

Purpose: Picatinny Arsenal Technical Project Planning Meeting No. 2

Location: Picatinny Arsenal

Date: 11 October 2006

Introduction

A technical project planning (TPP) meeting was held to discuss the findings of the Military Munitions Response Program (MMRP) Historical Records Review (HRR) for Picatinny Arsenal (PTA). The proposed Site Inspection (SI) field activities and SI decisions were also reviewed. The attendees for this meeting are detailed below.

Attendee	Organization	Email	Phone
Barbara Dolce	SS	subsurfacesolns@earthlink.net	(973) 729-8814
Nancy Flaherty	USACE	nancy.e.Flaherty@nab02.usace.army.mil	(410) 779-2796
Ted Gabel	PTA	ted-gabel@us.army.mil	(973) 724-6748
Michael Glaab	PAERAB	michaelglaab@worldnet.att.nef	(973) 663-9605
Larry Jordan	MPI	ljordan@pirnie.com	(410) 230-9954
Jim Kealy	NJDEP	jim.kealy@dep.state.nj.us	(973) 338-4404
Al Larkins	MPI	alarkins@pirnie.com	(410) 230-9966
Tim Llewellyn	ARCADIS	tllewellyn@arcadis-us.com	(410) 987-0032
Laura Paugh	USAEC	laura.paugh@us.army.mil	(410) 436-1531
Heather Polinsky	MPI	hpolinsky@pirnie.com	(410) 230-9961
Bill Roach	USEPA	roach.bill@epa.gov	(212) 637-4335
Paul Schafer	USAEC	paul.c.schafer@us.army.mil	(410) 436-1615
Lisa Szegedi	MPI	lszegedi@pirnie.com	(201) 398-4328
Greg Zalaskus	NJDEP	greg.zalaskus@dep.states.nj.us	(609) 984-2065

MPI – Malcolm Pirnie, Inc.

NJDEP – New Jersey Department of Environmental Protection

PAERAB – Picatinny Arsenal Environmental Restoration Advisory Board

SS – Subsurface Solutions

USACE – United States Army Corps of Engineers

USAEC – U.S. Army Environmental Center

USEPA – U.S. Environmental Protection Agency

Summary

The purpose of this meeting was the following:

- Review the SI goals and give an overview of the TPP process
- Review the results of the HRR
- Discuss the proposed SI field activities and SI decisions
- Give a brief overview of the site specific schedule
- Discuss issues and concerns

The discussion points raised during the meeting are summarized below.

General Discussion Points

Installation Restoration Program (IRP) and MMRP overlap: Several issues were discussed regarding how to address chemicals of concern (COC) remedies that are coincident with munitions and explosives of concern (MEC). For some IRP sites collocated with Munitions Response Sites (MRS), a Record of Decision (ROD), typically capping, is already in place, or is being planned, for the COC. Since it is unknown if the ROD for COC is protective of MEC, it has already been determined that the protectiveness of the remedy for MEC will be evaluated during the Remedial Investigation/Feasibility Study (RI/FS) phase of the MMRP. Note that EPA indicated that the IRP RODs have a caveat indicating that the remedy does not cover MEC. A question was raised during the TPP regarding how this will impact IRP project schedules or the IRP remedy selected since it is assumed to be unlikely that MMRP investigative activities would be planned that would disturb a cap placed for COC. It was determined that the IRP and MMRP will need to coordinate the efforts of remediating COCs with the need to investigate MEC at MRSs.

A discussion was also held regarding how the IRP will address MEC that is found coincident with the IRP contaminated media during a remedy. For example, if the IRP remedy is hot spot excavation for lead, what happens if MEC are found in the excavated soil? It was indicated that the MEC that is coincident with COC being addressed under the IRP would be dealt with in the IRP.

Land Use Controls (LUC): A question was raised regarding why an investigation of an MRS will be conducted during the MMRP if LUCs are in place for the site. It was indicated that investigation (the scope of which is currently being evaluated on a program wide basis under the development of the Army's MMRP RI/FS Guidance) is required to satisfy the Comprehensive, Environmental Response, Compensation, and Liability Act (CERCLA) guidelines for evaluating the hazard associated with a site.

Safety Map: Two days before the TPP meeting, a map was found in the desk drawer of a PTA safety employee who recently retired. The map shows the locations of approximately 90 MEC finds (multiple items may be associated with a single find) between 1986 and 1998. These finds are located throughout the installation from an area just north of Picatinny Lake, south to the installation boundary. The area north of Picatinny Lake is not shown on this map. MPI indicated during the TPP that an in-depth review of this map may result in changes to the HRR conclusions (*e.g.*, sites not

previously know to have MEC now have known MEC finds). These changes will be made in the SI Report, not the HRR. The stakeholders requested a copy of this map; however, it cannot be given out until it is approved for distribution by PTA's security office.

Overview of Munitions Response Sites Map (Map 6-1): A discussion was held regarding whether or not this map can be distributed to county and municipal authorities. Mr. Glaab indicated that the RAB can help disseminate information to these authorities via their respective official PAERAB representatives since the RAB functions in both an advisory and a liaison capacity. Mr. Glaab also offered to post this map onto PAERAB's website once it is approved for distribution by PTA's security office.

Magnetometer Sweep Protocols: A discussion was held regarding how the magnetometer sweep is conducted and MPI indicated that a meandering path is typically followed. Based on a comment from NJDEP that a meandering path is not adequate for characterization purposes, MPI indicated that the investigation would be more structured than what is typically thought of as meandering path, and will actually be biased transects. While the site work is being conducted, the results will be continually evaluated to make sure the sweep protocol are adequate. It should be noted that MPI indicated that while typically 10% of a site is walked, a larger area is visually surveyed (usually about 30-40%). If a MEC item is found during the magnetometer assisted visual survey, the location of the item will be recorded with a GPS, the item will be photographed, and EOD will be notified.

It should be noted that MPI is proposing the use of the Schonstedt handheld magnetometer during the magnetometer sweep aiding visual survey. The Schonstedt will be used for safety purposes, to identify metallic features on the surface, and to aid in the visual survey. It will not be used for "mag and flag" or to detect subsurface anomalies. The instrument is used to identify metallic features that lie on the surface but are not readily visible to the naked eye (*e.g.*, covered by leaf clutter).

Use of Magnetometer Sweep/Visual Survey Results: PTA asked if a No Further Action (NFA) recommendation would be given to an MRS is no MEC is found during the magnetometer sweep/visual survey, despite the fact that PTA would require clearance prior to digging in the same area. MPI stated that that is the intention. MPI explained that at other installations, for some MRSs where NFAs were issued, a notation of prior MEC use at the site was made in the master plan so this information was not lost. According to NJDEP, the State will likely not concur with an NFA recommendation that does not also include institutional controls (IC), at an MRS where an intrusive investigation was not conducted. This would even include sites where a full, 100% geophysical survey was completed. MPI indicated that where applicable, they will continue to perform a biased 10% magnetometer sweep/visual survey of the MRS and the results will be presented in the SI Report. If an NFA recommendation is given based on this information, NJDEP can then review the data and determine whether or not they agree with it. If applicable, further discussion on this issue will be held when the SI Report is submitted to the stakeholders.

Chemical Weapons: The EPA asked if CWM are part of the suit of munitions constituents (MC) for which samples are analyzed in the SI. MPI responded that CWM or indicator compounds are included in the SI if deemed appropriate based on the historical data and/or information about the site.

EPA indicated that they had heard from someone who used to work at PTA that research on chemical weapons, or chemical weapons use, may have occurred there. MPI had found a historic map with a building labeled CW, but interviews with PTA personnel did not show that this building was ever used for that purpose. A historic report indicated that the building may have been used to test tear gas canisters. The individual who had mentioned potential chemical weapons use at PTA, Greg Goepfort, currently works for USACE. Immediately after the meeting, Nancy Flaherty sent an email to Greg Goepfort requesting more information.

Soil Sample Collection Protocols: In the past, MPI has collected composite soil samples for MC analysis in conjunction with the MMRP SI investigation. NJDEP indicated that their regulations require discrete samples. It was agreed that both composite and discrete samples would be collected from each sample location. The composite samples would be collected using the following procedure:

A small area, called a wheel, (approximately 2 foot diameter) is identified for sampling. Seven discrete samples are collected from this wheel; one from the center and six from the outside of the wheel. The seven samples are composited into one sample.

The discrete sample will be collected adjacent to each of the center composite sample locations.

It should be noted that Mr. Gabel indicated that an FSP, as well as a QAPP, have recently been submitted by ARCADIS, Inc. under the IRP at PTA. Mr. Gabel suggested that these documents could be used by Malcolm Pirnie, in lieu of them submitting entirely new planning documents. Malcolm Pirnie thought this was a good idea.

MC Screening Criteria: For consistency with the IRP, MPI had recommended that the IRP screening criteria be used for the MMRP SI data. This includes the NJDEP non-residential soil cleanup criteria (SCC) or the EPA industrial risk based concentrations (RBC) where NJDEP SCC are not available. Due to stakeholder concerns, it was agreed that the criteria to be used in the MMRP will be changed to the residential criteria and non-industrial criteria, respectively.

Notification of Potentially Affected Off-Post Communities and Property Owners: As discussed below, three MRSs have off-post portions. These include the 1926 Explosion Site, Lake Denmark, and the Inactive Munitions Waste Pit. As a result, the NJDEP, USEPA, and Mr. Glaab stressed the importance of timely notification about the off-site MEC issue to both the county and affected or potentially affected communities. Michael

Glaab elaborated with the concern that the “master plans” of the local communities and of the County of Morris could conceivably be impacted by the actual and/or potential presence of MEC and that it is therefore essential to the responsible planning of development that the county and the local communities be duly informed in a timely manner.

Mr. Ted Gabel reassured the assembled personnel that the Army has taken, and will continue to take, steps to provide notification. Mr. Gabel indicated that he had provided information to the directly affected communities and had presented information about this at the most recent RAB meeting. In addition, notification letters and fact sheets have been prepared for submittal to the town, county, and state officials and property owners. Once these documents are approved by PTA, the owners and officials will be notified via a phone call, and the documents will be sent out. The mayor’s office of the local municipalities will also be notified. The mayor’s office is then responsible for notifying all other municipal departments.

MPI was asked if any other steps were taken to identify whether MEC has been identified off-post. MPI has contacted the local township police departments to ask them to check their records and no MEC finds were identified. In addition, MPI also interviewed an explosive ordnance division (EOD) employee who has worked on the installation for approximately 20 years and he had no recollection of additional items being identified off post.

EOD Records: It was indicated that EOD retains records for approximately 4 years. Al Larkins, MPI, indicated that typically, disposal of these records after 4 years is Army policy. NJDEP and USEPA expressed concern that the records are not retained long enough. On behalf of the RAB, Mr. Glaab stressed the importance of maintaining adequate long-term MEC records to assist in the successful long-term implementation of PTA's master plan and to increase the effectiveness and proper implementation of its institutional and/or engineering controls. Mr. Glaab also indicated that long-term records of the nature and locations of both detected and suspected MEC sites should be maintained to assure that PTA's master plan properly and safely governs PTA's own development activities. Ted Gabel indicated that he would attempt to have PTA retain these records for a longer period of time.

MRS Specific Discussions (refer to the attached presentation for MRS specific information):

1926 Explosion Site: NJDEP asked whether a geophysical survey had been conducted across the installation due to the explosion. In particular, they were concerned about safety issues associated with intrusive work being conducted at PTA. It was indicated that the safety office at PTA is required to review any intrusive activities that take place on the installation and determine if a geophysical investigation is necessary. In the majority of cases, ordnance avoidance procedures are conducted.

This MRS is collocated with numerous IRP sites. It was asked if a MEC investigation would be required for these sites prior to implementing the remedy for MC, especially if the remedy would inhibit a MEC investigation. The Army indicated that they have committed to looking at the MEC issues, but they do not want to hold up the IRP work. NJDEP indicated that they do not want this to mean that a precedent is being set that caps are a viable alternative for addressing MEC. It was indicated that under the MMRP RI/FS, the current and future site use would need to be evaluated to determine if the chosen remedy for the IRP is protective of MEC.

Recommendations:

- No SI sampling
- An RI for MEC and MC

1926 Explosion Site Off Post – Approximately 430 acres of this 833 acre site consists of the Tilcon Mt. Hope Quarry. Numerous MEC items have been found at the quarry over the last 4 years; therefore, a time critical removal action (TCRA) of approximately 28 acres of the quarry is in process. The MEC items have typically been found by the electromagnet prior to going through the secondary crusher. Al Larkins gave a summary of the TCRA and indicated the TCRA takes immediate action to address the MEC hazard in place. One aspect of the TCRA also includes training of quarry personnel. The quarry will then be additionally addressed within the MMRP. The regulators will be provided with all the TCRA documents, but due to the time critical nature of the activity the Army will move the site through the process quickly and will not wait for regulator review. Mr. Glaab also requested that the RAB be copied on all TCRA correspondence.

NJDEP indicated that they were allowed to review and comment on the planning documents for another TCRA site in Cranbury. It was indicated that NJDEP can provide comments on the Mt. Hope Quarry TCRA planning documents, but the project will not be delayed to wait for the comments. NJDEP will be engaged in the project and when voiced, their comments will be addressed as appropriate. Note that a separate TCRA meeting will be held with the regulators at a later date.

Recommendations:

- No MC sampling – MC results from on-post sufficient to adequately characterize MC off-post
- Magnetometer assisted sweep/visual survey of approximately 8 to 10 acres of off-post property, other than the quarry, adjacent to the installation. Note that this will require rights of entry from 3 property owners.
- Regardless of the investigation results, an RI for MEC and MC

Dredge Pile and Former Sanitary Landfill Site:

- No SI sampling due to large amount of data already available
- An RI for MEC

Note that for all MRSs where an RI for MC is not recommended based on available analytical data for the site, this recommendation could change if information contrary to the current CSM is obtained.

Former DRMO Yard and Former Burning Ground:

- No SI sampling due to large amount of data already available
- An RI for MEC

Former Munitions and Propellant Test Area:

- No additional MC sampling
- Biased magnetometer assisted sweep/visual survey of approximately 10% of the site (2.5 acres) near the firing point and impact area.

Former Projectile Range:

- Biased MC sampling (2 composite and 2 discrete samples analyzed for 6010B metals and 8330 explosives)
- Magnetometer assisted sweep/visual survey of entire site

PTA asked why this MRS is called out as a separate site since it covers such a small area and it is completely encompassed by the 1926 Explosion Site. It was explained that the MEC characteristics and CSM (*e.g.*, density) could be different from the rest of the 1926 Explosion Site since this MRS had a different MEC use. It was agreed that for now this will be kept as a separate MRS; however, if no MEC are identified during the SI investigation, this MRS will be rolled into the 1926 Explosion Site.

A question was also raised regarding chemicals that may be associated with the site due to the presence of flame proofed timbers. This issue needs to be further evaluated and discussed since if flame proofing was done on-site it needs to be determined if this is an IRP issue incidental to the MMRP or if this is a separate IRP issue.

Green Pond Brook:

- No SI sampling due to large amount of data already available
- RI for MEC

During the review of this MRS, EPA asked how the site limits were defined. MPI identified the sources (*e.g.*, UXO finds, interviews with on-site personnel) utilized to identify the limits. It was indicated that if additional information is obtained (such as the UXO find map) the limits of the site may change.

Inactive Munitions Waste Pit:

- RI for MC and MEC

MPI indicated that a geophysical survey or magnetometer assisted site walk of this MRS is either not feasible or would not yield valuable data due to the presence of 12 feet of fill. A question was also asked regarding ownership of the off-post portion of this site. Since the meeting, MPI has determined that this property is owned by the NJDEP.

Lake Denmark:

- No MC sampling – MC results from on-post sufficient to adequately characterize MC off-post
- Magnetometer assisted sweep/visual survey of approximately 2 to 5 acres of property immediately southwest of Lake Denmark. If accessible, this survey will be conducted on PTA property between the lake and the fence. If not, the survey will be conducted adjacent to the installation.
- Regardless of the investigation results, an RI for MEC. Note that two geophysical surveys have been conducted for the lake.

Originally, MPI had not recommended any additional sampling during the SI since the presence of MEC at this MRS has been confirmed; however, due to the potential for MEC off the installation, the regulators requested that a survey be conducted. MPI will investigate the accessibility of the area near Lake Denmark. If it is not accessible, rights of entry will be needed and MPI will determine who owns the off-post property that would need to be surveyed.

Picatinny Lake Site:

- No SI sampling due to large amount of data already available
- RI for MEC

Due to the possible presence of MEC at this site and Lake Denmark, the regulators expressed concern regarding access to these sites, especially recreational access by the public. PTA's safety office and EOD representatives discussed this issue and indicated there may be a potential risk. However, the EOD representative appeared to consider the risk minimal. Greg Zalaskus, NJDEP, lodged his concern about this issue for the official record during the meeting. The regulators asked if PTA's safety office should revisit whether public use of these sites should be allowed. It was agreed that PTA and the stakeholders would discuss this issue in the near future.

Shell Burial Ground Near Bldg. 3150:

- No SI sampling due to large amount of data already available
- RI for MEC

Shell Burial Ground Near Bldg. 3100:

- No SI sampling due to large amount of data already available
- RI for MEC

UXO Find Near Berkshire Trail:

- Biased MC sampling (2 composite and 2 discrete samples analyzed for 6010B metals and 8330 explosives)
- Magnetometer assisted sweep/visual survey of 3 acres surrounding this MRS

It should be noted that the UXO find map recently found by the safety office may result in the identification of another MRS (see areas of interest discussion below). If so, this

MRS may get wrapped into the new MRS, which would result in a change to the SI investigation recommendation.

Waste Burial Area Near Sites 19 & 34:

- No SI sampling due to large amount of data already available
- RI for MEC

According to IRP ROD, the area in which grenades at this MRS were found is being covered.

Areas of Interest – MPI is evaluating the UXO find map provided by the installation to determine if the HRR findings will change. Based on an initial review, it appears that another MRS, consisting of a large portion of the Former Operational Area, Area of Interest, may become MMRP eligible. This information will be included in the SI Report.

Agreed Upon Recommendations:

During the TPP, the following proposed SI activities and recommendations were agreed to by all attendees:

Site Name	SI Activities ¹	Recommendation
1926 Explosion Site	None	RI for MEC and MC
1926 Explosion Site – Off-Post	Site walk of ~ 10 acres adjacent to PTA	RI for MEC and MC
Dredge Pile and Former Sanitary Landfill	None	RI for MEC
Former DRMO Yard and Former Burning Ground	None	RI for MEC
Former Munitions and Propellant Test Area	Biased site walk of ~ 10% of site (near firing point and impact area)	Dependant on SI results
Former Projectile Range	Site walk of entire site; 4 MC samples (2 composite and 2 discrete)	Dependant on SI results (potential NFA, but if so, site will get rolled into 1926 Explosion Site)
Green Pond Brook	None	RI for MEC
Inactive Munitions Waste Pit	None	RI for MEC and MC
Lake Denmark	Site walk of ~ 2-5 acres (either on post SE of lake or off-post SW of RTI)	RI for MEC
Picatinny Lake	None	RI for MEC
Shell Burial Ground Near	None	RI for MEC

¹ Note that the recommendation for the MRSs may change after an evaluation of the UXO find map

Site Name	SI Activities ¹	Recommendation
Bldg. 3150		
Shell Burial Ground Near Bldg. 3100	None	RI for MEC
UXO Find Near Berkshire Trail	Site walk of ~ 3 acres surrounding find; 4 MC samples (2 composite and 2 discrete)	Dependant on SI results
Waste Burial Area Near Sites 19 & 34	None	RI for MEC

Action Items:

- The IRP and MMRP teams will revisit the issue of capping under the IRP and the impact this could have on future MMRP investigations and actions.
- PTA will submit the UXO find map to security to determine if it can be given out to the stakeholders.
- USACE and MPI will contact Greg Goepfort – USACE – New York District, to obtain any information he may have regarding chemical weapons use at PTA. (It should be noted that Mr. Goepfort was contacted after the meeting and he indicated that he had no knowledge of CW use at PTA).
- The Army will determine program/approach for addressing the flame proofing of the timbers at the Former Projectile Range, including whether it is an IRP or MMRP issue.
- The Army and MPI will review the 1931 historic map (Figure 4-20) that shows an HE Experimental area opposite the Former Burning Grounds and Green Pond Brook to determine its relevance to the MMRP and/or IRP.
- MPI will determine the accessibility of the area between Lake Denmark and the installation fenceline.
- MPI will investigate newspaper archives to see if any information regarding a UXO find near Berkshire Trail seven years ago is available.
- MPI, USAEC, and USACE will discuss USAEC's additional comments on the HRR.
- PTA will remind the regulators about the HRR comment due date.
- ARCADIS will supply Malcolm Pirnie with copies of the FSP and QAPP they recently submitted for PTA.
- MPI will hold a TCRA meeting with the Army and the regulators. The regulators will be given information on the roles and schedules (*e.g.*, timeframes for document review) either prior to, or during this meeting.
- MPI and PTA will notify affected off-post property owners, and the mayor's office of the affected municipalities, about the HRR results. Note that a fact sheet and notification letter have been sent to PTA for their review.

- PTA and the regulators will hold a discussion on restricting recreational access to Picatinny Lake due to the presence of MEC.
- Determine if rights of entry can be signed by tenants or if owner permission is required.