

## RESTORATION ADVISORY BOARD MINUTES

October 22, 2024

The Restoration Advisory Board (RAB) meeting was called to order by Hans Trousil at 9:00 a.m. on 22 October 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 6 people online today: Lt. Commander John Dunlapp (Army), Kim-Lee Yarberry (Jacobs), Julie Solinski (RAB), Ali Salter-Blanc (Jacobs), and Milea Franklin-Webb (USACE) were online for today's meeting.

The RAB nominated and voted Christa Poggemiller as new RAB board member. She is the Des Moines County Public Health Administrator.

### **Minutes Review**

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

### **Agenda Review**

There were no corrections to October 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. Jeff then updated the team on where the various other Remedial Investigation (RI) reports stand for the Jacobs team:

- OU-7: Jacobs submitted responses to comments (RTCs) by EPA on the Draft RI report and provided an updated redline draft in Sept to EPA.
- OU-12: Jacobs submitted RTCs by EPA on the Draft Phase 2 RI Report and an updated redline draft in Sept to USACE for backcheck.
- OU-13: Jacobs submitted RTCs by EPA on the Draft UFP-QAPP for the PFAS Remedial Investigation in Oct and this is under USACE review. Plan is to begin fieldwork in Nov.
- Compliance Cleanup (CC) Program: Jacobs will submit RTCs by EPA and an updated redline draft of the CC-06 RFI report in Oct to USACE for backcheck.

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

- OU-1: Jacobs submitted RTCs and redline draft final Five-Year Review Amendment and Explanation of Significant Differences (ESD) to EPA. Under EPA legal review since May.
- OU-4: Jacobs submitted internal draft Record of Decision (ROD) to USACE in October. For RCRA, Jacobs submitted draft OU-4 2024 annual groundwater monitoring report to EPA in Sept.

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- OU-6: Jacobs sent an internal draft FS report to USACE for review in Oct.
- OU-9: Internal draft Record of Decision (ROD) Jacobs is preparing RTCs to EPA on the draft Record of Decision (ROD).
- OU-10: Jacobs will submit draft FS to EPA in October after resolving ARARs with Army legal.
- Jacobs submitted workplan to Army for OU-3 Sources Brush Creek investigation in Oct.

Jeff then introduced his colleague, Jacobs' Subject Matter Expert (SME) for PFAS, Dr. Alexandra "Ali" Salter-Blanc. Ali presented a few slides on "PFAS 101" to address an action item from the previous RAB meeting in July. And she updated the team about the Site Inspection (SI) that is underway emerging contaminants called per- and polyfluoroalkyl substances (PFAS) at IAAAP:

- PFAS = per- and polyfluoroalkyl substances.
- Family of thousands of compounds with no natural occurrence.
- Used in many industrial and consumer products since the 1950s.
- Some do not break down under natural conditions.
- Can be found in air, water, soil, animals, plants, as well as in people.

Ali then filled the team about the use in firefighting foam:

- PFAS-containing firefighting foam.
- Used to combat Class B fires (flammable liquids or gases).
- Contains complex mixtures of several PFAS.
- Being replaced with new Fluorine Free Foams (F3).

She then discussed the use of incorporating new laboratory method 1633:

- Risk-based screening levels (regional screening levels, RSLs) for 8 of these 40 PFAS are in use by the DoD.
- RSLs for 2 additional PFAS are available for use in DoD investigations; however, they are not currently included in the RI due to current analytical method limitations.
- EPA has issued maximum contaminant levels (MCLs) for 6 PFAS in drinking water; all 6 PFAS are included in EPA Method 1633.
- The RI will include analysis of 40 PFAS.

Jeff provided a summary of ongoing PFAS work was presented next. Julie asked about some of the chemicals in the foam aren't being tested for. Ali replied that we are only able to see some (not all) of the chemicals that were in AFFF. During the Site Inspection at four Areas of Potential Concern, the following PFAS compounds were detected in

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groundwater:

- Three compounds exceeded RSLs at the Fire Training Pit and Former Fire Station: PFHxS, PFOA, PFOS.
- Two compounds exceeded RSLs at the Inert Disposal Area prompting further investigation in an RI: PFOA, PFOS.
- No compounds exceeded RSLs at the Current Fire Station, but one compound was detected: PFBA.

### **OU-3 Optimized Remedial Action**

Jeff provided a brief 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, and we conducted eighth and final round of performance monitoring in July 2024.
- Jacobs is currently working on the internal draft Remedial Action Completion Report (RACR) earlier this fall.

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. Bruce pointed out that the visual looks impressive and Jeff agreed. The remedy has been shown to be successful. He showed a table of updated results to date.

- Seven wells were sampled in eighth performance monitoring round (Jul 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 2.1 ug/L in Jul 2024).
- High Total Organic Carbon (TOC) and geochemical trends (depleted nitrate, increased dissolved iron, and negative ORP) show sustained reducing conditions around MW-309 and EMW-02.
- Lower TOC and diminished reducing conditions observed at EMW-04, but RDX remains well below 50.
- 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 has remained below 50 ug/L in 2024.

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- SMW-10 and SM-11 RDX concentrations remain well below 50 ug/L.

Mark asked why the fire station was built where it is when the ground wasn't tested for PFAS. Bruce replied that the PFAS was used after it was built. Jeff clarified that it wasn't confirmed that foam was sprayed at the new fire station, but it was certainly stored there. Nozzles may or may not have been tested.

Julie asked if new areas where construction was planned would be tested for PFAS. Jen said that isn't currently planned. Steve added that we wouldn't necessarily test unless there was a reason to do so. Known spill or use of the PFAS into the ground.

Julie asked if all 22 chemicals were tested for at new fire station? Jeff said yes but using the old method. Also, he added that in this case the concern was firefighting foam, but PFAS are also in things like Teflon cookware, plastic wrappers, etc.

There were no further questions.

### **OU-1 Remedial Design**

Seth Reedy of USACE Omaha presented the 2022 Remedial Design for OU-1 that was conducted by TAC. Contracted by Louisville District of USACE to do sampling after Randy Doyle's team removed buildings and structures. The 2020 soil sampling investigation consisted of the following:

- Line 2: 31 soil borings at 6 locations
- Line 3: 26 soil borings at 7 locations
- Line 5A: 31 soil borings at 8 locations.
- Line 5B: 17 soil borings at 9 locations.
- Line 6: 68 soil borings at 15 locations
- Line 9: 2 soil borings at 2 locations
- Line 800: 30 soil borings at 9 locations
- Miscellaneous Buildings: 54 soil borings at 17 locations

Seth showed a facility map where these sites are located with IAAAP. Analytical Results were compared against the Remedial Goals (RGs) as presented in the OU-1 Record of Decision (ROD). There wound up being four buildings/areas that were above the RGs.

At Line 5A, which is the Former Building 5A-29:

- Melt loading area.
- Total footprint of 13,986 ft<sup>2</sup>
- 784 cy soil above Arsenic RG
- Contamination is estimated at 4.5 ft to 10 ft below ground surface (bgs).

At Line 6 which is the Former Building 6-34-2:

- High Explosives Magazine

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- Building footprint 12,280 ft<sup>2</sup>
- 190 cy soil above Arsenic and Manganese RGs.
- Contamination is estimated at 4.5 ft to 8.5 ft bgs.

Also at Line 6 Former Building 6-68:

- Explosives Drilling Building
- Building footprint 586 ft<sup>2</sup>
- 32 cy soil above Arsenic RG.
- Contamination is estimated at 4.5 ft to 7.5 ft bgs.

At Line 800 Former Building 800-8:

- Ready Magazine
- Building footprint 288 ft<sup>2</sup>
- 75 cy soil above Arsenic RGs.
- Contamination is estimated at 8 ft to 15 ft bgs. This one was already contracted, and the removal action was conducted last week.

Julie asked to look at the list of sampling sites. She wanted to know if any of the borings were at a former melt. Seth said he would have to get back to her. If Line 3 melt didn't get sampled, it may make sense to sample there. Seth said the intent is to go to each one. Mike said that FUSRAP sampled at the two melt buildings at Line 1.

Hans asked about the fill material in the first four feet and was it clean? Randy responded that it was. Isn't arsenic a natural chemical? Seth replied that yes it was. OU-1 RGs would have taken that into effect, and these are industrial cleanup goals, not Unlimited Use/Unlimited Exposure (UU/UE).

### **OU-5 Munitions Response Sites (MRSs)**

Mindy Johnson of PM of TLI Solutions 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)

Mindy showed a map with the location of these four sites, and then discussed the 2024 Land Use Control (LUC) inspections conducted for 2024.

- Maintenance was conducted mid to end of April 2024, with a one five-man unexploded ordnance team over two weeks to do the following:
  - Mowing
  - Brush cutting

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- Limbing trees
- Repairing fence line
- Replacing signage
- Draft LUCIR in review stages, anticipate approval of Final by end of November 2024

### At the CTA:

- 22.9 acres
- Fully fenced with controlled access.
- 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:
  - Faded signage.
  - Minimal fence damage.
  - Vegetation

### At the PDS:

- 40 acres
- Fully fenced with controlled access.
- Deficiencies corrected:
  - Downed trees and tree limbs.
  - 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.

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- Dense vegetation, even in winter.

There were no further questions.

### **MMRP Remedial Actions Update (OU-5)**

Lynelle Brode of Na'Ali provided a quick update on the Munitions Response Sites. She started off with a diagram showing where these sites are at in the CERCLA process.

Lynelle showed a map showing where PDS North and CTA are located within IAAAP, and then proceeded to provide a status update of what has occurred from April 2023 through October 2024.

Documents in Progress:

- Amended Record of Decision 1
- UFP-QAPP (Workplan) (Final – February 2025)

She presented the fieldwork schedule for each site, vegetation removal ongoing at both sites as of October 2024. EPA is reviewing QAPP, and field work scheduled for spring 2025 using Advanced Geophysical Classification (AGC), and fence removal anticipated in March 2025. She drove by the site today and it looks good.

Lynelle then presented a schedule. Randy asked about taking the schedule down before the RA and she confirmed it has to be done for interference. HGL is doing the vegetation removal and there is a UXO technician clearly the way for them using an all-analog metals detector along with visual inspection. There has been a previous surface sweep and visual inspection at these sites too.

One public member asked about the viability of using plants to uptake the explosives contamination, and what happens to the vegetation that has been removed. Lynelle replied that the vegetation gets mulched on site, so it doesn't leave the facility.

There were no further questions.

### **FUSRAP Update**

Mike Kessler provided a quick update on FUSRAP activities by St. Louis District of USACE. Many of his slides are same as previous RAB meetings, and due to time limits today, he focused on the highlights and changes since the previous meeting in July 2024. 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.

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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).

FUSRAP has conducted a significant amount of sampling at IAAAP. Additional remediation is required at Line 1:

- REV 0 of the “Inaccessible and Continuing Sources” Data Summary Report was completed on 1 MAR 24. PM still needs to discuss results with the Project Delivery Team (PDT) to see if any further locations need sampling or can be remediated.
- Leidos completed sampling at Bldg. 1-60 on 28-MAR-24. The preliminary results indicate some remediation is necessary for Semi-Volatile Organic Compounds (SVOCs) and that additional “bounding” samples may be in order.
- FUSRAP is in process of awarding a new contract to remediate at Line 1. PM working on pre-award requirements with a goal to award no later than 1-SEP-24. #1 priority is remediation at former Bldg. 1-05-1.

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.
- For FS-1/2, 3/4/5, and 14 Areas. Prepared responses to regulator comments (RTRCs) for REV B of the PRAR/FSSE. RTRCs approved by EPA on 11-JUN-24.
- 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:

- Iowa SHPO wanted additional sampling which was completed on 30-APR. The Supplemental Archaeological Survey report was then approved on 16-MAY-24.
- Received REV A of the FS-6 Pre-Design Investigation Report (PDIR) on 5-APR-24. Completed internal USACE review on 6-MAY-24.

Firing Sites 12 Area:

- Need the drill rig to return to the FSA to finish the Downhole Gamma Logging (DGL) PDI sampling of the FS-12 road/embankment.

Mike shared a series of remediation maps of FS-6 and FS-12, and he then discussed the Q4 2024 Activities completed.



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### OU-1:

- Completed additional sampling at former Building 1-60. More sampling will be needed just don't know how much yet. Completed 2<sup>nd</sup> round of additional sampling at former Building 1-60.

### OU-8:

- Provided "Utility Support" to AO preparing for new construction at the STS.
- Completed 100% of the DGL PDI sampling of the FSA roads.
- 2nd FUSRAP OU-8 Five Year Review:
  - Received 508-compliant REV 0.
  - Posted e-Copy on FUSRAP and IAAAP websites.
  - Distributed hard copies to IAAAP and Burlington Library.

Mike then showed a slide with his Q1 2025 Activities Planned. FUSRAP awarded a new construction contract to remediate at Line 1 (OU-1) and at the South Test Site (OU-8).

After Notice to Proceed:

- Contractor to submit pre-construction documents.
- Contractor to submit OU-1 and OU-8 CONOPS plans.
- Contractor to submit remedial design for Bldg. 1-05-1.

### 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.
- Hold meeting to discuss using Transgenic Plants for remediation at Line 1.

### OU-8:

- 2nd FUSRAP OU-8 Five Year Review:
  - Publish public notice in *The Democrat* and *The Hawkeye* newspapers.
- Distribute REV 0 of the "2023" OU-8 FS-12 SUs PRAR/FSSE.
- Begin internal USACE review of the "2024" OU-8 FS-12 SUs PRAR/FSSE, the FS-6 PDIR, the Yards C, G, and L RACR, and the OU-8 ESD.
  - Publish public notice in *The Democrat* and *The Hawkeye* newspapers.

Mike presented a slide of metrics and milestones 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)

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- 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)

Mike then presented his 2025 goals:

- Award Line 1 and STS remedial action contract
- Award HTRW/FUSRAP support contract.
- Excavate & Process >RG soil from STS (14,300 CYs)
- Excavate >RG soil from Line 1 (995 CYs)
- 1 property at Remedy in Place (RIP) (Line 1)
- Complete the OU-8 ESD

Hans asked how deep the soil sampling was done. Mike said a little past native soil, so it varies in some places 6 to 8 ft, but other places it's maybe as much as 25 to 30 feet in the fill. The closer to the south it is an embankment.

Hans asked if you find something do you excavate? Mike said the gamma downhole scanning is for detection, then they stick a probe down into the hole. Mike said they haven't actually found anything in these particular FS-12 samples.

Steve Bellrichard asked a question about when the transition from FUSRAP back to IAAAP can take place, and Mike replied whenever he wants it.

There were no further questions.

### **Old Business – Action Items from Previous Last Meeting**

There were actions from last meeting:

- Jen said for the new construction on top of old Line 800, AO had a contractor Clean Harbors out the last couple of weeks to remove arsenic and 9 MWs were decommissioned.
- PFAS presentation earlier

### **Action Items for Today**

- Julie wants to see Melt sampling locations and data for Line 3.
- Hans asked if Randy could give a short update on demo project.

Hans announced that the next meeting is planned for 14 January 25. Meeting adjourned at 10:04 am.

Iowa Army Ammunition Plant  
**RESTORATION ADVISORY BOARD MINUTES**  
**October 22, 2024**

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/PFAS Update
  - 4 OU-3 Remedial Action Update
  - 5 OU-1 Remedial Design
  - 6 OU-5 MMRP Update #1 by TLI
  - 7 OU-5 MMRP Update #2 by Na Ali'i
  - 8 FUSRAP Update

Exhibit 1

**GOVERNMENT MEMBERS**

**PRESENT (4)**

Jen Busard  
LTC John Dunlapp (via teams)  
Shelly Nellesen  
Wes March

**RAB MEMBERS PRESENT (6)**

Hans Trousil  
Mark Hagerla  
Robert Haines  
Julie Solinski (via Teams)  
Dean Vickstrom  
Christa Poggemiller

**PUBLIC PRESENT (21)**

Jeff Morrison  
Mike Kessler  
Seth Reedy  
Jonathan Harrington  
Shaylee Borcsani.

Dean Johnson  
Shane Ehlin  
Libby Miller  
Kim-Lee Yarberry (via Teams)  
Ali Salter-Blanc (via Teams)  
David Lyerla  
Philip Dixon  
Zach Hill  
Randy Doyle  
Mindy Johnson  
Lynelle Brode  
Amanda Smith  
Dexter Yaddof  
Keke Gibb  
Alicia Dunton  
Charles Cook

Total in attendance: 31