M2S2 WEBINAR: MMRP TOOLS - PERMITTING AT AN ACTIVE ARMY INSTALLATION

USACE Engineering and Support Center, Huntsville

CWM Design Center:

Allyn Allison, CWM Project Manager (256) 895-1121

CB&I:

Keller Davis, Project Manager (801) 231-3497

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Background

- Active Facility
  - Large emission source supporting the mission
  - RCRA Part B permit in place
  - Title V air permit in place
- Regional Air Quality is poor
  - Geography - Cold air trapped
  - Temperature inversions
  - Elevated ambient dust and particulate levels from desert
  - Result is numerous “Yellow” and “Red” air quality days in winter
- Active state regulatory agency
  - Informed
  - Responsive and involved
  - Firm, but consistent and timely
  - Did not adopt the Munitions Rule

Site Conditions

- Existing Title V permit – emergency generators, R&D facility, CWM incineration mission
- Large quantity of known and unknown MEC items scheduled for disposal by open burning
  - During execution of the removal approx 200,000 incendiaries recovered
  - Need a demilitarization approach that will not impact mission

Proposed Approach

- Contractor had performed some preliminary modeling and engaged the regulators conceptually during the proposal, but the approach was not approved prior to award.
- Contractor choose propane ignition source to achieve cleaner burn
- Modular skid system designed with retractable burner and refractory-lined burn pan to allow a single burner and rotation of multiple pans through loading, burning, cooling, and clean-out

Getting Approval to Burn

- Contract award Sept 2011
- Started OB permit process Jan 2012
- PDT met with air quality regulators early to define:
  - existing local air shed emission sources,
  - meteorological inputs,
  - model selection,
  - source terms
- Started MEC removal Summer 2012
- Permit technically done August 2012
- Public comment period completed and permit issued October 2012
- Permit Conditions:
  - OB limited to 300 units/day and 42,600 units/yr (ceilings were based on model results)
  - Model results based on infrastructure size and capabilities
  - Infrastructure was sized to lesser quantities (before full quantities were known)

Post-approval

- System worked as designed – incendiaries burned in lots of 300
- Meteorological restrictions (winter inversions and air quality) severely limited production rate Dec-Feb.
- MEC removal operations continued to find more and more incendiaries (estimates grew to 200,000+)

What can we do? We have to accelerate this process!

- Late Nov 2012 – started internal PDT dialogue about increasing OB production
- Jan 2013 – preliminary modeling looked positive to burn 600 units/day, but can we do more?
- Feb 2013 – regulators provided revised met data
- Mar 2013 – regulators approved the revised source terms
- April 2013 – contractor submitted revised modeling supporting tripling the daily burn limit to 900 units
- July 2013 – an additional MMRP open burning emission source was identified requiring incorporation into the facility Title V permit; installation determined a single permit modification would be used to capture both MMRP sources and remove the completed mission CWM incineration source.
- Nov 2013 – Revised permit approves increase from 300 to 900 units/day and the additional MMRP OB source; however, only one project can emit each day.

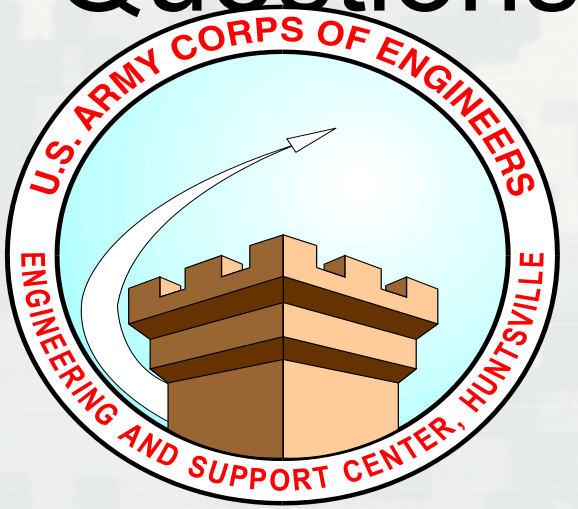
Lessons Learned

- Start Early
- Give contractors as precise a scope as possible
- Engage regulators and stakeholders early (Even with engaging regulators early it took 10 months to get the initial permit approved)
- Understand current mission and any potential impacts to your project or to the mission from your project
- Double or triple the permit approval timeline

Lessons Learned (cont.)

- How confident are you in the estimated quantity? Should you model to the ROM quantity? 2xROM? 3XROM? Other?
- Consider iterative preliminary model runs
  - Would quantity increases be permissible?
  - “Buy” the extra capacity early
- Have contingency plans to mitigate technical or administrative delays.
  - Know your permits (RCRA Part B Permit) and review cycles
  - Regulators viewed recovered MEC as reactive hazardous waste (D003)
  - Incendiary recovery rate (>300/day) and daily burn ceiling (<300/day) were creating a log jam and potential Notice of Violation for exceeding the 90-day storage limit
  - RCRA regulators were willing to consider the Title V permit limits the equivalent of a ‘permit by rule’ to extend the haz waste storage schedule for up to three years.

Questions



Mr. Allyn Allison, CWM Project Manager
Phone: 256-895-1121
Email: Allyn.T.Allison@usace.army.mil