Sustainable Technology Evaluation and Demonstration (STED) Program

LED Alternatives to Single Use Chem Lights Demonstration

Technology Description

Reusable durable light-emitting diode (LED) alternatives to single-use chemiluminescent (chem) lights; operate on demand and provide additional functionality.

Potential Impact

- Improve operational performance and functionality (brightness, directional/focused light, durability, on/off switch).
- Lifecycle cost savings: replacing 20% of disposable chem lights used by DoW with reusable LED light systems could save DoW approximately $1.9M/yr and reduce chem light transportation, storage, and disposal by approximately 86.4K lb/yr.
  - DoW procures approximately 7.9 million chem lights/yr ($11.57M and 432K pounds).
  - One reusable LED light is equivalent to 25 to 600 disposable chem lights (depending on chem light type).

Benefits

- Improves performance and functionality.
- Reduces waste.
- Decreases load weight and logistical burden by eliminating need to carry multiple chem lights.
- Longer shelf-life than chem lights.
- Supports reduction of single-use plastics.

Demonstration Sites

- JBLM
- Fort Belvoir
- MCMWTC
- MCAGCC Twentynine Palms
- MCB Quantico
- NAVAIR AIRWorks
- NSWC Crane
- MCAS Yuma

Preparing for Night Shoot MCB Quantico Standard Chem Light (Left); LED Light (Right)

For additional information please contact:

- DoW STED Program email