Meeting Notes
WMA C PA Status Meeting with Ecology

Date: Wednesday, August 28, 2013

Location: Ecology Offices, Room 3A and 3B

Purpose: Discussion of Scope and Schedule of the WMA C PA per HFFACO Appendix I requirements and a tentative agenda for the Kickoff meeting planned for October 28 and 29, 2013

Attendees (in person): Marcel Bergeron (WRPS), Kristin Scott (WRPS), Susan Eberlein (WRPS), Mike Connelly (Freestone), Vicky Freedman (PNNL), Jeff Lyon (ECY), Jeff Daniels (Cavendish/DOE-ORP), Alaa Aly (CH-PRC), Chris Kemp (DOE-ORP), Doug Hildebrand (DOE-RL), Michelle Hendrickson (ECY), Les Fort (WRPS), Joe Caggiano (ECY), Nancy Uziemblo (ECY), Beth Rochette (ECY), Donna Morgans (INTERA), Sunil Mehta (CH-PRC), Chris Magan (INTERA), Will Nichols (CH-PRC), Jim Hansen (DOE-RL), Alex Teimouri (DOE-EM-12), Dib Goswami (ECY), Mike Barnes (ECY), Kirk Cantrell (PNNL), Jim Alzheimer (ECY), Jerry Yokel (ECY), Alex Nazarali (CTUIR), Ron Koll (DOE-ORP), Brenda Jentzen (ECY)

Attendees (on phone): Don Lowman (NRC), Dirk Dunning (State of Oregon), Stan Sobczyk (Nez Perce), Dave Bernhard (Nez Perce), Damon Delistraty (ECY), Roger Seitz (SRNL), Greg Flach (SRNL), Joe Rustsik (Vanderbilt), Sharon Braswell (WRPS), Linda Suttora (DOE-EM)

The following topics were discussed (See attached slides used in the meeting);

- Marcel Bergeron presented a summary of the topics to be discussed (See attached slides)
- Jeff Lyon asked if EPA will be participating in the PA process. Doug Hildebrand indicated he is waiting feedback from Stacy Charbonneau (DOE-ORP) on that topic,
- Alaa Aly provided an overview of the scope of the WMA C PA needed to support closure per HFFACO Appendix I Requirements (see content of slide 1 of the discussion slides). The range of performance and risk assessment analyses include:
    - A baseline risk assessment that will support the Remedial Investigation and Feasibility Study (RI/FS) supporting a proposed plan and record of decision (ROD) for remediation of existing and future ground water contamination within groundwater operable units BP-5 and PO-1. This scope is being undertaken by DOE-RL and is not specifically considered a part of the analysis requirements identified for an SST WMA under Appendix I. However, it is recognized the proposed plan and ROD related to this analysis will have some bearing on the specific decisions under RCRA and DOE-HQ on final closure of WMA C.
    - A baseline risk assessment that will support the RCRA Field Investigation and Corrective Measures Study (RFI/CMS) supporting an proposed plan and permitted corrective actions under RCRA of existing vadose zone contamination from past tank waste releases at WMA C. The process to reach decisions on the radiological contamination is to be determined. This scope is being undertaken

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by DOE-ORP and WRPS as part of meeting requirements defined in Appendix I. It was noted that the M-45-61 milestone, for the RFI & CMS on 12/31/14, will precede the PA, and there may be a need to defer the CMS.

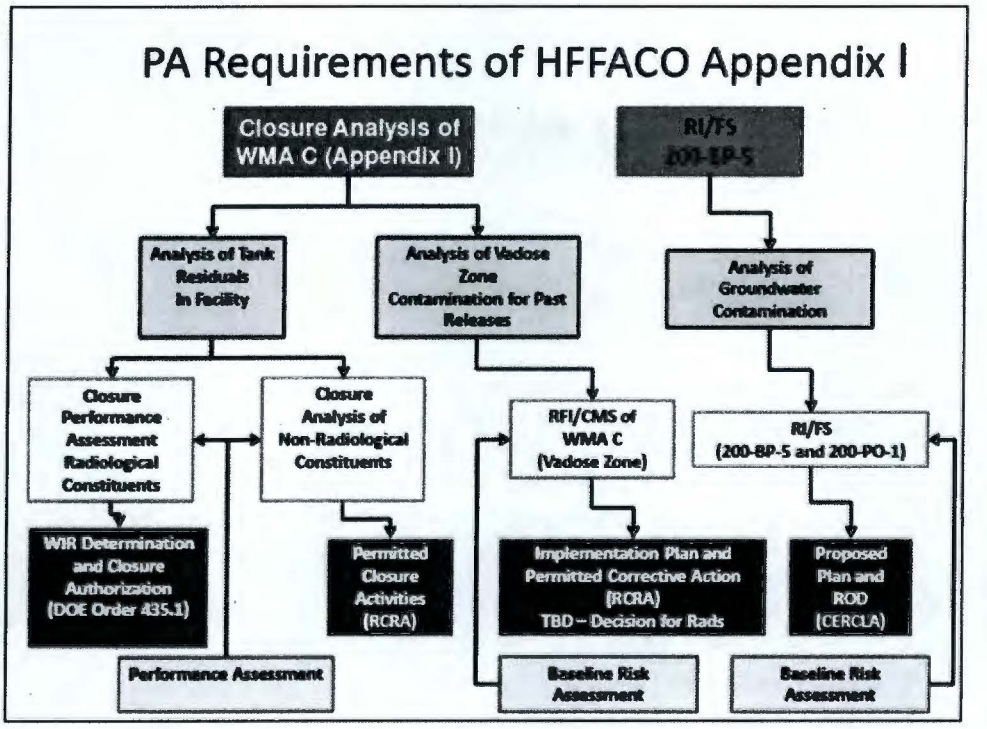
- A performance assessment of the impacts of hazardous chemicals in tank residuals left in tanks and ancillary equipment/facilities to support permitted closure activities under RCRA. This scope is being undertaken by DOE-ORP and WRPS as part of meeting the analysis requirements defined in Appendix I
- A performance assessment of the impacts of radionuclides in tank residuals left in tanks and ancillary equipment/facilities to support a WIR determination and a Closure Authorization under DOE Order 435.1. This scope is being undertaken by DOE-ORP and WRPS as part of meeting the analysis requirements defined in Appendix I

- Joe Caggiano – commented on RI/FS BP-5 plan. How will C-farm RFI/CMS relate to groundwater decisions? He was concerned about potential gaps
- Dib Goswami – He indicated he was not sure when BP-5 will be done. There could be potential disconnects. Also work related to 200-DV-1 and how vadose zone contaminants get into groundwater
- Alaa Aly - concur that other analyses will feed the overall puzzle and it is not clear how that will happen
- Brenda Jentzen – expects everything to come together in a closure plan. Will need remedies to ensure protection of groundwater, direct contact, ecological and all environmental media. Marcel Bergeron – The WMA C PA effort may be ahead of the BRA for BP-5 and will need to integrate those results as they become available.
- Alaa Aly - The PA effort will also need a CA
- Jeff Lyon – indicated that he does not agree with what was depicted in the diagram (see slide one). Wants groundwater analysis in closure of WMA C and will need to get groundwater info. Also indicated that implementation plan and permitted corrective actions depicted under the RFI/CMS is a TPA document.
- Joe Caggiano – BP-5 is a different scale than C-farm for groundwater and that will need some consideration
- Doug Hildebrand – RL is working specific BP-5 ECA's ahead of the RI/FS decisions. Will be integrated with C-Farm. ECA involves an Engineering Evaluation and Cost Analysis of Expedited Action under CERCLA
- Dirk Dunning – What is Baseline Risk Assessment? Challenged the use of the term "baseline" as potentially confusing, as baseline does not refer to what was here before contamination, but rather refers to the time now before cleanup actions are taken. This needs to be very clearly called out.
- Marcel Bergeron – Assessment of risk associated with current conditions to identify need for action
- Alaa Aly – This type of analysis needed under CERCLA
- Dirk Dunning – Need to make clear integration of tanks, soil, and groundwater. Waste in soil doesn't isn't subject to change in status through a WIR determination, but how then do you deal with the waste? Need to avoid taking actions (such as filling tanks with grout before the wastes in the soil have been dealt with) that could preclude a future

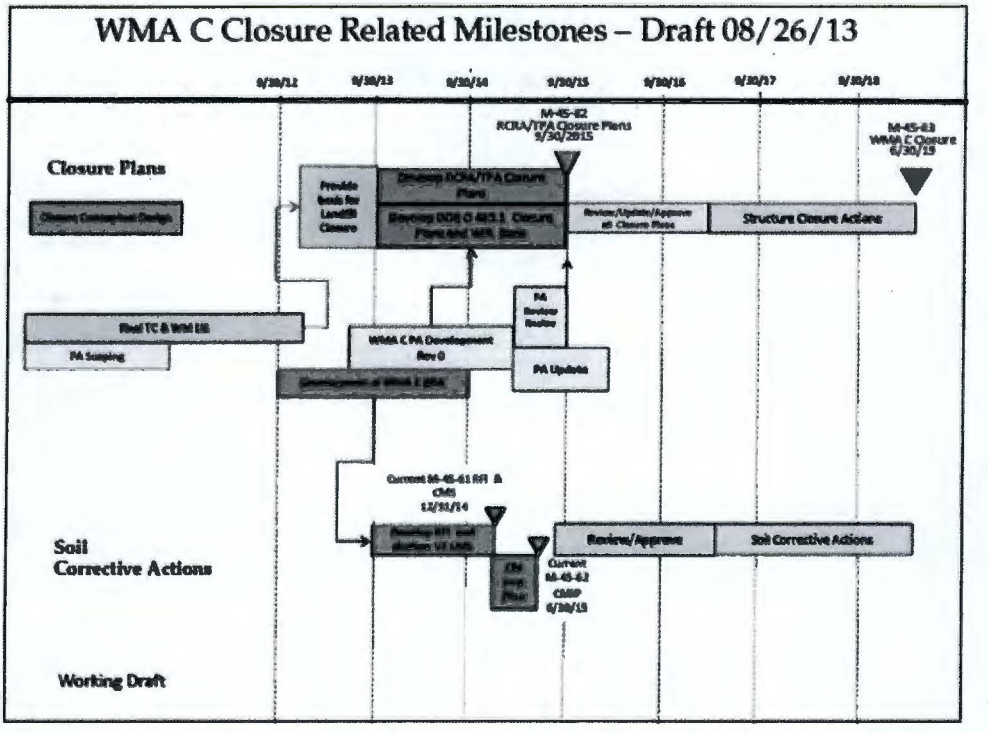
action. Need to correct Figure I-1 to show the interaction of all three branches and the temporal problems of taking some actions prematurely before other actions are taken.

- Susan Eberlein presented the current schedule for completing all of the required scope elements identified by Alaa in his presentation of the WMA C PA scope per HFFACO Appendix I requirements (see content of slide 2 of the discussion slides)
- Jeff Lyon – When will we get a plan for the RFI/CMS?
- Susan Eberlein – A plan is being developed that will be shared soon.
- Marcel Bergeron and Alaa Aly jointly presented the tentative agenda proposed for the October 28/29, 2013 kickoff meeting (see content of slide 3 of the discussion slides). Schedule soon is just for Oct. 28 but facilities are reserved for Tuesday morning of the Oct. 29th if it is needed.
- Beth Rochette – asked if the baseline risk assessment will cover all depths from the surface to groundwater and address the leaching pathway to groundwater? This is necessary for a baseline risk assessment.
- Marcel Bergeron – BRA will cover full range of data we have (i.e. vadose characterization and ground water monitoring data). There will be preliminary look at groundwater impacts using available tools. The tools developed as part of the PA effort will examined these impact in detail later.
- Marcel Bergeron - Previously we talked about the PA only focusing in the impacts of tank residuals. However, we met last week with Ecology about looking at past leaks and we are developing some concepts involving scoping analyses with a detailed model based on STOMP to move forward to look at groundwater impacts from past tank leaks
- Joe Caggiano - Want to have some element of history matching to the analyses. Need to make sure we don't have mismatches with what has been observed. Need to simulate some cases that show past releases reaching groundwater.
- Dirk Dunning – Two other factors to consider: 1) alternative adsorption processes/equations that (e.g. Freundlich Isotherm) and 2) alternative transport through soil (e.g. observed preferential transport on layers, finger transport, fines boundaries, vertical transport on facies, etc… all of which have been observed near this area). Need to look at Andy Ward's work at B-BX-BY with sudden transitions between wells (i.e. vertical transport; likely on a clastic dike wall).
- Dirk Dunning – asked about other meetings going on the week of Oct. 28.
- Linda Suttora - The Waste Corporate Board meeting may change plans; other activities may also change. Everything that was schedules is up in the air at this point.
- Dirk Dunning - Sept. 20 is another important date. DOE apparently may announce stuff coming out of their technical review panels for the Waste Treatment Plant.
- Alex Teimouri – Asked about transition from TC WM-EIS to PA effort vis-à-vis a universally accepted model. Also suggested that the diagram as presented at the meeting did not reflect the big picture approach using this PA process and related activities as the building blocks to get rolled up eventually into a future CA, given the disparate point of compliance with RCRA and CERCLA via the groundwater, etc.

- Alaa Aly - Have direction from EM on requirements for starting with the EIS model and documenting changes. Will use EIS models as a starting point and only will make necessary changes needed for the PA effort.
- Dirk Dunning – The scale of the closure model in EIS is on a different scale, and will not adequately represent local behavior.
- Marcel Bergeron - The EIS did a local-scale of WMA C. We will be adapting that model for use in the PA
- Dirk Dunning -Models developed were for direct vertical transport. No alternatives were considered. The model was hyper-optimized. There are issues of scaling the models. Scaling across discontinuities does not work.
- Alaa Aly - Don't necessarily agree with all of your comments and issues but we discuss them as we develop the models used in the PA
- Dave Bernhard - made comment about vadose zone properties used in the EIS. Asked whether we will have flexibility to adjust parameters to match reality.
- Alaa Aly - EIS matched the best available data. We will make some changes as new information supports it
- Marcel Bergeron reminded all of the next monthly status meeting in September Wednesday, September 25, 10 to 11 am



Slide 1



Slide 2

STRAWMAN AGENDA FOR KICK-OFF MEETING

October 28th

8:00 AM – Introductions & Opening Remarks (DOE, Ecology, NRC, EPA, others)
8:30 AM – Summary of Scoping Sessions (Marcel)
9:30 AM – Road Map for BRA and PA (Alaa)
9:45 AM – Break
10:00 AM – Baseline Risk Assessment – Characterization & Monitoring Data Evaluation (Chris and Alaa)
11:45 AM – Lunch break
1:00 PM – Baseline Risk Assessment Outline and Implementation Plan (Donna/Alaa)
2:00 PM – Overview of Technical Approach for Performance Assessment (Matt)
2:15 PM – Transition from EIS Models for WMA C PA Model(s) (Alaa)
2:30 PM – Break
2:45 PM – Detailed Discussion of Technical Approach for Performance Assessment & Expected Products (Matt)
4:00 PM – Closing Remarks
4:15 PM – Adjourn

October 29th
Tuesday Morning As Needed

Concurrence:

R Douglas Hildebrand	R D Hildebrand	10-1-2013
DOE Project Manager (print)	DOE Project Manager (signature)	Date
Jeffery J Lyon		9-30-13
Ecology Project Manager (print)	Ecology Project Manager (signature)	Date