

JBCC Clean Up Team Meeting

12 October 2016



MASSACHUSETTS NATIONAL GUARD
Environmental and Readiness Center

Ensuring Military Readiness in Concert with the Environment
at Joint Base Cape Cod

**MAARNG Request to Modify AO2:
Lifting the Prohibition
on Small Arms Live Fire and Pyrotechnics**

Request to USEPA to Modify Administrative Order 2

- End the Pilot Period for the STAPP Ranges
- Allow for the continued use of J, K, and T Ranges
- Lift the prohibition on live fire (small arms) and pyrotechnic use
- Recognize the Commonwealth of Massachusetts' Environmental Management Commission as the oversight body for small arms range and pyrotechnic activity at Camp Edwards.



M69 Practice Hand Grenade



Juliet Range, Camp Edwards

Current Oversight

- USEPA through Administrative Order 2
- The Environmental Management Commission
 - Established by the Community Working Group in 1999 and codified into law under the Acts of 2002 M.G.L. Chapter 47.
 - Composed of the Commissioners of the Departments of Fish and Game, Environmental Protection, and Conservation and Recreation.
 - Supported and advised by the Science and the Community Advisory Councils.
 - At Camp Edwards the EMC is supported and advised by its Environmental Officer (EO), who is the primary enforcement agent for the Environmental Performance Standards. Specifically EPS 19 with regards to small arms ranges and pyrotechnic use (simulated munitions).

EMC Environmental Performance Standards

- A set of standards developed by a team of scientists, legal professionals, and the community through the Commonwealth's MEPA process.
- The standards were set to provide further protection of the wildlife habitat and groundwater of the Upper Cape Water Supply Reserve/Camp Edwards Training Area (the upper 15,000 acres).
- Ensuring environmentally compatible military training.

General EPS and EPS 19

General EPS, Ammunition/Live Weapon Fire Limitations:

- Live weapon fire is prohibited outside of established small arms ranges.
- Live weapon fire is not allowed on established small arms ranges except in accordance with Environmental Performance Standard 19, other applicable Performance Standards, and a range-specific plan approved through the Environmental Management Commission (EMC).

EPS 19 (Capture, Contain, Minimize, Monitor, Inform) Key Elements:

- 19.1 Managed for Pollution Prevention w/ Bullet recovery and recycling
- 19.2 Operated based on specific SAR Operation, Maintenance, & Management plans
- 19.3 Monitored based on SAR Operation, Maintenance, & Management plans
- 19.4 Appropriate Staffing and Funding
- 19.5 Compliance with operational range Checklists and Procedures
- 19.6 Responsibility for SAR Operations Procedures
- 19.7 Update and Review of Plans, Annual and Tri-year Reviews
- 19.8 Operational Range Maintenance Procedures

Objectives

- Reducing redundant processes will:
 - Still provide for oversight through the EMC
 - Maximize limited training time and resources
 - Utilize small arms weapon systems
 - Ensure compatible military training
 - Provide opportunities for community input (CAC, SAC)
 - Maximize Joint Use – ANG, CG, Law Enforcement, and Civilian First Responders
- EPS 19.0: Contains all the requirements of AO2 as well as the requirements of Chapter 47

Environmental Monitoring

- Soil, porewater, and groundwater sampling has occurred at the firing line, range floor, and backstop berm areas of the Small Arms Ranges.
- Since the return to live fire, nothing has been found above any regulatory limits*.
- All soil samples have been non detect or below the action levels for metals.
- Groundwater samples have been non detect or below the action levels with one anomalous exception.

Environmental Monitoring: Porewater

- *There are no regulatory limits for porewater.
- Antimony has been found above the OMMP action level of 6ppb at Juliet, India, and Kilo Ranges.
 - These findings are attributed to legacy range soils and the use of phosphates to bind lead.
 - Phosphates also increases antimony mobility. The mobility is abated when antimony hits native soils.
- Sampling below and around the lysimeters has been ND.

Environmental Monitoring: Groundwater

- Tango Range GW MW, 2015: One anomalous hit of lead above the action level, which is one half the drinking water standard.
 - Not enough water to sample so a grab sample was taken using a bailer. The analysis showed 24 ppb for lead.
 - When resampled per the OMMP, the analysis showed 4.1 ppb: below the action level (7.5 ppb).

EMC Approval Process

- Range Design
 - Design: 30, 60, 90% reviews
- Range Management and Environmental Monitoring
 - SAR Operations, Maintenance, and Monitoring Plans
- Pyrotechnic Use Review and SOPs.
- Multi-level reviews (EMC, CAC, SAC) throughout process

Currently Approved Ranges

- Juliet, Kilo, and Tango Ranges
 - STAPP Bullet Catcher Ranges: Lead Projectiles
- Sierra and India Ranges
 - Copper/Steel Projectiles Only
- Lima Range
 - 40mm Practice Grenade Launcher Range
 - (Plastic, Day-Glo Orange filled, projectile)
- Hand Grenade Qualification Course
- Echo Range Tentatively Approved:
 - Combat Pistol/Military Police Qualification Range
 - Lead Projectiles into Managed Earthen Berm

