

# Coated Explosive Material (CXM) Manufacturing *via* Resonant Acoustic Mixing (RAM)

## PROJECT OVERVIEW

The main objective of the proposed effort is to scale-up the newly developed method of making CXM's using OmniRAM H and RAM 5 based Resonant Acoustic Mixing (RAM) technology, incorporate RAM based CXM into PBXN-109/AFX 795 and PBXN-110 formulations, and then demonstrate the effectiveness of manufactured CXM's by using a modified UN Gap Test. The process will be documented as a final report for transition.

## BENEFITS

The new remotely operated method is safer, ~ 60% process time reduction, increased efficiency resulting in increased throughput, cost effective, and produces no toxic wastewater as compared to the state-of-the art manufacturing method. Additionally, this development will eliminate issues related to the current manufacturing methods.

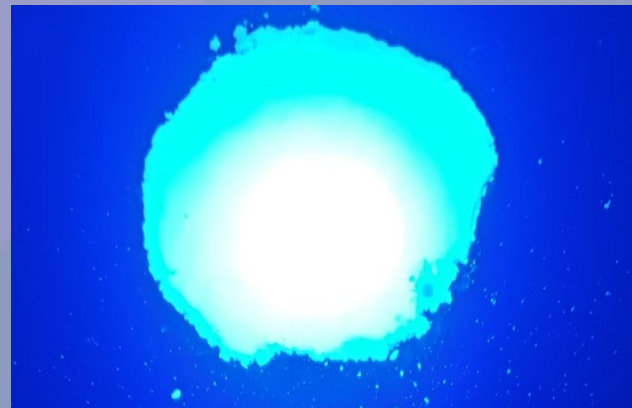
## PATH FORWARD

- We have demonstrated the robustness of this new technology by making multiple batches of CXM-7 and CXM-AF-7 using LabRAM-IIH successfully, which classify this technology at TRL 5. At the completion of the proposed effort, we will be able to scale up this process to bulk production scale and demonstrate performance with UN Card Gap Test, which will place this technology at TRL 7/8.



RAM-Mixer Units

Coating      Drying



Uniformly coated CXM as seen under UV light

## DoD Executive Agent

Office of the Assistant Secretary of the Army for Installations, Energy, and Environment

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## FOR FURTHER INFORMATION

National Defense Center for Energy and Environment

<http://www.denix.osd.mil/ndcee/home>

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