

## Draft Meeting Notes Iowa TPP

### Iowa TPP Meeting Minutes 22-24 June 2005 Des Moines Iowa

Meeting began at 1300 hours on 22 June and adjourned at 1000 hours on 24 June. The following individuals were present for the TPP:

|                            |                               |
|----------------------------|-------------------------------|
| Tom Newton - IDPH (22 Jun) | Ron Frerker - COE             |
| Leon Baxter – IAAAP        | Robin Rodriguez - SAIC        |
| Sherry Gibson – SAIC       | Debbie Roush - COE            |
| Sharon Cotner – COE        | Steven Bellrichard – IAAAP    |
| Brian Harcek – COE         | Dan McGhee - IDPH             |
| Terry Walker – Omaha CX    | Scott Marquess - EPA          |
| Dan Cook – IDNR            | Heidi Novotny – Omaha CX      |
| Scott Hay – Cabrera        | Don Flater – IDPH (23/24 Jun) |
| Eric Danielson – SAIC      |                               |
| Rodney Alderson – SAIC     |                               |

Heidi Novotny introduced herself as the meeting facilitator and provided an overview of the TPP process and its relation to the scoping of the RI Work Plan for the FUSRAP project.

Following this explanation team members were asked to introduce themselves and indicate what they hoped to get out of this meeting.

Following the meeting agenda provided by email in advance of the meeting, Brian Harcek lead the team through a description of the FUSRAP sites at the IAAAP. The discussion started with the 7 sites designated by agreement between the Corps and EPA as being potentially affected by AEC activities and continued with the 6 sites that were the subject of a screening survey designed to determine their status in the FUSRAP program. During this discussion several areas were clarified that effected follow-on TPP discussions. These included:

- The IRP Interim ROD addressing the soils OU is in effect and is the decision document under which current removal (excavation) actions are being done.
- The IRP Final ROD addressing the soils OU is really a “treatment” ROD for the soils being excavated under the Interim ROD.
- The Interim ROD, which is still in effect, set remedial goals for Actinium-228, Bismuth-214, and Potassium 40 below background levels. Therefore these levels need to be reassessed.
- Line 1 and the West Burn Pads are the only FUSRAP sites covered by the referenced RODs
- All of the FUSRAP Screening sites are covered by the referenced RODs
- The Interim ROD contains language that could potentially expand the COCs identified to include any that become known that pose a threat. “Remedial goals for other constituents which may be detected at the site and which are not specified in this table will be established using similar criteria.” Similar criteria would be using the soil screening levels developed by EPA Region IX.

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- Best way to address Interim ROD is probably with an Explanation of Significant Differences (ESD). Recommended that since IAAAP is currently working under the Interim ROD they might be the agency to prepare the ESD since technically they are not using the full COCs list to remediate their portion of the sites. FUSRAP would help with this action if requested.
- A new Decision Document will be required to cover depleted uranium (DU) and barium at the FUSRAP sites.

The following in general recounts discussions by specific site and understandings reached regarding necessary actions for the RI Work Plan.

### **Line 1**

History indicates DU/tritium/Plutonium/cobalt 60/cesium 137 and xrays were used at the site. The only Rad COC is DU. AEC chemicals are similar to those used by the Army. Parts of facility still used for limited production/assembly operations and laboratory and tool and die activities.

Line 1 is subject to the 1998 Interim and Final RODs

An RI and a Supplemental RI have been conducted at Line 1 for chemical COCs only. Although remedial actions were identified in these RIs, no actions have been taken as the site was designated a FUSRAP site.

FUSRAP RI must determine nature and extent of contamination for Rad (DU) and for chemical vertical and horizontal limits to support RD (like our PDIR sampling)

Future site use is Industrial/Commercial with institutional controls

Media for this site is soil/structures and sediment. The IRP will be responsible for surface and groundwater.

Line 1 boundary is within the fence line with special interest on how migration to impoundment southwest of the line may have occurred. MOCA reported in 5 buildings with one spill.

Buildings of Line 1- lots of Rad information and data - with minimal additional survey could probably meet release criteria for buildings. Existing data should be reviewed and any additional data needed to complete a MARSSIM Class 3 survey should be collected as part of the FUSRAP RI. State has current survey data on buildings as a requirement of AO operations and will share them if requested.

Supplemental RI and unresolved EPA comments to this document will be used to determine chemical data gaps that RI Work Plan will need to fill.

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FUSRAP RI – Use ROD COCs for chemicals plus MOCA, barium and mercury. Must address outstanding comments to the Supplemental RI.

FUSRAP will use the RESRAD computer code to develop DCGLS for DU for use as PRGs.

FUSRAP will prepare an email to send to EPA setting out all PRGs and their source.

Access may be an issue as area is still operational.

During this discussion it was agreed that FUSRAP would conduct Rad (DU) screening surveys at the 5 FUSRAP impacted sites (Yard C & G outside only, Yard L ground around Warehouse & , Warehouse 30-1 structure only and Line 1) where no data was yet available in order to expand the utility of data gathered under the RI Work Plan. Line 1 is one of these areas. Additional information regarding this decision and the establishment of a work sequence will be covered after the discussion of sites.

### **West Burn Pads Area South of the Road**

Used for thermal decon of metals by all parties. Elevated levels of barium reported but no verifiable samples available and no PRG. Kevin Howe – Omaha may have barium sample information. Site includes 4 buildings – 3 are igloos all of which have been screened for Rad (DU) and found to be unimpacted (Terry Walker will check).

Site is covered by the 1998 RODs.

RI focus is nature and extent of the horizontal and vertical limits of chemical contamination to support RD (like our PDIR)

Rad (DU) is not a COC for this site as it was screened by FUSRAP in 2004 and found to be unimpacted.

Future site use – Commercial/Industrial with institutional controls

Media is soil and sediment (creek at site runs all year)

Boundary for this site is EDA road to north/south road to bunker access road to creek

Buildings already surveyed along with area showed no Rad (DU) contamination.

The FUSRAP RI for this site will only cover chemical contamination. Not as much data exists regarding this site as compared to others. ROD COCs and barium are focus.

Could use screening tools for explosives and barium to direct RI activities, but sensitivity of screening tools will limit their use.

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Barium is of concern here but not MOCA.

No removal action to date at this site.

UXO support for the area is needed

### **Firing Sites Area**

Firing site numbers refer to buildings located in the area. Sites are numbered 1-12 and 14 – there is no number 13. AEC used firing site 12. Area was reported cleaned in 1975 but Rad contamination was identified in Aerial Survey and during FUSRAP screening survey. During screening survey of FS-6 one chunk of DU was found in a berm area. It is believed that since there is no history of AEC using the area that this got to the area during construction of the berm as no other signs of DU were found.

Intrusive activities have occurred at firing site areas as soil is moved around in order to keep a fire break.

Firing Site Area is covered under the Supplemental RI. This information and the outstanding EPA comments to the document should be used to determine data gaps for chemical COCs differences between RI/Supplemental RI is attributable to the differences between PRGs used. Supplemental RI recommends additional sampling for explosives to 10 ft for FS-12.

The FUSRAP RI Focus is to determine nature and extent and vertical and horizontal limits of chemical contamination and nature and extent and delineation of Rad (DU) contamination.

Future use of the area is likely to be firing sites in the foreseeable future with a final use of industrial/commercial with institutional controls.

Media of concern is soil, sediment and structures in FS-12 and soil in remaining area.

Boundary of the site is the fence line.

Statistically evaluate existing data to possibly clear FS-6 in accordance with MARSSIM.

Army currently using firing site area with exception of FS-12. AO has requested the Army place FS-12 in modified caretaker status.

Sampling of all but firing site 12 will require special action as areas are in use.

Question regarding worth of data if areas are in use after investigation contamination is subject to change.

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Question regarding clean up time frame of sites that are in active status and accommodations to AO for taking sites.

IAAAP Policy for their areas is currently that once area is clean AO must change their processes to prevent contaminating the area again. AO is responsible for future contamination.

### **Warehouse 3-01**

Three story brick building that was reportedly used for storage. Reference to storing H432 with and without “squash” from Line 1. Based on its structure the building would not have been used for explosive storage. Building appeared to be an office.

Area will be screened in advance of RI Work Plan development. If no Rad (DU) is found building will be cleared. If Rad (DU) is found in the building then an investigation for Rad (DU) outside the building would be warranted.

Future use of the entire site is industrial/commercial with institutional controls

Media is the building structure with Rad (DU) being the concern. All area outside the building is covered under a ROD and is under the IRP program.

Boundary is the building structure only.

Building appears to be empty.

Could be cleared with a Class 3 MARSSIM survey. AO has surveyed every building and the State has these records

### **Storage Yards C/G/L**

Storage areas were used for receipt of incoming materials, storage of materials before processing and after processing before shipment. Movement of items was generally into Yard L from Yard L to Yard C or G to Line 1 back to Yard C or G and back to Yard L for shipment out.

DOE suggested Class 3 MARSSIM survey to clear sites.

Yard L warehouse buildings associated with AEC activities (L-37-1, L-37-2 and L-37-3) were already surveyed by FUSRAP and found clear of Rad (DU) contamination. Area previously fenced between these warehouse buildings and the road remains to be screened.

State has data on all buildings in all Yards from AO. Should be able to use this data to assist in developing statistical analysis to clear the structures in these areas.

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Future use is industrial/commercial with institutional controls.

Yard L boundary is the area of the grounds between 7-37-1, 7-37-2 and 7-37-3 warehouses and the road.

Media is soil as structures have been previously cleared.

Intent is to clear the area with a Class 3 MARSSIM survey.

Yard C & G boundary is the fence line

Media is soil and structures. Structures are to be cleared using a Class 3 MARSSIM survey. Sediment will become a media only if soil is found to be contaminated.

COCs are Rad (DU) and explosives as no processing occurred in these areas.

Concern expressed over how to handle RR ballast readings that are likely to show increased levels of radiation because of materials used. A separate reference area for Rad in RR ballast may be needed. This is a common experience.

State would like to be present when surveys are being conducted. They have offered to help with their SAM 937 to evaluate anomaly readings like ballast and provide the capability to identify photon-emitting radionuclides.

Areas will be screened for Rad (DU) prior to RI work plan development. Goal will be to determine nature and extent of contamination. Survey could clear the sites under MARSSIM.

Guard access required to get into Yard G  
Yard C access is restricted. IAAAP will check requirement.

### **Inert Disposal Area**

Aerial Survey and 2004 FUSRAP screening survey cleared this area of Rad contamination. Pending comments by EPA and preparation of a determination report, site will be eliminated from FUSRAP consideration

### **Demolition Field/Deactivation Furnace**

Aerial Survey and 2004 screening survey cleared this area of Rad contamination. Pending comments by EPA and preparation of a determination report, site will be eliminated from FUSRAP consideration. Concrete may have to be further investigated because of high alpha readings. State offered to use their SAM 937 to take readings to identify photon-emitting radionuclides and try and show Rad is naturally occurring. Agreement is readings are likely from naturally occurring materials used in concrete mix.

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Deactivation Furnace was subject of a RCRA closure.

The Demolition area is currently under an OB/OD permit.

The Interim ROD identified a soil removal action (753 Cubic Yards) near the Deactivation Furnace.

### **Former Line 1 Wastewater Impoundment Area**

Aerial Survey and 2004 FUSRAP screening survey cleared this area of Rad contamination. Pending comments by EPA and preparation of a determination report, site will be eliminated from FUSRAP consideration

Remediated under IRP.

### **North Burn Pads/ North Burn Pads Landfill**

Aerial Survey and 2004 FUSRAP screening survey cleared this area of Rad contamination. Pending comments by EPA and preparation of a determination report, site will be eliminated from FUSRAP consideration

Remediated under IRP.

### **West Burn Pads (north of the road)**

Aerial Survey and 2004 FUSRAP screening survey cleared this area of Rad contamination. Pending comments by EPA and preparation of a determination report, site will be eliminated from FUSRAP consideration

Remediated under IRP.

### **East Burn Pads**

Aerial Survey and 2004 FUSRAP screening survey cleared this area of Rad contamination. Pending comments by EPA and preparation of a determination report, site will be eliminated from FUSRAP consideration

Remediated under IRP.

### **RI Work Plan and Follow-on Activities Process Discussion**

After discussions regarding the differences in the available data for chemical contamination and Rad (DU) contamination, the following was highlighted:

- there is an existing ROD covering chemical contamination that EPA wants to see used site wide

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- there is a desire by EPA and the Corps to minimize the document production and review processes necessary to get to RD/RA
- there is a belief that the RI Work Plan could be designed to provide data sufficient to allow immediate implementation of RD/RA for areas having only chemical contamination
- there is a perceived low probability that areas outside of Firing Site 12 and possibly Line 1 will have Rad (DU) contamination

Based on this it was agreed that FUSRAP would mobilize to go to the field to conduct Rad (DU) screening surveys in the 5 areas not yet investigated. The purpose of this investigation is to bring the level of knowledge regarding potential Rad (DU) contamination to a level that would permit a more dynamic RI Work Plan to be developed. Such an RI Work Plan would use a tiered approach (decision tree, EPA Triad approach) to develop of sampling plans (if this – then that). The dynamic approach uses field screening techniques to support real-time decisions for directing investigation activities.

The Aerial Scan did not identify Rad in these areas except where currently licensed. However, historical information suggests further investigation using an initial screening survey approach to these areas seems appropriate. If these sites do not show Rad contamination the RI Work Plan would be designed to close these areas out for further Rad concern with a Class 3 FSS. In this manner the RI Work Plan would take the process much further than originally anticipated. The initial screening survey will focus on areas where there may be higher uncertainty associated with the aerial scanning results. These areas include locations shielded by buildings or overhands and drainage paths were the Aerial scan model does not accurately describe site conditions.

In order to support a dynamic RI survey approach that would expand the utility of the RI Work Plan, EPA agreed to accept previously used screening survey methods, screening levels, and data analysis for these expedited surveys thereby allowing them to occur during this FY and thereby supporting the RI Work Plan development that has been initiated. Review by conference call or meeting was recommended to expedite the process. Both the State and EPA coordination will be required prior to mobilizing to the field. IAAAP support for access will be required in order to mobilize and operate on site.

New planning process for FUSRAP activities would be:

1. **Walkover** per existing screening survey models now for Rad at 5 sites not previously screened. (Line 1, Yards C/G/L)
2. Development of a **dynamic RI Work Plan** that would allow development of RD for areas of chemical contamination from RI data. Work Plan would provide “if this” “then that” sampling plan that would allow movement to design. It would include more biased samples to get to the footprint and volume. With existing ROD can combine RI and pre-design investigation in one report.
3. **Preparation of Decision Documents**
4. **RAWP**
5. **Dig**

## **6. Sort and separate if chemical or removal for DU**

Team agreed to look at using standard SAP/QAP etc. documents already in place for the site to the maximum extent possible. These were previously prepared by URS and utilized by Omaha. Terry Walker will contact Omaha District to obtain this document.

RI – chemical PRGs will be Region IX calculated values.

FUSRAP will write up rationale for setting PRGs for Rad (DU) based on RESRAD modeling and get them out to team via email for acceptance.

Screening levels for radionuclide will be Region IX PRGs (or lower) to ensure most conservative data is collected during investigations to best support future decisions.

EPA did not agree to support moving forward with RI under TPP agreements without FFA in place.

State supported moving forward with RI under TPP agreements but indicated that if the ultimate FFA conflicted with these agreements the State would be bound by the FFA.

Post remedy calculations for Rad (DU) – State allows cover to be used in calculation and would allow cover to be a consideration in remedy design.

Rad – defer to DU concentration based on U238 concentration subtracting out background.

Flyover data and historical use information indicates no rad issues at areas other than the 7 red and 6 blue sites.

FUSRAP intends to pursue use of on-site disposal facilities for chemical contaminated soil and treated soil. EPA has no problem with this approach if area is available. IAAAP indicates this will require available capacity and schedule coordination with IRP program and that ERA may expect O&M assistance for long term operation and maintenance of the disposal site.

### **Data Collection Discussion**

Use in the field screening techniques whenever possible to support the dynamic RI Work Plan (e.g. XRF for barium, colorimetric for explosives and in situ measurements for DU).

For chemistry will look at SW 8330 with RDX driver from detection perspective

Metals – ICP trace

Rad determination based on U238 concentrations minus background is acceptable

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Background used at Firing Sites 6 & 12 by FUSRAP is acceptable for remainder of the sites.

Corps uses DOD standard for chemical data quality

Gamma spec – MDA of 1 pCi per gram for potassium 40 (k40). That provides common denominator for samples

MDA of 5pCi/g for U-238

The agreed upon MDA would not apply to obviously hot samples above the PRGs/RGs

If gamma spec analysis results exceed the DCGL in areas where DU is not anticipated to be found - do isotopic (alpha spec) analysis except for FS 12 where DU is expected.

Suggestion by the State that screening survey identify relationship between discrete detection points identified in the field and 56 pCi (estimated DCGL for DU based on preliminary modeling) for analytical purposes to identify elevated readings.

### **Data Quality**

If remediation is not necessary from RI we want sufficient data quantity and quality of data to be able to demonstrate this.

Chemical == PRG

Rad == MARSSIM

For Rad:

Set probability of decision errors on overall template or site by site

2 possible null hypotheses == make assumption that the site is contaminated until you prove it is clean --- puts requirement on owner ---- allows regulators to oversee and set DCGL clean up levels

Second say clean until prove its dirty – above background – in owners interest to do poor surveys find least data ---- put requirement on the regulators.

Null hypothesis for this site makes the assumption that the site is contaminated until you prove it is clean. 56 pCi above background was estimated for the DCGL for DU based on preliminary data. The basis for the DCGL for DU will be provided to the team for approval before it will be used.

Can use alpha spec from U234 as background

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Aerial survey supports decision that only FS-12 as being impacted by Rad. Historical documents lead to an additional 13 sites (i.e., 7 red and 6 blue) that need to be further evaluated for Rad (DU).

In order for whole base to be cleared by the State documentation must ultimately address the entire installation fence to fence. Documents produced need to build on flyover data. If the existing data and results from RI activities for the FUSRAP sites support the findings of the Aerial scan, the conclusion will be that the remaining areas of the site were not impacted by AEC activities.

IDPH is interested in being able to show that water bodies on the installation are also not contaminated. FUSRAP will use investigation of sediment to document contamination migration so conclusions can be made.

For future actions IDPH can help with Rad waste fees.

CERCLA risk and State dose language must be used in compatible terms

### **Due Outs**

FUSRAP – will send email to Scott with PRG and rationale for RI Work Plan

FUSRAP – will prepare rad screening surveys for the 5 areas using existing standards and methods and will coordinate with State/EPA via conference call/visit in order to expedite process.

EPA – if reminded by FUSRAP will provide comments previously provided for Supplemental RI discussed during TPP

IAAAP will send email on “squash” to FUSRAP and Rodney (Completed)

IAAAP – will proceed to determine access requirements for 5 sites identified for screening surveys during TPP

FUSRAP – will provide names of field team to IAAAP to initiate clearance procedures

CX – will get SAP/QAP/ etc. developed by URS that have been used by Omaha and approved for the site to provide to FUSRAP – EPA recommends use of these approved documents to advance FUSRAP RI Work Plan

CX – will get data for background metals background from Omaha and send to FUSRAP

State – will provide AO building survey data and information upon request

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FUSRAP to investigate State standard for Rad and compare to CERCLA standard to determine comparison between “restricted” and “unrestricted.”

FUSRAP to investigate Summers model and determine applicability to site and what we may need to do as a result and will provide article to EPA.

### **TPP Understandings**

Future site wide land use as identified in the 1998 ROD is assumed to be Industrial/Commercial

Sites meeting Industrial/Commercial clean up goals will require institutional control

IAAAP will be suited for “unrestricted” use (in accordance with State Rad requirements) for Commercial/Industrial exposure scenario.

Chemical contaminants of concern have been identified for each site and in addition to those identified in the 1998 ROD include Barium, and MOCA.

Depleted uranium is the only Rad contaminant of concern.

Barium PRG for screening purposes will be 5400 ppm in accordance with Region IX PRG

Fly over data will be used in concert with other historical and sampling and analysis data to identify actionable areas for Rad contamination.

Based on the results of the Aerial scan, there is no immediate threat to the environment or public.

The Rad sampling and survey detection limits to be obtained in the RI will allow for the assessment of radiological risk and comparison to dose-based cleanup levels that will be developed for site release.

The current draft final Site Screening Survey conclusions will be accepted and the areas covered by this site survey will be designated non-impacted and will not be further investigated pending clearance of the concrete anomaly found at the deactivation furnace.

A Letter Report identifying AEC impacted areas as – Line 1, Firing Sites Area, West Burn Pads (area south of the road), warehouse 3-01, Yards C and G and Yard L grounds surrounding warehouses L-37-1, L37-2 and L37-3 – will form the scope of the RI Work Plan development. This report will also make the determination that the – Inert Disposal Area, Demolition Field/Deactivation Furnace, Former Line 1 Impoundment, North Burn Pads and North Burn Pads Landfill and the West Burn Pads (north of the road) have been cleared with a Class 3 survey that agrees with the aerial scan that showed these areas

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were not rad contaminated and that no further action under the FUSRAP program will be taken at these areas.

Physical boundaries have been set during the TPP for each site that will be included in the RI Work Plan and are reflected in TPP minutes.

Soils, sediments and structures will be the operable unit for contaminated AEC sites.

FUSRAP will have no responsibility for ground water evaluation or remediation and during the RI phase will conduct no sampling of water.

FUSRAP will have responsibility to manage, sample and appropriately dispose of excavation water during future RA actions.

Surveys will be performed in accordance with MARSSIM guidance in all impacted areas.

All available IRP sample data will be incorporated as appropriate in RI sampling plan considerations and documented

Methods previously used by FUSRAP in performing walk over surveys and taking soil samples are in accordance with industry standards and are acceptable to the USEPA, State and Plant.

Investigation samples may be transported to the St. Louis labs for processing.

IAAAP investigative derived waste will be archived for later transport to the FUSRAP RA contractor or if future coordination permits may utilize existing contracts at IAAAP to dispose of this waste.

Areas identified with Rad (DU) contamination exceeding clean up goals will be remediated by soil removal to an appropriate facility.

Areas identified with only chemical contamination will be remediated by removal or treatment in accordance with the most cost effective and economical methods.

Sites may require multiple methods of remediation based on the location and nature of Rad (DU) and chemical contamination.

Appropriate DOT regulations will be followed in the transport of investigative samples and investigative derived waste.

The role of the RAB remains the same and FUSRAP will continue to provide information, briefings and such to the existing RAB.

No funding is to be provided to the State or the RAB for their oversight services.

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### Roster for Future Coordination

|  |         |             |              |  |
|--|---------|-------------|--------------|--|
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