

RESTORATION ADVISORY BOARD MINUTES

April 16, 2024

The Restoration Advisory Board (RAB) meeting was called to order by Hans Trousil at 9:01 a.m. on 16 April 2024. This meeting was held in person at West Burlington City Hall in West Burlington, Iowa. Hans started off the meeting with Pledge of Allegiance. He then asked Jeff Morrison (Jacobs) how many had called in to the meeting via Teams. Jeff replied we had 5 people online today: Randy Doyle and Amanda Smith (IAAAP), Heather Knotek-Smith (USACE), Bruce Workman (RAB), and Rebecca Roberts were online for today's meeting.

Minutes Review

There were no corrections to the minutes from January 2024, and there were no public comments.

Agenda Review

There were no corrections to January agenda.

Environmental Services Update

Jeff presented an update on the two projects his team is working on: Environmental Services at IAAAP, and the off-post bioremediation project at Operable Unit (OU) - 3.

He first shared a slide with a list of the current OUs at IAAAP to remind everyone since those are discussed heavily during these presentations. Then Jeff provided a feature on the recently approved Final feasibility study (FS) for OU-4. Components of an FS include:

- Site Background
- Remedial Action Objectives
- Identification and Screening of Remediation Technologies
- Remedial Alternative Development and Evaluation
- Detailed Analysis of Groundwater Remedial Alternatives

Jeff provided a brief history of OU-4. Several investigations and remedial actions have been conducted at OU-4 to date. An interim remedy is in place already for soil and waste. He showed a map of OU-4 with the seven trenches, and the figure showed groundwater exceedances of Residential Preliminary Remediation Goals (PRGs).

The remedial action objectives (RAOs) for OU-4:

- Prevent exposure of future human receptors (residents and industrial workers) to impacted groundwater until COC concentrations meet remediation goals (RGs).
- Prevent and/or minimize further migration of the contaminated groundwater plume at OU-4.
- Restore groundwater quality to RGs, consistent with NCP expectation §300.430 (a)(iii)(F).

The Jacobs technical team performed a remedial technology screening and then developed four remediation alternatives for detailed evaluation:

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- Alternative 1—No action.
- Alternative 2—Monitored natural attenuation (MNA) with land use controls (LUCs).
- Alternative 3—Groundwater extraction and treatment with MNA and LUCs.
- Alternative 4—Permeable reactive barrier (PRB) with MNA and LUCs.

Jeff explained that there is a formal EPA evaluation process in the FS and it includes an evaluation of nine criteria:

- Overall protection of human health and the environment.
- Compliance with Applicable or Relevant and Appropriate Regulations (ARARs).
- Long-term effectiveness and permanence.
- Reduction of Toxicity Mobility Volume (TMV) through treatment.
- Short-term effectiveness.
- Implementability.
- Cost.
- State Acceptance
- Community Acceptance

Jeff shared a table from the Executive Summary of the OU-4 FS that had quantitative and qualitative comparisons of the four remedial alternatives using the first seven evaluation criteria. The last two criteria are considered after the Proposed Plan and public meeting when a remedy is recommended.

Jeff then updated the team on where the various other Remedial Investigation (RI) reports stand for the Jacobs team:

- OU-7: Preparing RTCs to EPA comments on the Draft RI report.
- OU-11: Finalized Supplemental RI report in early March.
- OU-12: Draft Phase 2 RI Report submitted to EPA in April.
- Compliance Cleanup (CC) Program: Submitted RTCs to USACE comments on internal draft RFI report for CC-06 (DA/DF sites).

Jeff updated the team on the status of several in-progress tasks:

- OU-1: Submitted draft Five Year Review Amendment and the associated draft Explanation of Significant Differences (ESD) to EPA. EPA provided comments on both documents in April.
- OU-4: Prepared RTCs to comments by USACE on internal draft Proposed Plan (PP) and hope to submit draft PP to EPA in late April.

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- OU-6: Continued working on internal draft FS report.
- OU-10: Prepared RTCs to comments by USACE on internal draft FS report. Plan to submit draft FS to EPA in May.
- Continued planning for OU-3 Sources Brush Creek investigation.

Jeff updated the team about the Site Inspection (SI) that is underway emerging contaminants called per- and polyfluoroalkyl substances (PFAS) at IAAAP:

- A fourth area of potential concern (current Fire Station) was included in the revised Final PA report and is being addressed in an SI Addendum.
- Fieldwork at the current Fire Station was conducted in August 2023, with five new monitoring wells installed. One compound (PFBA) was detected at low levels (below risk-based screening levels) at two monitoring wells.
- The internal draft PFAS SI Addendum was submitted to USACE in March.

Jeff then filled the team on the progress of the PFAS RI:

- Technical planning process meeting was held with EPA in May 2023 to scope for the RI.
- Incorporating new laboratory method 1633.
- New Maximum Contaminant Levels (MCLs) announced last week for PFOA, PFOS, others.
- Responding to comments on Draft QAPP by Army Environmental and Munitions Center for Expertise. Next it will be submitted to EPA.
- RI fieldwork anticipated for late summer 2024.

OU-3 Optimized Remedial Action

Jeff provided an update on the OU-3 Optimized Remedial Action project, which is for the enhanced bioremediation at the off-post RDX plume:

- Jacobs is implementing the current OU-3 RA.
- Conducted sixth round of performance monitoring in January 2024. Due to winter storm, we were only able to sample one well: IW-02
- However, Aerostar was conducting annual GW monitoring at OU-3 during the same month and included three other wells.
- Next performance monitoring event scheduled for this week in April 2024.

Jeff then showed series of figures of the recent plume as depicted by Aerostar last year, and then an inset showing a comparison between baseline sampling in 2022 prior to injection and the current overall plume updated with latest Jacobs' bioremediation sampling results. He showed a table of updated results to date.

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- Seven wells were sampled in sixth performance monitoring round (Jan 2024): EMW-02, EMW-04, IW-02, MW-309, SMW-08, SMW-10, SMW-11.
- RDX concentrations remain well below 50 ug/L, including historically problematic well MW-309 (from baseline of 130 ug/L to ND in Jan 2024).
- High Total Organic Carbon (TOC) and geochemical trends (depleted nitrate + sulfate, increased dissolved iron + alkalinity, and negative ORP) show sustained reducing conditions, with improvements noted in MW-309, EMW-02, and EMW-04 compared to Oct 2023.

The last slide showed some of the wells from previous injections (2007 – 2015) and some evaluation of those trends:

- SMW-08 RDX concentration was above 50 ug/L in 2023, but it decreased back down to below 50 ug/L in January 2024.
- SMW-10 and SM-11 RDX concentrations remain well below 50 ug/L.

Hans asked what PFBA is and was used for? Wes answer that it's perfluorobutanoic acid.

Bruce asked if we were discussing the current Fire Station or the old Fire Station for additional fieldwork. Former fire station is part of the RI where PFAS was found.

Wes added that it's hundreds of compounds that make up PFAS and EPA is studying the toxicity of each one. Many are not regulated yet. We have about 40 so far that have hard data toxicity numbers.

Vaughn asked if we ever sampled south of the roundhouse. Historically they used to store and spray chemicals there. It was a very messy place and Vaughn doesn't know what they were using for spray (all the line fences) and it was very strong and killed vines. Railroads would spray the tracks.

Shelly Nellesen of IDNR gave an update on the groundwater protection zone. Chapter 53 updated to include area around IAAAP to become an area where wells are to be evaluated. Went to public notice a couple of weeks ago and no comments were received. That is scheduled to be on governor's desk on 01 Sept 2024.

There were no further questions.

OU-5 Munitions Response Sites (MRSs)

Mindy Johnson of PM of TLI Swift River presented the MRS update for OU-5, which encompasses four MRS sites:

- Central Test Area (CTA)
- Line 6 Ammo Production (Inside the Blast Radii) (LL6)
- Possible Demolition Site (PDS)
- Incendiary Disposal Area (InDA)

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Her team is out at IAAAP this week providing Land Use Control (LUC) inspections at each of the four OU-5 sites. Conducted annual inspection in January during the bad weather. Couldn't do a full inspection of all four due to the inclement weather.

At the CTA:

- 22.9 acres
- Fully fenced with controlled access. Signage every 200 ft.
- Minimal deficiencies noted during inspection.
 - Faded signage.
 - Minimal fence damage
 - Vegetation low

At Load Line 6:

- 8 acres
- Fully fenced with controlled access
- Minimal deficiencies noted during inspection.
 - Faded signage.
 - Minimal fence damage. Will need to repair a couple of posts.
 - Vegetation

At the PDS:

- 40 acres forested area and split by K Road.
- Fully fenced with controlled access.
- Several deficiencies noted during inspection.
 - Downed trees and tree limbs. Significantly more damage and fence repair needed.
 - Faded signage.
 - Dense vegetation.

At the InDA:

- 34 acres
- Fully fenced with controlled access
- Several deficiencies noted during inspection.
 - Downed trees and tree limbs
 - Faded/Missing signage.
 - Dense vegetation, even in winter.

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2024 LUC Maintenance:

- Tentatively scheduled for mid-April 2024. Team onsite this week working on repairs. Mobilized this past Sunday. Magnetometer sweeps, chain saws out.
- One five-man unexploded ordnance team
- Three to four weeks including:
 - Mowing
 - Brush cutting
 - Limbing trees
 - Repairing fence line
 - Replacing signage

Hans asked who was responsible for maintenance. Mindy replied that her company is. They mobilized on Sunday and a five-person team is out there now.

There were no further questions.

FUSRAP Update

Mike Kessler provided an update on FUSRAP activities. Many of his slides are same as previous RAB meetings, but he does have some updates. He presented the definition of FUSRAP: Formerly Utilized Sites Remedial Action Program to deal with former atomic energy commission radioactive waste. Assigned to Department of Energy (DOE) and then transferred to USACE. FUSRAP is in the final 12-18 months of Remedial Action.

FUSRAP areas of responsibility:

- Wastes are from AEC weapons manufacturing and assembly operations and from AEC test firing.
- OU-1 wastes primarily include explosive-contaminated soils.
- OU-8 waste is depleted uranium (DU).
- Current and future land use is industrial / commercial operations.

Two OUs assigned: OU-1 primarily explosives contaminated soils in Line 1 and West Burn Pads (WBP), while OU-8 is for predominantly looking for low level radiation and specifically depleted uranium (DU). Mike thinks he broke the logjam with office of counsel regarding the IRP vs FUSRAP jurisdictional issue.

Hans asked if there was something special about 175 m and 250 m radius. Mike said originally that FUSRAP thought most of the contamination went to about 100 m (tree line). However, it went out 25 m beyond the 175 m radius.

In much of the area the extent of contamination reached out to the limits of the FS area. The explosions would disperse fragments and the prevailing winds carried things further.

FUSRAP has conducted a significant amount of sampling at IAAAP. Additional

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remediation is required at Line 1:

- EPA accepted the response to comments (RTCs) to REV B of the Buildings 1-03/1-04, and Clarifiers for Buildings 1-10/1-12 Pre-Design Investigation Report (PDIR) on 3 JAN. REV 0 was received on 11 JAN and distributed on 31 JAN 24.
- The contract modification to provide funding for the drilling subcontractor was completed on 29 FEB 24. Sampling at Bldg. 1-60 will occur during a break in DGL sampling at the FSA.
- Internal review of REV A of the “Inaccessible and Continuing Sources” Data Summary Report was completed. Leidos provided RTCs which were accepted. REV 0 was received on 1 MAR 24.
- FUSRAP work to award a new contract to remediate at Line 1 remains on hold pending resolution of the IRP v FUSRAP appropriations issue. Nonetheless, FUSRAP held Acquisition Strategy Planning meeting on 21 FEB 24.
OU-8 is the Depleted Uranium (DU) on structures at Line 1 and in soils at the FSA.
- No radiological remediation was required at Warehouse 3-01, or Yards C, G, and L to be protective of the site worker.
- Line 1 Structures remediation is complete.
- RA is complete in the FS-1/2, 3/4/5, and 14 Areas.
- REV A of the PRAR/FSSE finished USACE review on 9 JAN 24.
- REV B started EPA review on 24 JAN 24. Comments received 19 MAR 24.

Firing Sites 6 Area:

- The supplemental Archaeological Survey completed internal USACE review and went to the Tribes and SHPO in FEB.
- PDI work is complete except for 30% of Area M-5.

Firing Sites 12 Area:

- Marsum Evaluation Reports (MERs) complete for all SUs except for the FS-12 road/embankment.
- DGL sampling of the FS-12 road/embankment is in progress.

Mike shared a series of remediation maps of FS-6 and FS-12. Access road is going to be its own survey units. FUSRAP is in the process of completing a GWS Survey of the South Test Fire Site or FS-6. Figure for FS-6 is a hexagon because it's hard to do GPS in a circle.

Mike then discussed the Q2 2024 Activities completed.

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OU-1:

- Completed PDT review of REV A of the OU-1 Line 1 “Inaccessible and Continuing Sources” Data Summary Report.

OU-8:

- Completed T&D of greater than remedial goal material from FS-12.
- Demobilized RA Contractor (OCRC) from FS-12.
- Resumed and nearly completed PDI work at FS-6.
- Completed the RAD Background Threshold Value report.
- Completed internal USACE review of the FS 1-5 & 14 PRAR/FSSE
- Completed internal USACE review of the “2023” OU-8 FS-12 SUs PRAR/FSSE.
- Completed work on the 2nd FUSRAP OU-8 Five Year Review.
- Nearly completed updating the FUSRAP Community Involvement Plan (CIP).

Mike then provided a status update on the progress of the Five-Year Reviews that are ongoing:

- OU-8 FYR approved by USACE on 13 MAR 2024; forwarded to EPA.
- FUSRAP OU-8 FYR CONCLUSIONS:
- The remedy will be protective of human health and the environment upon completion.
- In the interim, remedial activities completed to date have adequately addressed all exposure pathways that could result in unacceptable risks.
- Evaluation of FUSRAP’s OU-1 areas deferred to IAAAP’s 2026 FYR

Mike then showed a slide with his Q3 2024 Activities Planned.

OU-1:

- Using the OU-1 Line 1 “Inaccessible and Continuing Sources” DSR, hold PDT meeting to evaluate path forward and then discuss with IAAAP.

OU-8:

- Complete the PDI GWS work at FS-6 Area M-5 and the DGL sampling at the FSA.
- Resolve comments received from EPA to the FS 1-5 & 14 (SE FSA) PRAR/FSSE; produce REV 0.
- Continue working on RA contract award.
- Begin EPA / IOWA review of REV B of the “2023” OU-8 FS-12 SUs PRAR/FSSE.

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- Begin internal USACE review of the “2024” OU-8 FS-12 SUs PRAR/FSSE, the FS-6 PDIR, and the CY 2023 EMDAR.
- Begin work on the Yards C, G, and L RACR and OU-8 ESD.

Mike presented a slide for the first time of metrics and milestones which he thinks are more useful than goals, with a color coding for whether it was going to be met. For 2024 these were listed as:

- Award FS-6 Remedial Action Contract (red)
- Excavate and Process 6,000 CYs at FS-12 (red)
- Track >RG Shipped with 900 CYs anticipated (green)
- 1 property at RIP at FS-12 (green)
Transfer the IAAAP Admin Record to DOE-LM (green)
- Complete the 2nd FUSRAP OU-8 Five Year Review (green)

There were no further questions.

Mike then had a second presentation as response to his Action Item, to answer a question posed by Hans about how much DU by weight had been disposed of. Mike’s short answer was that he didn’t know. The longer answer required him to explain why with a short video and several slides describing the history of AEC’s involvement at IAAAP and the turnover to the Army in the early 1970s.

- The documentation provided did not provide the amount of DU by weight disposed of by AEC. The documentation from AEC only provided an estimate of the total amount of DU lost.
- The OU-8 Record of Decision (ROD) developed by FUSRAP outlined a methodology that would remove DU-contaminated soil. This methodology (i.e., physical treatment of soil) removed soil greater than the remedial goal of 150 pCi/gram. The process is not based on weight of a potential DU fragment; but rather, on the detectable radioactivity of the sample.

There were no further questions.

Old Business – Action Items from Previous Last Meeting

There were actions from last meeting:

- Mike addressed Hans’ comment on excavating and processing.
- For the new construction on top of old Line 800, Jen had said she will bring maps of the new construction and show which wells are being removed. Jen forgot about the map, but she will bring it next time.
- Wes gave an update on PFAS already.

Action Items for Today

- Mark asked if anyone knew about the about public notices in the Hawkeye in February about Spring Creek. It caught his attention because that creek flows thru his property. Notice in there about a company called SKA and SKA USA

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building incorporated to block stormwater discharges to Spring Creek in two areas. Mark looked up company and they are from Belgium. Mark called DNR, but they didn't know anything about that project. Jen said she will look into it. Hans said they were replacing the power poles near Middletown. Could it be that? Bruce suggested that he call ITC power company, because they might have hired a contractor.

- Jen updated the policy in the packet. Updated new signatures for Hans instead of Elin and the new commander. She also noted that there are some RAB applications on the back table.
- Jen said The UFP QAPP should be ready for Wes soon.
- Vaughn is retiring from the RAB and Hans publicly thanked him. Mark agreed that he has been a valuable resource even before he was on the board.

Next meeting is planned for 16 July 2024 at West Burlington City Hall.

Meeting adjourned at 10:35 am.

Original signed by:



Libby Miller
Secretary

Original signed by:



Hans Trousil
Community Co-Chair

Original signed by:



Jen Busard
Army Co-Chair

- Exhibits:
- 1 Attendees
 - 2 Agenda
 - 3 Environmental Services Update
 - 4 OU-3 Remedial Action Update
 - 5 FUSRAP Update
 - 6 Annual SW and GW OU-3 Update

Iowa Army Ammunition Plant
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Exhibit 1

GOVERNMENT MEMBERS PRESENT (4)

Jen Busard
LTC John Dunlap
Wes March
Shelly Nellesen

RAB MEMBERS PRESENT (6)

Hans Trousil
Bruce Workman (via Teams)
Mark Hagerla
Robert Haines
Vaughn Moore
Dean Vickstrom

PUBLIC PRESENT (18)

Jeff Morrison
Mike Kessler
Matthew Tucker
Seth Reedy
Jonathan Harrington
Greg Rakers
Alicia Reamer
Shane Ehlin
Libby Miller
Stephan Brown
Mindy Johnson
David Lyerla
Scott Smith
Kane Sherman
Amanda Smith (via Teams)
Randy Doyle (via Teams)
Heather Knotek-Smith (via Teams)
Rebecca Roberts (via Teams)

Total in attendance: 28