

ENVIRONMENTAL HAPPENINGS AT PICATINNY ARSENAL

VOLUME 10, ISSUE 2 SPRING 2011

THIS IS THE ARMY TAKE ON IT....

At the February 22, 2011 technical meeting held amongst representatives of the USEPA, the NJDEP, the Army Corps of Engineers, Arcadis, and Picatinny Arsenal some of the meeting was directed at the impasse on land use controls (LUCs) that has arisen between the USEPA and Picatinny Arsenal. At that meeting Picatinny Arsenal agreed to prepare a letter detailing their understanding of the situation. In a subsequent e-mail (dated March 10, 2011) the USEPA noted that they did not agree that a letter from the Army would be useful and that "we are certainly aware of the Army's position and do not need a letter to remind us." The comment from the USEPA arrived too late – the Army had already prepared a letter dated March 10, 2011 that provided a written summary of the Army's "position regarding CERCLA drivers for actions at sites included in the 'multisite Feasibility Studies' at Picatinny Arsenal." The letter from Mr. James D. Daniel, Chief of the Army Cleanup and Munitions Response Division, was addressed to Ms. Angela Carpenter, Chief of the USEPA Special Projects Branch. The Army noted their good faith negotiations with the NJDEP and the USEPA and that "such negotiations and discussion have been required as most sites [all except the 5-Site FS sites] fall within the generally accepted risk range for the current and reasonably anticipated future user, yet have constituent concentrations observed above the NJDEP Soil Remediation Standards [SRS]." The

USEPA's cleanup approach is driven by risk assessments – any sites with a human health risk greater than 10^{-4} are candidates for a remedial action. The NJDEP utilizes fixed remediation standards (for soil) that are based on a risk of 10^{-6} . Therein lies the rub....two different approaches based on fundamentally different risk levels. Until now the Army and the agencies have made various concessions on satisfying both cleanup triggers. The Army notes the following: "In an attempt to move cleanup forward, further negotiations in December 2009 resulted in the Army agreeing to refer to the NJDEP SRS as ARARs in our Feasibility Study documents under the provision that the agreed remedies would not change (generally Land Use Controls, to include a combination of Institutional Controls defined as

CONTINUED ON P. 3



IN THE FIELD.....

Recent field activities for March through May 2011 included the following:

Area B – Collect passive diffusion bags (PDBs); collect surface water samples (March). Collect total organic carbon (TOC) samples (May).

Area D – Collect PDBs; collect surface water samples (March).



Area E – Collect sample PDBs (March).

Editorial Reviewers

David Forti, Michael Glaab

Technical Advisors

Ted Gabel, William Roach,

POINTS OF INTEREST:

- The last PAERAB meeting was held on Thursday, March 3, 2011 at the Hilton Garden Inn in Rockaway, New Jersey. Minutes of the meeting were distributed to all board members for comment.

- The next PAERAB meeting will be held on Thursday, June 16, 2011 at the Hilton Garden Inn in Rockaway, New Jersey. The meeting will be held from 6:30 to 8:30 pm. Members of the public are invited to attend.

- The last technical team meeting was held on February 22, 2011 with representatives of Picatinny, USEPA, the NJDEP, US Army Corps of Engineers, and US Army Environmental Center (via phone).

INSIDE THIS ISSUE:

THIS IS THE ARMY TAKE	1
IN THE FIELD	1
COMMENTS ON RAR	2
MMRP ACTION	2
DOCUMENT APPROVALS	4
CHANGE OF STAFF	4
TRAINING	4
MID-VALLEY MUSINGS	5
LAND USE CERT REPORT	5
TILCON 3 TCRA	6

COMMENTS ON THE FINAL REMEDIAL ACTION REPORT FOR THE FORMER DRMO YARD ICM SITE

The NJDEP used the services of a contractor who is tasked with focusing exclusively on UXO issues: Mr. Jim Pastorick of UXOPro (Alexandria, Virginia). Mr. Pastorick was tasked with review of the Remedial Action Report for the former DRMO Yard ICM site. His first comments, dated October 23 of 2010, were primarily editorial in nature. For example, he noted some discrepancies between statements in different parts of the text. Since then Mr. Pastorick reviewed the final copy of the Interim Remedial Action Report. In this review he noted that several previous comments had been entirely disregarded in the final version of the document and that another comment was entirely rejected solely because “the USEPA approved the final draft of the document and didn’t have a similar comment. . . .” The following discrepancies had been cited by Mr. Pastorick in his initial review: an inaccurate table in which data differed from that described in the text, missing photos in an appendix, and the use of abbreviations that were not identified in the document. The seeming absence of corrections to these discrepancies may be due to a simple oversight. However, Mr. Pastorick discusses the problem with the wholesale rejection of one of the comments: “According to this precedent USEPA is required to duplicate and support NJDEP’s regulatory comments in order for Picatinny to recognize the comment as valid and worthy of action.” He explains that the intent of the NJDEP comment was to request a brief addendum to the action memorandum so that readers would be able to understand

that the change from a 4-foot thick cap to a 2-foot thick cap was agreed to by all the regulators. He states, “The fact that USEPA didn’t make the same request isn’t justification for not addressing the substance of this comment. NJDEP believes this comment is valid and requests an Army response that addresses the technical issue involved: how someone reviewing the project in the future will be able to easily understand that this change was considered by the regulators and approved.”



NON-TIME CRITICAL REMOVAL ACTION FOR MUNITIONS RESPONSE SITES (MRSs) AT PICATINNY

Representatives of the USEPA, NJDEP, the Army Corps of Engineers, Picatinny Arsenal, and the RAB were participants in a conference call led by ARCADIS/ Malcolm Pirnie (Malcolm Pirnie was acquired by ARCADIS in 2009) and the Army Environmental Center on May 5, 2011. The subject of the conference call was the introduction of a new program that will address non-operational, on post MRS sites in a Non-Time Critical Removal Action (NTCRA) process otherwise referred to as the “Land Use Control Project.” The NTCRA process is concerned with the placement of

interim land use controls (LUCs) at some sites to minimize the risks to humans associated with those sites. ARCADIS/Malcolm Pirnie provided participants with a series of 30 slides to accompany the speakers for the conference call. The timeframe for MRS sites, now in the Remedial Investigation stage, to reach the response action phase could be many years. The Army wants to mitigate potential threats to human health from the potential presence of Munitions and Explosives of Concern (MEC) and/or Munitions

Constituents (MC) through the use of LUCs until the **final remedial** action is implemented.



THIS IS THE ARMY TAKE ON IT.... (CONTINUED FROM P. 1)

administrative actions/notation in the Installation master Plan, an Annual Land Use Certification Report for all sites with RODs, and a GIS system that includes LUC areas and chemical data plus Engineering Controls defined as minor soil removals, fences, maintenance of existing soil or vegetative cover, and signage as noted above).

This agreement was made solely to break a deadlock on language with the intent to move forward with agreed upon remedies.”

The Army goes on to describe how the position taken by the USEPA in their October 7, 2010 is inconsistent with the previous project agreements. For the sake of clarity the bulk of the Army letter is provided below.

“As you correctly pointed out in your 12 May 2010 letter to NJDEP, site specific baseline risk assessments are used to determine whether a current or potential threat to human health or the environment exists and requires remediation. However, in your 7 October 2010 letter, your conclusion that the implementation of land use controls, to ensure future land use remains industrial (which posed no unacceptable risk), would trigger the need to address ARARs (NJDEP SRS) is counter to the position that unacceptable risk **drives** the requirement for remedial actions. This position is also inconsistent with the agreements made at the project level. Therefore, unless the agreements made at the project level to date and reflected in the summary table provided to the USEPA and NJDEP on 3 December 2010 can be upheld, the Army will remove all language referring to the NJSRS as ARARs in future revisions to the subject documents, except in

the few cases where risks are above the generally acceptable range. The Army will remove language reflecting all agreements made to remove hot spot areas, install soil covers, or maintain existing vegetative covers and propose Institutional Controls (ICs) only at these sites for which risks to human health fall within the generally accepted risk range. The basis for this position is outlined below.

Picatinny Arsenal is an NPL site that is under the authority of CERCLA, which takes a risk based approach to the selection and application of remedial actions, as noted in your 12 May 2010 letter to NJDEP. Protection of human health and the environment is a statutory requirement of CERCLA and the NCP preamble specifically discusses land use assumptions regarding the baseline risk assessment. The baseline risk assessment provides the basis for taking remedial action at an NPL site and supports the development of remedial action objectives. “Current land use is critical in determining whether there is a current risk associated with a Superfund site and future land use is important in estimating potential future threats. The results of the risk assessment aid in determining the degree of remediation necessary to ensure long-term protection at NPL sites” (OSWER directive No. 9355.7-04)

Under CERCLA, remedial actions address risks to the current and reasonably anticipated future use, not to unrealistic or hypothetical uses⁽¹⁾. (For the footnote please refer to the copy of the letter available on the PAERAB website at <http://www.paerab.us>.) Where the existing site conditions are protective of the current and reasonably anticipated future use, no remedial action or cleanup is required to alter site-specific conditions for protection of human

health and the environment. However, Institutional Controls (ICs) would be implemented to prevent the hypothetical residential use of the site. When risks and hazards at sites are within the acceptable range for the current and reasonably anticipated future use no ARAR analysis is triggered, and the promulgated NJ soil remediation standards – would be potential chemical-specific ARARs in cases where the risk is unacceptable for the current and reasonable anticipated future use – would not be identified as ARAR. Since no soils are required to be actively remediated or cleaned up in order to be protective of industrial use, there are no chemical-specific standards to be identified as ‘clean up criteria or ARAR.’

In cases where the risks or hazards are above the generally acceptable risk range, or hazard index, ARAR analysis is triggered and the risk drivers for the site are identified as chemical specific ARARs and would be addressed by an action.

To summarize the CERCLA required process at the subject sites:

1. *For soils that have risk assessment results less than 1 E-4 for unrestricted use, the site conditions will be protective for an unrestricted use scenario and no action will be required under CERCLA.*
2. *For soils that have risk assessment results greater than 1 E-4 risk for the current and reasonably anticipated future use, a*

CERCLA response action will be taken with the NJ Soil Remediation Standards (SRS) being identified as applicable for the constituents identified as risk drivers (i.e. contributing the majority of the risk and/or hazard).

3. *For soils on sites that do not pose an unacceptable risk (i.e., have a risk lower than 1 E-4) under the current or intended future use (e.g., industrial use), but would exceed the NJ promulgated residential or non-residential standards, the Army will implement institutional controls to ensure that land-use does not change in the future to a use that would result in unacceptable risks.”*

Representatives of the NJDEP and the USEPA met on March 14, 2011 to discuss the situation. At this time there has been no formal response from either agency. The PAERAB has been informed that an official response should be forthcoming soon.

RECENT DOCUMENT APPROVALS

The Interim Remedial Action Report for Group 3, Site 2 dated February 2011 was approved by the USEPA on March 8, 2011.

The 2010 Annual Land Use Certification dated April 2011 was found to be satisfactory by the USEPA on April 21, 2011 with some exceptions. The

exceptions included a request for future photographic documentation of cover conditions to be taken when the ground is snow-free. Also several signs were noted to be missing and requested to be replaced by the USEPA. The most significant comment related to a change of land use that allegedly occurred without

prior notification of regulators (see p. 5 - Land Use Certification report).

The Group 1 Sites Interim Remedial Action Report dated April 2011 was approved by the USEPA on April 28, 2011.



CHANGE OF NJDEP STAFF FOR PICATINNY ARSENAL CLEANUP

On April 4, 2011 regulators and agency personnel working on the Picatinny Arsenal project received the following message from Mr. Greg Zalaskus of the NJDEP: "Site Remediation has elected to migrate the environmental aspects of this case back to BCM under Joe Karpa. I will retain the MEC aspects. This decision was made primarily because Emergency Management is no longer part of Site Remediation and because I need to focus more on Emergency Management related duties. In order to transition this case in the smoothest way

I'll work with Joe Karpa until he no longer requires my assistance. I've been on this case for 18 years and I have to say it's been a great pleasure working with you all. I know for a fact you'll find Joe Karpa to be outstanding person to work with." A subsequent message contained the following contact information for Mr. Karpa:

Joe.Karpa@dep.state.nj.us

Mr. Joe Karpa
New Jersey Department
Environmental Protection

Bureau of Case Management
P.O. Box 028
Trenton, NJ 08625-0028

TRAINING OPPORTUNITIES

The Interstate Technical Regulatory Council (ITRC) has scheduled the following on-line courses:

- "LNAPL Part 1: An Improved Understanding of LNAPL Behavior in the Subsurface," June 7, 2011 from 2 to 4:15 pm
- "LNAPL Part 2: LNAPL Characterization and Recoverability," June 14, 2011

- from 2 to 4:15 pm
- "LNAPL Part 3: evaluation LNAPL Remedial Technologies for Achieving Project Goals," June 21, 2011 from 2 to 4:15 pm
- "Project Risk Management for Site Remediation," June 23, 2011 from 11 am to 1:15 pm
- "Decision Framework for Applying Monitored Natural Attenuation Processes to metals and

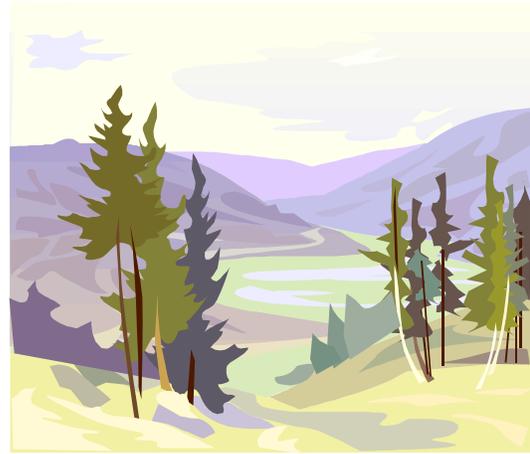
- Radionuclides in Groundwater," July 12, 2011 from 11 am to 1:15 pm
- "Performance Specifications and Long-Term Stewardship for Solidification/Stabilization Projects," September 8, 2011 from 11 am to 1:15 pm

CONTINUED ON P. 7



MID-VALLEY MUSINGS

The status of the Mid-Valley Groundwater Investigation was the topic of February 22, 2011 technical team meeting. The intended plan for the Mid-Valley area was also discussed at the March 3, 2011 PAERAB meeting. At that time the intent was to develop a Feasibility Study (FS) Addendum report for the Army by March and to then submit it to regulators at some later date with approval of the addendum being a goal for July 2011. The FS addendum has not yet been released to regulators. It is unclear if the current Land Use Control (LUC) issue between the Army and the USEPA/NJDEP is delaying progress. The FS addendum is expected to provide an updated conceptual site model, a hydrogeological model, and remedial time frame estimates along with an evaluation of five alternatives for the southern trichloroethene (TCE) plume. Arcadis has proposed the use of emulsified vegetable oil (EVO) as part of the enhanced reductive dechlorination (ERD) alternative.



LAND USE CERTIFICATION REPORT CONDITIONALLY APPROVED

On April 21, 2011 the USEPA commented on the 2010 Annual Land Use Certification dated April 2011. The USEPA noted that photos documenting land use controls (LUCs) were made when the ground was snow covered thus making it impossible to evaluate the condition of vegetative covers. The agency requested that future photo documentation be obtained when the ground is not snow covered. The USEPA also noted the absence of two signs prohibiting digging and requested that the signs be replaced (at PICA-020, Site 86 [PICA 095]) and also missing from PICA-020, Site 182 (PICA 099). The USEPA also had the following comment: “The checklist indicates that Building 5 has been demolished

and a parking lot has been constructed on the site. The PICA-020 ROD states: ‘A change in land use would include the re-evaluation of clean-up requirements and notification and concurrence of USEPA and NJDEP.’ EPA has no record of being notified about this change in land use or soil clearance notification that should have been involved with the construction of a parking lot at Site 182. In addition, this change in land use is not described in Section 3.2.1.5 which describes Building 5 as still existing at the site. It is requested that USEPA and NJDEP be notified in the future when land use changes involving construction and movement of soil at a site with a LUC remedy in place. “ This incident is of the type that both regulators and the community have expressed concern about in the past when considering the efficacy of LUCs.

Despite the implementation of stopgap measures to avoid construction at certain sites and assurances that safeguards are in place mistakes can happen. Construction or demolition activities can inadvertently result in unanticipated changes occurring without proper prior notification of the appropriate authorities. Accordingly, the Army responded to the USEPA’s comment stating that the action had been discussed via e-mail in 2008 (no date mentioned) and at a November 12, 2009 technical meeting. The Army contends that additional action was not required because the land use did not change (it remained industrial) and no soil was removed from the site (which was in conformance with the

Picatinny soil management policy). It was further stated that “Army personnel attempt to inform USEPA and NJDEP of ongoing construction projects at the Arsenal as a courtesy; and, will meet all notification requirements when there is a change from the land use documented in the ROD (i.e., industrial to residential, or industrial to recreational).” Other USEPA comments were noted by the Army which assured that it would be in compliance — with the exception of not posting a sign at the site that was converted to parking lot use.

TILCON PART 3 TIME-CRITICAL ACTION FIELD WORK COMPLETED

Regulators and PAERAB representatives were notified on February 23, 2011 that the most recent Time Critical Removal Action (TCRA) for Tilcon, known as Tilcon 3, was resuming; Baltimore District Army Corps contractors were

remobilizing for the effort. The work had been abruptly suspended in the spring of 2010 when detonation of MEC resulted in fragments being discharged offsite to a residential area. The Army determined that some of the MEC that

originated from the 1926 explosion was too large and accordingly too powerful to be detonated by the standard procedures that had been employed up to that time at the arsenal. A work plan addendum was prepared that included a

revised explosives safety submittal to address the changes in the detonation process. Investigation was performed at Tilcon on the following days: February 28, March 1, March 2, March 3, and March 4. The final field investigation was performed on March 4th. On that day four MEC objects that had been uncovered on March 2nd were detonated as follows: an MK20 6 inch shell, a 6-inch low ordered (as described in the daily report), and two MK10 fuzes. The MEC items were detonated without incident in accordance with the new protocol.



Munitions debris found at Tilcon 3 on March 2, 2011.



Munitions debris found at Tilcon 3 on February 28, 2011.

TBD

TBD - possibly on site 78

TRAINING (CONTINUED FROM P. 4)

“The courses are free. Register on-line as follows:
at www.itrcweb.org/ibt.asp.

The USEPA Technology Innovation Program has an internet course scheduled

- “Bioavailability-Based remediation of Metals Using Soil Amendment Considerations and Evaluation Techniques,” June 22, 2011 from 2 to 4 pm

Internet courses may be archived at the respective websites for reference at the user’s convenience.

PICATINNY ARSENAL IS ON
THE WEB

<http://www.pica.army.mil>

**PICATINNY ARSENAL ENVIRONMENTAL
RESTORATION ADVISORY BOARD**

Community Representatives

- Mr. Don Costanza – Town of Dover ,
Dover Health Department (replacement
pending)
- Mr. Chris Dour – Twp. of Denville
- Mr. David Forti, PE, CHMM – Community
- Mr. Michael Glaab – Twp. of Jefferson,
Community, RAB Co-Chair: Community
- Mr. Mark Hiler – Community, Rockaway
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- Ms. Virginia Michelin – County of Morris;
County of Morris Planning and Development
- Mr. Cliff Morris— Community, Tilcon NY,
Inc.
- Ms. Dianne Trocchio – Rockaway Twp.,
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- Ms. Lisa Voyce - Community
- Dr. Raymond Westerdahl – Union, NFFE

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- Ms. Barbara Dolce, CPG - TAPP: Subsurface
Solutions, LLC

The **Picatinny Arsenal Environmental
Restoration Advisory Board** also

maintains a website at:

<http://www.paerab.us>.

If you have any questions or require additional information on any of the subjects in this newsletter, please contact Barbara Dolce at:

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Subsurface Solutions LLC is the Technical Assistance for Public Participation (TAPP) contractor for the Picatinny Arsenal Environmental Restoration Advisory Board (PAERAB).

In accordance with federal regulations PAERAB meetings are open to the public and attendance by the community is encouraged. The date and time of an upcoming PAERAB meeting are advertised in local newspapers. For further information please contact Michael Glaab (PAERAB Community Co-Chair) at 973-663-9605 (michaelglaab@att.net) or the Environmental Affairs office at Picatinny Arsenal (Ted Gabel, PAERAB Army Co-Chair at 973-724-6748).

The TAPP - Technical Assistance for Public Participation program is a DOD program that provides a mechanism for community members of Restoration Advisory Boards and Technical Review Committees to obtain technical assistance. Its purpose is to provide citizen and/or community groups with professionals to assist them in their review of environmental issues at military installations. For example, a TAPP process may involve helping the public understand environmental remediation alternatives by providing an unbiased technical analysis and recommendation.

The newsletter is intended to provide an update on newly drafted documents, field activities at Picatinny Arsenal, upcoming events related to environmental issues at the site, and discussions at technical meetings. In addition, notice of new or revised Federal or State regulations may also be included.

HOT OFF THE PRESS....

- Wetland Mitigation Plan Revision 1, Former DRMO Yard, Final, February 2011
- Former Skeet Range Remedial Investigation Work Plan, Final, March 2011
- Interim Remedial Action Report, Former DRMO Yard, Final, March 2011
- PICA 29 Interim Remedial Action Report, Draft Final, April 2011
- 2010 Area D (PICA 76) Annual Report, Final, May 2011
- PICA 079 2010 Annual Monitoring Report, Final, March 2011



Documents can be reviewed by the public at the Rockaway Township Library and Morris County Library. Both sites maintain a repository of Proposed Plans and Records of Decision. Other documents and final reports are in the Administrative Record which is maintained in Building 319 at Picatinny Arsenal. Call ahead to