



PUBLIC MEETING

RCRA Class 3 Permit Modification Request for MCAS Yuma

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Agenda

- ◆ MCAS Yuma's RCRA Permit
- ◆ Purpose and Process of Class 3 Permit Modification
- ◆ Descriptions and Recommendations for each solid waste management unit (SWMU):
 - ◆ SWMU 2 – Munitions Wash Area
 - ◆ SWMU 5 – Auxiliary Air Field 2 Debris Piles
 - ◆ SWMU 9 – Former Accumulation Area of Burn Residue
 - ◆ SWMU 11 – Former EOD Range

MCAS Yuma's RCRA Permit

- ◆ Allows for operation of MCAS Yuma's Munitions Treatment Range (MTR)
 - ◆ Open detonation of unserviceable, out-dated, or obsolete munitions
- ◆ Provides requirements for the corrective action of SWMUs on the Barry M. Goldwater Range
 - ◆ Identified SWMUs (2, 5, 9, and 11)
 - ◆ Potential future SWMUs and/or releases

Purpose and Process of Class 3 Permit Modification

- ◆ MCAS Yuma completed investigations and corrective actions for SWMUs 2, 5, 9, and 11
- ◆ Pursuant to the no further action (NFA) findings, corrective action at SWMUs 2, 5, 9, and 11 should be terminated
- ◆ Request for modification issued by MCAS Yuma on 27 May 2009
- ◆ Public comment period: 28 May 2009 to 26 July 2009
- ◆ Arizona Department of Environmental Quality (ADEQ) will make final determinations after considering all comments

Identification of SWMUs

- ◆ ADEQ conducted a RCRA Facility Assessment (RFA) of the Barry M. Goldwater Range in 1992 and an RFA Addendum in 2003
- ◆ SWMUs 2, 5, 9, and 11 were identified for a RCRA Facility Investigation (RFI)
- ◆ RFI purpose: determine whether a release of hazardous substances has occurred and if further action is necessary
- ◆ RFI Work Plan (developed by MCAS Yuma and approved by ADEQ) established screening levels and NFA decision criteria for each SWMU

SWMU 2 (Munitions Wash Area) Description

- ◆ 200 square foot area operated from 1988 to 1993 for pink/red water treatment
 - ◆ Ordnance placed in 55-gallon drum with boiling water
 - ◆ Munitions boiled out into water and clean shell removed
 - ◆ Water left to evaporate and crystallized munitions residue remained
 - ◆ Gasoline used to light and destroy the residue
- ◆ Approximately 300 gallons of pink/red water were treated

SWMU 2 (Munitions Wash Area) RFI Activities and Recommendations

- ◆ Four soil borings to depths of 10 feet
- ◆ Three soil samples collected from each boring (12 samples total)



SWMU 2 (Munitions Wash Area) RFI Activities and Recommendations

- ◆ Soil samples analyzed for volatile organic compounds (VOCs) and nitrate
- ◆ All sample results below screening levels
- ◆ **NFA Recommended**

SWMU 5 (Aux II Debris Piles) Description

- ◆ 1.5 acre area currently used to stockpile scrap metal (inert/demilitarized ordnance and jet assisted take off canisters)
- ◆ Reportedly used for temporary refuse storage in 1940s and 1950s (lumber, tires, old vehicle parts, paint cans, and construction materials)
- ◆ Petroleum stained soil identified during ADEQ's RFA

SWMU 5 (Aux II Debris Piles) Description



SWMU 5 (Aux II Debris Piles) **RFI Activities and Recommendations**

- ◆ Twenty soil borings to depths of 10 to 20 feet
- ◆ Average of four soil samples collected from each boring (86 samples total)
- ◆ Soil samples analyzed for total petroleum hydrocarbons (TPH), lead, and perchlorate
- ◆ All lead and perchlorate results below screening levels
- ◆ Low TPH results not anticipated to be threat to human health or to migrate to groundwater
- ◆ **NFA Recommended**

SWMU 9 (Former Accumulation Area of Burn Residue) **Description**

- ◆ 200 square foot area operated from 1988 to 1993 for temporary storage of scrap metal/solid residues after open burning operations on MTR
 - ◆ Metal casings
 - ◆ Soot
 - ◆ Residual ash from paper, wood, cardboard
- ◆ Items were stored directly on the ground

SWMU 9 (Former Accumulation Area of Burn Residue) RFI Activities and Recommendations

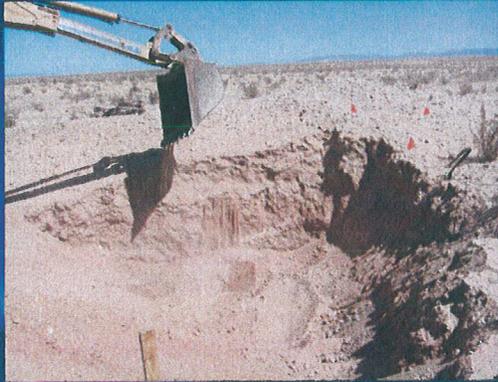
- ◆ Four soil borings to depths of 10 to 15 feet
- ◆ Three to four soil samples collected from each boring (14 samples total)
- ◆ Soil samples analyzed for VOCs, semi-volatile organic compounds (SVOCs), metals, explosives, perchlorate, and white phosphorus
- ◆ All results below screening levels
- ◆ **NFA Recommended**

SWMU 11 (Former EOD Range) Description

- ◆ Trench - approximately 2 feet deep, 14 feet wide, and 50 feet long
- ◆ Dighole - approximately 2 feet deep and 21 feet in diameter
- ◆ Trench and dighole reportedly used in past for on-range munitions treatment (open burning or open detonation) and burial

SWMU 11 (Former EOD Range) - Trench RFI Activities and Recommendations

- ◆ Trench excavated to 10 feet deep, 22 feet wide, and 58 feet long



SWMU 11 (Former EOD Range) - Trench RFI Activities and Recommendations

- ◆ Non-explosive “range trash” found (empty rocket motor casings, practice bombs, practice warheads)



SWMU 11 (Former EOD Range) - Trench RFI Activities and Recommendations

- ◆ No unexploded ordnance (UXO) found in the trench
- ◆ No evidence of treatment by burning or open detonation found
- ◆ **NFA Recommended**

SWMU 11 (Former EOD Range) - Dighole RFI Activities and Recommendations

- ◆ Portion of dighole excavated to 3 feet deep



SWMU 11 (Former EOD Range) - Dighole RFI Activities and Recommendations

- ◆ Nonexplosive “range trash” and thin layer of black ash and burned munitions (20 mm rounds and 25 mm shell casings)



SWMU 11 (Former EOD Range) - Dighole RFI Activities and Recommendations

- ◆ Evidence of landfilling and open burning/burying of munitions
- ◆ **Corrective Measure Recommended**

SWMU 11 (Former EOD Range) - Dighole Corrective Measure Activities

- ◆ Geophysical investigation delineated extent of buried munitions and ash



SWMU 11 (Former EOD Range) - Dighole Corrective Measure Activities

- ◆ Impacted soil excavated to depth exceeding visual and geophysical evidence of munitions



SWMU 11 (Former EOD Range) - Dighole Corrective Measure Activities

- ◆ Manually separated non-reactive scrap metal from excavated soil (metal recycled; soil sampled)



SWMU 11 (Former EOD Range) - Dighole Corrective Measure Activities

- ◆ Excavation limits sampled to confirm no contamination (VOCs, SVOCs, TPH, explosives, nitrate, perchlorate, and metals)



SWMU 11 (Former EOD Range) - Dighole Corrective Measure Recommendations

- ◆ No contamination at excavation limits of Dighole
- ◆ Contaminant concentrations of excavated soil below cleanup objectives
- ◆ **NFA Recommended - Corrective Action Complete without Controls**

Questions?