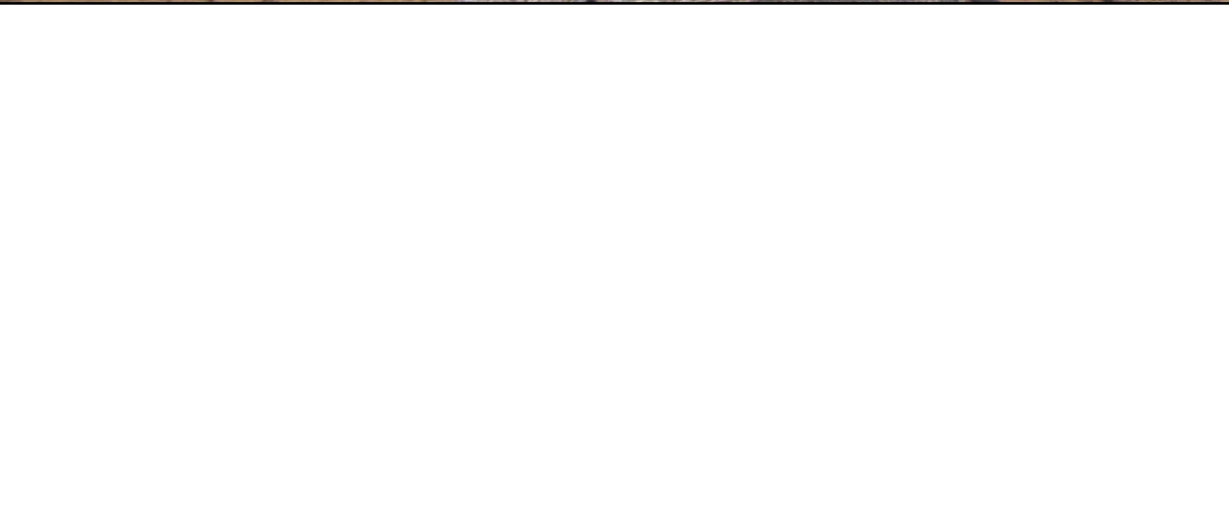




Camp Minden

12 FEB 2015









Propellant Related Safety Facts

References:

- Explosive Safety Assistance Visit Report dated 18 April 2013
- Explosive Safety Assistance Visit Report dated 13 June 2013
- U.S. Army Propellant Management Guide dated Jun2014

Explosive Safety Assistance Visit Reports

1. Due to the unknown storage conditions for the M6 propellant after its removal from the propellant charge cans, the propellant's stability cannot be guaranteed.
2. The bulk packaging (white bag, fiber drum or cardboard box) is not a standard packaging method for long term storage of M6 propellant.
 - The use of bulk packaging may :
 - ✓ Not prevent the loss of stabilizer.
 - ✓ Allow moisture intrusion.
 - ✓ Increase nitrocellulose decomposition rates
3. EXPLO's packaging configurations:
 - Incorrect lot markings on containers and outer-packs and multiple markings.
 - Storage procedures which exposed some of the packaged propellant to the environments.
 - Packaging process which may have mixed lots, led the team to conclude that lot identity was at a minimum questionable.
4. The probability of an explosive event directly related to the long-term storage of M6 propellant at Camp Minden is likely.

U.S. Army Propellant Management Guide

1. Propellant can be unpredictable, decomposing into an unstable condition within four or five years of manufacture (Para 1-4a).
2. If unstable propellant is present in even minimal quantities (e.g. a single container) it might combust and could lead to ignition of the entire contents of the storage structure (Para 1-4a).
3. During the period 1984 through 1997, seven propellant auto-ignition events occurred at Army installations (Para 1-4c). It is also important to note that the following propellant related auto-ignition events have occurred at non Army installations:
 - 2001 Highland Industrial Park (Camden Ark)
 - 2007 Milan Ammunition Depot
 - 2012 Camp Minden
4. The two most important propellant related storage factors are moisture and temperature. Propellant decomposes more quickly under wet or moist conditions and increasing the temperature accelerates the aging process (Para 7.4b.4)
5. Due to its inherent potential to become unstable and auto-ignite, Propellant remains a very dangerous commodity in storage (Appendix B, Para 1a).

QUESTIONS