

ORP Project Managers Meeting
July 23, 2013
2440 Stevens Ctr.
Richland, Washington
Meeting Minutes Transmittal

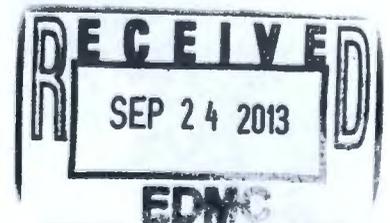
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Distribution:

W. Abdul	ORP	H6-60
J. M Bruggeman	ORP	H6-60
S. L. Charboneau	ORP	H6-60
J. F. Grindstaff	ORP	H6-60
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L. A. Huffman	ORP	H6-60
J. M. Johnson	ORP	H6-60
C. J. Kemp	ORP	H6-60
D.P. Knight	ORP	H6-60
J. J. Lynch	ORP	H6-60
D. L. Noyes	ORP	H6-60
G. B. Olsen	ORP	H6-60
S. C. Stubblebine	ORP	H6-60
G. D. Trenchard	ORP	H6-60
J.D. Young	ORP	H6-60
D. Becker	Ecology	H0-57
R.K. Biyani	Ecology	H0-57
A.S. Carlson	Ecology	H0-57
T.Z. Gao	Ecology	H0-57
J. J. Lyon	Ecology	H0-57
J. D. McDonald	Ecology	H0-57
J. Price	Ecology	H0-57
H.M. Bowers	WRPS	H6-14
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S. E. Killoy	WRPS	H6-14
R. J. Skwarek	WRPS	H3-28
R. A. Kaldor	MSA	H7-28
R. E. Piippo	MSA	H7-28

ADMINISTRATIVE RECORD – Heather Childers: H6-08

The undersigned indicate by their signatures that these meeting minutes reflect the actual occurrences of the above dated Project Managers Meeting.



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Chris Kemp
Chris Kemp, DOE-ORP Date: 9-24-13

Wahed Abdul
Wahed Abdul, DOE-ORP Date: 9/24/13

Jason Young
Jason Young, DOE-ORP Date: 9/24/13

Jeff Bruggeman
Jeff Bruggeman, DOE-ORP Date: 9/24/13

Michael W. Bann
J. Lyon, Project Manager,
Washington State Department of Ecology Date: 9-24-13

J. D. McDonald
J. D. McDonald, Project Manager,
Washington State Department of Ecology Date: 9-24-13

Purpose: ORP Project Managers Meeting

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1.0 Administrative Items

Recent Items Entered/To Be Entered into the TPA Administrative Record - ORP noted that two sets of meeting minutes associated with the revision of RPP-9937 will be entered into the Administrative Record (AR). ORP provided a one-page agreement between ORP and Ecology that was signed today (7/23/13) and will be entered into the AR. The agreement allows ORP to submit single-shell tank (SST) closure plans in alignment with the Hanford Federal Facility Agreement and Consent Order (HFFACO) milestones M-045-82, M-045-84 and M-045-85, and that milestones M-045-82, -84 and -85 will supersede the requirement under Appendix I of the HFFACO to submit closure plans to Ecology within 120 days of completing retrieval activities on an SST. ORP stated that Ecology and ORP will be working together to modify Appendix I through a TPA Change Control Form.

2.0 Agreements, Issues, Actions

Action No. TF-13-06-01 - ORP will contact Ecology to set up a meeting. This action remains open.

Action No. TF-13-05-04 - Combined with action No. TF-13-02-04. This action remains open.

Action No. TF-13-05-03 - This action remains open.

Action No. TF-13-05-02 - This action remains open.

Action No. TF-13-05-01 - Ecology stated that ORP sent the DQO for Tank C-112 Hard Heel Dissolution, but the link could not be accessed. ORP will ensure that Ecology receives the DQO. ORP stated that the Solubility Model DQO is in draft and should be finalized and submitted by the end of August 2013. Ecology noted that the solubility DQO is being used for the current system planning, and Ecology is waiting on the final DQO information.

Action No. TF-13-04-01 - This action remains open.

Action No. TF-13-03-05 - This action remains open.

Action No. TF-13-03-04 - This action remains open.

Action No. TF-13-03-03 - ORP stated that this action was closed with the submittal of the agreement between ORP and Ecology that was signed today (see items entered into the AR).

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Action No. TF-13-02-03 - ORP stated that as a result of several meetings with Ecology, a decision was made to develop a comprehensive flow chart to show how the RFI/CMS, the C Farm Performance Assessment (PA), retrieval, and the M-045-82, -84 and -85 milestones all fit together and how the negotiations will occur. ORP is meeting internally to discuss the process, and then a meeting with Ecology will be scheduled. This action remains open.

Action No. TF-12-12-03 - The SST Integrity TPA change package was signed by Ecology. ORP noted that the new dates for the SST Integrity reports are reflected on the working key documents list. This action was closed.

Action No. TF-12-10-04 - ORP stated that this action will remain open until the retrieval data report sampling for C-107 is done.

Action No. TF-12-10-02 - ORP stated that the meeting scheduled on July 10, 2013 with Ecology's water purveyor has been rescheduled to August 6, 2013. ORP stated that it has been confirmed there are no active water lines in the tank farms. ORP has a drawing of the other lines that are near the SSTs. Water from the fire hydrant testing no longer goes onto the tank farms. ORP noted that the 4511 water permit protects the tank farms from fire hydrant testing. This action remains open.

Action No. TF-12-09-02 - This action remains open.

TPA and CD Milestone Status - ORP noted that the TPA and CD monthly summary status lists all the milestones for fiscal years 13, 14 and 15. ORP stated that all of the TPA milestones are on schedule, with the exception of M-045-61, M-045-62 and M-045-82, which are stated as to be missed. All of the CD milestones are currently ongoing. The TPA and CD milestones that are due July 31 2013 are on schedule to submit the semi-annual compliance reports. Ecology inquired about the status of CD milestone D-00B-01, stating that it is at risk to complete retrieval of tank waste from ten SSTs in WMA-C by September 30, 2014. ORP responded that the milestone is stated as ongoing in the CD milestone table, but the milestone is at severe risk. ORP stated that the issues section under SST retrieval references the status of the milestone, and further discussion will follow under the SST retrieval portion of today's meeting.

3.0 Review of the ORP Summary

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Tank Farms

System Plan - ORP reported that all of the milestones are currently on schedule. ORP noted that WRPS provided a demonstration on the HTWOS model to core team members, including Ecology, ORP and WRPS. Another presentation will be given in August or September 2013 since some of the team members were absent. ORP, WRPS and Ecology have met four to five times on system planning. The first two meetings were to discuss the System Plan 6 assumptions for the baseline case, and WRPS reviewed the assumptions and identified any of the assumptions that have been changed since the System Plan 6 was issued. Discussions also included double-shell tank and single-shell tank scenario selection, and Ecology presented three to four possible scenarios it had developed. Ecology stated that a list of concerns was presented that it is considering incorporating into System Plan 7. ORP stated that it has not developed any of the scenarios for System Plan 7. ORP, Ecology and WRPS will continue to meet to frame System Plan 7.

Acquisition of New Facilities; M-90-00; M-47-00:

ORP stated that no funding was provided in FY13 for these two milestones. Funding is anticipated in FY14 for the Critical Decision 1 (CD-1) packages for the Interim Hanford Storage and Secondary Liquid Waste projects.

Supplemental Treatment and Part B Permit Applications; M-62-00, -20, -30, -45:

ORP reported that there have been discussions with Ecology regarding milestone M-062-40ZZ, and there was an exchange of a draft TPA change package on the milestone. ORP stated that there will be further discussions at the senior management level.

242-A Evaporator Status - ORP reported that the new schedule for the evaporator campaign was received today, and as discussed in past meetings, the schedule is continually moving out. The changes in schedule are due to sequestration (federal budget cuts) and resulting furloughs. ORP stated that with regard to the Documented Safety Analysis (DSA) upgrades, the long-lead equipment is in the process of being received. The Operational Acceptance Testing (OAT) is scheduled to start September 23, 2013. When the OAT is completed, WRPS will begin its readiness assessment, ending on November 6, 2013. The following day, ORP will begin its readiness assessment, scheduled for completion on November 21, 2013.

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ORP stated that the first pass for the campaign is scheduled for November 26, 2013, ending on December 10, with the second pass beginning on December 20, ending on January 3, 2014. ORP noted that the campaign falls during the holidays, and WRPS has staff available during that time frame. ORP stated that authorization has been received for a decision authorization designee to approve operations at the evaporator. Ecology indicated that there will probably be questions regarding the status of testing.

M-045-91, SST Integrity Assurance:

ORP reported that the main update is the approval of the change package that was signed last month by Ecology. The change package provides new dates for the SST program, which are reflected in today's monthly summary handout. Ecology asked if there is any plan to use the newly cut C-105 dome for testing. ORP responded that it has been discussed, but it is not currently in the baseline. ORP added that the intent is to get some core samples from the C-105 dome as was done with the C-107 dome. Ecology asked about the location of the C-105 dome and if it is accessible for sampling. ORP responded that the C-105 dome is accessible for sampling, and the retrieval team is aware that the SST integrity team has an interest in getting samples.

In Tank Characterization and Summary - ORP stated that WRPS has completed the factory acceptance test of the C-105 core sample, and the core sample has been moved to the 200 West Area. WRPS will begin its OAT in August 2013, starting with operator training. ORP offered to set up visits for Ecology to observe the testing.

Tank Operations Contract (TOC) Overview - ORP reported that the base operations negative schedule variance was due to budget impacts from sequestration and the continuing resolution, and efforts are ongoing to make up the schedules by the end of FY13. ORP noted that there were no schedule variances to report for Waste Feed Delivery (WFD), and the cost variances were positive.

Single-Shell Tank Corrective Action; M-45, -50, -60:

M-045-22 - ORP reported that three elements of this milestone are under way with the U Farm surface geophysical exploration (SGE), the contaminant removal demonstration in SX Farm, and the TX Farm characterization. ORP noted that a meeting was held with Ecology last week, and expressed appreciation for the support Ecology provided for the three pushes in TX Farm.

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M-045-56I - ORP stated that the interim measures were due by July 31, 2013, and were completed early. ORP noted that the interim measures include the ancillary action of meeting with the site water purveyor (see Action TF-12-10-02).

M-045-61 - ORP noted that the intent is to keep on track with this milestone, and to use the Environmental Impact Statement (EIS) and the past SST PA for the risk element of the RFI/CMS report since the C Farm PA has been delayed. ORP stated that in lieu of more discussions with Ecology, ORP is planning to draft a holistic closure plan and then restart discussions with Ecology. ORP added that this milestone remains to be missed.

M-045-62 - ORP stated that this milestone is to be missed and cannot be moved forward since it's predicated on the C Farm PA, which has been delayed two years. ORP noted that the C Farm PA has been restarted.

Ecology asked if there are any issues with the EPA or the Nuclear Regulatory Commission (NRC) regarding the C Farm PA. ORP responded that it would be advantageous for the EPA representative to be involved with the PA process. EPA had asked ORP to put in place an interagency agreement, which is essentially a work order between federal agencies. ORP's management has indicated that it cannot fund a regulator (EPA) through an interagency agreement. ORP stated that Ecology was informed the issue needed to be raised to upper management. ORP stated that an interagency agreement exists with the NRC and is funded by ORP. The NRC has been tasked and will be involved in the biweekly via phone or via monthly phone calls, and will be coming to the Hanford Site at the end of October 2013. ORP noted that the NRC does not regulate ORP and that the NRC performs in an advisory role. ORP and Ecology agreed that an action was not needed, but that the issue should be raised through their respective management chain. ORP stated that the issue should be presented to the Senior Executive Committee (SEC) when it meets in September 2013.

TPA-SST Retrieval and Closure Program:

M-045-82 - ORP stated that this milestone is stashed as to be missed due to the delay with the C Farm PA. ORP stated that an attempt is being made to bring the milestone back in line by gaining some efficiencies with startup of the C Farm PA. ORP noted that this milestone was discussed regarding the agreement that ORP and Ecology signed today (see action TF-13-03-03).

Significant Past Accomplishments - ORP stated that the post-retrieval gamma logging of the dry wells for tank C-108 has been done, including the five specific wells that were discussed with

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Ecology. ORP noted that there were no changes from the pre-retrieval dry well logs, including the spectral gamma logging that was conducted several years ago, which is a positive result. ORP added that the interpretation of no change will be included in the retrieval data report (RDR) for C-108.

Significant Planned Activities in the Next Six Months - ORP reported that a draft RDR for C-108 will be completed within two weeks, and the legal department is requiring Ecology to review the report in ORP's office. ORP added that since the report is not a CD item, it is attempting to be able to send the report to Ecology. ORP stated that the C-104 and C-109 RDRs will be issued to Ecology within six months.

ORP stated that the C Farm PA has been funded, and biweekly meetings will start at the end of this month. DOE-RL and its contractor are reviewing the EIS, and C Farm characterization data that was collected post-EIS will need to be included in the modeling. DOE-RL stated that meeting notes will be generated for the upcoming biweekly meetings. ORP stated that the kick-off meeting for modeling is tentatively scheduled for October 28, 2013, at Ecology's office in Richland, and the NRC will be attending via phone.

Tank Waste Retrieval Work Plan (TWRWP) Status - ORP stated that the C-111 TWRWP is being modified, and the second and third retrieval technologies have been identified as a combination of high pressure water and caustic dissolution in phases. Ecology stated that the main discussion will center on how to prove the limit of technology has been reached with the second and third technologies and how to determine that as much waste as possible has been removed. Ecology added that if the level gets below 360 cubic feet, the goal will have been accomplished, but if it is above 360 cubic feet, the question will be whether or not it can be confirmed that the technology was used to its limit.

CD-SST Retrieval and Closure:

D-00B-01 - ORP stated that the Department of Justice (DOJ) notified the Washington State Attorney General and the state of Oregon that a serious risk for completing tanks C-102 and C-105 exists. The risk is due to several issues, including a concern with deep sludge gas release and difficulties with equipment. At Ecology's request, ORP provided an update on the deep sludge concern. ORP stated that the original plan was for AN-101 to receive 296 inches of sludge and for AN-106 to receive 240 inches. A concern was raised about deep sludge being built to greater

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than 170 inches and having entrapped gas that would release into the head space of the DST that would be greater than the lower flammability limit.

ORP stated that the process is under way to resolve the deep sludge gas release (DSGRE) concern. The path is being pursued to open up a third DST receiver tank (AZ-101) for the retrieval of C-102, and an engineering schedule is being developed for opening AZ-101. ORP stated that there are conservatisms in the calculation for DSGRE, and Battelle is reviewing the conservatisms in an effort to refine the calculation beyond the current 192 cubic inches and get into the range of 224 to 240 cubic inches. ORP added that there is some column testing that could be done to simulate the buildup of sludge in a tank, and the labs and PNNL would be involved with that testing.

ORP stated that a biweekly status on the DSGRE has been scheduled. Ecology inquired about the use of the cone penetrometer. ORP stated that the cone penetrometer is the third part of the effort to resolve DSGRE, and that the sheer strength on the tanks needs to be obtained. The current dates for obtaining the sheer strength are in January and March 2014, and ORP is pushing the contractor to obtain the measurements from AN-101 and AN-106 in November 2013. ORP stated that the measurements will assist with refining the calculation and feed into the PNNL effort.

Ecology asked if there was a concern that retrieval from C-105 and C-102 will not fit into the new DST receiver tank. ORP stated that there is no concern, and that there is room for C-102 to go over to AZ-101. ORP added that about 235 cubic inches is needed for C-105, and if the cone penetrometer work, along with the conservatisms in the calculation by PNNL get into the range of 240 cubic inches, there would be room for C-105. Ecology noted there would be an issue if the calculation does not get into the 240 cubic inch range. ORP responded that there would still be room in AZ-101, whatever the delta would be. ORP added that it all needs to be well defined, and that the past system plan has an assumption of 250 cubic inches that will need to be revised. Ecology asked if the distinction will be made between the settlement of the solids; i.e., 190 inches of settled solids versus 190 inches when it's pumped into the tank. ORP responded that the distinction is not currently made, but it will be included in PNNL's review of the conservatisms in the effort to refine the calculation. Ecology suggested looking at how well settled the solids in the tanks are when the cone penetrometer testing is done. ORP responded that the sheer strength of the unsettled solids versus the settled solids is different. Ecology stated that some of the solids agglomerate, and there can be a hard residual layer in the tank that can create gas problems as far as venting. ORP acknowledged and expressed appreciation with Ecology's comments.

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Significant Past Accomplishments - ORP noted that the C-105 dome cut was done on June 5, 2013, and expressed appreciation to Ecology for its support.

TWRWP Status - ORP noted that there was a modification notice that High Resolution Resistivity (HRR) will be used in C-102 leak detection. Ecology noted that when groundwater sampling is done, that sampling is done for the analytes listed in the TWRWP, and that groundwater sampling is within three months of the start of end of retrieval or at the end of retrieval.

Tank in Appendix H. Status (tank 241-C-106) - There was no change in status to report.

Tank Retrievals with Individual Milestones (tanks 241-A-103 and 241-S-112) - No change in status.

Waste Treatment Plant

ORP addressed the open actions as follows:

Action No. WTP-13-04-03 - See discussion under LAW. This action remains open.

Action No. WTP-13-04-01 - A briefing will be scheduled with Ecology. This action remains open.

Action No. WTP-13-02-01 - ORP provided Ecology a briefing on the PT and HLW facility maintenance program. This action was closed.

Action No. WTP-13-01-01 - ORP provided a briefing at the last project managers meeting. ORP will schedule a detailed briefing with Ecology. This action remains open.

ORP stated that from an overall project perspective, there hasn't been much change since last month's report. The full-time employees remain essentially the same, and one of the main focuses through this fiscal year has been to maintain stability in the craft and non-manual work force. With the reprogramming funds that were recently received, some ramping up of the work force will be done. The LAW, BOF and LAB (LBL) facilities continue to work to the re-plan process, and HLW and PT are working to the two-year interim work plan that started in October 2012. ORP noted that the status remains the same for HLW and PT to work on closure of technical issues, and focusing on completing HLW technical issue resolution by the end of this calendar year. There is some controlled construction in HLW, mostly civil and rebar, but no work that impacts the wet cell technical issues. PT is being maintained in a safe condition, with the

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focus on technical issue resolution. Ecology inquired about an update on the LBL re-planning in regard to the decision for direct feed LAW. ORP responded that a decision has not been made by the Energy Secretary regarding direct feed LAW, and ORP continues to work to the existing LBL re-plan. ORP noted that the Energy Secretary committed to Congress to get a plan out for WTP by the end of September 2013, and it is anticipated that the decision on direct feed LAW will be included in the plan.

ORP noted that the overall project schedule variance is a negative \$1.3 million, which is a decrease of about \$5.8 million from last month. ORP stated that the cost performance improved by about \$8.8 million, and a positive cost performance is expected to continue. ORP noted that some of the earned value management system (EVMS) data reflects the slowdown earlier in the year due to the control point issues and funding profiles, and there will continue to be some negative schedule performance over the next few months.

Pretreatment (PT) Facility

ORP stated that the main effort continues to be associated with technical issue resolution by the joint ORP/BNI team.

Significant Planned Actions in the Next Six Months - ORP reported that the current focus is preparation for testing of the pulse jet mixing (PJM) in the 8-foot acrylic vessel, which is planned to start tomorrow (7/24/13). The testing will be conducted to provide additional information for the full-scale testing and use the same PJM that will be used in the full-scale testing. Ecology inquired about the number of PJMs in the 8-foot vessel and if the controls are prototypical. ORP took an action to provide Ecology a response later today regarding the 8-foot vessel. ORP stated that preparations are also being made for the full-scale testing, with equipment installation under way, including installation of RLD vessel 8T. ORP added that the national labs are in the process of developing the simulant, the instrumentation, and the detailed test plan for the full-scale testing. ORP noted that the full-scale testing is scheduled for late spring, early summer 2014. Ecology requested a copy of the vessel mixing test completion project execution plan. ORP agreed to provide Ecology a copy.

Ecology asked what is driving the impact evaluation for a potential change to the natural phenomenon hazards design criteria that would double the ashfall criteria. ORP responded that it is a result of the United States Geological Survey (USGS) report that was issued early last year. ORP stated that it is in the process of updating the natural hazard phenomenon for the Hanford

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Site, which is done every ten years. Ecology noted that today's handout states that the design criteria revision could potentially impact the HVAC system design, pointing out that it would impact all facilities and not just PT. ORP responded that it would impact all facilities to different degrees, but the impact to PT and HLW would be higher due to the amount of safety class ventilation system air that will be needed. Ecology asked if a preliminary assessment has been made of the impacts. ORP responded that an assessment is part of what Bechtel has been directed to do, and that ORP's ventilation system experts are in discussions with Bechtel regarding all the different scenarios.

Ecology stated that there could be a significant impact in some areas. ORP concurred with Ecology, adding that it's a potential change that is outside the scope of the current contract design, and ORP is considering whether to make it a requirement upon Bechtel. ORP stated that it has informed Bechtel that it is considering making a change to the code of record, and has given Bechtel the direction to perform a technical evaluation to provide a rough order of magnitude (ROM) of the impacts to the design and schedule. Ecology noted that a lot of the equipment has already been designed, and if the design criteria are changed, then the equipment will need to be reevaluated. ORP concurred with Ecology's statement, adding that the change in criteria is fairly significant by doubling the ashfall. ORP stated that it would impact the safety class systems that filter incoming air and the structural loading of ashfall on buildings and components. ORP added that there would also be potential impacts to the emergency turbine generator (ETG) due to additional power needs. ORP stated that most of the impact would be to PT, which is why the issue is listed under the PT section of the monthly summary, although it will impact all the Hanford facilities.

Oregon Department of Energy (ODOE) asked about the impact to the design of HEPA filters in HLW. ORP responded that the ashfall criteria will impact the air intake that comes through the ventilation system, and the HEPA filters are associated with radioactive particulates that move through the HEPA filters and are located on the exhaust side of the system. Ecology inquired about the vessel structural modifications associated with the new seismic criteria. ORP took an action to provide a response to Ecology regarding the status of the seismic modifications to vessels UFP-1 and UFP-2.

High Level Waste

Significant Planned Actions in the Next Six Months - ORP reported that the major piece of work is associated with the Reliability Validation Process (RVP). The key commitment for HLW is to

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resolve technical issues by the end of this calendar year so that the production activities can be restarted with design and construction. ORP stated that it will be conducting an extensive design review of the HLW facility starting at the end of this month. The purpose of the review is to ensure that the key systems have been designed satisfactorily by the contractor and will meet the requirements and support the WTP mission. ORP has contracted with WRPS to support the design review, and Bechtel will also participate in the review. ORP noted that as part of the design review process, the RLD-8 vessel design was already reviewed, and a determination was made that the design was not sufficiently functional and Bechtel was directed to make design changes. Ecology asked if the design on systems is on hold until the results of the design review are available. ORP responded that the action had already been taken to place all production engineering work and construction work, other than specific limits, on hold. ORP will not allow Bechtel to go forward until the technical issues are addressed and the design review is completed. ORP noted that the hold is on procurements as well, with the exception of HLW items that are close to design completion and that ORP accepted.

Ecology asked if there is a statement of work for the design review. ORP responded that there is an assessment plan, but since the review is led by ORP there is no statement of work. ORP added that Ecology has been invited to participate in the design review, and offered to provide a copy of the assessment plan.

Ecology referred to the engineering efforts that are focused on resolution of priority level 1 findings, and asked if a list of the findings was available. ORP responded that it would forward the letter to Ecology containing the priority level 1 findings. ORP noted that it conducted the review last year, resulting in a number of priority level 1 findings. Bechtel responded with corrective actions to the findings, and ORP and Bechtel have been going through the corrective actions in an effort to reach agreement. Ecology requested a list of the issues identified in the RVP Wave 1. ORP responded that a briefing will be scheduled with Ecology, and the issues will be provided during the briefing (see Action WTP-13-04-01). ORP added that if Ecology has further questions following the briefing, that additional information could be provided. ORP noted that there have been several briefings to Ecology throughout the development of RVP.

ODOE asked about the acronym FMECA. ORP responded that it is failure mode, effects and criticality analysis. ORP stated that the purpose of the FMECA review is to determine which systems are critical for the facility to run, and it is not associated with nuclear criticality. Ecology inquired about the mechanism for receipt of the surveillance on the various systems and what Bechtel's responses are and the actions taken to address the findings. Ecology cited the vessel

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corrosion as a specific point of interest. ORP stated that it had reported about a month-and-a-half ago that ORP and Bechtel experts met to discuss and agree on the limits for different chemicals, and the temperature limit and the percentage limit for localized corrosion were set. ORP and Bechtel are continuing to work on what tests are needed for corrosion. ORP noted that the different tests needed for erosion have been identified, and an award was set for a certain amount of preliminary tests on erosion. ORP added that Ecology has been engaged in the erosion/corrosion actions. ORP stated that it will confer with the design completion team lead to ensure that information, particularly on the vessel corrosion issue, is being transmitted to Ecology.

Ecology referred to the Defense Nuclear Safety Facilities Board (DNFSB) website listing of unresolved issues at Hanford, and inquired about the status of issues such as hydrogen gas control and inadequacy of spray leak methodology. ORP stated that it has responded to the issues the DNFSB has raised, and the DNFSB keeps the issues open until it is satisfied that ORP has completed the response actions. ORP noted that PNNL was contracted to conduct the spray leak testing, and the testing has been completed and PNNL submitted a report that has been reviewed. PNNL is in the process of finalizing the report, which will be issued. Ecology quoted the DNFSB report to Congress dated July, 15, 2013 as stating that DOE is planning additional testing to resolve this issue, and the program concluded that the spray leak model is non-conservative. ORP responded that the additional testing has been completed by PNNL, as stated above, to collect additional information to be able to bound the modeling for spray leak, and a report will be issued. The report will also be used as a tool to support the hazard analysis and the licensing process. ORP stated that a briefing or update could be provided to Ecology on any specific reference in the DNFSB website that Ecology requests. ORP noted that there has been no change in the path for spray leak testing during the last year-and-a-half.

Ecology referred to the DNFSB issue regarding formation of sliding beds in process piping. ORP stated that a response letter was sent to the DNFSB that the issue is being dealt with by the design completion teams. ORP added that the design completion teams lead is in the process of providing an updated response to the DNFSB regarding formation of sliding beds in process piping, and the updated response will be provided to Ecology when it is issued.

Low Activity Waste Facility (LAW)

Significant Planned Actions in the Next Six Months - ORP stated that plans are still under way for a second shift, but a firm start date won't be scheduled until there is a sustainable backlog of work. ORP provided an update on the thermal catalytic oxidizer (TCO). The vendor has been identified

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(Ionics) to build the TCO unit, and a team was dispatched yesterday to negotiate with Ionics on the schedule, commercial terms, incentives and verifying that Ionics has adequate cash flow to handle building the TCO and other work it has. The team will be staying until the negotiations are completed.

Balance of Facilities (BOF)

Significant Past Accomplishments - ORP stated that the medium voltage testing in switchgear building 91 was started. ORP noted that building 87 is where the power comes into from off the WTP site and is then distributed to building 91, which runs the power to the individual BOF facilities. ORP explained the startup process for some of the facilities that will come online early. The startup approach will be split into two phases, and the systems will not be energized and wetted until ramp up and final checks are being done for cold start and commissioning. The power facilities will not be energized with permanent power until it is closer to the time they are ready to be used and in place to support the LAW facility. Initial testing of the systems will be conducted using temporary power, and the permanent power testing will be done later. The same approach will be applied to facilities such as the chiller compressor plant.

Significant Planned Actions in the Next Six Months - ORP stated that the focus will be on completion of the chiller compressor plant and the glass former storage facility, with the goal of completing them by the end of this calendar year.

Analytical Laboratory (LAB)

ORP stated that the current focus is completion of the LAB milestone for construction substantially complete. ORP noted that although the LAB is currently 69 percent complete overall, a large amount of the dollar value in LAB is associated with methods development and validation, instrumentation and other activities. Ecology noted that procurement is at 85 percent complete, and asked what is included in the remaining 15 percent. ORP responded that it will be the purchase of analytical instruments. ORP noted that the reason for waiting to purchase the analytical instruments is to avoid the equipment becoming obsolete, and that it is not the type of equipment that can be purchased and then sit for a length of time without being used. ORP added that the methods development will be ongoing before the purchase of equipment. ORP stated that at LAB construction complete, which is currently scheduled for June 2014, the facility will look like a completed facility, but will be on hot standby to install and calibrate instrumentation, install

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final connections to the instrumentation, and install the shield windows and remote manipulator arms. ORP noted that those activities will be done in support of LAW when LAW comes online.

Significant Past Accomplishments - Ecology asked about the pipe flushing spool. ORP responded that the flushing spools are used in the liquid systems to flush long lengths of pipe. ORP noted that the pipe flushing won't be done until later.

Significant Planned Actions in the Next Six Months - ORP stated that the main action is completion of repairs to the RLD vessels. Chicago Bridge and Iron (CB&I) has been contracted to do the repairs, and it has evaluated and agreed to the work scope. Bechtel is finalizing some of the engineering and putting support services in place such as ventilation and scaffolding. CB&I is scheduled to start the weld repairs in mid-August 2013, and the targeted completion is by the end of this calendar year. Ecology asked if the pressure testing is included in CB&I's schedule. ORP responded that the schedule for end of calendar 2013 includes the certification of the RLD vessels. ORP added that CB&I has done work before, and there is high confidence with their performance.

4.0 Key Documents List

An updated ORP key documents list was provided.

5.0 Upcoming Meetings

- The August 2013 ORP TPA dry run meeting for the quarterly is tentatively scheduled for Tuesday, August 13, 2013 from 9:00-11:30 a.m. in ORP room 1200.
- The August 2013 ORP TPA quarterly meeting/IAMIT is scheduled for Thursday, August 15, 2013, from 8:30-11:00 a.m. in Ecology room 3A/B

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Attachment A: Agenda, AR List, Agreement, Issues and Actions

(5 pages including this cover sheet)

ORP TPA Project Managers' Monthly Meeting
Tuesday, July 23, 2013
2440 Stevens Center Richland, Washington
Room 1200, 9:00AM-11:30AM

DRAFT AGENDA

1.0 Administrative Items

Recent Items Entered/To Be Entered into the TPA Administrative Record (see <http://www5.hanford.gov/arpir/?content=advancedSearch> - search EDMC File Number)

Item Description	TPA/CD Topic Milestone Tie	TPA Admin Record – EDMC File Number
June 2013 ORP CD Monthly Report	All	1220884
June 2013 ORP TPA Monthly Report	All	1220883
Meeting Notes for Annual Meeting to Discuss Interim Measures Completed in FY13 and Planned for FY14, held on 06/12/13	M-045-56	1220935
Meeting Minutes for Revision of RPP-9937, dated 06/12/13	RPP-9937	To Be Entered in 07/23/13 ORP TPA PMM
Meeting Minutes for Revision of RPP-9937, dated 06/26/13	RPP-9937	To Be Entered in 07/23/13 ORP TPA PMM

2.0 Agreements, Issues, Actions (review before and after ORP Project Summary Presentations)

3.0 Review of the ORP Project Summary

4.0 Key Documents List

Upcoming Meetings

- The August 2013 ORP TPA Dry-Run Meeting for the Quarterly is tentatively scheduled for Tuesday, August 13, 2013 from 9:00-11:30AM in ORP Room 1200.
- The August 2013 ORP TPA Quarterly Meeting/IAMIT is scheduled for Thursday, August 15, 2013 from 8:30-11:00AM in Ecology Room 3A/B.

ORP/Ecology TPA and CD Agreements, Issues, and Actions for July 2013

Agreements:

1. ORP will continue to meet with ECY to discuss funding and work priorities per TPA Paragraphs 148/149 process.
2. Per an ECY standing request, ORP agrees to include any written directives given by DOE to the contractors for work required by the CD in future Semi-Annual CD Reports (see CD Section IV-C-1-e, page 8).
3. The ORP and ECY PMs have developed, signed, and entered an outline for the CD Tank Completion Certification into the TPA Administrative Record. Senior management will continue to be briefed if any follow-on actions arise.

Issues:

1. Ecology has a concern with WTP data being reported exclusively in the CD Monthly Summary Report as the current CD reporting process does not allot ECY early review time of the CD Monthly Summary Report. ORP and ECY have raised this concern for discussion at the Senior Management levels.
2. AY-102 Inner Tank Leak: A team comprised of experts from ORP, ECY, WDOH, and WRPS are evaluating a range of potential cumulative impacts (DST space/water balance, 242-A Evaporator, Waste Feed Delivery to WTP, risk readiness/contingency, etc.) with follow-on topic meetings to be held with close involvement of ORP and ECY Senior Management as information becomes available for evaluation.
3. T-111 and Other Single Shell Tank Decreases in Liquid Level: The Department of Energy has determined based on data gathered through the single shell tank monitoring program that there are six tanks at the Hanford site in eastern Washington State, including the one announced last week, that show declining levels of fluid. There is no immediate public health risk. The Department is working with the State of Washington and other key stakeholders to address the issues associated with these tanks.
4. Ecology TPA Project Managers expressed concerns with a line item in the ORP FY2014 budget request for planning for the direct-feed of the WTP Law Facility, and why there has been no discussion with Ecology prior to this being included in the budget request. The ORP and Ecology TPA PMs have agreed to raise this issue to their respective management for discussion/resolution.

Actions:

#	Date Initiated	Action Description	Action Status	Actionee(s)	Date Closed
Tank Farms Actions					
TF-13-06-01	06/25/13	ECY requests a meeting with ORP PMs in mid-July to look at issues with the System Plan that may need to be elevated to the IAMIT (unknowns, scheduling/timing of the milestone deliverables/decisions, etc.)	Open.	DaBrisha Smith / Steve Pfaff	

ORP/Ecology TPA and CD Agreements, Issues, and Actions for July 2013

#	Date Initiated	Action Description	Action Status	Actionee(s)	Date Closed
TF-13-05-04	05/16/13	ORP will set up a meeting with ECY to discuss direct feed LAW and TF support (with TF/WTP Integration POCs). ECY requests that ORP close with them on this action within the next month.	Open. Combined with Action TF-13-02-04 which was opened on 02/21/13.	Tom Fletcher	
TF-13-05-03	05/16/13	ORP will set up a meeting with ECY to discuss the SSTs for chemistry effects/changes on liners based on current inspection data.	Open.	Jeremy Johnson / Billie Mauss	
TF-13-05-02	05/16/13	ORP will set up a meeting with ECY to discuss chemistry in DSTs, including surface and layer sampling and chemistry control processes.	Open.	Jeremy Johnson	
TF-13-05-01	05/14/13	ORP will provide two DQOs to ECY (Mike Barnes) for a Solubility Model and Tank C-112 Hard Heel Dissolution	Open.	Billie Mauss	
TF-13-04-01	04/23/13	ECY would like to gain a better understanding of the WFD pulse jet mixing change request for implementation of DNFSB 2010-2.	Open. ORP will share the DNFSB 2010-2 response/plan when it is finalized/transmitted.	Steve Pfaff	
TF-13-03-05	03/26/13	ECY would like ORP to provide a table outlining the previous DST Core Sampling done for AY/AZ/SY tanks, their sampling spec results, and any follow-up actions (i.e. chemicals added to maintain DST Acceptance criteria).	Open. ORP provided tables of sampling efforts.	Billie Mauss	
TF-13-03-04	03/26/13	ECY will review the draft TPA Chg Pckg for M-062-40ZZ and M-062-45ZZ (regarding work on the one-time Supplemental Treatment Technologies Report) provided by ORP and will provide any comments before the Parties agree to finalize any changes.	Open. ORP provided a draft change package for these milestones on 02/12/13. ECY comments were received on 05/09/13.	Steve Pfaff	
TF-13-03-03	03/26/13	ORP will meet with ECY to discuss M-045-82 regarding work on the Tier 1, 2, 3 submittal for WMA C.	Open.	Chris Kemp	
TF-13-02-03	02/21/13	ECY would like to meet with ORP to discuss work on the WMA C PA and other options for M-045-61/-62. <u>Update:</u> ORP met with ECY on 03/14/13 and 05/13/13, 05/16/13, and 06/20/13.	Open. Talks between the PMs are on-going.	Chris Kemp	

ORP/Ecology TPA and CD Agreements, Issues, and Actions for July 2013

#	Date Initiated	Action Description	Action Status	Actionee(s)	Date Closed
TF-12-12-03	12/20/12	ORP will complete the updates on the draft SST Integrity TPA change package and meet with ECY to discuss.	Open. ORP sent letter 13-TF-0044 to ECY on 06/24/13 with a signed TPA Chg Pckg.	Jeremy Johnson	
TF-12-10-04	10/16/12	ECY would like to discuss C-107 and considerations for Tc-99 concerns with tank residuals and technology selection.	Open. On hold until after C-107 RDR sampling has occurred.	Chris Kemp	
TF-12-10-02	10/10/12	Per M-045-56 annual meeting: Set meeting with site water purveyor to address leak detection and testing in active water lines.	Open. ECY has provided questions for the water purveyor. ORP has scheduled this meeting for 07/10/13.	Chris Kemp	
TF-12-09-02	09/25/12	ECY PMs would like to set up a meeting with ORP PMs to define the purpose and scope of the PMM meetings (roles, responsibilities, objectives). This meeting was held on 11/13/12.	Open. ECY will review these results for discussion at a follow-up overall ORP/ECY Comms Improvements meeting.	Jeff Lyon	
WTP Actions					
WTP-13-04-03	04/23/13	ORP will update ECY on a monthly basis on the path forward for the TCO vendor concerns.	Open.	Jeff Bruggeman	
WTP-13-04-01	04/23/13	ORP will meet with ECY to discuss status on the RVP Wave I and path forward for RVP Wave II.	Open.	Gary Olsen	
WTP-13-02-01	02/21/13	ORP will meet with ECY to discuss the PT and HLW facility maintenance program.	Open.	Wahed Abdul	
WTP-13-01-01	01/22/13	ORP will get back to ECY on a briefing to discuss the LAB cathodic protection issue.	Open.	Jason Young	

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Attachment B: List of Attendees

(3 pages including this coversheet)

Sign In Sheet
ORP TPA Project Managers' Monthly Meeting
July 23, 2013

NAME	ORG	PHONE
ROB PIIPPO	MSA/TPA	373-3285
Kathy Knox	^{Kny} Court Reporting	946-5535
JAMES LYNCH	DOE-ORP	376-4170
Mike Barnes	Ecology	372-7987
Chris Kemp	ORP	509-373-0649
STEWEE SIMON	ODOE	(SA) 240-01101
GLYN TRENCHARD	ORP	373-4016
Kathy Higgins	ORP	376-3658
Billie Mauss	ORP	373-5113
Dobrisha Smith	ORP	376-4306
Felix Miera	WRPS	376-7034
Steve Killag	WRPS	727-7884
RON KOLL	ORP	376-4134
Reed Kaldor	MSA	372-1992
Robbie Biyani	ECY	372-7884
Nancy Uziembler	Ecology	372-7928
Jim Alzheimer	ECOLOG Y	372-7982
Jeremy Blinson	ORP	376-1866
Steve Pfaff	ORP	376-2188
R/D/ Deborah	DOE	373-9626
Ellen Mattlin	DOE	376-1900
DAVID BECKER	ECY	372-7990
Jeff Bruggeman	DOE	438-0444

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Attachment C: Presentation Materials

**ORP TPA Project Summary
(18 pages)**

And

**ORP Consent Decree Project Summary
(20 pages)**

And

**Working ORP Key Documents List
(3 pages)**

(42 pages including this coversheet)

FINAL

Office of River Protection
Tri-Party Agreement
Monthly Summary Report
July 2013



**Office of River Protection
Tri-Party Agreement Milestone Review
July 2013 (Monthly Summary Report/Project EVMS reflects May 2013 information)**

Page	Topic	Leads
1	Administrative Items / Milestone Status	James Lynch / Dan McDonald / Jeff Lyon
2	System Plan; M-62-40	DaBrisha Smith / Jeff Lyon / Dan McDonald
3	Acquisition of New Facilities; M-90-00; M-47-00	Janet Diediker / Jeff Lyon / Dan McDonald
4	Supplemental Treatment and Part B Permit Applications; M-62-00, -20, -30, -45	Steve Pfaff / Jeff Lyon / Dan McDonald
5	242-A Evaporator Status	Ron Koll / Jeff Lyon
6	SST Integrity Assurance; M-45-91	Jeremy Johnson/ Jim Alzheimer
7	In Tank Characterization and Summary	Billie Mauss / Michael Barnes
9	Tank Operations Contract (TOC) Overview	Kathy Higgins / Jeff Lyon
14	Single-Shell Tank Corrective Action; M-45, -50, -60	Chris Kemp / Jeff Lyon
15	Single-Shell Retrieval and Closure Program TPA Milestones Status; M-45-00 series	Chris Kemp / Jeff Lyon
17	Tank Waste Retrieval Work Plan Status	Chris Kemp / Jeff Lyon
18	Tank in TPA Appendix H Status Tank Retrievals with Individual Milestones	Chris Kemp / Jeff Lyon
CD	WTP Overall TPA Summary and Milestone Status, *see the June 2013 ORP Consent Decree 08-5085-FVS Monthly Summary Report for WTP facility-specific information	Delmar Noyes / Dan McDonald

Milestone	Title	Due Date	Completion Date	Status
Fiscal Year 2013				
M-045-20	Submit Interim Measures Investigation Work Plan and TPA Chg Pckgs for M-045-22 Target Dates	12/31/2012	12/06/2012	Completed
M-090-11	Comp. Neg's No More Than 2 Canister Storage Fac. Const. Int. M/S	12/31/2012	11/19/2012	Completed
M-062-01Z	Submit Semi-Annual Project Compliance Report	01/31/2013	1/31/2013	Completed
M-045-21	Submit Sampling and Analysis Plan for 241-TX Tank Farm	03/31/2013	3/11/2013	Completed
M-045-91D-T01	Provide Report on the Concrete Dome Samples from Tank C-107 Plug	05/31/2013	5/21/2013	Completed
M-045-91F-T03	Provide Report on Testing for Ionic Conductivity of SSTs	05/31/2013	5/02/2012	Completed
M-045-56I	Ecology And DOE Agree, At A Minimum, To Meet Yearly (By July)	07/31/2013	06/12/2013	Completed
M-062-01AA	Submit Semi-Annual TPA Project Compliance Report	07/31/2013		On Schedule
M-045-91E	Provide SST Farms Dome Deflection Surveys Every Two Years	09/30/2013		On Schedule
Fiscal Year 2014				
M-062-40C	Select a Minimum of Three Scenario's for the System Plan	10/31/2013		On Schedule
M-045-56J	Ecology And DOE Agree, At A Minimum, To Meet Yearly (By July)	07/31/2014		On Schedule
M-045-91B-T01	Provide Ecology report on the Concrete Core from TankA-106 or alt	09/30/2014		On Schedule
M-047-07	CD-1 for Secondary Liquid Waste Treatment and CR for CD-2 to Ecology	09/30/2014		On Schedule
M-090-13	CD-1 for Interim Hanford Storage Project and CR for CD-2 to ECY	09/30/2014		On Schedule
Fiscal Year 2015				
M-062-40D	Submit System Plan	10/31/2014		On Schedule
M-062-40ZZ	Submit One Time Tank Waste Supp Treatment Technologies Report	10/31/2014		On Schedule
M-045-91G-T03	Provide AOR Final Doc. for SSTs on 1,000,000 Gallon Tanks	10/31/2014		On Schedule
M-045-91F-T04	Provide Report on 100-Series SSTs as having Leaked in RPP-32681	12/26/2014		On Schedule
M-045-61	Phase 2 RCRA Facility Investigation/Corrective Measures Study	12/31/2014		To Be Missed
M-045-91G-T04	Provide AOR Final Doc. for SSTs on 55,000 Gallon Tanks	01/30/2015		On Schedule
M-045-91F-T02	Provide Report of Liner Failures for SSTs	03/31/2015		On Schedule
M-062-45-T01	Comp. Neg's 6-Mo After Last Issuance of System Plan	04/30/2015		On Schedule
M-062-45-ZZ	Negotiate a One Time Supplemental Treatment Selection	04/30/2015		On Schedule

Milestone	Title	Due Date	Completion Date	Status
Fiscal Year 2015 Continued				
M-062-45-ZZ-A	Convert M-062-31-T01 Thru M-062-34-T01 to Interim Milestones	04/30/2015		On Schedule
M-045-91F	Provide Summary Conclusions Report on Leak Integrity	06/30/2015		On Schedule
M-045-62	Phase 2 Corrective Measures Implementation Work Plan For WMA C	06/30/2015		To Be Missed
M-045-92O	Barrier 3 Design/Monitoring Approval From Ecology	06/30/2015		On Schedule
M-045-91G	Provide Summary Conclusions Report of AOR for SSTs	07/28/2015		On Schedule
M-045-56K	Ecology And DOE Agree, At A Minimum, To Meet Yearly (By July)	07/31/2015		On Schedule
M-045-91H	Submit Change Pkg (if necessary) to est. Additional Milestones	07/31/2015		On Schedule
M-045-82	Submit Comp. Permit Modification Request for Tiers 1,2,3	09/30/2015		To Be Missed

System Plan

M-062-40C, Select a minimum of three scenarios that will be analyzed in the system plan,
Due: 10/31/2013, Status: On Schedule

M-062-40D, Submit a system plan describing the disposition of all tank waste managed by ORP,
Due: 10/31/2014, Status: On Schedule

M-062-45-T01, Every six years, within six-months after last revision of the System Plan, negotiate tank waste retrieval sequencing,
Due: 4/30/2015, Status: On Schedule

Significant Past Accomplishments:

WRPS presented a demonstration of the System Planning model to Ecology and ORP on 06/25/2013. Demonstration included all components necessary to model a requested System Plan 7 scenario, as well as, a demonstration of the HTWOS model

Significant Planned Actions in the Next Six Months:

ORP and Ecology will jointly begin defining the System Plan 7 scenarios in the July-August 2013 time frame. A series of framing sessions, including Ecology, ORP and WRPS, have been scheduled for the months of July, August and September. The defined scenarios milestone (M-062-40C) is due on 10/31/2013.

Issues:

None.

Acquisition of New Facilities

M-090-13, Submit CD-1 for Interim Hanford Storage Project and TPA Change Request for CD-2 to Ecology, Due: 09/30/14, Status: On Schedule. Created by TPA Change Control Form M-90-12-02, signed by ORP and Ecology on 11/19/12, to "Submit to Ecology, a Conceptual Design Report Package (Critical Decision-1) for the Interim Hanford Storage Project (storage of the first two years of Hanford Site Immobilized High-Level Waste from WTP operations) and a TPA Change Request (in accordance with TPA Action Plan Section 12.0) to submit to Ecology, a Preliminary Design Report package (Critical Decision-2)."

M-090-00, Acquire/modify facilities for storage of IHLW, Due: 12/31/2019, Status: On Schedule

M-047-07, Submit CD-1 for Secondary Liquid Waste Treatment and CR for CD-2 to Ecology, Due 09/30/14, Status: On Schedule. Created by TPA Change Control Form M-47-12-02, signed by ORP and Ecology on 11/19/12, to "Submit to Ecology, a Conceptual Design Report package (Critical Decision-1) for the Secondary Liquid Waste Treatment Project and a TPA Change Request (in accordance with TPA Action Plan Section 12.0) to submit to Ecology, a Preliminary Design Report package (Critical Decision-2).

M-047-00, Complete Work Necessary to provide facilities for management of secondary waste from the WTP, Due: 12/31/2022, Status: On Schedule

Significant Past Accomplishments:

On November 19, 2012, Ecology and ORP signed TPA Change Control Forms M-47-12-02 and M-90-12-02 establishing M-047-07 and M-090-13, respectively. ORP letter 12-ECD-0225 notified Ecology of completion of milestones M-047-06 and M-090-11.

Significant Planned Actions in the Next Six Months:

None.

Issues:

None.

Supplemental Treatment and Part B Permit Applications

M-062-40ZZ, Submit a one-time Tank Waste Supplemental Treatment Technologies report if a supplemental treatment technology is proposed other than a 2nd LAW, Due: 10/31/2014, Status: On Schedule.

M-062-45ZZ, Negotiate a one-time supplemental treatment selection, Due: 4/30/2015, Status: On Schedule. Negotiations are not yet underway.

M-062-45ZZ-A, Convert M-062-31-T01 through M-062-34-T01 to Interim Milestones, Due: 4/30/2015, Status: On Schedule.

M-062-31-T01, Complete final design and submit RCRA Part B permit mod request, Due: 4/30/2016, Status: On schedule

M-062-32-T01, Start construction of supplemental vitrification treatment facility and/or WTP enhancements, Due: 4/30/2018, Status: On schedule

M-062-33-T01, Complete construction of supplemental vitrification treatment facility and/or WTP enhancements, Due: 4/30/2021, Status: On schedule

M-062-45XX, No later than 12/31/2021, the DOE and Ecology shall complete negotiations to establish a mechanism that will apply to resolve future disputes regarding the determinations in M-062-45, paragraphs 4 and 5, due: 12/31/2021, Status: On Schedule

M-062-34-T01, Complete hot commissioning of supplemental vitrification treatment facility and/or WTP enhancements, Due: 12/30/2022, Status: On schedule

M-062-21, Annually, submit data that demonstrates operation of the WTP, Due: 2/28/2023, Status: On Schedule

M-062-00, Complete Pretreatment Processing and Vitrification of HLW and LAW Tank Wastes, Due: 12/31/2047, Status: On Schedule

Significant Past Accomplishments:

None

Significant Planned Actions in the Next Six Months:

None

Issues:

At the January 2013 TPA PMM meeting, ORP stated DOE and Ecology are currently in discussions to move out the due dates for M-062-40ZZ and M-062-45ZZ (current due dates 10/31/2014 and 4/30/2015, respectively).

ORP provided a draft change package for these milestones on February 12, 2013. Ecology provided comments on May 9, 2013. ORP is vetting these internally for response.

242-A Evaporator Status (previously reported under Milestone M-48, which has been closed out)

242-A Campaign strategy:

The 242-A Campaign Strategy for FY2010 through FY2015 depicted below has been updated based on ORP-11242, River Protection Project Plan, Revision 6, and ongoing schedule integration efforts.

Fiscal Year	Campaign No.	Feed Source	Slurry Tank	Comments
FY10	10-01	AW-106	AW-106	Campaigns 10-01/10-02 were performed back-to back starting in late August and completing in early October 2010.
FY10	10-02	AW-106	AW-106	Campaign 10-02 was an acceleration of previously planned Campaign 11-01.
FY11	NA	NA	NA	No campaign conducted in FY11 due to ongoing 242-A and Tank Farm facility life extension and ARRA funded upgrades.
FY12	NA	NA	NA	No campaign conducted in FY12 due to ongoing 242-A and Tank Farm facility upgrades and revision to the 242-A Documented Safety Analysis (DSA).
FY13	NA	NA	NA	No campaigns to be conducted in FY13 due to ongoing 242-A and Tank Farm facility upgrades and revision to the 242-A Documented Safety Analysis (DSA).
FY14	14-01	AP-107	AP-107	Estimated start late November 2013. Requires two (2) passes to achieve waste volume reduction.
FY14	14-02	AW-106	AP-107	Estimated start late February 2014.
FY14	14-03	AZ-102	AP-103	Estimated start June 2014.
FY15	15-01	AW-106	AP-103	Estimated start October 2014
FY15	15-02	AZ-102	AP-103	Estimated start March 2015

SST Integrity Assurance

M-045-91E, Provide to Ecology a compilation of the Single-Shell Tank farms dome deflection surveys every two years, beginning 9/30/2013, Due: 9/30/2013, Status: On schedule.

M-045-91G-T03, Provide to Ecology the Structural Analyses of Record final documentation for SSTs for 1,000,000 gallon tanks (A, AX and SX Farms), Due: 10/31/2014, Status: On schedule.

M-045-91F-T04, provide to Ecology, as a HFFACO secondary document, a report on the 100-series single-shell tanks which have been or will be identified as having leaked in RPP-32681, Rev 0, Due:12/26/2014, Status: On schedule

M-045-91G-T04, provide to Ecology the Structural Analyses of Record final documentation for SSTs for 55,000 gallon tanks (B, C, T and U Farms), Due: 1/30/2015, Status: On schedule

M-045-91B-T01, Provide Ecology a report containing the results and interpretation of testing. and analysis, performed on the concrete core obtained from Tank A- 106 or alternate tank, Due: 1/31/2015, Status: On schedule.

M-045-91F-T02, Provide to Ecology as a HFFACO secondary document a report evaluating the common factors of liner failures for SSTs that have leaked and will provide recommendations as appropriate, such as enhanced Leak Detection, Monitoring, and Mitigation, Due: 3/31/2015, Status: On schedule.

M-045-91F, Provide to Ecology a report (Summary Conclusions Report on Leak Integrity) summarizing and evaluating the information submitted under M-045-91F-T01 through -T04, Due: 6/30/2015 Status: On schedule.

M-045-91G, Provide a Summary Conclusions Report of Structural Analysis of Record (AOR) for SSTs, Due: 7/28/2015, Status: On schedule.

M-045-91H, Submit a change package (if deemed necessary by DOE and Ecology) to establish additional milestones based on information obtained from the actions in the preceding M-045-91 series milestones to date, Due: 7/31/2015, Status: On schedule.

M-045-91I, Provide to Ecology an IQRPE certification of SSTs structural integrity for the remainder of the mission, or for such time as the IQRPE believes he/she can reasonably certify, Due: 9/30/2018, Status: On schedule.

Significant Past Accomplishments:

- Change control form M-45-13-01 was signed by Ecology on June 27, 2013, approving changes to the SST Integrity Program.

Significant Planned Actions in the Next Six Months:

- Continue work for delivery of SST dome deflection surveys (M-045-91E).

Issues:

- None.

In Tank Characterization and Summary

For the period from June 1 – June 30, 2013:

Accomplishments:

- Completed RPP-PLAN-54751, Rev. 0, *Tank Sampling and Analysis Plan for Tank 241-C-112 Hard Heel Dissolution*.
- Completed RPP-PLAN-53639, Rev. 0, *Grab Sampling and Analysis Plan for Tank 241-AN-102 Chemical Adjustment Sampling*
- Completed RPP-RPT-46792, Rev. 04, *Derivation of Best-Basis Inventory for Tank 241-AW-102 as of April 1, 2013*.
- Completed RPP-RPT-48103, Rev. 1, *Derivation of Best-Basis Inventory for Tank 241-AP-107 as of April 1, 2013*.
- RPP-RPT-55185, Rev. 0, *Final Report for Tank 241-C-104 Waste Solid Samples in Support of Tank Closure*, was released on June 12, 2013.
- Completed grab sampling of tank 241-AY-101 on June 12, 2013 per RPP-PLAN-54804, Rev. 1, *Tank 241-AY-101 Grab Sampling and Analysis Plan*. 13 samples and a field blank were collected.
- Completed grab sampling of the 241-AY-102A Annulus Leak Detection Pit on June 25, 2013 per RPP-PLAN-54083, *FY2013 Grab Sampling and Analysis Plan for the 241-AY-102A Tank Annulus Leak Detection Pit*, Characterization Change Notice CCN-13-11. 3 samples were collected.
- Started grab sampling tank 241-AN-102 per RPP-PLAN-53639, Rev. 0, *Grab Sampling and Analysis Plan for Tank 241-AN-102 Chemical Adjustment Sampling*.

Planned Action within the next Six Months:

- Tank Sampling
 - Tank AZ-301 Catch Tank grab sampling for waste acceptance criteria is scheduled to be sampled in July, 2013.
 - Tank 241-C-112 grab sampling during hard heel dissolution is currently scheduled for August/September 2013.
 - Tank 241-C-107 ORSS sampling is currently scheduled for July/August 2013.
 - Tank 241-C-110 closure sampling using Fold Track Operations to push samples to a clam shell sampler is scheduled for October/November 2013.
 - Tank 241-AN-106 grab sampling for chemistry control is currently scheduled for September/October 2013.

- BBI Updates
 - The following tanks have been identified for updates in FY13 Quarter 3. The BBI updates will be released in July 2013 except for tanks 241-AN-101 and 241-C-101 that were released in May and AW-102 and AP-107 that were released in June.
 - 241-AN-102
 - 241-AN-106
 - 241-AW-103
 - 241-AW-106
 - 241-AY-101
 - 241-SY-102

- Data Quality Objectives (DQO)
 - A DQO on a Solubility Model is due to be released in July 2013.
 - A revision to the Tank Farms Waste Compatibility Program DQO is due to be released in July 2013.

Issues:

None.

TANK OPERATIONS CONTRACT (TOC) OVERVIEW

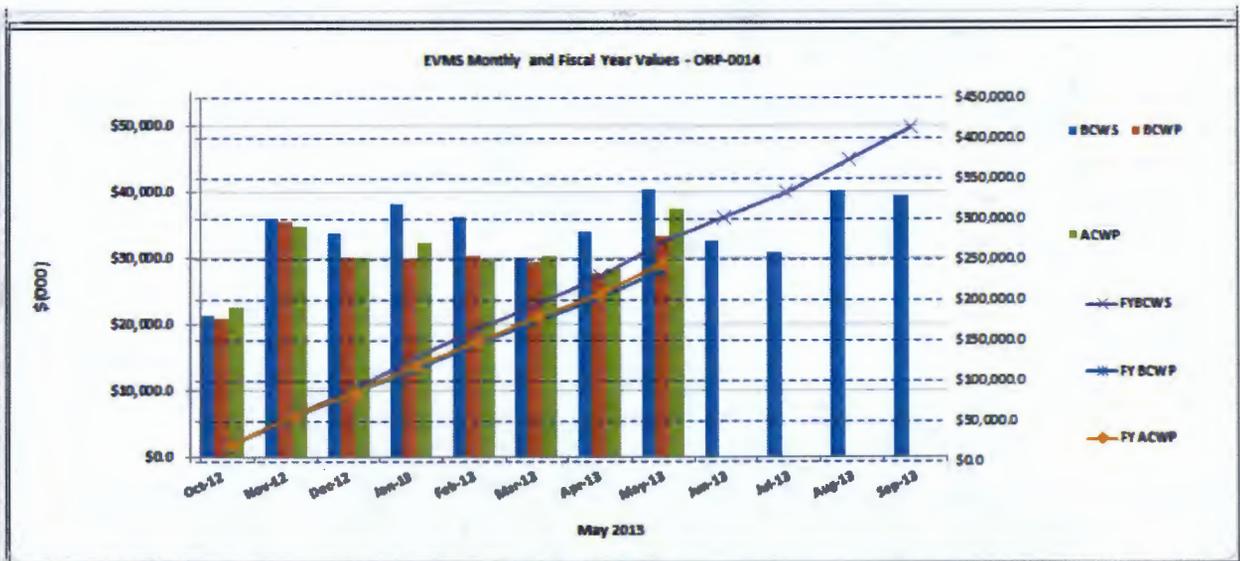
Project Performance

The earned value performance reporting reflects the format, Work Breakdown Structure (WBS) reporting levels, and variance thresholds as agreed to with the Tank Farms Operations Contractor (TOC) for monthly performance reporting. The earned value analysis is not intended to be a measurement of performance against existing Tri-Party Agreement Milestones.

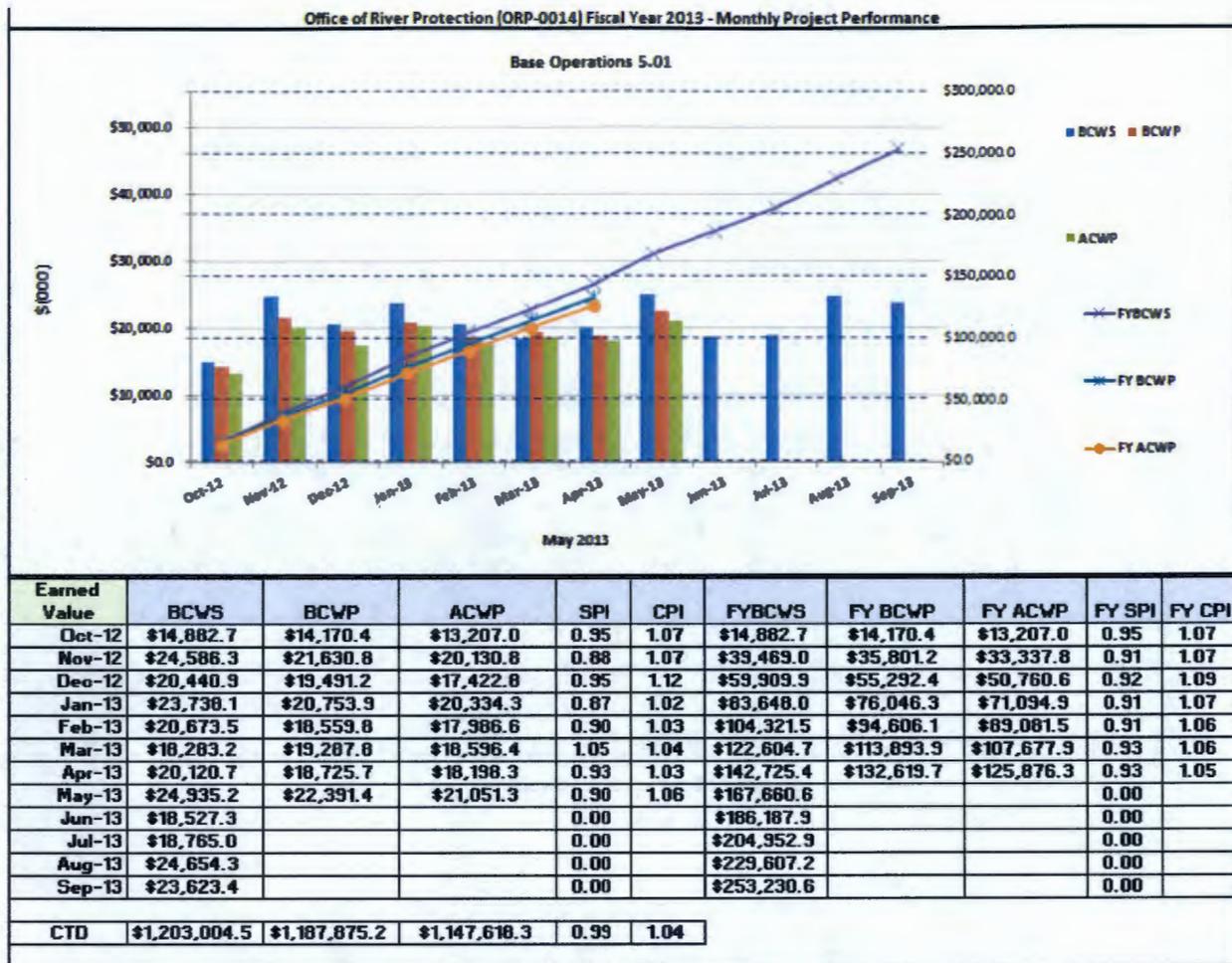
As of May, 2013, Washington River Protection Solutions LLC (WRPS) worked 441,842 hours (46 days) without a Lost Time Workday Injury and (46 days) without a recordable case.

	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BAC	EAC	VAC
CM	40,387.8	33,112.9	32,460.5	(7,274.9)	652.4	0.82	1.02			
FYTD	269,751.6	236,378.6	240,235.8	(33,373.0)	(3,857.2)	0.88	0.98	412,345.8	381,120.6	31,225.2
CTD	1,873,851.6	1,835,254.7	1,765,381.4	(38,596.9)	69,873.3	0.98	1.04	7,015,882.6	6,946,572.6	69,310.0

Red shaded cells indicates a SPI/CPI less than .90;
 Green shaded cells indicate a SPI/CPI between .90 and .99; and
 Blue shaded indicates a SPI/CPI greater than or equal to 1.0



Earned Value	BCWS	BCWP	ACWP	SPI	CPI	FYBCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct-12	\$21,350.5	\$20,911.7	\$22,382.9	0.98	0.93	\$21,350.5	\$20,911.7	\$22,382.9	0.98	0.93
Nov-12	\$35,910.8	\$35,319.2	\$34,775.1	0.98	1.02	\$57,261.3	\$56,230.9	\$57,158.0	0.98	0.98
Dec-12	\$33,795.4	\$30,044.9	\$29,940.1	0.89	1.00	\$91,056.7	\$86,275.8	\$87,098.1	0.95	0.99
Jan-13	\$38,179.6	\$29,766.1	\$32,202.8	0.78	0.92	\$129,236.3	\$116,041.9	\$119,300.9	0.90	0.97
Feb-13	\$36,167.5	\$30,290.9	\$29,773.7	0.84	1.02	\$165,403.8	\$146,332.8	\$149,074.6	0.88	0.98
Mar-13	\$30,026.2	\$29,261.1	\$30,306.9	0.97	0.97	\$195,430.0	\$175,593.9	\$179,381.5	0.90	0.98
Apr-13	\$33,933.7	\$27,671.7	\$28,393.7	0.82	0.97	\$229,363.7	\$203,265.6	\$207,775.2	0.89	0.98
May-13	\$40,387.8	\$33,112.9	\$37,267.1	0.82	0.89	\$269,751.5	\$236,378.5	\$245,042.3	0.88	0.96
Jun-13	\$32,423.8			0.00		\$302,175.3			0.00	
Jul-13	\$30,773.6			0.00		\$332,948.9			0.00	
Aug-13	\$39,989.2			0.00		\$372,938.1			0.00	
Sep-13	\$39,407.6			0.00		\$412,345.7			0.00	
CTD	\$1,833,463.8	\$1,802,141.8	\$1,732,920.9	0.98	1.04					



Base Operations

Schedule Variance (\$2,544K)

The unfavorable schedule variance is due to delays in the following activities as a result of sequestration:

- SST Sidewall Coring Project
- SST Type IV Analysis of Record due to sequestration
- SST Benchmark Repairs sequestration
- SST Expert Panel

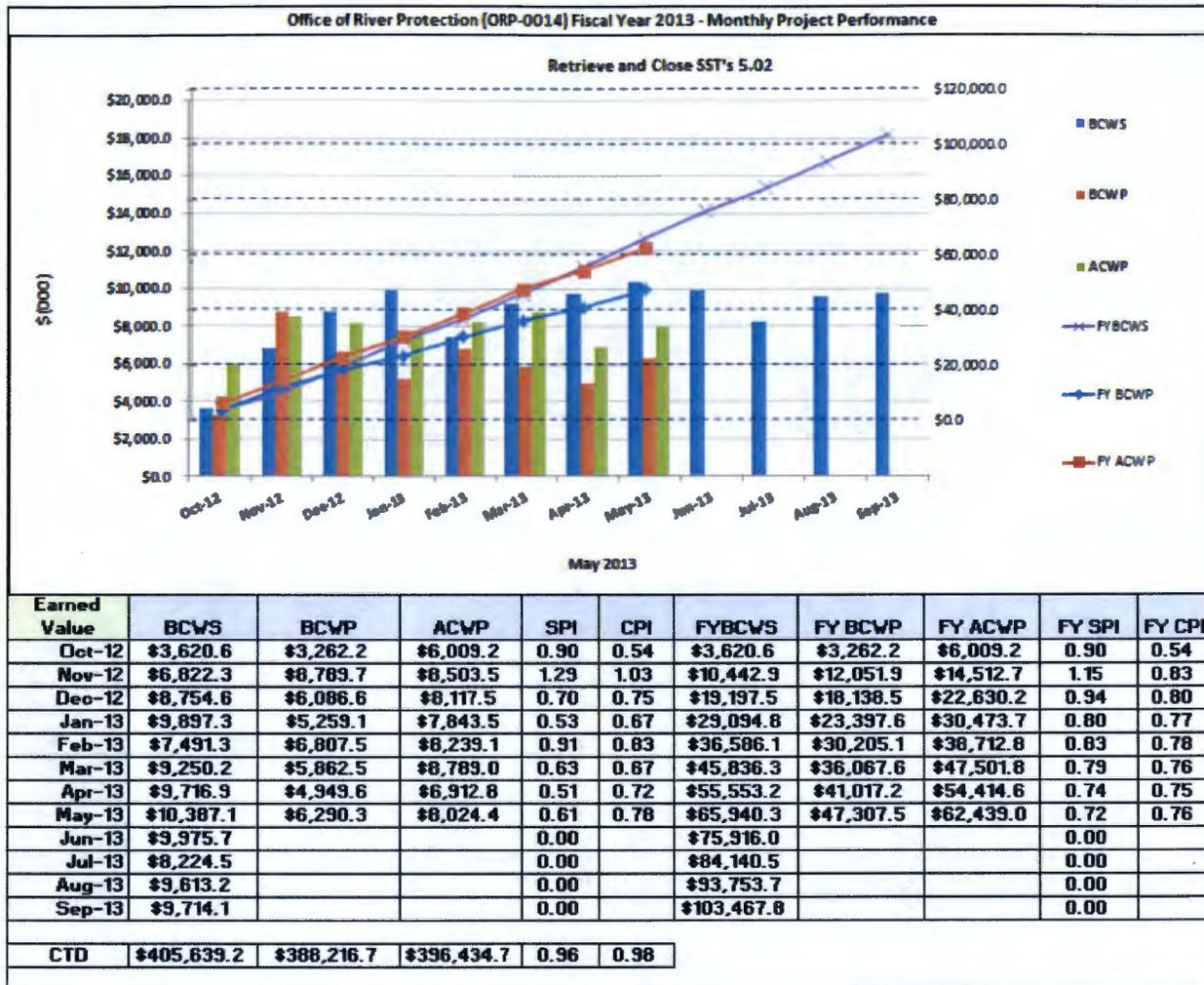
The unfavorable schedule variance is also due to delay in the following activities as a result of the funding limitations from continuing resolution and sequestration:

- DST Lighting Upgrades
- DST Technical Analysis and Project Definition
- Prepare Obsolete Core Sample Trucks for Disposal
- AW-02E Jumper/Funnel Replacement
- 242-A Evaporator PB-2 Skid Fabrication

Cost Variance \$1,340K:

The favorable cost variance is primarily due to:

- The Waste Management Account incurred fewer costs due to a slowdown in the field
- Disposal Long Lead Contaminated Equipment



Retrieval and Close Single-Shell Tanks

Schedule Variance (\$4,097K):

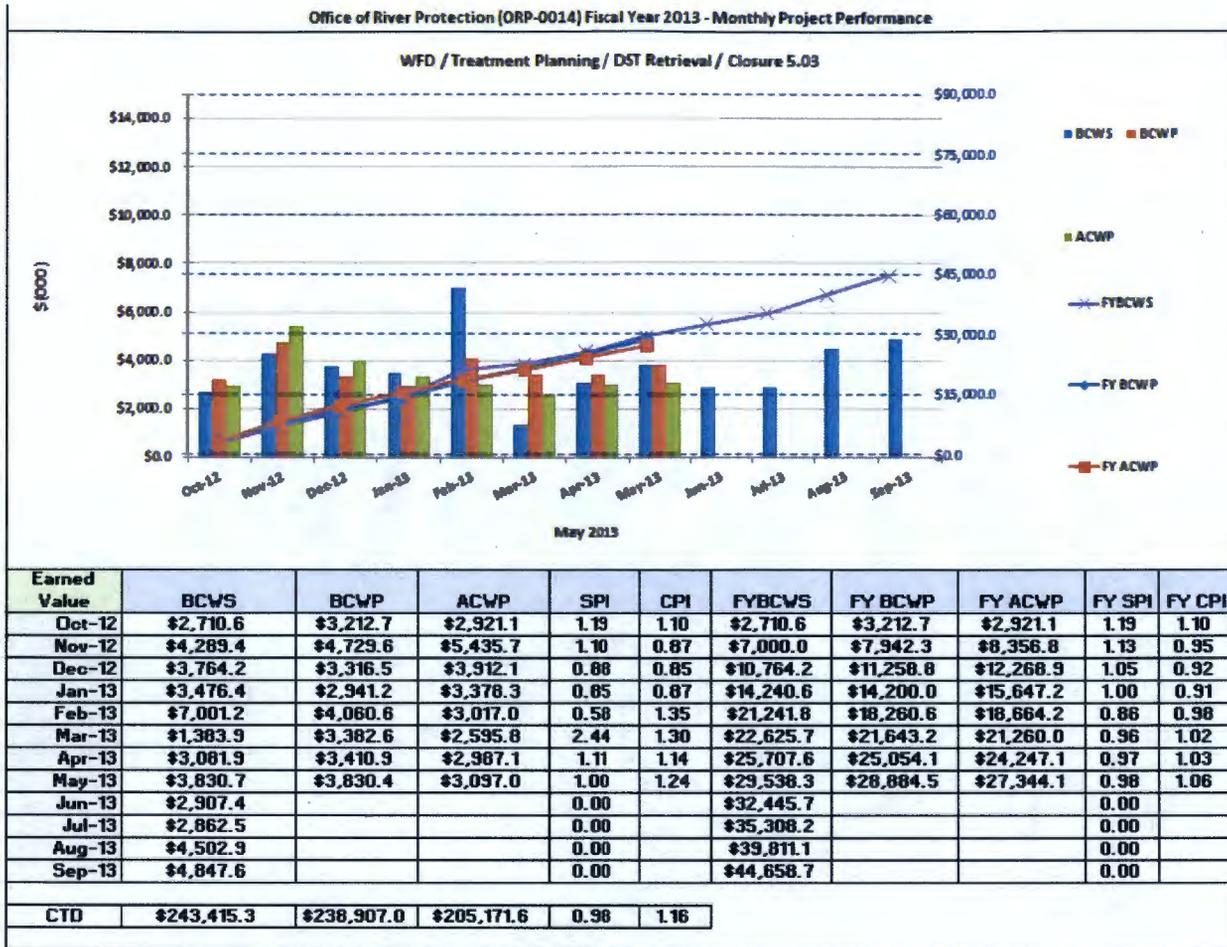
The unfavorable schedule variance is primarily due to:

- C-105 MARS-V installation activities due to the dome cut suspension, delay of the test plan, operations acceptance testing (OAT), and procurements put on hold due to sequestration.
- C-102 delays in starting waste retrieval because of revised approach to better utilize resource availability.
- C-104 early retrieval performance in fiscal year 2012.
- C-111 design of the Hard Heel Retrieval System due to DST Deep Bed sludge issues.
- C-110 5 month delay of hard heel operations due to sequestration.

Cost Variance (\$1,734K):

The unfavorable cost variance is primarily due to:

- C-107 unexpected labor costs for investigation of the AN-106 pump leak that occurred during hard heel retrieval.
- C-110 increased engineering needed to resolve issues with the hot water skid.
- Retrieval technology development having higher subcontracts costs to resolve MARS-V issues.



Waste Feed Delivery/Treatment/DST Retrieval Closure

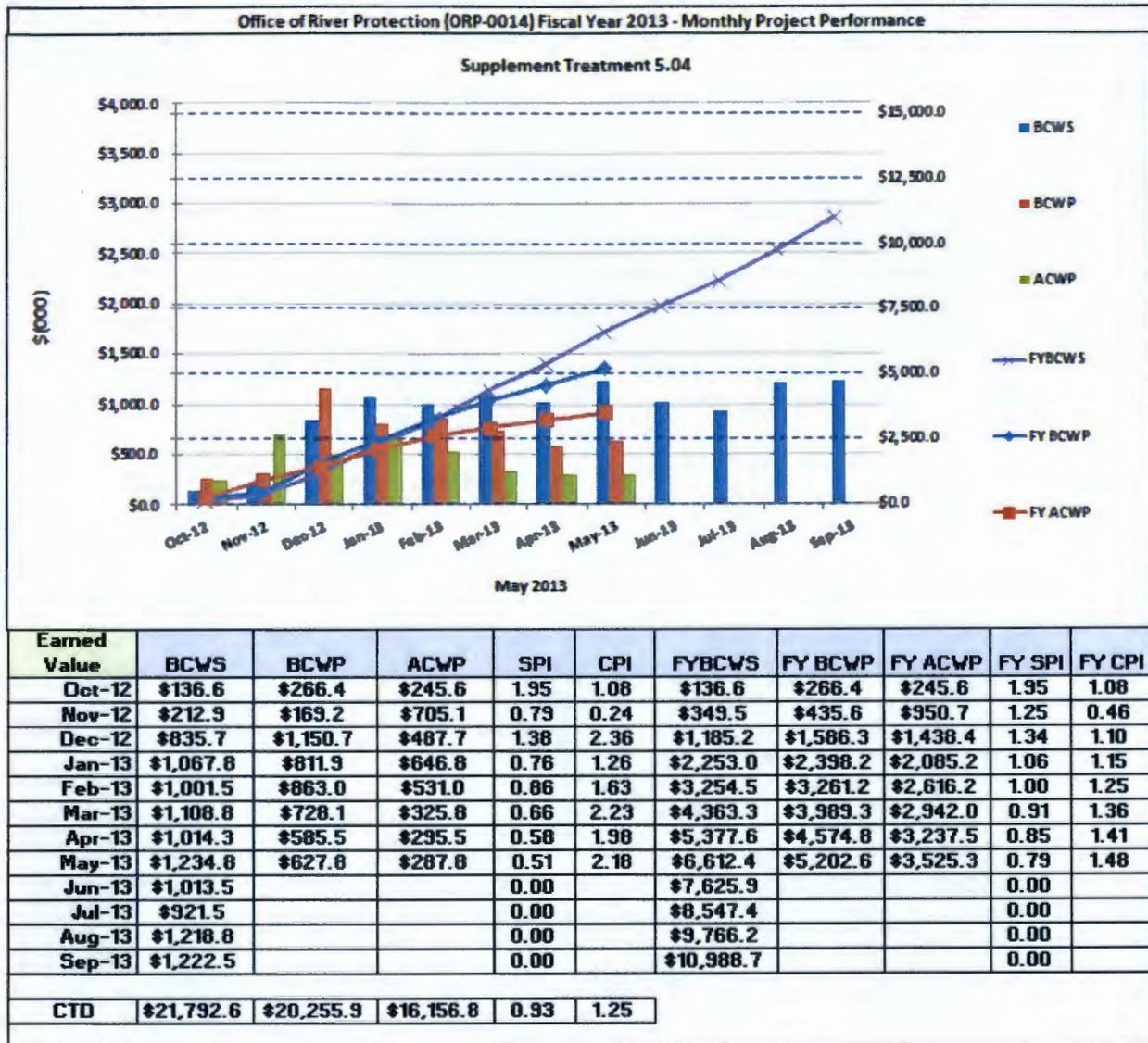
Schedule Variance \$27K:

- Nothing to report.

Cost Variance \$706K

The favorable cost variance is due to:

- RPP System Plan due to chemical engineering support being diverted to the direct feed HLW business case.
- WFD System Performance due to efficiencies within the optional scaled performance test. The remaining simulant from prior tests was utilized so less simulant was procured than planned.



Supplemental Treatment

Schedule Variance (\$606.9K):

- Immobilization - due to ramp down of the one-time report activities due to sequestration.

Cost Variance \$340K:

- Immobilization – primarily due to Tc removal and low temperature waste form maturation activities being performed by SRNL billing delays

WBS 5.2 Retrieve and Close Single Shell Tanks

M-045-22, Review M-045-22-T03 Report and Determine Path Forward, Due: 09/30/14 based on M-045-20 TPA Change Package M-45-12-05, Status: On Schedule. This ORP/Ecology decision point will determine whether to continue with soil desiccation/contaminant removal testing and other interim measures, and if remaining work in Milestone M-045-92 should be modified. ORP submitted TPA change package M-45-12-05 adding dates for M-045-22 and its targets with the revised Work Plan via letter 13-TF-0014. Ecology approved the TPA change package on 04/01/13.

M-045-22-T01, Submit Results of Vadose Zone Characterization of 241-TX to Ecology, Due: 09/30/14 based on M-045-20 TPA Change Package M-45-12-05, Status: On Schedule.

M-045-22-T02, Submit Results of Vadose Zone Characterization of 241-U to Ecology, Due: 04/30/14 based on M-045-20 TPA Change Package M-45-12-05, Status: On Schedule.

M-045-22-T03, Submit SX Soil Desiccation/Contaminate Removal Tech Results to Ecology, Due: 07/31/14 based on M-045-20 TPA Change Package M-45-12-05, Status: On Schedule.

M-045-56I, Complete Implementation of Agreed to Interim Measures, Due: 07/31/13, Status: Completed 06/12/2013. The annual meeting was held on June 12, 2013; meeting notes have been entered into the TPA Administrative record.

M-045-59, Control surface water infiltration pathways as needed to control or significantly reduce the likelihood of migration of subsurface contamination to groundwater at the SST WMAs (pending the CMS report, milestone M-45-58, and implementation of other interim corrective measures), Due: TBD, Status: On Schedule

M-045-61, Submit to Ecology for review and approval as an Agreement primary document a Phase 2 RFI/CMS Report for WMA C, Due: 12/31/2014, Status: To Be Missed. Please see Issues.

M-045-62, Submit to Ecology for review and approval as an Agreement primary document a Phase 2 Corrective Measures Study Implementation Plan for WMA C, Due: 06/30/2015, Status: To Be Missed. Please see Issues.

M-045-92, DOE and Ecology will establish selection criteria for installation of additional interim barriers at additional WMAs (beyond the T-106 and TY barriers), Due: 09/30/2017, Status: On Schedule. This milestone date has been modified according to M-45-12-04 and the decision to move forward with construction/design of additional barriers dependent on discussions per M-045-22.

M-045-92N, Construct Barriers 1 and 2 in 241-SX Farm Due: 10/31/15, Status: On Schedule. The decision to move forward with construction/design of additional barriers is dependent on discussions per M-045-22.

M-045-920, Submit a Final Design and Monitoring Plan for Interim Barrier 3 Due: 06/30/15, Status: On Schedule. The decision to move forward with construction/design of additional barriers is dependent on discussions per M-045-22.

Significant Past Accomplishments:

- Automated data collection systems for T-Farm and TY Farm interim barrier monitoring continue gathering data.
- The summary report on T and TY barrier monitoring performed in 2012 was released.
- The test site was selected for the pore water extraction test south of SX farm under the M-045-20 work plan, and direct push work to place the extraction and monitoring wells is underway.
- Direct push of 4 boreholes near the C-200 tanks has been completed. The boreholes have been logged and decommissioned, and deep electrodes placed for resistivity evaluations.
- Data collection in U farm for electrical resistivity characterization was completed. Data analysis and reporting will occur in FY 2014.
- Direct push field work in TX farm was initiated under the M-045-20 work plan and M-045021 SAP.
- The annual M-045-56 meeting on Interim Measures was held and meeting minutes generated for review.

Significant Planned Actions in the Next Six Months:

- Complete direct push field work in TX farm under the M-045-20 work plan.
- Complete analysis and reporting of the electrical resistivity data collected in U farm under the M-045-20 work plan.
- Perform electrical resistivity field work near the C-200 tanks per the WMA C Phase 2 RFI/CMS Work Plan.
- Complete the field set up and equipment design for the SX farm pore water extraction proof of principle test under the M-045-20 work plan.

SST Retrieval and Closure Program

M-045-82, Submit complete permit mod requests for Tiers 1, 2, & 3 of the SST, Due: 9/30/2015 Status: To Be Missed. Please see Issues.

M-045-84, Complete negotiations of TPA interim MS for closure of second WMA, Due: 1/31/2017, Status: On Schedule

M-045-83, Complete the closure of WMA C, Due: 6/30/2019, Status: On Schedule

M-045-85, Complete negotiations of TPA interim MS for closure of remaining WMAs, Due: 1/31/2022, Status: On Schedule

M-045-70, Complete waste retrieval from all remaining SSTs, Due: 12/31/2040, Status: On Schedule

M-045-00, Complete Closure of all Single Shell Tank Farms, Due: 1/31/2043, Status: On Schedule

M-045-86, Submit retrieval data report to Ecology for 19 tanks retrieved, Due: TBD (12 months after retrieval certification), Status: On Schedule. The CD Retrieval Completion Certification for SST Tank C-104 was sent to Ecology on 03/21/13 via ORP letter 13-TF-0018.

Significant Past Accomplishments:

- Completed post-retrieval sampling, analysis and reporting of results for tank C-108 in support of the M-045-86 retrieval data report.
- Completed post-retrieval spectral gamma logging of drywells near C-108 in support of the M-045-86 retrieval data report.
- Completed post-retrieval sampling analysis and reporting of results for tank C-104 in support of the M-045-86 retrieval data report.
- Completed post-retrieval sampling of tank C-109 in support of the M-045-86 retrieval data report.
- See discussions above and related discussions in Consent Decree report.

Significant Planned Activities in the Next Six Months:

- Develop a Retrieval Data Report for tank C-104.
- Continue analysis of the post-retrieval samples from tank C-109.
- Issue a Retrieval Data Report for C-108.
- See discussions above and related discussions in Consent Decree report.

Issues:

The WMA-C performance assessment (PA) was not funded at the beginning of fiscal year 2013. ORP has reported previously that the WMA-C PA would need to be funded by March 31, 2013 in order to maintain milestone schedule. Although funding of the WMA-C PA has been identified to begin work in FY2013, TPA Milestones M-045-61, M-045-62, and M-045-82 are still To Be Missed.

ORP began discussions with Ecology about a TPA project manager-level agreement to determine an alternative path forward for M-045-61 and M-045-62 on 03/14/13. ORP and Ecology have continued to meet (most recently on June 20, 2013) to develop a path forward for these milestones.

ORP and Ecology will meet separately to discuss TPA milestone M-045-82 for the Tier 1, 2, and 3 WMA C SST closure submittal. ORP and Ecology will discuss impacts to this work scope and the potential for a Tier 1 submittal.

Tank Waste Retrieval Work Plan (TWRWP) Status

Tank	TWRWP	Expected Revisions	Retrieval Technology	Second Technology	Third Technology
C-101	RPP-22520, Rev. 7	Complete	MRS (per 10/7/10 agreement, to be Modified Sluicing)	High-Pressure Water with ERSS	-
C-102	RPP-22393, Rev. 6A	In Process	Modified Sluicing	High-Pressure Water with ERSS	-
C-104	RPP-22393, Rev. 6A	Complete	Modified Sluicing	Chemical Dissolution	-
C-105	RPP-22520, Rev. 7	Complete	MARS-V	MARS-High Pressure Water	-
C-107	RPP-22393, Rev. 6A	Complete	MARS-S	MARS-High Pressure Water	-
C-108	RPP-22393, Rev. 6A	Complete	Modified Sluicing	Chemical Dissolution	-
C-109	RPP-21895, Rev. 5	Complete	Modified Sluicing	Chemical Dissolution	-
C-110	RPP-33116, Rev. 2	Complete	Modified Sluicing	Mechanical Waste Conditioning	High Pressure Water
C-111	RPP-37739, Rev. 1	In process	Modified Sluicing	None	-
C-112	RPP-22393, Rev. 6A	In process	Modified Sluicing	Chemical Dissolution	-

Significant Accomplishments:

- Modification notice 2013-05 for TWRWP RPP-22393 was approved by ORP and Ecology allowing the High Resolution Resistivity system to be used for C-102 leak detection. Prior to the modification, weekly moisture logging was required when not in active retrieval because of high interstitial liquid levels. The change now allows the TOC to do 30 days of HRR monitoring once per quarter rather than weekly moisture logging.

Significant Planned Activities in the Next 6 Months:

- Work with Ecology on update to TWRWP RPP-37739 for C-111.

Issues:

- None.

Tank in Appendix H. Status - Single Shell Waste Retrieval Criteria

Tank 241-C-106

Significant Past Accomplishments:

None

Significant Planned Activities in the Next Six Months:

Continue U.S. Nuclear Regulatory Commission (NRC) review of the C-106 exception request. A Request for Additional Information (RAI) was received from the NRC in February 2009.

Issues:

It has been discussed with the NRC that much of the additional information requested is dependent upon development of C-Farm residual waste PA and, therefore, cannot be provided until the PA is published.

Tank Retrievals with Individual Milestones

Tank 241-A-103

M-045-15, Completion of Tank A-103 SST Waste Retrieval, Due: 9/30/22 Status: On schedule. Change package M-45-11-04 replaced tank S-102 with tank A-103 and changed to milestone completion date for M-045-15 to 09/30/2022.

M-045-15A, Embedded Milestone, Submit a Retrieval Data Report Pursuant to Agreement Appendix I, Due: 9/30/22, Status: On schedule. Updated with tank A-103 and due date of 9/30/22 per M-45-11-04 Change Package.

M-045-15D, Embedded Milestone, if appropriate, DOE will request an exception to waste retrieval criteria pursuant to Agreement Appendix H, Due: 9/30/22, Status: On Schedule. Updated with A-103 tank and due date of 9/30/22 per M-45-11-04 Change Package.

Significant Past Accomplishments:

Change Package M-45-11-04 was signed by ORP and Ecology on 04/19/11.

Significant Planned Activities in the Next Six Months and Issues:

None

Tank 241-S-112

M-045-13, Interim Completion of Tank S-112 SST Waste Retrieval and Closure Demonstration Project, Due: TBD (in accordance with M-045-84 or M-045-85), Status: On Schedule

M-045-13E, Complete Negotiations for Interim Milestones for Closure of S-112, Due: TBD Status: On Schedule as part of M-045-84 or M-045-85.

Significant Past Accomplishments:

Ecology letter of January 7, 2008, concurred with ORP that retrieval of Tank S-112 is complete.

Significant Planned Activities in the Next Six Months or Issues:

None.

FINAL

**Office of River Protection
Consent Decree 08-5085-FVS**

Monthly Summary Report

July 2013

Office of River Protection

**Consent Decree 08-5085-FVS
Monthly Summary Report**

July 2013 (Monthly Summary Report/Project EVMS reflects May 2013 information)

Page	Topic	Leads
1	Statistics / Status	James Lynch / Dan McDonald / Jeff Lyon
2	SST Retrieval and Closure – D-00B-01, -02, -03, -04	Chris Kemp / Jeff Lyon
3	Tank Waste Retrieval Work Plan (TWRWP) Status – Consent Decree Appendix C	Chris Kemp / Jeff Lyon
4	SST Retrieval Monthly and Fiscal Year EVMS Data	Kathy Higgins / Jeff Lyon
5	WTP - Immobilization Plant Project – D-00A-06, D-00A-17, D-00A-01	Delmar Noyes / Dan McDonald
8	WTP Pretreatment (PT) Facility – D-00A-18, -19, -13, -14, -15, 16	Wahed Abdul / Dan McDonald
11	High-Level Waste (HLW) Facility – D-00A-20, -21, 02, 03	Wahed Abdul / Dan McDonald
14	Low-Activity Waste (LAW) Facility – D-00A-07, -08, -09	Jeff Bruggeman / Dan McDonald
16	Balance of Facilities (BOF) – D-00A-12	Jason Young / Dan McDonald
18	Analytical Laboratory (LAB) – D-00A-005	

Milestone	Title	Due Date	Completion Date	Status
Fiscal Year 2013				
D-00C-02X	Submit to Ecology & State of Oregon Monthly Summary Report	10/31/2012	10/31/2012	Completed
D-00C-02Y	Submit to Ecology & State of Oregon Monthly Summary Report	11/30/2012	11/20/2012	Completed
D-00C-02Z	Submit to Ecology & State of Oregon Monthly Summary Report	12/31/2012	12/26/2012	Completed
D-00A-05	LAB Construction Substantially Complete	12/31/2012	12/31/2012	Completed
D-00A-12	Steam Plant Construction Complete	12/31/2012	12/31/2012	Completed
D-00A-21	Complete Construction of Structural Steel to EL. 37' in HLW Fac.	12/31/2012	10/24/2012	Completed
D-00C-01F	Submit to Ecology & State of Oregon Semi-Annual Report	01/31/2013	01/31/2013	Completed
D-00C-02AA	Submit to Ecology & State of Oregon Monthly Summary Report	01/31/2013	01/24/2013	Completed
D-00C-02AB	Submit to Ecology & State of Oregon Monthly Summary Report	02/28/2013	02/25/2013	Completed
D-00C-02AC	Submit to Ecology & State of Oregon Monthly Summary Report	03/31/2013	03/29/2013	Completed
D-00C-02AD	Submit to Ecology & State of Oregon Monthly Summary Report	04/30/2013	04/25/2013	Completed
D-00C-02AE	Submit to Ecology & State of Oregon Monthly Summary Report	05/31/2013	05/21/2013	Completed
D-00C-02AF	Submit to Ecology & State of Oregon Monthly Summary Report	06/30/2013	06/26/2013	Completed
D-00C-02AG	Submit to Ecology & State of Oregon Monthly Summary Report	07/31/2013		On-going
**D-00C-02AH	Submit to Ecology & State of Oregon Monthly Summary Report	08/31/2013		On-going
** Future Monthly Reports will be added as necessary to maintain a two-months ahead activity.				
D-00C-01G	Submit to Ecology & State of Oregon Semi-Annual Report	07/31/2013		On-going
D-006-00-A1	Provide State of Oregon Notice of Meetings	TBD		On-going
Fiscal Year 2014				
D-006-00-A	Meet Approximately Every 3 Years to Review Requirements of CD	TBD		On-going
D-00B-01	Complete Retrieval of Tank Waste from 10 SSTs in WMA-C	09/30/2014		On-going
D-00B-02	Advise Ecology of the 9 SSTs Waste Will be Retrieved by 2022	09/30/2014	08/24/2011	Completed
Fiscal Year 2015				
D-00A-07	LAW Facility Construction Substantially Complete	12/31/2014		On-going
D-00A-19	Complete EL. 98' Concrete Floor Slab Placements in PT Facility	12/31/2014		On-going

SST Retrieval Program

D-00B-01, Complete Retrieval of Tank Wastes from 10 Remaining SSTs in WMA-C, Due: 09/30/2014, Status: On-going.* Please see issues below.

D-00B-01A thru J, Submit Tank Retrieval Complete Certification, Due: TBD

Pursuant to Section IV-B-5 of the CD, DOE must submit to Ecology a written certification that DOE has completed retrieval of a tank in accordance with the requirements of Appendix C, Part 1, of the CD. Completed for SST C-104 on 03/21/13 via ORP letter 13-TF-0018. Completed for SST C-108 on 05/01/13 via ORP letter 13-TF-0025. Completed for SST C-109 on 06/04/13 via ORP letter 13-TF-0037.

D-00B-02, Advise Ecology of the 9 SSTs from which Waste Will Be Retrieved by 2022, Due: 09/30/2014, Status: Completed on 08/24/11.

D-00B-03, Initiate Startup of Retrieval in At Least 5 of 9 SSTs in D-00B-02, Due: 12/31/2017, Status: On-going

D-00B-04, Complete Retrieval of Tank Wastes from the 9 SSTs in D-00B-02, Due: 09/30/2022, Status: On-going

D-00B-04A thru I, Submit Tank Retrieval Complete Certification, Due: TBD

Significant Past Accomplishments:

- Operated the C-101 retrieval system intermittently, as resources were available.
- Completed core cut from the C-105 dome.
- Completed installation of the new large riser in C-105, continuing with concrete pad installation and backfill activities.
- Continued retrieval sluicing via the Mobile Arm Retrieval System (MARS-S) at C-107, currently at greater than 85% of waste volume retrieved to AN-106 DST.
- Completed Construction Acceptance Testing (CAT) of the C-110 Fold Track system.
- Initiated and continued with Operation Acceptance Testing (OAT) of the C-110 Fold Track and associated support equipment.
- Continued with installation of equipment for C-112 Hard Heel removal.

Significant Planned Activities in the Next Six Months:

- Complete C-101 hard heel retrieval.
- Complete installation of the MARS-V in C-105.
- Complete C-107 hard heel retrieval.
- Submit retrieval certificates of completion for C-108 to Ecology.
- Begin start-up of hard heel retrieval in C-110 using the Fold-Track.
- Begin start-up of hard heel retrieval in C-112 using caustic dissolution.

Issues:

*Although this Monthly Summary Report covers information through May 2013, DOE notes that on June 6, 2013, it notified the States of Washington and Oregon that a serious risk has arisen that DOE may not meet Consent Decree milestone B-1 for tanks C-102 and C-105.

Tank Waste Retrieval Work Plan (TWRWP) Status

Tank	TWRWP	Expected Revisions	Retrieval Technology	Second Technology	Third Technology
C-101	RPP-22520, Rev. 7	Complete	MRS (per 10/7/10 agreement, to be Modified Sluicing)	High-Pressure Water with ERSS	-
C-102	RPP-22393, Rev. 6A	In Process	Modified Sluicing	High-Pressure Water with ERSS	-
C-104	RPP-22393, Rev. 6A	Complete	Modified Sluicing	Chemical Dissolution	-
C-105	RPP-22520, Rev. 7	Complete	MARS-V	MARS-High Pressure Water	-
C-107	RPP-22393, Rev. 6A	Complete	MARS-S	MARS-High Pressure Water	-
C-108	RPP-22393, Rev. 6A	Complete	Modified Sluicing	Chemical Dissolution	-
C-109	RPP-21895, Rev. 5	Complete	Modified Sluicing	Chemical Dissolution	-
C-110	RPP-33116, Rev. 2	Complete	Modified Sluicing	Mechanical Waste Conditioning	High Pressure Water
C-111	RPP-37739, Rev. 1	In process	Modified Sluicing	None	-
C-112	RPP-22393, Rev. 6A	In process	Modified Sluicing	Chemical Dissolution	-

Significant Past Accomplishments:

- Modification notice 2013-05 for TWRWP RPP-22393 was approved by ORP and Ecology allowing the High Resolution Resistivity system to be used for C-102 leak detection. Prior to the modification, weekly moisture logging was required when not in active retrieval because of high interstitial liquid levels. The change now allows the TOC to do 30 days of HRR monitoring once per quarter rather than weekly moisture logging.

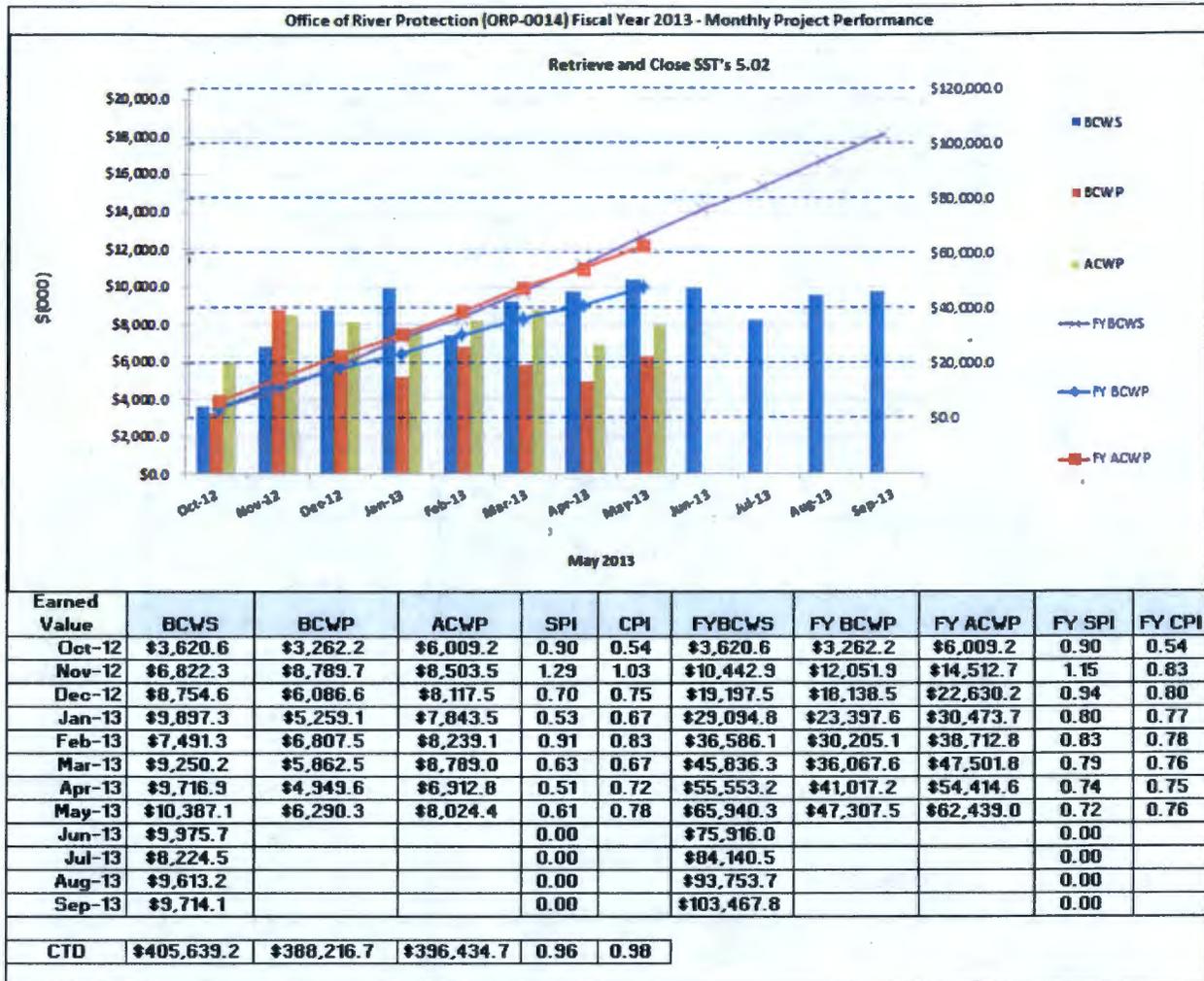
Significant Planned Activities in the Next 6 Months:

- Work with Ecology on update to TWRWP RPP-37739 for C-111.

Issues:

- None.

SST Retrieval Monthly and Fiscal Year EVMS Data



Retrieval and Close Single-Shell Tanks

Schedule Variance (\$4,097K):

The unfavorable schedule variance is primarily due to:

- C-105 MARS-V installation activities due to the dome cut suspension, delay of the test plan and operations acceptance testing, and procurements delays.
- C-102 delays in starting waste retrievals.
- C-104 early retrieval performance in fiscal year 2012.
- C-111 design of the Hard Heel Retrieval System due to DST Deep Bed sludge issues.
- C-110 five month delay of hard heel operations.

Cost Variance (\$1,734K):

The unfavorable cost variance is primarily due to:

- C-107 unexpected labor costs for investigation of the AN-106 pump leak that occurred during hard heel retrieval.
- C-110 increased engineering needed to resolve issues with the hot water skid.
- Retrieval technology development higher subcontracts costs to resolve MARS-V issues.

Waste Treatment and Immobilization Plant Project

Number	Title	Due Date	Status
D-00A-06	Complete Methods Validations	12/31/2017	Ongoing* (see issues below)
D-00A-17	Hot Start of Waste Treatment Plant	12/31/2019	Ongoing* (see issues below)
D-00A-01	Achieve Initial Plant Operations for WTP	12/31/2022	Ongoing* (see issues below)

The Waste Treatment and Immobilization Plant (WTP) Project currently employs approximately 2,113 full-time equivalent (FTE) contractor (Bechtel National, Inc. [BNI]) and subcontractor personnel. This includes 478 craft, 411 non-manual, and 117 subcontractor FTE personnel working at the WTP construction site (all facilities).

As of May 2013, the combined Low-Activity Waste (LAW) Facility, Analytical Laboratory (LAB), and Balance of Facilities (BOF) were 63-percent complete; design and engineering was 77-percent complete; procurement was 83-percent complete; construction was 71-percent complete; and startup and commissioning was 10-percent complete.

In September 2012, the baseline change proposal (BCP) that implemented the LAW, BOF, and LAB (collectively LBL) Replan was incorporated into the project over-target baseline (OTB), resulting in increases/decreases to the LBL facility budgets, which correspondingly increased/decreased the facility/function to-date percent complete values. In October 2012, the Pretreatment (PT) and High-Level Waste (HLW) Facilities 2-year Interim Work Plan was incorporated into the project OTB and the percent complete values for PT and HLW were frozen at the September 2012 rate. The WTP Project continues to progress in accordance with the LBL replan and PT/HLW 2-year interim work plan.

In May 2013, the cumulative to-date WTP Project schedule variance was a negative \$1.3 M, and the cumulative to-date WTP Project cost variance was a negative \$29.9 M. The major contribution to the cumulative to-date cost and schedule variance is based on the progress of the LBL Replan and PT/HLW 2-year Interim Work Plan.

The following is the status of project matters through the end of May.

Significant Past Accomplishments:

- Issued Vessel Mixing Test Completion Team Project Execution Plan (PT)
- Received 17 shield windows (PT and HLW)
- Awarded filter testing subcontract to Mississippi State University (HLW)
- Installed the melter power supply buss (LAW)
- Installed the Autosampling (ASX) System control panels (LAW)
- Completed de-energized component testing of electrical systems in Building 87 (BOF)
- Completed installing end cast liner plugs for the hot cell (LAB).

Significant Planned Actions in the Next Six Months:

- Perform testing of pulse jet mixing control strategy using the 8-ft vessel mixing test platform (PT)
- Develop vessel specific particle characteristics report for erosion/corrosion (PT/HLW)
- Award contract(s) for prototype design/fabrication of high-efficiency particulate air (HEPA) filters (HLW)
- Complete installation of melter power supplies (LAW)
- Complete installation of ASX System (LAW)
- Complete construction of the Glass Former Storage Facility (BOF)
- Complete construction of WTP Chiller Compressor Plant (BOF)
- Completion of the high purity gas system layup (LAB).
- Complete repairs to radioactive liquid waste disposal (RLD) vessels (LAB).

Issues:

* Technical issues relevant to the PT and HLW Facilities include, among others, pulse jet mixers, corrosion/erosion in piping and vessels, hydrogen accumulation, and waste feed issues.

DOE notes that on June 6, 2013, it notified the States of Washington and Oregon that a serious risk has arisen and that DOE may not meet Consent Decree Milestone A-7.

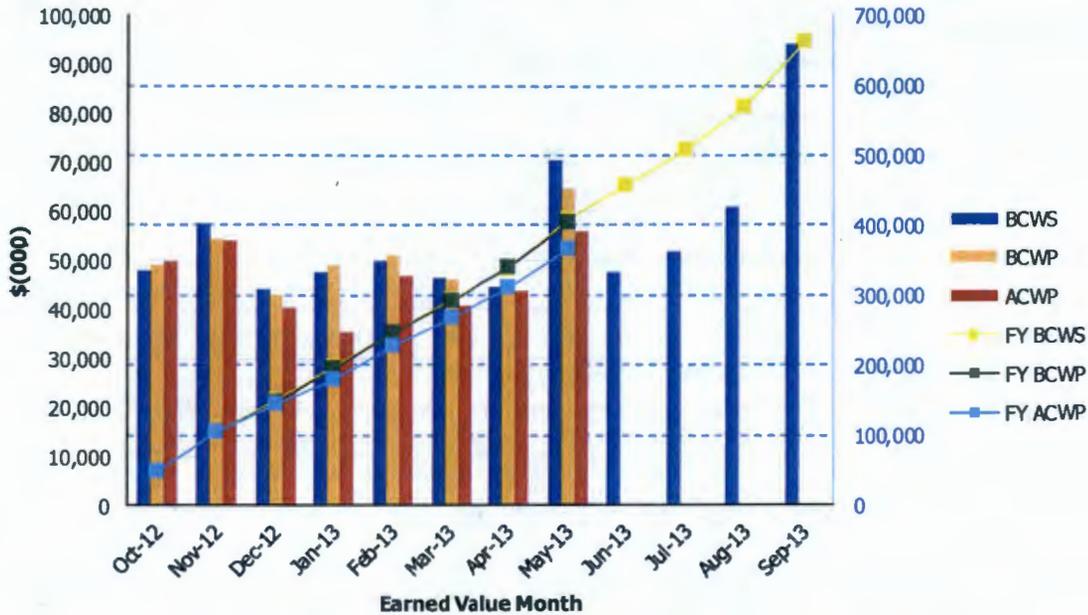
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2013 Earned Value Data

Data as of: May 2013

River Protection Project Waste Treatment Plant (WTP) Project

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2012	\$47,840	\$49,300	\$49,742	1.03	0.99	\$47,840	\$49,300	\$49,742	1.03	0.99
Nov 2012	\$57,411	\$54,398	\$53,916	0.95	1.01	\$105,251	\$103,698	\$103,658	0.99	1.00
Dec 2012	\$44,336	\$43,083	\$40,457	0.97	1.06	\$149,587	\$146,781	\$144,115	0.98	1.02
Jan 2013	\$47,780	\$49,037	\$35,389	1.03	1.39	\$197,367	\$195,818	\$179,504	0.99	1.09
Feb 2013	\$49,984	\$50,929	\$47,008	1.02	1.08	\$247,351	\$246,747	\$226,512	1.00	1.09
Mar 2013	\$46,568	\$45,897	\$40,819	0.99	1.12	\$293,919	\$292,644	\$267,331	1.00	1.09
Apr 2013	\$44,537	\$46,052	\$43,887	1.03	1.05	\$338,456	\$338,696	\$311,218	1.00	1.09
May 2013	\$70,575	\$64,750	\$55,933	0.92	1.16	\$409,031	\$403,446	\$367,151	0.99	1.10
Jun 2013	\$47,715					\$456,746				
Jul 2013	\$51,682					\$508,427				
Aug 2013	\$61,121					\$569,548				
Sep 2013	\$94,165					\$663,713				
PTD	\$7,549,640	\$7,548,314	\$7,578,209	1.00	1.00					

Pretreatment Facility

Number	Title	Due Date	Status
D-00A-19	Complete Elevation 98' Concrete Floor Slab in PT Facility	12/31/2014	Ongoing *
D-00A-13	Complete Installation of Pretreatment Feed Separation Vessels	12/31/2015	Ongoing *
D-00A-14	PT Facility Construction Substantially Complete	12/31/2017	Ongoing *
D-00A-15	Start PT Facility Cold Commissioning	12/31/2018	Ongoing *
D-00A-16	PT Facility Hot Commissioning Complete	12/31/2019	Ongoing *

The PT Facility will separate radioactive tank waste into high-level waste and low-activity waste fractions and transfer each waste type to the respective vitrification facility for immobilization. As of September 2012, the PT Facility was 56-percent complete overall, with engineering design 85-percent complete, procurement 56-percent complete, construction 43-percent complete, and startup and commissioning 3-percent complete. Construction, procurement, and production engineering activities remain on hold, resulting in no change to the percent complete status since September 2012. BNI and DOE continue to focus on resolving technical issues, performing hazard analyses, and completing safety evaluations for process systems in accordance with the 2-year Interim Work Plan.

Technical review teams continue to evaluate open technical issues for resolution. Construction of the mixing test platform continues in preparation for full-scale testing. Engineering specifications for the full-scale testing have been prepared and are undergoing a multi-discipline review. National laboratories are developing a test plan, simulant, and instrumentation requirements. Phase 1 testing for erosion/abrasivity testing is scheduled to be completed by the end of calendar year 2013.

BNI is performing an impact evaluation for a potential change to the natural phenomenon hazards design criteria that would double the ashfall criteria. This design criteria revision has the potential to impact facility and heating, ventilating, and air conditioning (HVAC) system design.

Significant Past Accomplishments:

- Transferred RLD-VSL-8T and jet pump pair valve rack to Full-Scale Test Facility
- Issued Vessel Mixing Test Completion Team Project Execution Plan
- Received three shield windows.

Significant Planned Actions in the Next Six Months:

- Perform independent review of the potential for criticality in vessels
- Review flammable gas generation, retention, and release from sediments in vessels
- Develop decision process for vessel structural modifications
- Develop vessel-specific particle characteristics report for erosion/corrosion
- Perform testing of pulse jet mixing control strategy using the 8-ft vessel mixing test platform

- Issue engineering specification for vessel testing
- Complete update of the 2-year Interim Work Plan
- Issue sampling action plan to determine sampling accuracy
- Issue draft procedure for conducting failure mode, effects, and criticality analysis (FMECA)
- Update basis of design for safety classification regarding seismic analysis of vessels.

Issues:

* Technical issues relevant to the PT and HLW Facilities include, among others, pulse jet mixers, corrosion/erosion in piping and vessels, hydrogen accumulation, and waste feed issues.

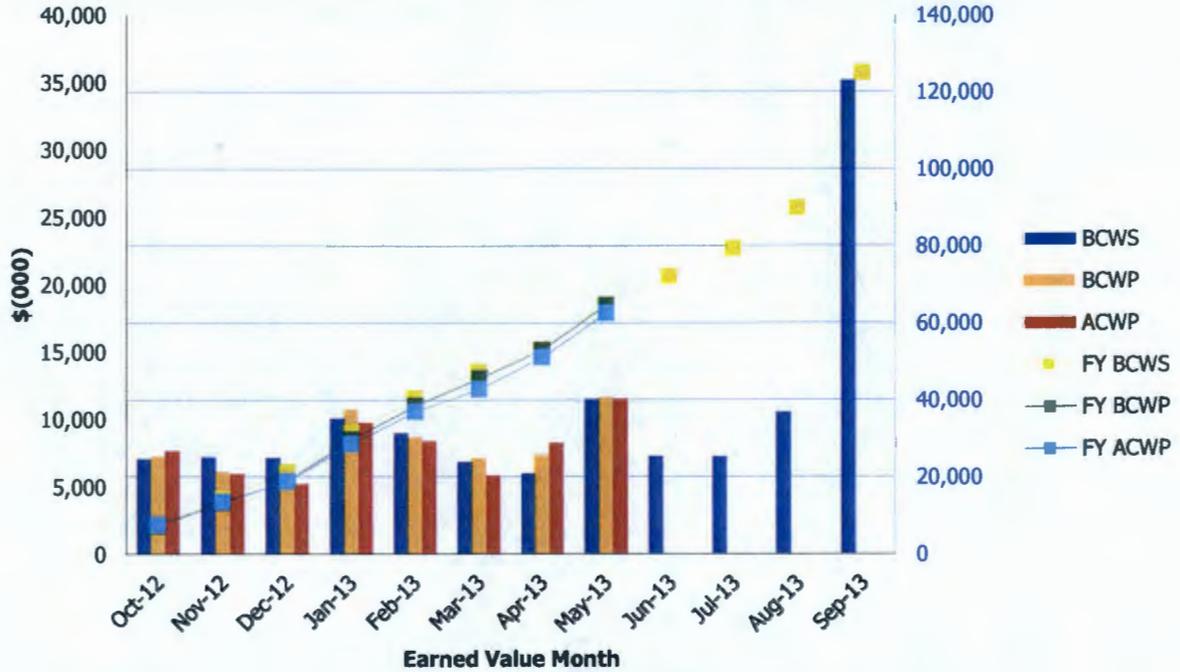
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2013 Earned Value Data

Data as of: May 2013

River Protection Project Pretreatment Facility

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2012	\$7,077	\$7,269	\$7,660	1.03	0.95	\$7,077	\$7,269	\$7,660	1.03	0.95
Nov 2012	\$7,200	\$6,130	\$5,974	0.85	1.03	\$14,277	\$13,399	\$13,634	0.94	0.98
Dec 2012	\$7,163	\$5,619	\$5,230	0.78	1.07	\$21,440	\$19,018	\$18,864	0.89	1.01
Jan 2013	\$10,097	\$10,759	\$9,756	1.07	1.10	\$31,537	\$29,777	\$28,620	0.94	1.04
Feb 2013	\$8,994	\$8,716	\$8,382	0.97	1.04	\$40,531	\$38,493	\$37,002	0.95	1.04
Mar 2013	\$6,839	\$7,142	\$5,831	1.04	1.22	\$47,370	\$45,635	\$42,833	0.96	1.07
Apr 2013	\$5,995	\$7,355	\$8,252	1.23	0.89	\$53,365	\$52,990	\$51,085	0.99	1.04
May 2013	\$11,509	\$11,641	\$11,512	1.01	1.01	\$64,874	\$64,631	\$62,597	1.00	1.03
Jun 2013	\$7,266					\$72,140				
Jul 2013	\$7,235					\$79,375				
Aug 2013	\$10,547					\$89,922				
Sep 2013	\$35,145					\$125,067				
PTD	\$1,463,832	\$1,463,456	\$1,461,552	1.00	1.00					

High-Level Waste Facility

Number	Title	Due Date	Status
D-00A-21	Complete Construction of Structural Steel to 37' in HLW Facility	12/31/2012	Complete
D-00A-02	HLW Facility Construction Substantially Complete	12/31/2016	Ongoing *
D-00A-03	Start HLW Facility Cold Commissioning	6/30/2018	Ongoing *
D-00A-04	HLW Facility Hot Commissioning Complete	12/31/2019	Ongoing *

The HLW Facility will receive the separated high-level waste concentrate from the PT Facility. This concentrate will be blended with glass formers and converted into molten glass in one of the two HLW melters and then poured into cylindrical stainless steel canisters. After cooling, the canisters will be sealed and decontaminated prior to shipment to interim storage.

As of September 2012, the HLW Facility is 62-percent complete overall, with engineering design 89-percent complete, procurement 81-percent complete, construction 43-percent complete, and startup and commissioning 4-percent complete. Construction, procurement, and production engineering activities have significantly slowed down, resulting in minimal change to the percent completion status since September. BNI and DOE continue to focus on resolving technical issues, performing hazard analyses, and completing safety evaluations for process systems in accordance with the 2-year Interim Work Plan.

Technical review teams continue to evaluate open technical issues for resolution. Construction activities include the placement of walls at the 37-ft elevation, installation of structural steel at the 58-ft elevation, and installation of cable tray supports and ventilation ducts at the 14-ft elevation. Engineering efforts are focused on resolution of Priority Level 1 findings. The Environmental and Nuclear Safety group continues to update the preliminary documented safety analysis and is progressing towards performing hazard analysis for several systems.

BNI is reviewing and analyzing the issues identified in the Reliability Validation Process (RVP) (Wave 1) to develop a path forward for issue resolution. Project issue evaluation reports are developed to track resolution of the issues and corrective actions are being identified. BNI is progressing on the second phase of RVP (Wave 2), which includes review of the HLW C5V system.

Significant Past Accomplishments:

- Completed the planned FMECA review of the HLW canister decontamination handling system, the HLW melter feed process system, and the melter cave systems
- Awarded filter testing subcontract to Mississippi State University
- Received 14 shield windows.

Significant Planned Actions in the Next Six Months:

- Award contract(s) for prototype design/fabrication of HEPA filters

- Complete RVP reviews
- Complete review of fabrication of the thermal catalytic oxidizer
- Develop plan to close technical issues and other issues (e.g., safety basis compliance, quality assurance issues, and design defensibility) of HLW in calendar year 2013
- Issue first hydrogen in piping and ancillary vessels hydrogen generation rate calculation
- Complete draft analysis of single point failures in support of failure mode analysis
- Complete conceptual design of in-service inspection
- Complete plan for erosion/corrosion risk evaluation for HLW.

Issues:

* Technical issues relevant to the PT and HLW Facilities include, among others, pulse jet mixers, corrosion/erosion in piping and vessels, hydrogen accumulation, and waste feed issues.

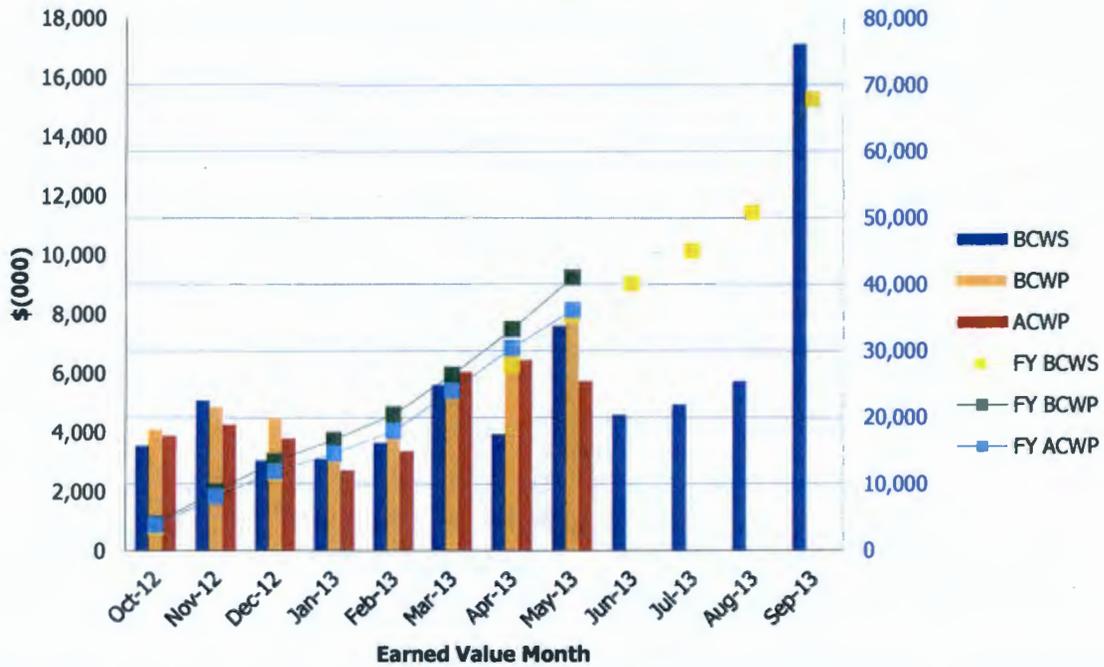
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2013 Earned Value Data

Data as of: May 2013

River Protection Project High-Level Waste Facility

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2012	\$3,545	\$4,105	\$3,895	1.16	1.05	\$3,545	\$4,105	\$3,895	1.16	1.05
Nov 2012	\$5,079	\$4,852	\$4,256	0.96	1.14	\$8,624	\$8,957	\$8,151	1.04	1.10
Dec 2012	\$3,054	\$4,496	\$3,795	1.47	1.18	\$11,678	\$13,453	\$11,946	1.15	1.13
Jan 2013	\$3,092	\$3,266	\$2,714	1.06	1.20	\$14,770	\$16,719	\$14,660	1.13	1.14
Feb 2013	\$3,639	\$3,791	\$3,362	1.04	1.13	\$18,409	\$20,510	\$18,022	1.11	1.14
Mar 2013	\$5,595	\$5,953	\$6,053	1.06	0.98	\$24,004	\$26,463	\$24,075	1.10	1.10
Apr 2013	\$3,944	\$6,860	\$6,443	1.74	1.06	\$27,948	\$33,323	\$30,518	1.19	1.09
May 2013	\$7,604	\$7,788	\$5,726	1.02	1.36	\$35,552	\$41,111	\$36,244	1.16	1.13
Jun 2013	\$4,594					\$40,146				
Jul 2013	\$4,941					\$45,088				
Aug 2013	\$5,722					\$50,809				
Sep 2013	\$17,135					\$67,945				
PTD	\$950,081	\$955,452	\$952,650	1.01	1.00					

Low-Activity Waste Facility

Number	Title	Due Date	Status
D-00A-07	LAW Facility Construction Substantially Complete	12/31/2014	Ongoing* (see issues below)
D-00A-08	Start LAW Facility Cold Commissioning	12/31/2018	Ongoing
D-00A-09	LAW Facility Hot Commissioning Complete	12/31/2019	Ongoing

The LAW Facility will process the low-activity waste. Waste will be mixed with glass formers, vitrified into glass at a design capacity of 30 metric tons per day, and placed in stainless steel containers that are anticipated to be disposed on the Hanford Site in the Integrated Disposal Facility. As of May 2013, the LAW Facility is 64-percent complete overall, with engineering design 78-percent complete, procurement 85-percent complete, construction 65-percent complete, and startup and commissioning 5-percent complete.

Significant Past Accomplishments:

- Installed the melter power supply buss
- Insulated the melter discharge chambers
- Installed the ASX System carrier posting station
- Installed the ASX control panels
- Completed piping connections to the Plant Wash Vessel.

Significant Planned Actions in the Next Six Months:

- Complete installation of ASX System
- Receive HEPA preheaters for LAW secondary offgas/vessel vent process system
- Continue refractory brick installation in the melters
- Complete hazard analysis for the melter and container handling systems.

Issues:

* DOE notes that on June 6, 2013, it notified the States of Washington and Oregon that a serious risk has arisen and that DOE may not meet Consent Decree Milestone A-7.

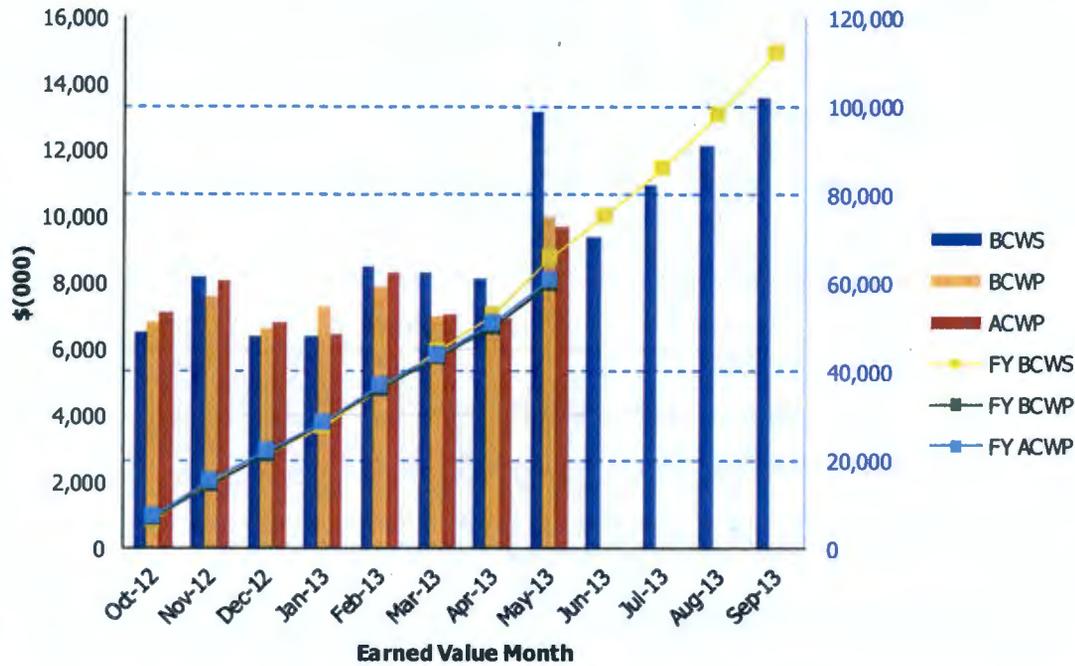
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2013 Earned Value Data

Data as of: May 2013

River Protection Project Low-Activity Waste Facility

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2012	\$6,536	\$6,787	\$7,142	1.04	0.95	\$6,536	\$6,787	\$7,142	1.04	0.95
Nov 2012	\$8,212	\$7,602	\$8,071	0.93	0.94	\$14,748	\$14,389	\$15,213	0.98	0.95
Dec 2012	\$6,418	\$6,648	\$6,814	1.04	0.98	\$21,166	\$21,037	\$22,027	0.99	0.96
Jan 2013	\$6,392	\$7,303	\$6,469	1.14	1.13	\$27,558	\$28,340	\$28,496	1.03	0.99
Feb 2013	\$8,503	\$7,873	\$8,338	0.93	0.94	\$36,061	\$36,213	\$36,834	1.00	0.98
Mar 2013	\$8,316	\$6,966	\$7,054	0.84	0.99	\$44,377	\$43,179	\$43,888	0.97	0.98
Apr 2013	\$8,135	\$6,765	\$6,950	0.83	0.97	\$52,512	\$49,944	\$50,838	0.95	0.98
May 2013	\$13,190	\$9,960	\$9,706	0.76	1.03	\$65,702	\$59,904	\$60,544	0.91	0.99
Jun 2013	\$9,402					\$75,104				
Jul 2013	\$10,967					\$86,071				
Aug 2013	\$12,145					\$98,216				
Sep 2013	\$13,606					\$111,822				
PTD	\$746,222	\$746,933	\$799,383	1.00	0.93					

Balance of Facilities

Number	Title	Due Date	Status
D-00A-12	Steam Plant Construction Complete	12/31/2012	Complete

The BOF provides services and utilities to support operation of the main production facilities—PT, HLW, LAW, and LAB. As of May 2013, BOF is 57-percent complete overall, with engineering design 79-percent complete, procurement 72-percent complete, construction 74-percent complete, and startup and commissioning 11-percent complete.

Significant Past Accomplishments:

- Started component testing of the medium voltage electrical system in BOF Switchgear Building 91
- Completed de-energized component testing of electrical systems in Building 87
- Subcontractor crews completed installation of the Fire Protection Water System in the Glass Former Storage Control Building

Significant Planned Actions in the Next Six Months:

- Complete construction of WTP Chiller Compressor Plant
- Complete the component and functional testing of the low voltage, medium voltage, and fire detection systems for Switchgear Buildings 87 and 91
- Complete construction of the Glass Former Storage Facility.

Issues:

No major issues at this time.

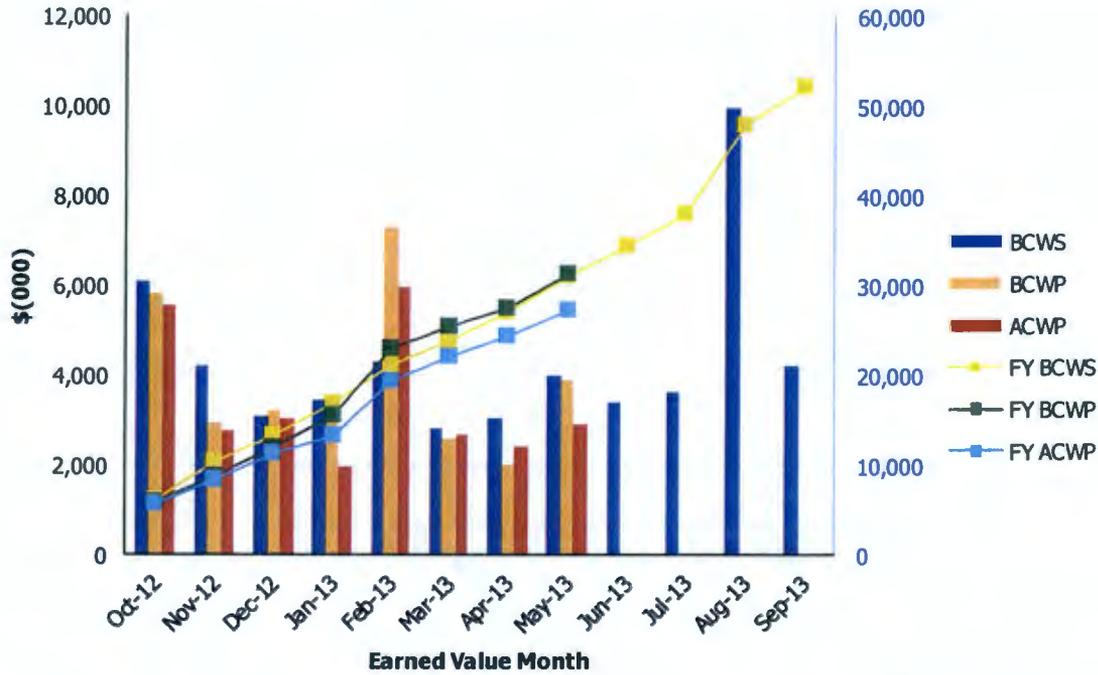
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2013 Earned Value Data

Data as of: May 2013

River Protection Project Balance of Facilities

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2012	\$6,106	\$5,820	\$5,580	0.95	1.04	\$6,106	\$5,820	\$5,580	0.95	1.04
Nov 2012	\$4,226	\$2,955	\$2,775	0.70	1.06	\$10,332	\$8,775	\$8,355	0.85	1.05
Dec 2012	\$3,077	\$3,213	\$3,026	1.04	1.06	\$13,409	\$11,988	\$11,381	0.89	1.05
Jan 2013	\$3,452	\$3,559	\$1,970	1.03	1.81	\$16,861	\$15,547	\$13,351	0.92	1.16
Feb 2013	\$4,286	\$7,315	\$5,963	1.71	1.23	\$21,147	\$22,862	\$19,314	1.08	1.18
Mar 2013	\$2,799	\$2,588	\$2,675	0.92	0.97	\$23,946	\$25,450	\$21,989	1.06	1.16
Apr 2013	\$3,057	\$1,988	\$2,397	0.65	0.83	\$27,003	\$27,438	\$24,386	1.02	1.13
May 2013	\$3,987	\$3,897	\$2,929	0.98	1.33	\$30,990	\$31,335	\$27,315	1.01	1.15
Jun 2013	\$3,418					\$34,408				
Jul 2013	\$3,638					\$38,046				
Aug 2013	\$9,955					\$48,001				
Sep 2013	\$4,223					\$52,225				
PTD	\$302,751	\$303,023	\$298,318	1.00	1.02					

Analytical Laboratory

Number	Title	Due Date	Status
D-00A-05	LAB Construction Substantially Complete	12/31/2012	Complete

The LAB will support WTP operations by analyzing feed, vitrified waste, and effluent streams. As of May 2013, the LAB is 69-percent complete overall, with engineering design 75-percent complete, procurement 85-percent complete, construction 82-percent complete, and startup and commissioning is 22-percent complete.

Significant Past Accomplishments:

- Completed installing end cast liner plugs for the hot cell.
- 52-percent complete on pipe flushing spool installation
- 85-percent complete on instrument tubing installation.

Significant Planned Actions in the Next Six Months:

- Receive instrument and transport lines for the exhaust stack monitors
- Complete electrical engineering design for the analytical laboratory
- Terminating cable for the HVAC air-handling units and adjustable speed drives
- Complete repairs to RLD vessels.

Issues:

No major issues at this time.

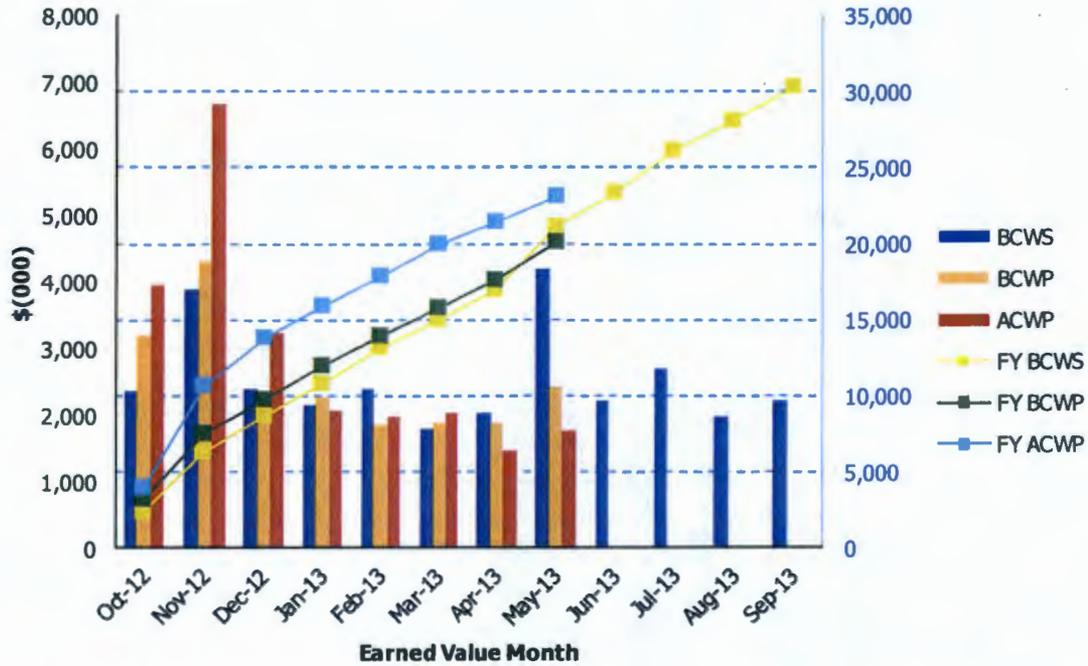
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2013 Earned Value Data

Data as of: May 2013

River Protection Project Analytical Laboratory

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2012	\$2,370	\$3,183	\$3,952	1.34	0.81	\$2,370	\$3,183	\$3,952	1.34	0.81
Nov 2012	\$3,896	\$4,303	\$6,675	1.10	0.64	\$6,266	\$7,486	\$10,627	1.19	0.70
Dec 2012	\$2,381	\$2,257	\$3,219	0.95	0.70	\$8,647	\$9,743	\$13,846	1.13	0.70
Jan 2013	\$2,137	\$2,270	\$2,052	1.06	1.11	\$10,784	\$12,013	\$15,898	1.11	0.76
Feb 2013	\$2,387	\$1,852	\$1,977	0.78	0.94	\$13,171	\$13,865	\$17,875	1.05	0.78
Mar 2013	\$1,783	\$1,879	\$2,044	1.05	0.92	\$14,954	\$15,744	\$19,919	1.05	0.79
Apr 2013	\$2,021	\$1,883	\$1,475	0.93	1.28	\$16,975	\$17,627	\$21,394	1.04	0.82
May 2013	\$4,187	\$2,419	\$1,757	0.58	1.38	\$21,162	\$20,046	\$23,151	0.95	0.87
Jun 2013	\$2,212					\$23,373				
Jul 2013	\$2,688					\$26,062				
Aug 2013	\$1,964					\$28,025				
Sep 2013	\$2,220					\$30,245				
PTD	\$222,901	\$224,698	\$244,750	1.01	0.92					

**Waste Treatment Plant Project - (LBL) Percent Complete Status
Through May 2013**

(Dollars - Millions)	Overall Facility Percent Complete Unallocated Dollars			Design/Engineering Unallocated Dollars			Procurement Unallocated Dollars			Construction Unallocated Dollars			Startup & Plant Operations Unallocated Dollars		
	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete
Low-Activity Waste	1,186.6	756.9	64%	301.5	234.1	78%	260.1	221.4	85%	447.3	292.5	65%	177.8	9.0	5%
Analytical Lab	330.1	227.1	69%	71.0	53.5	75%	54.5	46.6	85%	135.7	111.9	82%	68.9	15.2	22%
Balance of Facilities	542.3	306.9	57%	91.9	72.2	79%	71.3	51.6	72%	224.3	166.4	74%	154.7	16.8	11%
Total LBL	2,059.1	1,290.9	63%	464.4	359.7	77%	386.0	319.6	83%	807.3	570.7	71%	401.4	40.9	10%
PT/HLW/SS Percent Complete Status Frozen as of September 2012 (due to project rebaselining efforts)															
High-Level Waste	1,478.6	922.1	62%	364.4	325.2	89%	433.9	349.4	81%	561.1	243.2	43%	119.2	4.4	4%
Pretreatment	2,517.3	1,410.5	56%	761.7	645.8	85%	679.9	380.4	56%	890.0	378.6	43%	185.8	5.6	3%
Shared Services	4,726.9	3,632.6	77%	1,047.0	977.9	93%	451.7	395.0	87%	1,438.5	1,143.0	80%	453.5	133.2	29%
Total WTP w/o UB	n/a	n/a	67%	n/a	n/a	87%	n/a	n/a	73%	n/a	n/a	62%	n/a	n/a	15%
Undistributed Budget	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total WTP	n/a	n/a	67%	n/a	n/a	87%	n/a	n/a	73%	n/a	n/a	62%	n/a	n/a	15%

Source: Preliminary WTP Contract Performance Report - Format 1, Data for May 2013

Note: In September 2012, the LBL Replan was incorporated into the project OTB baseline resulting in increases/decreases to the LBL facility budgets, which correspondingly increased/decreased the facility/function to-date percent complete values. In October 2012, the PT/HLW/SS Interim Work Plan was incorporated into the project OTB baseline resulting in decreases to the PT/HLW/SS facility budgets, this was due to a work scope shift from the Distributed budget to UB. Percent Complete Values shown for PT, HLW and SS have been frozen with the September 2012 values due to the Interim Work Plan and budgets being moved into UB. UB value for the project for PT/HLW/SS is \$1,983M.

**WORKING ORP Key Documents List
For July 2013**

Milestone Title	Milestone Tie	Document	TPA Milestone Due Date (if applicable) ¹	ORP Delivery to Regulators Date ²	Anticipated Regulatory Review Completion Date ³	Final Completion Date ⁴	DOE-ORP Lead	Contractor Lead	Ecology Lead	Comments/Issues
ORP and Ecology will review the reports generated in M-045-22-T01, -T02, and -T03 and determine whether to continue with soil desiccation/contaminant removal testing and other interim measures (TPA MS M-045-22).	M-045-22-T01	Submit Results of VZ Characterization of 241-TX to ECY	09/30/14				D. Hildebrand	S. Eberlein	J. Lyon	
	M-045-22-T02	Submit Results of VZ Characterization of 241-U to ECY	04/30/14				D. Hildebrand	S. Eberlein	J. Lyon	
	M-045-22-T03	Submit SX Soil Desiccation/Contaminate Removal Tech Results to ECY	07/31/14				D. Hildebrand	S. Eberlein	J. Lyon	
Submit to Ecology for Review and Approval as an Agreement Primary Document, a Phase 2 RCRA Facility Investigation/Corrective Measure Study Report for WMA C	Supports M-045-61	WMA C PA Initial Model Run Data Package		TBD			C. Kemp	S. Eberlein	J. Lyon	• Feeds input for M-045-61 and all Closure Plans
		WMA C PA Initial Document		TBD			C. Kemp	S. Eberlein	J. Lyon	• Feeds input for M-045-61 and all Closure Plans
		WMA C Characterization Summary 2013		TBD			C. Kemp	S. Eberlein	J. Lyon	• Feeds input for M-045-61 and all Closure Plans
	M-045-61	Phase 2 RFI/CMS Report for WMA C	12/31/14	TBD			C. Kemp	S. Eberlein	J. Lyon	• Reported as To Be Missed in the March 2013 TPA PMM. Discussions ongoing at the PM level.
Submit to Ecology for Review and Approval as an Agreement Primary Document, a Phase 2 Corrective Measures Implementation Work Plan for WMA C.	M-045-62	Phase 2 Corrective Measures Implementation Work Plan for WMA C	06/30/15	TBD			C. Kemp	S. Eberlein	J. Lyon	• Reported as To Be Missed in the March 2013 TPA PMM. Discussions ongoing at the PM level.
Submit Retrieval Data Report after WMA C SST Retrieval Completion Certifications	M-045-86	Retrieval Data Report for SST C-104, embedded TPA milestone M-045-86C	03/21/14							• CD Retrieval Completion Certification for SST C-104 sent to ECY on 03/21/13 via ORP Letter 13-TF-0018.
Prior to beginning construction and at least one year before construction is to be complete, DOE will submit to Ecology a final design and monitoring plan for each interim barrier.	M-045-92O	Future Barrier Design 3	06/30/15	06/30/15			C. Kemp	S. Eberlein	J. Lyon	• ORP/ECY TPA Change Package M-45-12-04 modified this to a due date of 06/30/15 dependent on discussions per M-045-22.
	M-045-92P	Future Barrier Design 4	06/30/16	06/30/16			C. Kemp	S. Eberlein	J. Lyon	• ORP/ECY TPA Change Package M-45-12-04 modified this to a due date of 06/30/16 dependent on discussions per M-045-22.
Waste Supplemental Treatment Report	M-062-40ZZ	Submit One Time Tank Waste Supplemental Treatment Tech. Report	10/31/14	10/31/14			S. Pfaff	C. Burrows	D. McDonald	• At the January 2013 TPA PMM meeting, ORP stated DOE and ECY are currently in discussions to move out the due dates for M-062-40ZZ and M-062-45ZZ
Complete final design and submit RCRA Part B Permit Modification Request	M-062-31-T01	RCRA Part B Permit Modification--Final Design	04/30/16	04/30/16			S. Pfaff		D. McDonald	
M-45-91 Interim Milestones and Target Dates for SST Integrity Implementing the Expert Panel's Recommendations	M-045-91D-T01	Provide Report on the Concrete Dome Samples from Tank C-107 Plug	05/31/13	05/21/13			J. Johnson	R. Gregory	J. Lyon	• ORP transmitted to ECY via ORP Letter 13-TF-0032 on 05/21/13.
	M-045-91E	Provide SST Farms Dome Deflection Surveys Every Two Years	09/30/13	09/30/13			J. Johnson	R. Gregory	J. Lyon	
	M-045-91G-T03	Provide AOR Final Doc. for SSTs on 1,000,000 Gallon Tanks	10/31/14	10/31/14			J. Johnson	R. Gregory	J. Lyon	• Moved to 09/31/13 per M-45-12-01 TPA Chg Pckg. • Updated per TPA Chg Pckg M-45-13-01, approved on 06/27/13

¹ "TPA Milestone Due Dates" are the direct regulatory drivers for completion of milestones.

² "ORP Delivery to Regulators Dates" are those dates that support future milestones, are submittal dates for permitting activities, or miscellaneous submittals that support ORP actions and represent the dates when ORP submits documents to the regulators. ORP Delivery to Regulators Dates may be earlier than TPA Milestone Due Dates if work is completed ahead of schedule.

³ The "Anticipated Regulatory Review Completion Date" is generated based on TPA Milestone Agreements and TPA Section 9.0 documentation requirements for primary documents. This date will be changed and noted in "Comments/Issues" if extension of review is requested. If the document is a secondary document or for information only, the "Anticipated Regulatory Review Completion Date" may be listed as "N/A" for not applicable.

⁴ "Final Completion Date" is entered after the document is reviewed, comments are incorporated, and any disputes are resolved. Any comment resolution issues or disputes will be noted under "Comments/Issues."

Bold red = DOE submittal within the next 90 days **Bold green = document is under initial ECY Regulatory Review** **Bold black = document under comment/review response or other actions** **Bold blue = document is completed**

**WORKING ORP Key Documents List
For July 2013**

Milestone Title	Milestone Tie	Document	TPA Milestone Due Date (if applicable) ¹	ORP Delivery to Regulators Date ²	Anticipated Regulatory Review Completion Date ³	Final Completion Date ⁴	DOE-ORP Lead	Contractor Lead	Ecology Lead	Comments/Issues
M-45-91 Interim Milestones and Target Dates for SST Integrity Implementing the Expert Panel's Recommendations (Continued)	M-045-91F-T04	Provide Report on 100-Series SSTs as having Leaked in RPP-32681	12/26/14	12/26/14			J. Johnson	R. Gregory	J. Lyon	<ul style="list-style-type: none"> Reported as To Be Missed in October 2012 TPA PMM Mtg Updated per TPA Chg Pckg M-45-13-01, approved on 06/27/13
	M-045-91G-T04	Provide AOR Final Doc. for SSTs on 55,000 Gallon Tanks	01/30/15	01/30/15			J. Johnson	R. Gregory	J. Lyon	<ul style="list-style-type: none"> Reported as To Be Missed in October 2012 TPA PMM Mtg Updated per TPA Chg Pckg M-45-13-01, approved on 06/27/13
	M-045-91B-T01	Provide Ecology report on the Concrete Core from TankA-106 or alt	01/31/15	01/31/15			J. Johnson	R. Gregory	J. Lyon	<ul style="list-style-type: none"> Updated per TPA Chg Pckg M-45-13-01, approved on 06/27/13
	M-045-91F-T02	Provide Report of Liner Failures for SSTs	03/31/15	03/31/15			J. Johnson	R. Gregory	J. Lyon	<ul style="list-style-type: none"> Reported as To Be Missed in October 2012 TPA PMM Mtg Updated per TPA Chg Pckg M-45-13-01, approved on 06/27/13
	M-045-91F	Provide Summary Conclusions Report on Leak Integrity	06/30/15	06/30/15			J. Johnson	R. Gregory	J. Lyon	<ul style="list-style-type: none"> Reported as To Be Missed in October 2012 TPA PMM Mtg Updated per TPA Chg Pckg M-45-13-01, approved on 06/27/13
	M-045-91G	Provide Summary Conclusions Report of AOR for SSTs	07/28/15	07/28/15			J. Johnson	R. Gregory	J. Lyon	<ul style="list-style-type: none"> Reported as To Be Missed in October 2012 TPA PMM Mtg Updated per TPA Chg Pckg M-45-13-01, approved on 06/27/13
	M-045-91H	Submit Change Pckg (if necessary) to est. Additional Milestones	07/31/15	07/31/15			J. Johnson	R. Gregory	J. Lyon	
	M-045-91I	Provide IQRPE Certification of SSTs Structural Integrity	09/30/18	09/30/18			J. Johnson	R. Gregory	J. Lyon	

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**WORKING ORP Key Documents List
For July 2013**

Topic Areas	Document	ORP Delivery to Regulators Date ¹	Anticipated Regulatory Review Completion Date ²	Final Completion Date ³	DOE-ORP Lead	Contractor Lead	Regulator Lead	Comments/Issues
PERMIT DOCUMENTS	Tier 1 Framework Closure Plan Update	09/30/15			C. Kemp	S. Eberlein	J. Lyon	<ul style="list-style-type: none"> Tier 1, 2, 3 Submittal is associated with M-045-82, due 09/30/2015. This MS was reported as To Be Missed in the March 2013 TPA PMM. Discussions ongoing at the PM level.
	Tier 2 WMA C Closure Plan	TBD			C. Kemp	S. Eberlein	J. Lyon	
	All Remaining Closure Plans for WMA C	09/30/15			C. Kemp	S. Eberlein	J. Lyon	
	WMA C Closure Conceptual Design	TBD			C. Kemp	S. Eberlein	J. Lyon	
	Tier 3 Closure Plans for Tanks Already Received	TBD			C. Kemp	S. Eberlein	J. Lyon	<ul style="list-style-type: none"> Due 180-day post EIS
	Tier 3 Closure Plans for Additional Tanks	09/30/15			C. Kemp	S. Eberlein	J. Lyon	<ul style="list-style-type: none"> Several Dates in out years
	WMA C Closure Design	TBD			C. Kemp	S. Eberlein	J. Lyon	<ul style="list-style-type: none"> Final dates not yet determined; provides basis for the Tier 2 Closure Plan
	Supplemental Treatment Technology Notice of Construction	TBD			L. Huffman	F. Miera	J. Lyon	
	Submit Part B Permit Application for Selected Supplemental Treatment Technology	TBD			L. Huffman	F. Miera	J. Lyon	
	Wiped Film Evaporator Notice of Construction	TBD			L. Huffman	F. Miera	J. Lyon	
	Submit Wiped Film Evaporator Class 3 Permit Modification or Part B Permit Application	TBD			L. Huffman	F. Miera	J. Lyon	
	IDF Performance Assessment (ORP/WRPS has support role to RL/CHPRC)	TBD			T. Fletcher	F. Miera	J. Lyon	
OTHER DOCUMENTS	Submit Categorical TOC HIA	TBD				F. Miera	J. Lyon	
	Temporary Waste Transfer Line Management Program Plan (also known as Hose-In-Hose Transfer Lines (HIHTL) Management Plan), RPP-12711	TBD			J.Vanderpol		J. Lyon	<ul style="list-style-type: none"> To be made into a TPA Primary Document with submittal of revision 7 per a TPA Project Managers Agreement, signed 01/22/2013.
	Single-Shell Tank System Leak Detection and Monitoring Functions and Requirements Document, RPP-9937	TBD			J. Johnson		J. Alzheimer	<ul style="list-style-type: none"> Discussions are underway for a number of revisions to this document
	WMA Quarterly Groundwater Reports	Ongoing Quarterly			D. Hildebrand		J. Lyon	<ul style="list-style-type: none"> Ecology SST counterparts have been added to this distribution list as of March 2013 ORP continues to provide catch-up reports to Ecology SST counterparts (FY12 thru Q1 FY13)

¹ Note: "ORP Delivery to Regulators Dates" are those dates that support future milestones, are submittal dates for permitting activities, or miscellaneous submittals that support ORP actions and represent the dates when ORP submits documents to the regulators.

² Note: The "Anticipated Regulatory Review Completion Date" is generated based on TPA Milestone Agreements and TPA Section 9.0 documentation requirements for primary documents. This date will be changed and noted in "Comments/Issues" if extension of review is requested. If the document is a secondary document or for information only, the "Anticipated Regulatory Review Completion Date" may be listed as "N/A" for not applicable.

³ Note: "Final Completion Date" is entered after the document is reviewed, comments are incorporated, and any disputes are resolved. Any comment resolution issues or disputes will be noted under "Comments/Issues."

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ORP Project Managers Meeting
July 23, 2013
2440 Stevens Ctr.
Richland, Washington
Meeting Minutes Transmittal

Attachment D: Items Submitted to TPA Administrative Record

(18 pages including this coversheet)

AGREEMENT TO THE U.S. DEPARTMENT OF ENERGY, OFFICE OF RIVER PROTECTION (ORP) REQUEST TO SUBMIT SHELL TANK CLOSURE PLANS IN ALIGNMENT WITH HFFACO MILESTONES M-045-82, M-045-84, AND M-045-85

References:

- (1) ORP Letter 09-ESQ-170 from S.J. Olinger to J.A. Hedges, signed May 21, 2009, *Continued Suspension of Submittal of Single-Shell Tanks System Closure Plans*
- (2) State of Washington Department of Ecology Letter from J.J. Lyon to S.J. Olinger, signed November 12, 2009, *Department of Ecology Approval of Continued Suspension of Submittal of Single-Shell Tank (SST) System Closure Plans*

In reference 1 the ORP requested approval to suspend the submittal of Single Shell Tank (SST) System closure documentation required under Appendix I of the Hanford Federal Facility Agreement and Consent Order (HFFACO) to submit a closure plan to Ecology within 120 days of completing retrieval activities on a SST until completion of the Tank Closure and Waste Management Environmental Impact Statement. Approval from Ecology was approved in November 2009 as shown in reference 2.

On October 5, 2010 the Tri-Party Agreement change control form M-045-09-01 was filed with associated HFFACO milestones M-045-82 (Submit complete permit modification requests for Tiers 1, 2, & 3 per HFFACO Appendix I due 9/30/2015), M-045-84 (Complete negotiations of HFFACO interim milestones for closure of the second WMA due 1/31/2017), and M-045-85 milestones (Complete negotiations for HFFACO interim milestones for closure of the remaining WMAs due 1/31/2022).

Given the superseding creation of M-045-82 since the November 12, 2009 letter and discussions on the importance of WMA C PA completion, ORP and Ecology recognize that submittal of closure plans for retrieved SSTs be submitted pursuant to the M-045-82, M-045-84, and M-045-85 milestones that deviates from the 120 day requirement from the existing HFFACO Appendix I.

Path Forward:

Step 1, short term solution: "Ecology and ORP agree that with the signing of Hanford Federal Facility Agreement and Consent Order (HFFACO) Change Control Form M-45-09-01 on October 5, 2010, Figure I-1 of the Action Plan has been superseded by HFFACO milestones M-045-82, M-045-84 and M-045-85."

Step 2, long-term solution: "Ecology and ORP agree that a TPA Change Control Form, revising Figure I-1 of the Hanford Federal Facility Agreement and Consent Order Action Plan, and associated text, is required as soon as practical following step 1.

CJ Kemp 7-23-13
CJ Kemp, DOE-ORP

Michael W. Lyons 7-23-13
JJ Lyon, Ecology

MEETING MINUTES for Revision of RPP-9937	
Date of Meeting: 6/12/2013	Location: Ecology/Room 3A
Preparer: A.G. Miskho, WRPS	Time: 2:00 – 4:00
<p>Attendees: Jim Alzheimer, Ecology Jared Mathey, Ecology Jeff Lyon, Ecology Jeremy Johnson, ORP Mary-Beth Burandt, ORP James Lynch, ORP Mike Sheridan, WRPS Tony Miskho, WRPS Jeff Luke, WRPS Jeff Voogd, WRPS John Guberski, WRPS</p>	
<p>Minutes: Alzheimer stated we needed to talk about all components subject to RPP-9937. Miskho handed out the proposed scope of those components to be covered in the revised RPP-9937. Other topics included the TPA change notice for RPP-9937, document schedule, meeting schedule, and future topics.</p> <p>A discussion on TPA past practice units occurred regarding the scope of the document.</p> <p>Lyon indicated there are catch tanks outside of the WMA that we monitor and asked whether they would be part of RPP-9937. We need to understand what we mean when we say past practice. (See action below).</p> <p>Burandt asked whether Ecology is just interested in knowing everything is covered such as whether the component is covered in -9937 or a closure plan.</p> <p>Lyon asked if there were catch tanks connected to pipelines before the effective date.</p> <p>Guberski gave an example of 241-C-301 tank, which is a a tank inside of a WMA and may be a past practice tank. Miskho asked whether this discussion would lead to a reclassification of components from TSD to past practice and vice versa.</p> <p>Mathey proposed some criteria for discussion regarding the scope of -9937. "RCRA leak detection does not apply to (1) inactive components outside of a WMA (i.e., 200-IS-1), (2) past practice inactive ancillary equipment regardless of location. RCRA leak detection requirements apply to (1) tanks (2) ancillary equipment that is TSD applicable (i.e., not past practice), and (3) equipment actively managing waste"</p> <p>Alzheimer asked why C-301 is not in the document just to know the answer. He is not opening up a new set of criteria for what should be in the document. If however, C-301 should have been then in there, then we should reexamine the criteria.</p> <p>Miskho indicated that the classification of components under 200-IS-1 began and was never finished. He indicated that the effective date of mixed waste, August 19, 1987, was not agreed on by Ecology.</p>	

Lyon indicated there are different ways people look at terminology. For example, if the component is discussed in the document, then it is within the scope, and then a determination can be made if monitoring is required. Miskho indicated that was the intent of what "In scope" meant when preparing the handout.

Lyon stated when we have a Functions & Requirements document that has components, then the document should discuss the component. If we now are talking about taking components out and not discussing them, then inspectors can raise an issue that they believe is not covered.

Burandt indicated in the past we tried to define SST System and DST System, and then other components outside of the two systems. The question is whether we missed something because the tank has inventory in it and the tank does not have a "home" in a document.

Voogd asked if -9937 is written to be a piece of the RCRA permit, would we not want it to be constrained to the TSD unit definition?

Lynch asked if we should put a picture together to address Burandt's comment on having a home, to show where each component goes. Part of the solution could be a process description relating to the closure process.

Alzheimer is ok having the -9937 Appendix A pages of detail of past practice be deleted and replaced with text description.

Miskho indicated that there appears to be many lists of components and that the M-45-100 catch tank plan also has a list. His preference as someone looking at systems new to the program, is that there are too many lists and that we should use drawings to manage components.

Burandt said the past problems with using drawings was they could not be kept current.

Lyon indicated that the Part A is a preferred place for him to manage the components.

Guberski indicated that drawings are important because we have an engineered system.

Alzheimer would like an answer on the 241-C-301 catch tank. The 100 and 200 series tanks are the most important parts of -9937. He does not want to be involved in a Part A discussion and does not want the Part A to hold up the effort.

Lyon indicated that Ecology may have to be careful if they have to say that there are tanks out there with liquids that we are not going to monitor. Future governors, program managers, or inspectors would have the ability to question the scope of the document.

Burandt indicated that a paragraph could be written in the document to address the need on scope.

Mathey asked if there was any characterization of the catch tanks. Guberski did not know but speculated there is a 90% chance information is based on process knowledge.

Voogd indicated that we should look at M-023-25 where catch tank characterization was historically documented.

Mathey said there still is a question of what is protective of human health and the environment and what is a practical approach and indicated that Part A list is incomplete.

Lyon indicated that the 241-C-301 tank is an example of not being listed in -9937 so we do not know what has happened to the tank.

Document schedule:

Johnson: ORP asked WRPS to provide a draft by the end of September, but due to realization of issues, a draft will most likely be delayed till the end of the calendar year.

Alzheimer was hoping to review portions of the document instead of the whole document.

Lyon indicated that sharing portions, even if they are controlled, are preferred.

Alzheimer looked at mission essential components. Guberski indicated that the term may not have meaning any longer.

Lyon stated to tell us what you are monitoring in the document.

Burandt asked if Ecology cares about the frequency of monitoring. Lyons indicated yes and used the 241-C-301 catch tank example of a good one for discussion.

Mathey asked whether there will be intrusion monitoring or annual reports, and asked for responses to leak and spills.

Johnson indicated that one of the reasons the document needs revision is that the document does not include actions action.

Miskho indicated that there could be program/policy related topics WRPS and ORP need to work out in order to prepare the draft.

TPA change notice:

Johnson indicated an update to -9937 Table B-1 is provided to update ENRAF VS LOW information and updated the retrieval completion status for C-Farm and S-Farm.

Alzheimer and Lyon indicated they thought the package was OK after review. (See action)

Next meetings:

Discussion agreed to schedule meetings for every two weeks on Wednesdays 2-4.

June 26th: DIL discussion

July 10th: In tank and ex tank monitoring

DIL

Alzheimer White paper – WRPS is working on comments and will discuss at next meeting.

Alzheimer needs to have an understanding of interstitial liquids.

Sheridan that said comments to date have been mostly on factual accuracy.

Alzheimer talked to Schofield about decreasing tanks. The feedback is how to determine declining levels.

Johnson stated DIL is currently part of applying the requirements of -9937 and we need to know how DIL will be used in the revised document.

Miskho indicated that it is important also to know what Ecology will use the "more accurate" information for on DIL. For example, will DIL still be a factor on determining monitoring frequency?

Actions:

2013-06-12-1: ORP: Come with a list of tanks beyond the 100 and 200 series tanks that should be within the scope of -9937 for discussion.

2013-06-12-2: ORP: is there a better way to describe what is excluded from -9937 than using the term "past practice."

2013-06-12-3: Ecology and ORP: Look at history of M-023-25 for the basis of the one-time inspection.

2013-06-12-4: ORP: Provide a draft schedule for -9937 sections.

2013-06-12-5: Ecology: Conform the TPA change notice is OK with the office.

Decisions made:

None

Next Meeting:

Every two week, Wednesday afternoon 2-4pm (Next June 26th)

MEETING MINUTES for Revision of RPP-9937		
Date of Meeting: 6/26/2013		Location: Ecology/Room 3A
Preparer: A.G. Miskho, WRPS		Time: 2:00 – 4:00
Attendees:	Joe Caggiano, Ecology Jeremy Johnson, ORP Lori Huffman, ORP David Houghton, WRPS Tony Miskho, WRPS	Jeff Luke, WRPS Jeff Voogd, WRPS John Guberski, WRPS John Conner, WRPS
<p>Minutes:</p> <p>Meeting minutes:</p> <p>Miskho stated the minutes from the last meeting were reviewed and comments were received. The minutes from 6/12/2013 were approved by Ecology and ORP at the meeting. The process for the minutes will be to approve minutes from the previous meeting at the next meeting. Miskho will get the minutes out the next day and participants will have an opportunity for review. Minutes approved by Ecology and ORP in the RPP-9937 meetings will be entered into the monthly PM. See decision below on management of meeting minutes.</p> <p>Action item Discussion (See list at the end of the minutes for a description of the action):</p> <p>2013-06-12-1: OPEN: list is still in development.</p> <p>2013-06-12-2: OPEN. Miskho provided a copy of the TPA Action Plan Section 3.0 which describes how waste management units are classified as either "TSD" or "past practice" and recommended that we continue to use the term since it is a TPA term. Alzheimer stated we got here in this discussion because of the scope discussion on RPP-9937. Discussion occurred on the previous classification of unit classification, and historical unit classifications. Decision to keep action open pending outcome of action 2013-06-12-1.</p> <p>2013-06-12-3: OPEN. Miskho provided Link to M-023-26 report in an email dated 6/26/2013. Discuss report at next meeting.</p> <p>2013-06-12-4: (CLOSED 6/26/2013). Voogd reported that the report has been broken down into sections. Draft sections will be provided for review to WRPS/ORP and then provide to Ecology for review on a bi-weekly basis. July 10th would be the first time Ecology would see a section, and there would be 5 packages as follows:</p> <p>Introduction (Purpose and Scope)/Single Shell Tank/Description of SST System to be Monitored Discuss with Ecology: July 10th</p> <p>Monitoring Methods/Monitoring Frequency/Related Programs Discuss with Ecology: July 24th</p> <p>Data Evaluation Process/Reporting Discuss with Ecology: August 7th</p> <p>Response Actions/Change Control Discuss with Ecology: August 21st</p> <p>References/Appendices</p>		

Discuss with Ecology: August 27th

Consolidated Draft in September

ORP/WRPS would hand the section over at the meeting, talk through them, have Ecology look at the sections outside of the meeting, and work on the sections through September. Alzheimer asked if the sections would be provided before the meeting so Ecology could review. Voogd responded we could work on that after the first section is provided, but the first one will be provided at the next meeting since we have the ex-tank monitoring subject to address.

2013-06-12-5: **(CLOSED 6/26/2013)**: TPA Change notice (TPA-CN-576) was signed and entered in Administrative Record) Ecology. Miskho thanked all the participants to get the package approved.

DIL discussion

Houghton handed out the file prepared by Alzheimer with comments added (Attachment) and asked what the course of action should be.

Alzheimer stated that he prepared a graph and was not sure where the porosity numbers came from and was important if we are using volume criteria for a limit (i.e., 50K gallons).

Alzheimer's had additional questions separate from the file that was commented on that was shared in a separate email previously to the meeting:

Does Hanlon (HNF-EP-0182) get updated? Houghton answered: It does not get updated for DIL.

Should DIL in Hanlon be updated? Johnson answered: This raises a good discussion from the field visit. It was a good idea in the past, but it may not make sense now. We would like to propose a standardized frequency for monitoring instead of one based on the volume in the tank. Caggiano replied that the volume of the tank may not be that meaningful. Miskho asked whether Ecology was OK with removing the dependency of the monitoring frequency to the liquid volume. Uziemblo replied that if equipment and volume determined an outcome, then it could be important.

What is a weight factor? Conner replied it is a raw number that needs to be corrected with specific gravity based on the pressure sensed in the dip tube.

What is a dip tube? Conner replied two bubblers and gave an example of an old calculation.

Alzheimer stated DIL has been addressed to his satisfaction.

How far are the dip tubes away from the salt well screen? Houghton responded they can be as far as a ½ tank away.

Is it possible to get new dip tube data? Houghton responded not easily achievable since some equipment has been removed from the tanks.

Alzheimer said we may want to talk about neutron probe data and that ORP/WRPS is doing a pretty good job. He would like to take the time to go through the comments provided on this paper.

Miskho asked about clarification of monitoring frequency and whether the volume of the tank will still be a factor in determining frequency.

Uziemblo thought that the waste type would determine the type of monitoring equipment. She will prepare her own table and come to her own conclusions about how the tank should be monitored with what equipment. An example of a tank containing 68K gallon supernatant was provided for discussion.

Johnson indicated OPR/WRPS may propose a monitoring frequency methodology less complex than what is currently in RPP-9937.

Houghton responded if the monitoring frequency is based on a factor that cannot be calculated very well, basing the frequency on that type of factor would not be the best way to structure. WRPS is looking at the 20 level increasing tanks, and the 20 decreasing level tanks and looking at integrating functions to do a better.

Alzheimer stated if there is a tank out there that has a fair amount of liquid, we should ask ourselves whether we should pump that tank. WRPS is taking ENRAF readings more frequent than RPP-9937 requires. Once in a while the LOW data is not collected.

Uziemblo asked if there was another presentation at a higher level.

Houghton talked about the level of detail was maybe too great for some in the April Ecology briefing.

Guberski added that the offer to provide the presentation again has been made in the past.

Johnson said that before getting into the data interpretation section, we could talk about the information again. See 2 new actions below for delivering the information.

Alzheimer thought that maybe taking 3 different types of tanks and going through the 3 scenarios would be helpful.

Mathey asked about the agenda for the next meeting.

Actions:

2013-06-12-1: ORP: **(OPEN)** Come with a list of tanks beyond the 100 and 200 series tanks that should be within the scope of -9937 for discussion.

2013-06-12-2: ORP: **(OPEN)** is there a better way to describe what is excluded from -9937 than using the term "past practice."

2013-06-12-3: **(OPEN)** Ecology and ORP: Look at history of M-023-25 for the basis of the one-time inspection.

2013-06-12-4: **(CLOSED 6/26/2013)** ORP: Provide a draft schedule for -9937 sections.

2013-06-12-5: **(CLOSED 6/26/2013)** Ecology: Conform the TPA change notice is OK with the office.

2016-06-26-1: ORP to set up a more detailed briefing on neutron probe data analysis of to-be-selected tanks prior to discussing data interpretation.

2016-06-26-2: ORP provide a repeat presentation to Ecology/HAB Single Shell Tank Liquid Monitoring from April.

Decisions made:

Process for meeting minutes (see above)

Next Meeting:

Every two week, Wednesday afternoon 2-4pm (Next July 10th)

Agenda: Meeting minutes, Action items, Ext tank monitoring.

Attachment:

Alzheimer DIL Writeup with WRPS/ORP comments discussed at meeting.

"Look at Drainable Interstitial Liquid Calculations

The Interim Stabilization program was implemented to reduce the risks of leaks from the SSTs. It is liquid part of the waste that is the primary concern for a leak in the liner of an SST. Past releases to the environment from the SST system have included leaks that were not just the liquid part. However, the type of new leaks expected in the SSTs is corrosion breaches of the carbon steel liners. With less drainable liquids in the tanks, less hazardous material can drain to the environment. The criteria established for the Interim Stabilization program were 1) less than 5000 gallons of supernatant, 2) less than 50,000 gallons of drainable interstitial liquids, and 3) pumping was to continue until the rate dropped below 0.05 gallons per minute. Currently, all but six SSTs meet criteria 1) and 2). These are the six tanks currently listed in RPP-9937 Rev. 3 as requiring Leak Detection Monitoring. Some SSTs were administratively Interim Stabilized due to changes in the calculations used to determine the drainable interstitial liquid volumes or failure of the pumping system before criteria 3) was met. Some SSTs were declared Interim Stabilized because past leaks had drained essentially all of the drainable liquids from the tank.

During our activities related to trying to understand the cause of the recent six tanks of heightened concern, questions have been raised about how much drainable liquids are actually present in the TRU like waste in tanks such as T-111. While this tank is listed as having 38,000 gallons of drainable liquids, this seems unlikely. Samples of waste from T-111 and a few tanks with similar waste show the sludge to contain at least 85 weight percent water as an integral part of the waste. The weight percent water values were determined by heated drying of samples after any free liquids had drained away. The surface level and interstitial liquid levels for T-111 and TY-105 are moving in unison. This is not consistent with the concept of a drainable liquid. The drop in the interstitial liquid level due to a draining of liquid from pores in the sludge and salt cake would be at a faster rate than the drop in the rate of the free surface. This implies that we might actually be tracking the water "trapped" in the sludge and actually have very little drainable liquids in some SSTs.

WRPS COMMENT

An important distinction is that the porosity used in the calculations of drainable liquid is 'drainable porosity', an empirically calculated value that may differ than the true porosity. The true porosity will be higher, perhaps much higher, but empirical evidence from saltwell pumping shows that not all liquid will drain.

T-111 has a low SpG and high water content with a drainable porosity of 10.5%, calculated from the change in saltwell dip-tube level vs. volume pumped. The calculation is documented in HNF-SD-RE-TI-178 'interim stabilization letters for the SSTs'. The DIL value reported in RPP-5556 for T-111 is based on this calculated value rather than an average value. As noted later in this paper, the TY-105 drainable porosity estimate is even lower (6% in HNF-SD-RE-TI-178).

To better understand the concept of drainable interstitial liquids, I looked in RPP-5556, "Updated Drainable Liquid Volume Estimates for 119 Single-Shell Tanks Declared Stabilized"; authored by Jim Field, dated February 8, 2000. This describes the methods used to determine the drainable liquid volumes in tanks. Many factors are considered. These include the type of waste in a specific tank and the monitoring data that was available, including changes in levels during pumping activities. Parameters considered include waste type (sludge, salt cake, or a combination), measured liquid levels, drainable porosity estimates, and capillary height. Measured liquid levels were of two types. Some tanks had a LOW to measure the Interstitial Liquid Level. Some tanks had dip tube data. Dip tube data was collected in the jet pumping process and is a measure of the free liquid surface in the jet pump salt well. The LOW data is collected using a neutron probe and detects the hydrogen in the water. For sludge and to a less degree salt cake, water is held in the waste above a drainable liquid level due to hydrostatic forces. The height of the capillary region varies based on the waste, with particle size being a primary determining factor. Sludges tend to have higher capillary heights than salt cake. The best guess, conservative capillary height is 24 inches for sludge and 6 inches for salt cake. In Jim Field's report, tank specific porosities were used based on calculations using jet pumping data when available. The porosities used ranged from 0.08 (TY-101) to 0.42 (BY-112) for salt cake and 0.07 (TY-105) to 0.27 (C-110). When pumping or other supplemental data was not available, 0.25 was used for salt cake and 0.15 was used for sludge porosities.

WRPS COMMENT

RPP-5556 (2000) is a good reference however, the methodology for pumpable liquid calculations was reevaluated and updated in HNF-2978 Rev 4 (2002) and Rev 5 (2003). It is noted that for the calculation of drainable interstitial liquid the changes are not significant. Drainable porosities were updated to 24% saltcake and 17% sludge. DIL = Interstitial liquid – capillary liquid.

I made estimates of the drainable interstitial liquids for the 75 tanks that have active LOW readings. My calculations were similar to those used by Jim Field but different and probably less detailed. I collected the most recent LOW reading from the TWINS database for each of the 75 SSTs with LOWs. These reading are in feet so I multiplied them by 12 to get inches. The 100 series SSTs have a volume of 2750 gallons per inch of waste depth, except for the region of the dished bottom. Some SSTs do not have dished bottoms. I subtracted the dish depth and the capillary height from the LOW reading to get the height of the cylindrical part of the waste that has drainable liquid. I added the dish volume to get the total volume of waste with drainable liquid. This volume was then multiplied by the porosity to get a drainable liquid volume. To get porosity and capillary height estimates, I used the sludge and salt cake volumes for individual tanks from Hanlon. I used a simple approximation where the porosity was equal to 0.15 times the fraction of the waste that is listed as sludge plus 0.25 times the fraction of the waste that is listed as salt cake. The same method was used to obtain a capillary height estimate. Capillary heights of 6 inches for salt cake and 24 inches for sludge were used.

WRPS COMMENT

This methodology for overall volume and consideration of capillary height is accurate. The estimates have used the volume calculations/dimensions as described in RPP-7625, *Guidelines for Updating Best-Basis Inventory*. That is, 2750 gal per inch for the 100 series SSTs. 100-series SSTs with a dished bottom have a 12-inch dish with a volume of 12,500 gal except SX Farm, which has a 14.9-inch dish with a dish volume of 18,500 gal. The 200 series tanks have a 6-inch dish with a volume of 590 gal and 196 gal/inch in the cylindrical portion.

Figure 1 below shows a comparison of my calculated drainable liquid volumes compared to those listed in Hanlon. For some tanks, I predict lower drainable liquid volumes. However, for many tanks I predict higher drainable liquid volumes and many of these volumes are in excess of the 50,000 gallon interim stabilization criteria.

WRPS COMMENT

Hanlon (HNF-EP-182) ^{drum} interstitial liquid estimates are not actively managed / updated and show historical estimates more than 10 years old. This data most likely came from several sources, including HNF-SD-RE-TI-178, RPP-5556 and HNF-2978 where the methodology for calculating DIL may not be consistent. HNF-SD-RE-TI-178 in particular includes 'stabilization letters' over several decades where the methodology (specifically the capillary height assumed) changed over the years. Assumptions should be noted in each of the individual stabilization letters.

Figure 2 shows the same calculations except that all waste was treated as sludge with a porosity of 0.15 and a capillary height of 24 inches. For this case, only one SST was above the 50,000 gallon limit though it is not one of those currently reported as over 50,000 gallons.

Figure 3 shows the calculations treating all tanks as salt cake with a porosity of 0.25 and a capillary height of 6 inches. Results are fairly similar to the first case with waste averaged properties. This is expected since over 77% of the waste is listed as salt cake.

I do not believe my results indicate that the drainable liquid amounts are actually being under reported. I think the results more reflect a need to better understand the drainable liquid situation and make a good discussion in RPP-9937 or/and elsewhere.

One obvious reason question my results has to do with a couple of the tanks we have been most interested in lately. These are T-111 and TY-105. Both of these are almost TRU waste and likely have little drainable liquids based on observations of the Enraf and LOW data and the fact that TY-105 had the lowest measured porosity in Jim Field's report (0.07).

One area that I want to understand better is how the neutron probe data is interpreted to determine the interstitial liquid level. I suspect that we may be doing a conservative estimate of the interface. We may be declaring the water trapped in the sludge and that is not drainable in the drainable liquid calculations. In Jim Field's report, the drainable liquid level was based not on the LOW data but rather on the dip tube measurements which should be a more reliable measure of the drainable liquid height. If dip tube measurements are no longer being done, perhaps we should make dip tube measurements for some tanks such as T-111, TY-105, and tanks with suspected high ILL from the LOW data.

WRPS COMMENT

The relation between the LOW (ILL) and dip tube is the capillary. Capillary heights were re-evaluated in HNF-2978 Rev 4/Rev 5 however no changes were made to the methodology (retained the same capillary heights as used in RPP-5556). HNF-2978 notes that the sludge capillary may be conservative. The HNF-2978 methodology was evaluated by independent review (Chuck Stewart PNNL) and his review is referenced in Rev. 4

Dip tube measurements are not easily achievable. The saltwell pumping equipment has not been maintained and necessary components may be missing, broken, or inoperable. The screens and tubes have most probably become salted up and/or plugged. The LOW readings are considered the best estimates of the current ILLs.

I am also interested in understanding how the drainable liquid amounts listed in Hanlon are calculated and how often these are updated. Some of the differences between the Hanlon values and mine may be due to ongoing intrusion changing the actual amount of liquids in the tanks.

WRPS COMMENT

As discussed above, Hanlon estimates are historical data and have not been updated in a number of years.

Documents that support the BBI are routinely updated, including the Auto-Tank Characterization Reports. These will typically have an estimate for drainable porosity and possibly the interstitial liquid volume based on drainable porosity, but not the drainable interstitial liquid volume.

As for retained gas (mentioned in the PowerPoint), the BBI will only have estimates of retained gas for tanks where retained gas core samples were taken. This is a small fraction of the tanks (the tanks reported in PNNL-13000). Since historically retained gas was not accounted for in the drainable porosity estimates, it probably should not be accounted for in updated estimates for consistency.

It may also be that the Drainable Liquid Volumes listed in Hanlon are based on a more detailed data and calculations.

References:

Field, Jim; 2000, Updated Drainable Interstitial Liquid Volume Estimates for 119 Single-Shell Tanks Declared Stabilized, RPP-5556, Rev. 0

Waste Tank Summary Report for Month Ending January 31, 2013 , HNF-EP-0182, Rev. 298 (The Hanlon report)

Hill, Julian, et al; 1999, An Assessment of the Uncertainty in the Waste Volume of the Hanford Site Single-Shell and Double-Shell Tanks, WM' 99 Conference (used for dish bottom depths and volumes)

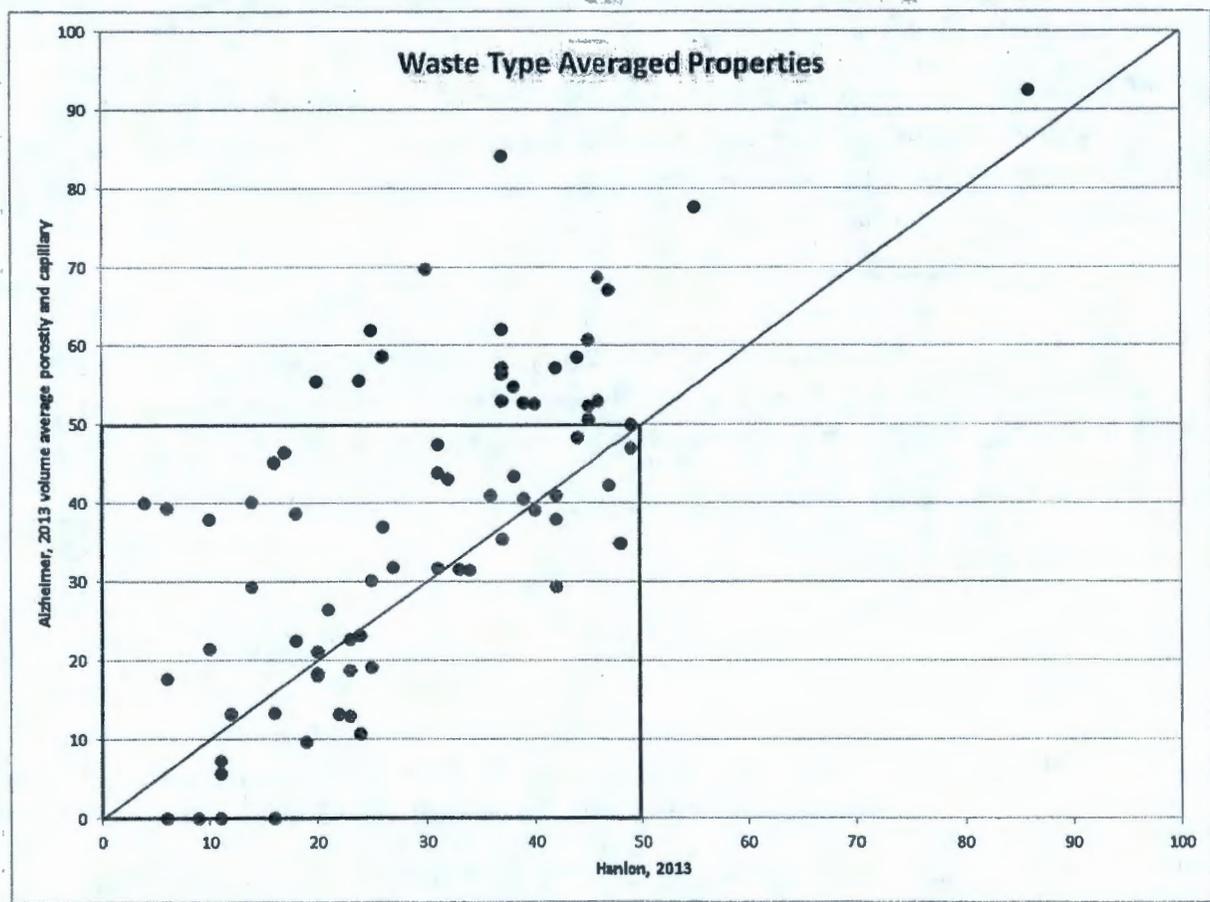


Figure 1 Drainable Liquid Estimates using averaged properties

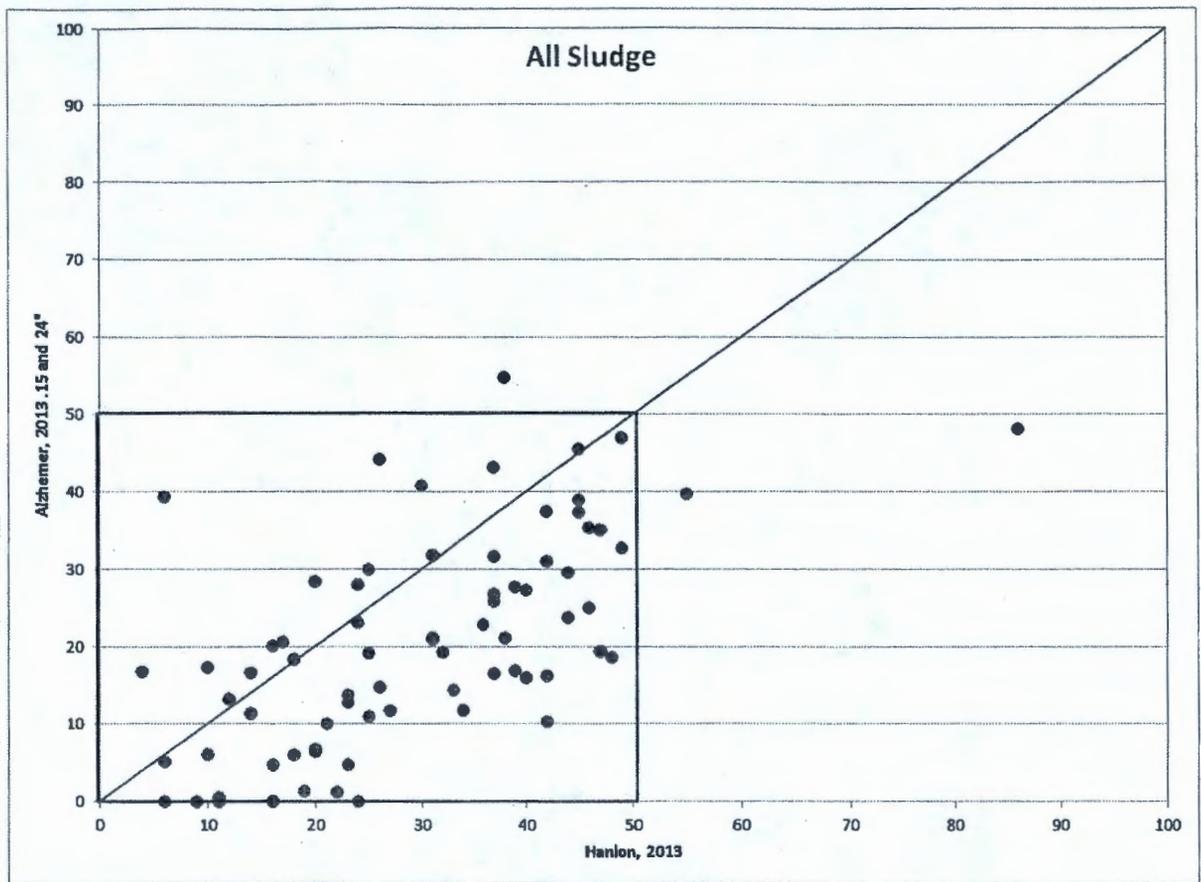


Figure 2 Drainable Liquid Estimates using nominal sludge properties

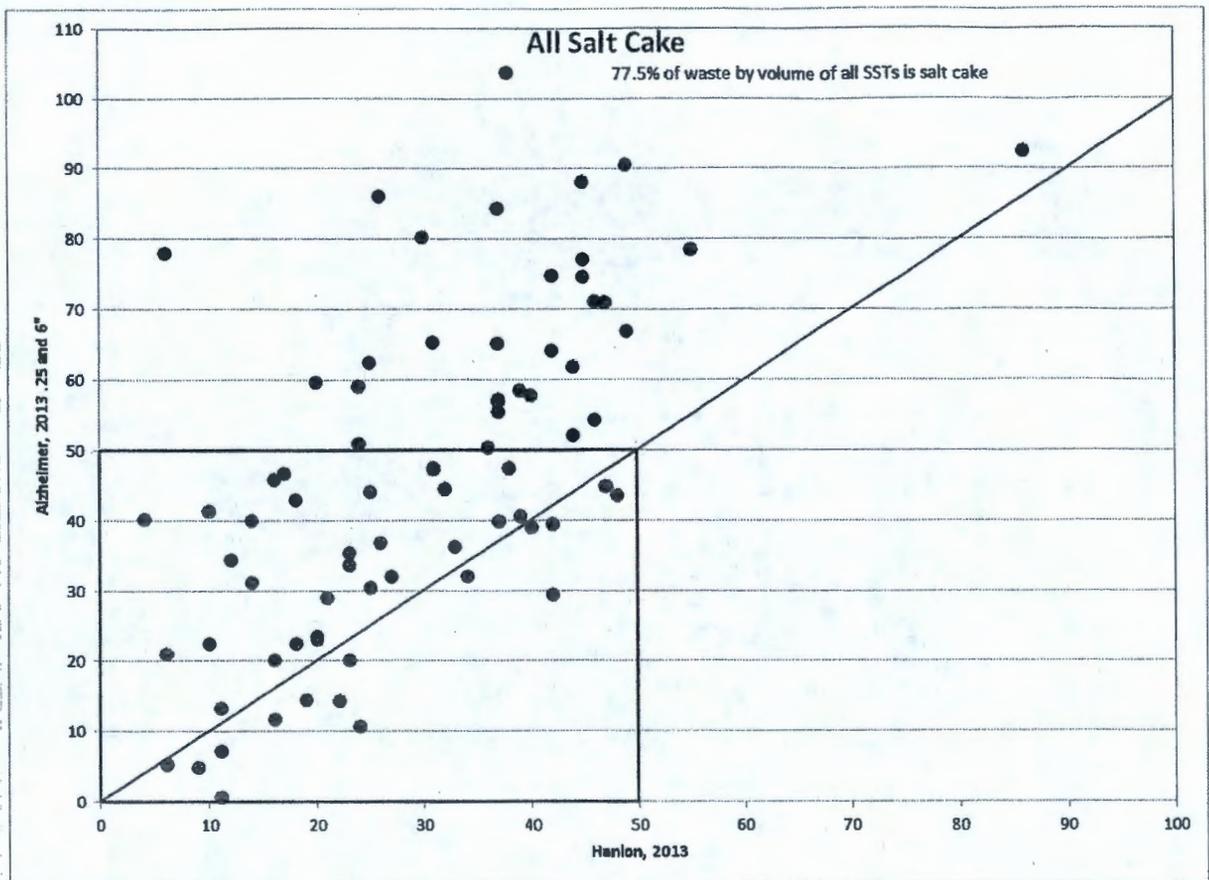


Figure 3 Drainable Liquid Estimates using nominal salt cake properties