

FINAL MEETING SUMMARY

**HANFORD ADVISORY BOARD
TANK WASTE COMMITTEE MEETING
May 13, 2010
Richland, WA**

Topics in this Meeting Summary

Welcome and introductions 1
Committee Priorities 1
Waste Incidental to Reprocessing..... 3
Waste Management Area C Performance Assessment..... 6
System Plan Rev 4/5 7
Action Items / Commitments 12
Handouts 12
Attendees..... 13

This is only a summary of issues and actions in this meeting. It may not represent the fullness of ideas discussed or opinions given, and should not be used as a substitute for actual public involvement or public comment on any particular topic unless specifically identified as such.

Welcome and introductions

Dirk Dunning, Tank Waste Committee (TWC) chair, welcomed everyone and introductions were made. The April meeting summary was adopted. Dirk went over the agenda and said there was going to be a video for the pulse jet mixing facility, but it was not ready to present at this meeting.

Committee Priorities

Dirk reviewed the outcomes of the leadership retreat that occurred earlier in May. Susan Leckband said the leadership group discussed the 2011 priorities have remained basically the same as this years and that the Tri-Party agencies’ priorities and the Hanford Advisory Board (HAB or Board) priorities meshed fairly well.

Susan said the committee’s work plan is important to keep track of the Board’s budget and it is also a good gauge for the amount of topics the Board is covering.

Dirk said the leadership group discussed priorities for each committee and EnviroIssues will be producing a document that outlines the topics the committees plan to work on in the upcoming year. Melinda Brown, Washington State Department of Ecology (Ecology), said she sees overlap with the deep vadose zone issues.

Steve Pfaff, Department of Energy (DOE)-Office of River Protection (ORP), said he does not see any disconnect among the priorities, but sees the usefulness of taking the impacts into account.

Susan said the TWC committee should always ask the right policy questions to ascertain if advice is needed. She also noted there was discussion on keeping to a schedule and looking at the calendar to not conflict with other Board and non-Board activities and holidays.

Harold Heacock said better communication methods between committees and Board members need to occur. Dirk said committees can bring forward committee topics that can be given to the Board.

Ken Gasper asked if word smithing during the advice process was discussed at the leadership retreat. Susan said yes, there will be more steps taken this year to address the issue. Harold said this is a policy Board, not a technical review Board. There should not be as much minutia. Dirk said giving work to Issue Managers (IMs) is a good way to combat this problem.

Next, Dirk went into committee business. He read off the six month work plan and asked if there are any topics that committee members want to take on.

Cathy McCague, EnviroIssues, said technetium (Tc) should have an IM.

Cathy said the June committee week is being moved to the week of June 14th. Dirk said the TWC committee meeting will be a joint half day meeting on the 16th with River and Plateau (RAP) Committee. The joint topic will be on the regulators' comments on the tank closure and waste management environmental impact statement (TC&WM EIS).

Dick Smith asked if the planning table has a category for the canister storage building. Dirk said it is on the watch list and is tentatively scheduled to be discussed in August.

Ken said it is expected that the contractor will have the System Plan 5 in August and asked when it should be discussed. Steve said that is difficult to predict when DOE will be able to support the discussion on System Plan 5 and recommended moving the topic to October.

Michelle Hendrickson, Department of Ecology (Ecology), said Billie Mauss has planned a technology education forum on secondary waste management for June 14th, which is open to the public.

Steve said there are two different aspects to the technology development and asked for further clarification. He said he would like more direction from the committee on what they want for a presentation. Dirk suggested introducing the technology development topic in June and then bringing it back for discussion in August.

Jeff Lyon, Ecology, said he noticed that tank farm closure is not on the work plan. He said there are many items related to tank closure that should be discussed, and the Statement (TC&WM EIS) and leak loss should be discussed once every six months. Jeff

said Ecology is starting Tank Farm updates on closure with 1-2 pages on what is taking place.

Susan agreed with Jeff and recommended linking technical issues to a policy issue.

Waste Incidental to Reprocessing

Marty Letourneau, DOE-Headquarters (HQ), presented on the Waste Incidental to Reprocessing (WIR) versus National Defense Authorization Act (NDAA) section 3116 and Hanford Tank Closures. He said DOE Order 435.1, and NDAA section 3116 gave DOE the equivalent authorities for waste evaluation determinations. He said there are three criteria for classifying waste, similar to the Nuclear Regulatory Commission (NRC) regulations. He said the NRC decided that the waste could not meet low level waste performance objectives with more than a 25mrem dose limit. He said DOE adopted the same criteria that the NRC uses, which is the basis for the WIR evaluation process. He said the 25mrem limit is the same under 435.1 and 3116.

Marty said the Nuclear Waste Policy Act (NWPA) states not all waste has to go to the repository, however, it was determined that high level waste (HLW) does have to go to a repository. He said HLW is typically a product of the reprocessing of spent fuel. Equipment associated with HLW is considered HLW if there is any residual waste. Therefore, anything that has come into contact with HLW is subject to the NWPA. Marty further continued saying that when developing these requirements there were criteria for looking at items that came into contact with HLW to see if it needed to be sent to a repository. He said if there is anything waste left behind when cleaning tanks, DOE needs to be able to show that the residual is safe, can meet the requirements and is not HLW.

Marty said South Carolina and Idaho were the only ones attached to the NDAA section 3116 legislation. Washington felt 3116 was not appropriate. He said moving forward with the tank farms, the 435.1 or the 3116 requirements have to be used or DOE will have to excavate the tanks.

Marty said if any residual left behind contains HLW, either 435.1 or 3116 has to be applied. He said Washington is not currently under 3116 so the state must use the 435.1 process for dealing with residual tank waste.

Next, Marty relayed the potential benefits of Washington implementing 3116. As well as explaining the differences. He noted that one primary difference is that 435.1 has an option to engage NRC and 3116 requires NRC to be involved. He said under 435.1 DOE would have to wait to get a technical document from NRC to proceed. He said 3116 requires that the actions taken are covered by a state permit or closure plan, which is not required under 435.1. He said for 3116 the NRC is perpetually monitoring disposal activities to make sure DOE is not exceeding performance objectives unlike 435.1. Additionally, he said NRC must monitor with the State, guaranteeing a state role. This is important because DOE was sued by the Natural Resources Defense Council in 2002 for asserting a violation of the NWPA of WIR authority. He said now the problem is that the DOE has not used the WIR process since the lawsuits. He said West Valley will be using

this WIR process under 435.1 first in New York. West Valley has a melter that needs WIR determination to show that the closed melter is safe. Marty noted that the only other application of WIR would be Hanford's the Waste Management Area (WMA) C tank farm closure and the residual left in the tanks.

Regulator Perspectives

- Suzanne Dahl, Ecology, stated that Ecology is a friend of the court because they see both sides, so they are somewhat on the fence. She also wanted to highlight Ecology's main concern in the court case was that ORP would leave waste full in 30 tanks. Ecology has had a long standing WIR determination that describes how many radionuclides need to be removed and how it will be performed. She said if there were tanks filled with waste; Ecology did not want to lose ground on retrieval by having ORP being in charge of tank waste. She said the performance criteria for WIR were based on the waste being put in glass and Ecology did not want to get away from that. She said putting low activity waste (LAW) in other forms has a large environmental impact, which is why Ecology does not fully support 3116. Suzanne said Ecology wants a transparent process and not move backwards on Washington requirements. She said Ecology's legal interpretation is that the 435.1 can achieve this.

Committee Discussion

- Pam Larsen asked about the tanks at Savannah River Site (SRS). Dirk Dunning said two tanks used 435.1 to develop the WIR process. He said the rest of the tanks had a performance assessment on tank closure with comments, which is about to be submitted as a waste determination to the NRC. He said tanks have not been closed under 3116 at SRS yet; however, the salt stone disposal facility was approved for this process. He said LAW was mixed with salt stone and put in a vault which is different than the glass vitrification at Hanford. He said there has been a 3116 determination of 14 tanks at Idaho, and 11 have been closed. A treatment facility has been built for dealing with the leftover waste.
- Marty responded to Suzanne and said there is no reason to expect that the waste evaluation process will not work, but DOE thinks the 3116 process with mandatory involvement and monitoring is better than 435.1. He said 3116 does not trump the Tri-Party Agreement (TPA) milestones, and DOE still has to remove 99% of the waste.
- Suzanne asked how clean the tanks at SRS are. Marty said the tanks are fairly clean because they were stainless steel tanks, and the pH did not have to be adjusted making the tanks easy to clean out. He said it will be different at Hanford because DOE is not using clean water on the tanks due to radioactive supernate from other tanks and existing hard heel sludge in the tanks. These factors will make it also difficult to successfully monitor the waste being removed.

- Marty said if DOE goes forward with 435.1 there is an expectation that there might be a delay, but for 3116, DOE feels there would be no lawsuit and no delay. He said there are benefits for Washington being covered under 3116 that do not exist under 435.1. He stated that Inés Triay, Assistant Secretary DOE-Environmental Management, said the processes will be done exactly the same either way. Marty remarked that if DOE has an option to consult with NRC, then they will. He said problems arise since some of the legal requirements with 435.1 are not the same as 3116.
- Pam asked if there is a NRDC lawsuit. Marty said there has not been a lawsuit. He has not seen any indication of a challenge to 3116, but DOE was sued for 435.1 in 2002.
- Al Boldt said his contention is that the tanks can be determined under NRC as the same as with LAW. He said the State of Washington and Hanford can still use the methods prior to the revision of 435.1 or with 3116. Marty said he understands Al's concern. There is an agreement on LAW and DOE is not looking to change it.
- Gerry asked if DOE is in the process of doing a legislative proposal. Marty said if Washington State wants to use 3116, DOE has to follow. DOE does not want to advocate for 3116, they want to present the positives and negatives of each.
- Gerry asked if there is any residual waste less than what the State would require for closure standards. Marty said he is not advocating anything that would be less protective than what the State would dictate. He said DOE is talking specifically to the tank closure actions, which does not address the contamination in the ground. He said there are two options for determination; 435.1 or changing to 3116. Gerry said there is not an additional level of protectiveness with state requirements. Marty agreed.
- Gerry said the pitch for 3116 was that the language of the requirements were changed to make sure Resource Conservation and Recovery Act (RCRA) coverage was fully utilized.
- Pam said there was anxiety at other sites with changing waste determination. Suzanne said there were differences at the other sites.
- Gerry said it is important to explain RCRA authority with the State and that nothing would change. Marty agreed.
- Dirk said the committee discussed having Marty present on waste determination at the Board meeting in June. The committee agreed to ask Marty to do his presentation in June. Lori will coordinate with Marty to determine his availability. Dirk confirmed that Pam Larsen will be the Issue Manager (IM) and will introduce the topic.

Waste Management Area C Performance Assessment

Vince Panesko presented on the Waste Management Area C Performance Assessment (PA). He said the TPA is driving the PA. Vince reviewed a timeline for the PA and concluded that it has to be started by 2013 to get the permitting in place to be on track for a 2019 closure. He said right now stakeholder buyoff is being attained and there is a concern with issuing the TC&WM EIS record of decision (ROD). He said 435.1 is driving the PA process and if the National Environmental Policy Act process is done a ROD will be made. He said the PA cannot make decisions and the PA cannot be started until the ROD decisions are made.

Vince said the discussion of the TC&EM EIS and 435.1 is important, and there needs to be more input from DOE. He said there are two groups doing modeling on long term impacts, which may result in different results for the PA.

Vince said the C Farm is the first PA to be done and will affect how the rest of the tank farms are closed. The main issue is that if the tanks are left in the ground, there could be a cap and cleaning down to only 15 feet. He said another issue is how to clean the pipes and if they have leaked.

Marty said DOE has learned about the PA from other sites and is applying the knowledge to Hanford, which has helped with the scoping process and bringing in stakeholders. He said outlining the assumptions is very important to bring everyone along. He said there can be multiple detailed scenarios in the PA, which is DOE's goal.

Vince said once the PA is issued, then the decision process is started and the PA might be changed.

Marty said DOE is not preparing an analysis with one purpose and it will be different from the EIS although he is working with the EIS team. He said DOE is using the PA to show the details of the source term left in the tanks and the cap. He said the PA helps dictate the actual decisions in the permits and closure plans. He said DOE also does a composite analysis of the source term at the site. DOE will be looking at the decisions made and will be expanding their view to the whole 200 Area to look at how decisions may affect each other.

Regulator Perspectives

- Jeff Lyon said the TPA drives the PA process and not the 435.1 process. He said modeling tools are used to monitor the system. He said the PA is not a cookie cutter process and ideally there would be good characterization in the PA to prevent unnecessary assumptions. He said the bottom line is to remove as much risk as possible from the tanks.
- Jeff said the TC&EM EIS does make a decision on tank closure and is used in the permitting process. He said the alternatives show the difference in actions, however,

they do not dictate what is chosen. He said the closure plan will be the real alternative and will be different than the EIS.

Committee Discussion

- Pam said the Board is an advocate of cumulative analysis; however, cumulative analysis is covered in the TC&WM EIS so it may be a duplicative analysis. Marty said DOE may not duplicate the analysis, but it is required that the cumulative analysis happens. He said it is the intent that the analysis done now will inform the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) process and there is more integration now that the scoping process is being valued.
- Suzanne said the waste under the tank (soil contamination) will be addressed following RCRA corrective actions. Marty added that soils are addressed in the EIS and the PA.
- Dirk said the State does not have authority for radioactive materials. Marty said DOE will address radioactive material issues in the PA.
- Marty said he will be at the Board meeting in person.

System Plan Rev 4/5

Ken Gasper, lead issue manager, said the issue managers met with DOE-ORP earlier this week and reviewed Rev 4 and the planning assumptions for Rev 5. They had a very productive meeting and were pleased with the progress to date; however, they still had some concerns that DOE-ORP were not able to address. As such, Ken said the intent is to move forward with advice regarding System Plan Rev 5(SP5) for the June Board meeting.

Next, Paul Certa, Washington River Protection Solutions (WRPS), presented on the drivers for SP5. He said the system plan is updated annually per a contract deliverable. He said the detailed operational and project plans are used for aligning the use of the double shell tanks (DSTs), retrievals in the single shell tank (SST) retrieval plan, near term transfers and evaporator operations as well as understanding tank space limitations. He said the risk management plan, technology roadmap and key pending decisions will summarize uncertainties and mitigation actions.

Paul said DOE-ORP has policy level guidance to make continuous improvements on life-cycle cost and schedule baseline reports. He said potential transuranic (TRU) tank waste is to be packaged and stored pending final disposition. He said the aluminum removal facility has been suspended due to pending development of alternative solutions to mitigate sodium issues. He said the HLW glass final disposal alternatives are to be determined and interim storage on site is pending an assumed decision in 2022. He said the effluent treatment facility is to be upgraded as needed. He said System Plan Rev 4 (SP4) assumptions will be continued until DOE releases the TC & W M EIS ROD.

Paul presented the overall plan for SP5 production. He said improvements have been made since SP4 was issued in September. He said SP5 has been aligned with the Waste Treatment Plant (WTP) flow sheet. He said a new HLW glass formulation model has been implemented. DST use has been integrated with the Waste Feed Delivery plan and SST retrieval assumptions have been integrated with the SST retrieval plan. He said WRPS hired Pacific Northwest National Laboratories (PNNL) to update the glass projections and the validity of the model. WRPS went through the inventory and investigated hydroxide usage and model code improvements. He said the scope, outline and assumptions were formally approved by DOE-ORP on April 16 with a transmitted draft to ORP by August 31 for approval. He said the scope is similar to SP4 with additional discussion of key pending decisions.

Paul said that SP5 will include the baseline and sensitivity cases and presented their attributes and successes. He said the two cases have increased the amount of blending and the goal is to reduce the amount of HLW.

Paul showed the process flow diagram and explained the actions for storage and treatment.

Last, Paul explained the differences between SP4 and SP5. He said the treatment schedule operations have been delayed a year for budgetary reasons. He said the potential TRU tank waste will be processed through WTP in SP5.

Agency Perspectives

- Stacy Charboneau, DOE-ORP, said DOE has looked at how to improve upon these tank waste strategies. She said DOE is looking at how the WTP will operate and what the risks are. She said the technology development strategy is to allocate funding towards the lithium barrier facility, ion exchange, and next generation melters. She said some of the items in the baseline are sodium mitigation to shorten lifespan of the WTP and supplemental treatment with a second LAW facility. The pulse jet mixing issues have been validated and DOE has found that there needs to be a reduction in solids going to the WTP. Furthermore, DOE has designed a hard heel system that will not exceed 10% waste solids. She said DOE has done sampling studies that will help to obtain reliability confidence for characterization. She said there has been discussion about having a mixing blending facility which will decrease the number of HLW canisters thereby shortening the mission of the WTP. DOE has also investigated WTP options for installing an equipment option for precipitation in solids post ion exchange. DOE has taken the first steps towards aluminum mitigation and the need for an aluminum removal facility has diminished. There was an enhanced waste receiver facility memo from DOE-Headquarters (HQ) that the aluminum facility should be replaced with a mixing and blending facility to help with tank space to continue to retrieve waste. The memo from DOE-HQ said to put the alternative

analysis in the baseline. Having the analysis in the baseline will show the critical decision zero and one of supplemental treatment technologies available for additional LAW capacity including 2nd LAW, bulk vitrification, steam reforming. DOE-HQ support not spending money needlessly, which is why the aluminum facility is shelved although SP5 still shows the aluminum facility. Stacy also mentioned the cost of bulk vitrification is less; and DOE is investigating steam reforming because this technology has advanced. She said the enhanced Hanford Storage Facility might address the sodium issue and DOE is talking conceptually for now. All of these activities impact SP6 moving forward.

Regulator Perspective

- Dan McDonald, Ecology, said Ecology agrees with the investigation of another facility. He said the concern is the cost and he wants to know how long it will take to get from bench scale to pilot scale. He said knowing the capabilities and the full lifecycle is vitally important. He said it will be 18 months until the lifecycle report can be reviewed, which is a concern. He said the enhanced waste retrieval facility is still being questioned. He added that if the assumptions in SP6 are not in place until the ROD from the TC&WM EIS is made, then there may be an issue if the assumptions are relevant and up to date. He said there are some things that are far enough in the future that Ecology does not have to look at them now. He said there needs to be a holistic view to make sure a facility is designed and built.

Committee Discussion

- Jeff Luke asked if TRU waste is packaged before being sent to the WTP. Paul said there will not be a separate packaging system for the TRU waste.
- Pam asked if the additional supplemental facility being eliminated is the Aluminum Removal Facility. Paul said any treatment beyond WTP is supplemental.
- Pam said she has seen assumptions for glass loading at other sites and asked how that information is being utilized. Stacy said the memo for DOE-HQ stated to assume 40% waste loading. She said regardless of the national repository there will still be standards, the waste acceptance criteria will not change based on not having Yucca Mountain. She said depending on where the repository is there might be different standards; however, DOE is following the requirements for Yucca Mountain as of now.

- Dirk said TWC is concerned with bulk vitrification being evaluated again. Stacy said bulk vitrification is just a solution to supplemental LAW. Dan said vitrification is preferred. Dirk said his concern is with how the glass performs as compared to how the system performs, it was good to look at bulk vitrification, but it is a not a good idea. Stacy said DOE will have a comparative cost analysis for the alternatives analysis.
- Harold said there has been a lot of progress with the system plan. Stacy said with the WRPS contract there will be an annual system plan which will help drive DOE-ORP technical and cost and schedule baseline.
- Dick asked how DOE would accomplish 40% waste loading. Paul said the study was for calculations before increased blending, and the modeling of the pretreatment facility with water wash of the solids is where the 40% will be met. He said PNNL has recently looked at glass formulation and improvements have been made. He said he will get more information to Dick.
- The committee then discussed the draft advice.
- Ken presented the draft advice on SP5 and said the background section reflects past advice. He said the bullets restate the position that the Board has taken, and that the Board is pleased with the planning assumptions and the LAW capacity.
- Ken then discussed the second bullet of the advice. He said DOE said they would include two cases and SP5 appeared to only address one case. He said the third bullet of the advice is in regard to the TC& WM EIS and states that there is no need to wait for the ROD, once the comments are incorporated there is enough information for the system plan. Stacey said this information is in sensitivity case A. Ken said the HAB is pleased with the risk section of SP5. He said the HAB felt the aluminum facility was a good idea, but it was in SP4 with much less basis and was not at technical maturity to warrant dependence. Stacy said SP5 will have the technical maturation. Ken said we should take out SP5 from bullet four to have the advice apply to any system plan. He said bullet six states that SP5 should be consistent with past system plans, regarding the lifecycle costs. Stacy said DOE would like that to be the case and will try to bring consistency.
- Ken said for advice bullet seven, the HAB would like to see the best estimates for the scope, schedule and cost to be incorporated into the system plan and the lifecycle report. He said for the eighth bullet the DOE-HQ memo is good and the baseline should be changed accordingly. He said there are annual updates to have a document to reflect the current understanding. Stacy agreed.

- Dirk asked if the TWC would like this advice to go forward. The committee agreed the advice should go forward.
- Jeff asked about bullet four and said the system plans typically does not address key risks. Stacy said the system plan does discuss key risks.
- Stacy asked about the level of maturity wanted for the discussion on key risks. She said key risks might not be discussed at length in the document, but there is a risk management plan and DOE recognizes risks with near term impacts. DOE will have to address how risks are portrayed in the system plan.
- Ken said the system plan does not say much about the mitigation options. Paul said WRPS is tying risk mitigation into the baseline.
- Jeff asked why the fourth bullet is in the advice. Ken said the current mitigation section is brief. He said SP4 addressed a clear risk on sodium mitigation by inserting risk mitigation action, this is absent in SP5.
- Jeff asked Stacy if the fourth bullet is helpful to DOE. Stacy said more robust risk mitigation could be suggested. She would caution that there has to be assumption at varying levels, and DOE has to show in the baseline what is being done for mitigation.
- Dan suggested that the language might be to determine the level of assumptions to the risk to provide foundation. He said this advice is not new and Ecology has talked about this issue.
- Jeff said the seventh bullet appears to address upgrades to the facility, which is not governed by the TPA. Maynard suggested taking out the last line of bullet seven. Dirk agreed.
- Jeff said bullet eight is ending the advice on a negative note. He asked if there is reason to believe that DOE does not working diligently to validate or refute the assumptions and presumptions. Dirk said DOE should either validate or invalidate assumptions. Stacy said DOE approves all assumptions. Jeff said the wording should be changed. Harold said the eighth bullet is asking for consistency in planning assumptions. Dirk suggested taking bullet eight out of the advice and the committee concurred.
- Paul said the milestone does not require a full annual system plan update; it is every three years. Ken said the advice can be reworded to reflect the milestone. Steve said there is a system plan on an annual basis but not to the detailed extent of SP5. Dan said the settlement agreement does say 3 years; DOE can have three scenarios and every year there is a lighter version.

Committee Business

Cathy went over the board action items and asked committee members to send the SP5 advice revisions to Ken. She will send the document out to the committee after it has been revised to reflect today's discussion.

Cathy then reviewed the WMA C-Farm PA topic which the committee agreed to be about 45-60 minutes, and the WIR presentation would be about 60 minutes at the Board meeting. Cathy said there will be Ecology perspective on both. Dirk said the EIC (Executive Issues Committee) will discuss timing of these two topics on their call next week.

Cathy went over the six month work plan. Steve said he can show the retrieval technology documents for Hanford tank farm near term.

The committee discussed having a joint meeting with the RAP committee on the Ecology's TC&WM EIS comments. EPA is not available to present their comments in June. They will be scheduled for August. The committee also agreed to have a process overview from DOE-ORP on their plan for reviewing comments. Steve will check to see if they are able to support this topic in June.

Al said DOE has not had a chance to prepare the pulse jet video. Cathy will work with DOE-ORP to see if it will be ready in June.

Harold said the TWC should have an update on the waste in the tanks and an overall perspective of the waste in the transfer lines and under the tank, including soil contamination. Dirk said Harold's questions can be framed further for committee discussion in June.

Action Items / Commitments

- Ken, Dirk, and Harold will rework the edits to the system plan advice. Cathy will send it out to the committee for review and consensus.
- Dirk will request the two topics for the Board meeting on the EIC call.
- Dirk will request a half-day meeting in June on the EIC call.

Handouts

NOTE: Copies of meeting handouts can be obtained through the Hanford Advisory Board Administrator at (509) 942-1906, or tgilley@enviroissues.com

- Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005 Attachment B Section 3116.
- System Plan Revision 5 Assumption Briefing for HAB Tank Waste Committee, Paul Certa and Michele Wells, May 13, 2010.

- Tank Waste System Plan Revision 4 and Planning Assumptions for Revision 5; Draft Advice, Ken Gasper.
- Waste Incidental to Reprocessing vs. NDAA section 3116 and Hanford tank closures, Martin Letourneau.

Attendees

HAB Members and Alternates

Al Boldt	Pam Larsen	Vince Panesko
Dirk Dunning	Susan Leckband	Maynard Plahuta
Ken Gasper	Jeff Luke	Gerry Pollet
Harold Heacock	Dave Rowland	Mecal Samkow (phone)
		Dick Smith (phone)

Others

Marty Letourneau, DOE-HQ (phone)	Madeleine Brown, Ecology	Cathy McCague, EnviroIssues
Stacy Charboneau, DOE-ORP	Erika Holmes, Ecology	Blair Scott, EnviroIssues
Jodi Manley, DOE-RL	Michelle Hendrickson, Ecology	Sharon Braswell, MSA
Steve Pfaff, DOE-ORP	Jeff Lyon, Ecology	Paul Certa, WRPS
Mary Beth Burandt (phone)	Dan McDonald, Ecology	Mike Connelly, WRPS
	Nancy Uziemblo, Ecology	Michele Gerber, WRPS
		Julie Roberts, WRPS
		Michele Wells, WRPS