

Explo Systems, Inc., Camp Minden, LA
Stability Monitoring Feasibility
May 21, 2014

Issue: DoD U.S. Army Technical Center of Explosives Safety (USATCES), Industry Experts, LMD, LSP, and EPA (R6 OSCs and FFO) agree that stability monitoring is not recommended or considered an option due to safety, data QA/QC issues, and resources necessary to reestablish stability monitoring at Camp Minden.

Safety Issues:

- The only way to collect samples of the packages of M6, is to empty entire magazines of potentially unstable explosives that are a risk of auto-ignition.
 - The magazines are filled with explosives stacked 3-4 pallets high, from floor to ceiling, and wall to wall.
 - Removal of all these explosives is a threat of explosion causing harm to personnel or a potentially life-threatening event.
- Repackaging will be necessary because of the boxes that are spilling explosives causing another risk of explosion.
- The biggest risk of an accident with explosives is by adding “the human element.”
 - ERRS, START, and EPA in close proximity to collect data.
- Terry Trivitt with DOD USATCES told EPA, the only reason anyone should handle or be in close proximity to the M6 at Camp Minden is if the explosives are being removed permanently; it’s just not worth the risk.
- Explosive incidents, due to auto-ignition are actually quite common and the longer we wait to remove the threat (Source: DoD USATCES).

QAQC issues:

- Lot integrity of M6 is lost due to mixing of lots by Explo’s demilitarization process.
 - Observed multiple or absence of lot identification numbers on packaging
 - Explo staff described process of mixing lots as standard procedure
 - Loss of lot integrity observed and agreed upon by DoD USATCES, LMD, LSP, and EPA
 - U.S. Army procedure for treatment of propellant with lost lot integrity is disposal
- Difficult/impossible to collecting homogenous/representative samples of M6 propellant
 - As small as one pellet of unstable M6 could initiate an explosion.
 - Cannot guarantee that the sample collected is representative and cannot predict or confirm stability of any M6 beyond the sample analyzed

Resource Intensive (with little to no benefit):

- The cost of stability monitoring is extensive and does not eliminating the threat of explosion.
- Resources need to be focused on the removal and disposal of the M6 propellant.
 - The use for M6 propellant is limited to non-existent and is slated for disposal not storage
- DOD USATCES stated that before a single round of stability monitoring can be conducted, another magazine will have exploded.
 - Multiple samples (2-3) must be collected, 6 months apart to generate a curve to predict instability