

FINAL MEETING SUMMARY

HANFORD ADVISORY BOARD

RIVER AND PLATEAU COMMITTEE MEETING

September 9, 2009

Richland, WA

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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

Maynard Plahuta, River and Plateau Committee (RAP) Vice-Chair, welcomed the committee and introductions were made. The August RAP meeting summary is undergoing revision and will be re-distributed to the committee before it is finalized.

Bob Suyama provided an update on long-term stewardship (LTS). The RAP LTS issue managers (IMs) participated in a call with Paula Call and Boyd Hathaway of the Department of Energy - Richland Operations Office (DOE-RL) regarding LTS. Bob said Boyd is planning a DOE workshop September 10 that will include DOE-RL assistant managers to ensure consistency on LTS-related activities. Bob said Matt McCormick, DOE-RL, is working on the Central Plateau (CP), Leif Erickson, DOE-RL, is working on the Mission Support Contract (MSC) and Joe Franco, DOE-RL, is working on LTS activities along the river corridor. Bob said Doug Mercer is coordinating with Paula and is working to verify the information in his gap analysis, which is nearly complete. Paula said DOE committed to conducting an additional IM call to share what took place at the workshop and next steps.

NEPA/CERCLA/RCRA Tutorial

Pam Larsen, RAP Chair, said the RAP requested a tutorial on the National Environmental Policy Act (NEPA), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and the Resource Conservation and Recovery Act (RCRA). Craig Cameron, Environmental Protection Agency (EPA), said he and John Price, Washington State Department of Ecology (Ecology), planned to provide the committee with background information on the three laws. Craig said he would also provide Susan

Hayman, EnviroIssues, with a handout titled “Superfund is Fun” to distribute to the committee.

Craig gave an overview of NEPA, which was passed in 1969. He said this act hoped to use a more enlightened approach to sustainable development by studying the potential environmental impacts of activities and balancing the needs of growth and the economy for current and future generations. NEPA requires federal agencies to prepare an environmental impact statement (EIS) for any major federal actions significantly affecting the quality of the environment. Craig said NEPA can also apply to local, state and commercial projects if they are federally funded. The Council on Environmental Quality (CEQ) is a three-person agency that provides guidelines and adopts interpretive regulations for NEPA. Craig said agencies pass their own implementing regulations and EPA reviews the adequacy and completeness of EISs.

Craig said there is a graded approach to NEPA evaluation. DOE lists typical actions that would be excluded from the need to do an EIS, first looking at whether there is a categorical exclusion for the activity, then moves on to the environmental assessment (EA) level. Through this process DOE can determine that the action is non-significant, prepare a notice of intent (NOI) to prepare an EIS, or determine that there is no action. The EIS process leads to a record of decision (ROD). Craig said NEPA does not require agencies to select the most environmentally friendly alternative, and, unlike CERCLA, the ROD is not enforceable. Courts can rule that an inadequate evaluation was done in response to third-party lawsuits, but there are not civil or criminal penalties under NEPA, as there are under other environmental regulations. Craig said the Supreme Court’s Calvert Cliffs ruling required agencies to perform EISs, which must include a reasonable range of alternatives. Craig said the CERCLA remedial investigation and feasibility study (RI/FS) process is generally considered equivalent to a NEPA evaluation, since NEPA values are included in the CERCLA FS. The Tri-Party Agreement (TPA) includes a section on integration with NEPA, which says the agencies will cover NEPA mostly through other processes under other laws, but will do any additional evaluation required by NEPA.

John reviewed the State Environmental Policy Act (SEPA), which has the same goal as NEPA. He said projects like highways and bridges have significant benefits, but environmental affects must be considered. NEPA is required for major federal actions, while SEPA is required for local and state actions in Washington and is strictly a state law. John said Ecology’s nuclear waste program is the local authority for a number of Ecology’s environmental programs, including the Model Toxic Control Act (MTCA), RCRA, water and air programs, and SEPA. John said Ecology primarily makes permitting decisions, which fall under SEPA, and must evaluate the environmental impacts of decisions to add a hazardous waste treatment, storage or disposal (TSD) facility to the Hanford site-wide permit. If adverse impacts are identified in a SEPA analysis, Ecology can condition or deny a proposal.

John reviewed the process for conducting a SEPA analysis at Hanford. He said typically when DOE or a DOE contractor applies to add or amend a unit for the Hanford site-wide

permit they provide Ecology with a SEPA checklist that includes categories of environmental impacts. After the contractor identifies environmental impacts on the checklist, Ecology performs a threshold evaluation to determine whether they constitute a significant adverse impact. Ecology can issue a determination of mitigated non-significance, in which Ecology proposes permit conditions to mitigate or offset the potential environmental impacts. John said Ecology can also require an EIS if there is likely to be a significant environmental impact that cannot be mitigated. John said DOE is currently preparing the Tank Closure and Waste Management EIS (TC&WM EIS), which is a federal NEPA document. SEPA allows for the use of NEPA documents to meet SEPA requirements, and Ecology is acting as a NEPA cooperating agency for the preparation of the federal EIS. John said Ecology will insert a forward in the document that explains Ecology's role and position on the TC&WM EIS.

John provided an overview of RCRA, which is a federal law. The state's Hazardous Waste Management Act includes the regulations Ecology applies to Hanford, and is a federally authorized program that Ecology administers in Washington State. John said RCRA is a cradle-to-grave system for management of hazardous waste. When RCRA was established, there was recognition that, unless there was a comprehensive program that tracked hazardous waste until its disposal, there was a high potential for waste to get into the environment. John said the intent of RCRA and the federally authorized state program is to track waste so it does not get into the environment. RCRA tracks waste through a manifest system, in which there is a tracking document that goes with hazardous waste any time it is moved or changes ownership. John said the intent of this is that ownership is tracked and the responsible party is liable for civil and criminal penalties, which provides incentive to take care of hazardous waste. RCRA also contains a waiver of sovereign immunity. John said federal facilities like Hanford are not subject to all state laws, but there are some federal laws for which they have waived the ability to be regulated by appropriate state agencies.

John reviewed the definition of solid waste under RCRA, which differentiates between materials that are not waste, solid waste and hazardous waste. This progression and the identification of waste are important. Craig said there are materials that are excluded under RCRA, including work under the Atomic Energy Act (AEA) and management of that material, which is an important exclusion. John said waste can be designated as hazardous if it is on a list of hazardous materials, or it can be tested and determined to have the characteristics of hazardous waste, such as waste that is reactive, corrosive, toxic or ignitable.

Craig reviewed CERCLA, which was enacted in 1980 and amended by the Superfund Amendments and Reauthorization Act in 1986 (SARA). CERCLA and SARA provide for remedial action at inactive or abandoned waste sites, removal of spills of hazardous substances, reporting of release of hazardous substances to the environment, and Natural Resource Damage Assessments (NRDAs). Craig said hazardous substances under CERCLA include RCRA hazardous waste and other substances considered hazardous under the Clean Air Act (CAA), Clean Water Act (CWA) and Toxic Substances Control Act (TSCA). Radionuclides are hazardous air pollutants under the CAA, so Craig said

they are hazardous substances under CERCLA. Oil and liquids are not hazardous, but are covered under the National Oil and Hazardous Substances Contingency Plan (NCP). CERCLA responses include emergency removal actions done by an on-scene coordinator using warrant authority or an action memorandum (AM); time-critical removal actions, which must be initiated within six months and include an AM; non-time-critical removal actions, including an engineering evaluation/cost analysis (EE/CA) that is released for public comment and an action memorandum; and long-term remedial actions done through an RI/FS process, which requires a proposed plan that goes out for public comment and a ROD.

Craig said the National Priority List (NPL) is part of CERCLA and applies to the Hanford 100, 200 and 300 Areas. In 1988 these areas underwent a preliminary assessment or site investigation and received a hazard ranking that put them on the NPL. Craig said Superfund money from EPA pays for cleanup, but EPA tries to find Potentially Responsible Parties (PRPs). Federal facilities such as DOE and the Department of Defense (DOD) also help pay for these actions. Once a site is listed on the NPL, agencies can then enter into Federal Facility Agreement and Consent Orders, such as the TPA.

John said his earlier discussion of RCRA covered managing hazardous waste that is well contained, but RCRA also has a cleanup component that is virtually identical to the cleanup component in CERCLA. John reviewed a chart that displays the equivalent steps between RCRA and CERCLA, including the TPA milestone series. While there are a few differences, he said the overall goal of cleanup under both RCRA and CERCLA is the same, which is to protect human health and the environment. RAP committee members requested a copy of the chart, and Craig and John said they will provide the link to Susan H. for distribution.

Craig reviewed the nine criteria for selecting a remedial action (RA) alternative under CERCLA. The threshold criteria include overall protection of human health and the environment, as well as compliance with applicable or relevant and appropriate requirements (ARARs) from other laws and regulations since CERCLA does not have its own requirements. Balancing criteria include long-term effectiveness and permanence, reduction of toxicity mobility or volume, short-term effectiveness, implementation potential, and cost. Craig said modifying criteria relate to state and community acceptance, and come into the process when public comment begins and there is acceptance of the alternatives.

Craig said other categories such as the RA objectives of protecting groundwater, the public and workers must be met under CERCLA, and the RA can be tailored depending on the situation. The site conceptual model shows where contamination is located, the form it is in, the modes of transportation, and the modes of uptake. Craig said reasonably anticipated land use is often geared toward the future, so EPA must look at DOE's land-use documents to determine exposure scenarios. Craig said baseline RAs are needed for final RODs, including construction and operation of the final remedy. Institutional controls (ICs) are non-engineering controls needed when conditions are not restored to

unlimited use or unlimited exposure and create operations, maintenance and monitoring for a long-term remedy. CERCLA RODs go through five-year reviews, which evaluate the effectiveness of remedies and whether new technology could be applied. John said DOE plans to begin scoping a five-year review this fall.

Craig reviewed the state's role in the CERCLA process. EPA has divided the 200 and 300 Areas into operable units (OUs), and in the 100 and 200 Areas EPA and Ecology share the OUs, while DOE is the lead agency responsible for cleanup. Craig said this workload sharing is part of the TPA. He said the MTCA is used as an ARAR as well as RCRA corrective action. John said the goal under any environmental regulation should be to protect human health and the environment, so the state's view is that cleanup should be equivalent to MTCA. He said there are certain identical requirements that are considered relevant and appropriate.

Craig reviewed the process for site closeout. Individual CERCLA OUs go through a final inspection of the waste sites and review documentation to determine whether RA objectives and cleanup levels have been met. After this, an RA report is produced. Craig said an RA report is required for closeout, and interim RA reports can be done for interim actions. For an entire NPL site, a final closeout report is required before a site can be deleted from the NPL. Craig said this process was completed for the Hanford 1100 Area. John said for closed RCRA units, if contamination remains in place and long-term monitoring or other actions are needed those units can remain in the post-closure portion of the permit.

Agency Perspectives

- Woody Russell, DOE-ORP, clarified that the DOE NEPA procedures are part of Federal Register attention 421. DOE Headquarters (DOE-HQ) also has a Web page that lists requirements along with RODs and findings of no significant impact. This Web site is located at gc.energy.gov/nepa.
- Woody said if RCRA is involved then NEPA becomes part of the process as an independent document. There is not an independent NEPA document under CERCLA, and NEPA values are addressed in various CERCLA documents. Woody said NEPA values address cumulative impacts and environmental justice, and issues that may not be addressed in a CERCLA document would be picked up as a NEPA value. Craig said socioeconomic impacts are an example of this, and are not typically evaluated under CERCLA. Woody said Federal Register attention 421 includes a broad list of these values.

Committee Discussion

- Emmett said CERCLA does not contain any cleanup standards for inactive hazardous waste sites other than maximum contaminant level goals (MCLGs) under the Safe Drinking Water Act and water quality criteria under the Clean Water Act. Rather, CERCLA relies on ARARs (applicable or relevant and appropriate requirements). In general, these are requirements (regulations) under any federal environmental law or

any promulgated standard under any state environmental law. This is why standards promulgated under the Washington Model Toxics Control Act may become cleanup standards for inactive hazardous waste sites at Hanford. Emmett said the hazardous waste portion of CERCLA applies to "the cleanup of inactive hazardous waste disposal sites." The hazardous waste portion of RCRA applies to the management of active hazardous waste facilities and to the generation, transportation, treatment, storage, and disposal of hazardous wastes (ongoing hazardous waste activities). Distinguishing between the two is sometimes difficult at the Hanford Site, which is one of the reasons for the Tri-Party Agreement. The corrective action decision (CAD) relates to releases under CERCLA sites. John said the state looks at Hanford as one facility, so any release at Hanford causes it to be viewed as an active site.

- Dale Engstrom said one reason the committee wanted the tutorial was to resolve confusion about where CERCLA and RCRA are similar. He said it would be valuable to understand how it is decided whether CERCLA, RCRA or a CAD ROD will be used. Craig said the concept of CAD RODs has been used. CAD RODs can consist of a combined decision, a CAD and a ROD in the same document, or two separate decisions. Craig said the way the regulatory agencies divided the OUs based on RCRA or CERCLA past-practice is unique to Hanford. There were TSDs associated with the waste sites so the OUs were grouped based on processes rather than areas. Craig said OUs considered RCRA past-practice units were TSD units.
- Dale said he heard there was a date involved when the agencies determined whether OUs were RCRA or CERCLA past-practice units. Craig said he does not know the exact date, but this took place in the 1980s. John said some of these questions will be addressed in the public-involvement materials for the RCRA site-wide permit. John said any action taken under CERCLA authority may not be managed as a hazardous waste, for example, if a waste is dug up and transported it has to be consistent with the Environmental Restoration Disposal Facility (ERDF) waste acceptance criteria (WAC), which is compliant with RCRA. Craig said there is also the radionuclide aspect. Since radionuclides are covered under CERCLA, there is appeal for DOE and Ecology to do a CAD ROD so everything is covered.
- Gerry Pollet suggested next-step examples that would be helpful for the committee, such as understanding the difference between closing single-shell tanks (SSTs) under CERCLA versus RCRA. He said there is a huge difference between the two and, although the goal for both is to protect human health and the environment, Washington State has chosen to set the goal of protecting human health and the environment at a more stringent level than CERCLA. Gerry commented that this difference applies when doing any CERCLA action where the risk level is more protective than RCRA. John said Gerry noted an important point: that MTCA, the state cleanup law, is more stringent than CERCLA in terms of how it deals with hazardous materials. He said the state cleanup law is more stringent because it is brought into Hanford cleanup through ARAR. The key difference is that the CERCLA goal for carcinogens is to clean them up so the excess risk is in the range of one in 10,000 to one in 1 million. The state law's goal is one in 100,000 for overall

and one in 1,000,000 for individual chemicals. John said because the state's requirement is more stringent it is used for everything other than radionuclides.

- Gerry said it would also be helpful to address a real-life example of ERDF versus the integrated disposal facility (IDF) or a new landfill, and how the processes would differ if there was a CERCLA landfill versus RCRA permitting for a landfill and closure plan. He suggested these and other examples be addressed in broader future discussions. Regarding landfills, John said the subject of overall risk from the Hanford site is important, and individual decisions are protective of human health and the environment. Technetium-99 is a key contaminant at Hanford and has been disposed of at many locations, including ERDF and IDF, which have overall limits for the quantity that can be disposed there. He said one concern is what happens to technetium-99, including secondary waste that comes off of the waste treatment facility. Gerry said under RCRA site-wide actions must be considered, so a permit condition can be set under RCRA that may be several times more stringent than under CERCLA. John said it is important to be careful about radionuclides, but the AEA says that RCRA cannot interfere with AEA management of radioactive facilities. Gerry said the Federal Facilities Compliance Act (FFCA) says if it is mixed waste the state has a mandate to manage it under RCRA. John said public involvement for the site-wide permit and TC&WM EIS may address some of these questions in the future.
- Gerry suggested that the RAP look at closing SSTs and DOE's proposal to do a landfill closure under CERCLA, which unlike RCRA does not require cleanup of soil to the extent practicable.
- Wade Riggsbee said there are many cases in which RCRA is not equivalent to CERCLA. He expressed concern about the trend of rolling RCRA into CERCLA, and that this practice will lead to the loss of activities such as public involvement, closure plans and more stringent controls. He said an important purpose of RCRA is to look at closure plans. Craig said he meant that the RCRA and CERCLA processes have the same goals for the RCRA facility investigation/corrective measures study (RFI/CMS) and RI/FS. Craig said the differences would require a more extensive discussion, but that his intent was not to say that these processes are the same. John said two key differences between RCRA and CERCLA are the exposure scenarios to set cleanup levels and the goal to clean-close units if possible. If there is a permitted hazardous waste unit, clean closure must be looked at first under RCRA, but if clean closure is not possible then the process ends up in the same place as CERCLA. He said the starting point under state law only looks at unrestricted exposure, but CERCLA does not start there because it is focused on a risk range. John said CERCLA can move in by bringing in ARAR requirements if it is not practicable to do clean closure.
- Sandra Lilligren asked who the three members of the CEQ are, and whether they are political appointees. Woody said they are political appointees who look at federal agencies' implementation across the complex and make many decisions at the Executive level. He said the CEQ is the mediator between discrepancies of federal agencies. Sandra asked whether the CEQ is a group that should be lobbied if the tribe has issues. Woody said if there are issues and the tribe does not think a federal agency is responding appropriately, it could lobby the CEQ.

- Sandra asked who at Hanford decides which ARARs are applied and when that decision is made. She said it is her understanding that not all ARARs have to be applied. John said for state requirements when a CERCLA FS comes before a ROD, the state has to identify the requirement that must be applied. EPA has the ability to waive ARARs, and has done this once. Gerry said one example of this is in the agency comments on the 100 Area RI/FS, which state that it does not meet the ARARs. John said this is a preliminary list, but the agencies must state this in the feasibility plan.
- Maynard asked whether Ecology and EPA could proceed with their legal staff to make today's PowerPoint presentation available to the RAP. John and Craig said they would work on this.
- Maynard asked when the decision for Ecology to deal with RCRA and EPA to deal with CERCLA was made. Craig said there are radionuclides on the NPL and there is precedent for cleaning these up under CERCLA. He said EPA has authorized the State to implement the RCRA program in Washington in lieu of the federal RCRA program. EPA shares some of the CERCLA activities with Ecology due to the priority of the funding and EPA's need for help from Ecology to get through all of the CERCLA work at Hanford. Maynard said he recalls a concern from DOE about which regulatory agency to consult about CERCLA and RCRA, and that after some discussion a decision was made to split them up by CERCLA and RCRA so DOE did not consult with both agencies on both requirements. John said this is correct, and there is more history, including some litigation. Maynard said he thinks this led to an effective operating system and a clear differentiation between those agencies. John said with Hanford cleanup, DOE, EPA and Ecology must agree on the actions taken. These organizations spend a great deal of time discussing workload sharing, but ultimately all of their interests have to be satisfied.
- Dick Smith expressed concern that there has been a lack of public participation in the early phases of the FS work. He said DOE and its contractors select a set of alternatives to examine and by the time the public sees the proposed plan it has been determined what alternatives will be considered. Dick said he thinks it would be helpful for the public to be involved in this process earlier to ensure the best set of alternatives is chosen. Craig said EPA hopes to do a better job on engaging the public early. He recently attended a conference on public involvement and environmental justice. He said in some instances this information has gone to the RAP and other groups, if not the full public. Craig noted that CERCLA does not always require cleaning a site to pristine conditions, but it requires that it meets threshold criteria and goes through public comment. Craig said there are situations in which it is a choice of where the cleanup funding will go, especially for EPA. John said there are specific and general requirements for public involvement. The general requirement under CERCLA is to have appropriate public involvement, so the agencies could accommodate requests for more public involvement or information.
- Pam said the CERCLA criteria include community acceptance, and for the Moses Lake situation the city did not feel it was able to look at all of the options being considered. She said defining who the community is can be difficult.

- Pam asked whether EPA gives the state RCRA authority. Craig said EPA can delegate federal programs to the state, including RCRA. He said Dave Bartus, EPA, is assigned to tracking how RCRA is being implemented through the state with regard to tank farm activities. John said Ecology has a performance partnership agreement with EPA across the state.
- Pam said under the NEPA EIS process it is required that a range of alternatives be considered but it is not required that the best alternative (least impacting) is chosen. She asked whether this is also true for SEPA. John said he is not clear on this, but ultimately the agencies have to look at everything to choose an alternative. Gerry said under SEPA Ecology has a substantive duty to impose conditions that would make selected alternatives acceptable to the State (“substantive SEPA authority”)Dale commented that it was noted that CERCLA only deals with cleanup, but NRDA is also an aspect of CERCLA and focuses on restoration first. Craig said he thinks there are legal implications that require identifying which resources will be affected through the NEPA process.
- Emmett Moore noted that the term ROD is used in two places – at the end of an EIS and at the end of the CERCLA RI/FS process, and these have different meanings. He said the context usually makes clear which endpoint is meant.
- Gerry suggested that the full Board have an expanded tutorial on these topics in November before looking at the TC&WM EIS and RCRA site-wide permit. He said this should include looking at examples, including SSTs and landfills, which will be central issues for the EIS and RCRA permit. He suggested creating a chart showing the topics for the EIS and RCRA permit that need to be explored, including the expectations under each regulatory authority and whether it is public involvement, a closure plan or cumulative impacts.
- Maynard said it would be helpful if IMs from the Tank Waste Committee (TWC) and RAP discuss framing questions. He said plenty of time for discussion and interaction should be allowed for this topic at the Hanford Advisory Board (HAB or Board) meeting.
- Emmett, Pam, Gerry, Dale and Bob were identified as issue managers.
- Susan H. will work with TWC and Public Involvement Committee (PIC) members to determine IMs and facilitate a discussion of framing questions.
- Susan Leckband encouraged IMs to remember that this is a policy issue and that it will be most helpful to determine the policy perspective.
- The committee will follow up on differentiating between closure under RCRA and CERCLA and looking at the CERCLA landfill permitting process versus RCRA.

Hanford Natural Resources Trustee Council (NRTC)

Paul Shaffer, NRTC and Oregon Department of Energy (ODOE), provided a briefing on the NRTC. Paul contacted Maynard and suggested the RAP have a briefing on the role of

the NRTC in order to educate the committee and look for ways to improve communication.

Paul said it is important to understand NRTC and NRDA. He said the goal of having a quick, cost-effective cleanup of Hanford is consistent between the HAB and the trustees. While the HAB looks at policy issues, the NRTC was established in 1993 and has a legal authority and mandate from CERCLA. Paul said the only requirement the NRTC has is to do a NRDA. In the case of Hanford, DOE has asked for technical advice on plans and to discuss NRDA implications, but Paul said this is not required by CERCLA. Trustees are governments, defined by CERCLA, that act to protect the public interest and make the public whole for injuries to natural resources caused by the release of hazardous substances that are under the trustee agency's management, ownership or control. Paul said trustees do not deal with structures, economic effects, management issues or effects to people, unless that effect is from contact with natural resources.

Paul reviewed who the NRTC includes. Trusteeship is limited to groups identified in CERCLA, and can include states, tribes and federal agencies. Trustees must have a relationship to potential injury and have a non-discretionary responsibility to act. Paul said individuals, businesses, local governments and interest groups are not trustees. The trustee role is typically delegated to someone in a natural resource agency. Paul said the state can delegate the authority to local government, but this is the only way local government can be involved. According to CERCLA, trustees are the only people who can bring action against a party under NRDA. Trustees at Hanford include the State of Oregon, State of Washington, U.S. DOE, U.S. Department of Commerce, U.S. Department of the Interior (DOI), Nez Perce Tribe, Confederated Tribes and Bands of the Yakama Nation, and Confederated Tribes of the Umatilla Indian Reservation. Paul said trustees can choose to act individually, but more commonly voluntarily form a council and act as one body, which allows trustees to pool resources, expertise and funding.

Paul reviewed the history of the Hanford NRTC. The council formed in 1993 and is organized by a Memorandum of Agreement (MOA), operating by consensus. In 2007 DOE and other federal trustees agreed to start the NRDA injury-assessment process. Paul said funding for NRDA was included in the DOE-RL base budget request starting in fiscal year (FY) 2010. NRDA is a procedure established by CERCLA for the purpose of restoring natural resources injured by the release of hazardous substances.

Paul said CERCLA identifies resources and trustees and establishes a general process for NRDA, although DOI and the National Oceanographic and Atmospheric Administration (NOAA) define more specific regulations. CERCLA establishes a legal process to reach consent, decree or legal trial. A natural resource is defined as land, wildlife, biota, air, groundwater, drinking water supplies, and other resources belonging to, managed by, held in trust by, or otherwise controlled by the United States or any state, local government or Indian tribe. DOI regulations define injury as a measurable, adverse change in the chemical or physical quality or the viability of a natural resource. NOAA regulations state the injury also includes impairment in the services provided by a natural resource.

Paul said a scientific technical process that demonstrates adverse change is needed to demonstrate injury. For water or substances with numeric criteria, this could be demonstrated by the violation of criteria such as a water-quality standard. The loss of service is also an injury. Paul said if there is a contaminant in water the water would be an injured resource, but if this adversely affects a fish then that fish is also an injured resource, if people can no longer use a resource then it would be a service loss. Injury results from harm to a resource, including service loss, while damage refers to the monetized value of the injury, or the cost to restore or replace the resource. Paul said trustees are typically not interested in the dollar amount when looking at restoring resources.

Paul reviewed the goal of NRDA, which is to restore, replace or acquire an equivalent resource. Restoration refers to restoring resource to the baseline condition, or the level before the physical, chemical and/or biological condition that would have been provided without the release of a hazardous substance. Paul said resources may be restored to a higher level than the baseline as compensation for service loss. NRDA is a legal process that can be collaborative or adversarial. Paul said at Hanford it is a collaborative process. The four steps to the assessment process are a preliminary assessment screen, injury determination, injury quantification and damage determination. Restoration is conducted to offset any determined damages. CERCLA was not specific about when NRDA should be done, but previous DOE and EPA guidance recommended that NRDA be concurrent with cleanup to save time and lifecycle costs. Paul said there are parallels between the RI/FS and NRDA processes, and it makes technical and logistical sense to do these together.

Paul said injured resources and the associated loss of services, as well as injuries resulting from response actions are included in the determination of injuries. Since CERCLA was enacted in 1980, injuries that occurred before 1980 are excluded. Additional exclusions are injuries from a federally permitted release and injuries previously identified as an irreversible and irretrievable commitment of resources in an approved EIS. Paul said injury and damage are computed as resource and service years, so the damage accumulates with time. ICs result in a continuing injury and loss of services, so there is a potential for accumulation. Primary restoration to restore or replace the injured resource, compensatory restoration for loss of services, and reasonable costs of assessment can be included in the damage determination.

Paul reviewed the status of NRDA at Hanford. In 2007, DOE and other federal trustees agreed to proceed with the assessment process and two pre-assessment screens were completed. Paul said the first phase of the process was to develop an overall Injury Assessment Plan, which was completed in June and scoped studies needed to fill data gaps. Paul said even if cleanup is done correctly, that does not resolve the injury and additional remediation may be required. He said trustees recognize the importance of starting the NRDA process and are moving ahead with the injury assessment. The trustees are also discussing ways to expedite restoration with DOE. Paul said the trustees

are hoping to work more effectively with HAB and other Hanford stakeholders, and he thinks improving communication will result in the best long-term outcomes for the site.

Agency Perspectives

- Craig said EPA does not have any comments and is just looking at upcoming activities. Paul said EPA and the regulatory side of Ecology do not have a formal role with NRTC, but the trustees do engage with regulators at meetings to hear their perspectives.
- Rick Bond, Ecology, said Larry Goldstein is the contact at Ecology who could comment on the NRTC.
- Dane Swanberg, Science Applications International Corporation (SAIC), clarified that if there are damages they would be settled by the federal government, and not DOE. He said DOE is the agency cleaning up the site but is not the principally responsible party.

Committee Discussion

- Doug Mercer asked Paul to send him a copy of the NRTC materials. Paul said he would provide this, and provided his e-mail address to Doug: Paul.Shaffer@state.or.us.
- Susan asked why the public and interest groups, who have a connection to a potential injury, are not included as trustees. Paul said if an individual was injured they would pursue an action, but the trustee must have a relationship to the natural resource that was injured. There must be a direct connection from the release to the effect on the trustee resources.
- Pam asked if the Wanapum Tribe was asked whether they wanted to be included in the NRTC. Paul said they are not a confederated tribe but their interests are represented through other confederated tribes.
- Sandra asked if, when money is awarded, it is specifically defined what it may be used for. Paul said this is correct. The money has to be used for restoration and related purposes such as monitoring or management.
- Pam asked whether funding that is awarded can be used for ICs. Paul said the trustees would not use it for ICs, since this would constitute remediation rather than restoration. He said the trustees would prefer not to have ICs since they represent continuing injury or continuing service loss.
- Doug said he understood that with NRDA resources cannot be replaced and the compensation must be invested in the same geographic location where the damages occurred. Paul said this is correct to the extent possible, but sometimes it is not possible. He said it is ideal to do the compensation for service losses on site, but for compensation of service losses or acquiring an equivalent resource it is sometimes necessary to go offsite. The trustees would like to do this as close as possible geographically so there is a relationship to the resources that were injured.

- Doug asked about joint liability for injuries to aquatic resources, specifically the river. He said there may be multiple parties responsible for those injuries besides Hanford, such as agricultural runoff, and asked how NRDA determines damages that may be difficult to sort by source terms. Paul said in some cases a CERCLA site will have multiple PRPs, and agricultural parties could be added as PRPs. The trustees will also do a set of injury studies to look at what injuries occurred and identify sources.
- Pam said she has attended a number of meetings to observe this discussion and noted that it is a statistical conversation that seems to be numerical rather than conceptual. Paul said this is correct, and if it were an adversarial process like those at other sites it would be intensely numerical. He said this is a valid reason for keeping away from dollars in a settlement. Pam commented that without the statistical knowledge it is difficult for the committee to understand NRDA issues. Paul said this is a good point, but the trustees hope to interact with the HAB on a higher level to look at broader issues.
- Pam said the NRDA costs a great deal of money and, in addition to what the trustees requested, the tribes asked for \$400,000 apiece. She asked whether the analysis is duplicative. Paul said it is not duplicative. There is a tremendous amount of work, and the trustees have six technical working groups (TWGs). He said the work parallels the RI/FS process, and is in some ways more difficult and costly. Pam said she asked about this issue because of the HAB request for technical assistance money.
- Dale emphasized the value of bringing NRDA into the process early, since many of the decisions being made will be important later in the process. He said when there is a decision to cap a site there is an additional cost that must be considered.
- Dale asked how this process, which comes from CERCLA, applies to areas identified as RCRA. Paul said the NRTC and NRDA are limited to CERCLA. Dale commented that tank waste is identified as RCRA, and this seems to be an issue.
- Wade asked how the trustees can undertake restoration projects without a baseline and with characterization that is incomplete. Paul said restoration projects take place where sites are clean. If a site is not clean and the trustees do not know its status then they would not begin work. He said it is possible to start activities such as restoring native plants or working on Lock Island, which is slowly eroding. The trustees have discussed stabilizing Lock Island with DOE, and DOE could get credits for service losses for this work. Similarly, Paul said DOE preserved 183-F Clearwell because it is the largest bat colony in Washington. Since this improved the status of a natural resource, Paul said DOE will likely be given some credits for service losses, rather than primary restoration. Wade commented that Lock Island is a cultural resource.
- Sandra said the TWGs will take at least half of her working time, and her program needs at least two additional full time employees to handle the NRDA workload. Regarding Pam's inquiry about technical assistance funds, Sandra commented that the HAB committees should continue to ask NRTC for status updates and use others involved in NRDA as technical support.
- Maynard asked whether a local government could be a trustee if it was in a position of having management control over an area. Paul said CERCLA designates states,

tribes and federal agencies as trustees, so local governments do not have the direct ability to be a trustee. It is possible that the state could designate a local government to share the trustee resource of the state or the state could completely delegate an area to a local government.

- Maynard said there are assumptions that if Hanford did not exist, the area would be irrigated farmland. He asked whether this is considered as a loss of services. Paul said this possibility has been raised and is a question. He said he does not think other potential uses for the area can be assumed, but this is a policy and legal issue that will be decided.
- Dick asked who is responsible for paying for restoration, if not DOE. Paul said the U.S. government is responsible and the Department of Justice (DOJ) will be engaged in settlement negotiations. This is included in the President's Budget and the money will likely go through DOE. Harold asked whether there is a similar process at Umatilla. Paul said he is not aware of a similar process, but if there is one Oregon would be responsible for this.
- Harold Heacock asked whether trustees plan to be involved in future land use or site utilization. Paul said as a group decision everything goes through the damage assessment, but individual governments may be engaged.
- Doug asked about the potential conflict of DOE being a trustee and also a PRP within the trustees, especially given the RCRA and cleanup tradeoff. Paul said this relationship has improved during the last couple of years.
- Doug asked the differences between Type A and Type B in the assessment phase. Paul said Hanford is Type B, and Type A is for incidents such as an oil spill.
- Doug asked how it is resolved if resources are worth different amounts to different groups. Paul said the valuation for service losses is a challenge. There is no duplication, so a fisherman and a tribal member cannot value a loss differently.
- Maynard suggested that it would be helpful for the Board to have background on the NRTC. Bob said the presentation would fit in well with the discussion of LTS and ICs, because the damage assessment would add to the cost of these. Susan suggested that at the briefing for the full Board it should be clear that the HAB will never be a trustee and the presentation is just to provide an understanding of what the organization is responsible for.

Updates: ZP-1; UP-1; PW-1, 3, 6; CW-5

Emy Laija, EPA, provided updates on PW-1, 3, and 6 as well as CW-5. She stated that EPA is pleased DOE agreed to proceed with work on these sites instead of including them in the CP discussion, which is taking more time. For PW-1, 3, and 6, a draft re-issue of the FS was completed and redlines will be submitted to EPA by September 14. EPA hopes to revise the FS for CW-5 as well, with the goal of completing the final FS for CW-5 by January 2010. Emy said once the final versions of the FSs are completed, the final ROD should be released by September 2010. A joint proposed plan for both units

will be released for public comment. Since the OUs will be looked at together, a single ROD will be completed for PW 1, 3, and 6 and CW-5.

Emy gave an update on ZP-1 and UP-1. EPA is still in the process of drilling the first nine wells for ZP-1, which was approved in the Sampling Analysis Plan (SAP). The final end date is to have the pump-and-treat system at ZP-1 completed by December 2011. EPA expects to receive the final RA design report in May of 2010. Emy said EPA has received 30 percent design status and does not have any concerns with the progress of ZP-1. EPA has discussed amending the ZP-1 ROD to include UP-1, but Emy said that has not yet happened and there is an interim ROD for UP-1. These changes were due to the establishment of a maximum concentration level for uranium, and Emy said EPA expects to deal with this contaminant at the ZP-1 pump-and-treat system. A work plan was released on August 19, and Draft A of the RI/FS is expected to be to Ecology by June 2010. Emy said the end goal is to have the final RI/FS and draft proposed plan for UP-1 out by November 2010. Zelma Jackson is the Ecology lead for UP-1.

Agency Perspectives

- Arlene Tortoso, DOE-RL, said DOE is moving forward on the FS for PW-1, 3 and 6, which will likely be released earlier than the CW-5 FS. DOE expects to have Revision 0 of the FS completed by October, and Arlene said once the two FSs are released DOE will begin work on the proposed plan and combined proposed plan for the C-Ditch Area, followed by a public comment period and hopefully a ROD.
- Arlene said for ZP-1 the remedial design/remedial action (RD/RA) work plan has been finalized and Revision 0 was approved by EPA. A 60-percent design review on the new pump-and-treat facility was recently completed, and DOE is working on a ROD amendment for UP-1. She said this document will be released in April and a proposed plan will be completed shortly after that.

Committee Discussion

- Gerry asked the contents of PW-1, 3 and 6 and CW-5. Emy said there are three OUs in PW-1, 3, and 6, with a total of 17 waste sites. PW-1 received effluent waste from Z-Plant and contains high salt acquiesced waste. PW-3 received waste from Purex operations and contains neutral-to low-salt acquiesced waste and cesium-137. PW-6 received waste from the Plutonium Finishing Plant (PFP) complex and has neutral-to low-salt waste that contains plutonium in those sites. Gerry clarified that these are the waste sites that show large quantities of plutonium. Arlene said the PW-1 waste sites were carbon tetrachloride and PFP waste sites.
- Pam commented that this is an area where the HAB would be interested in look at the range of alternatives. The Board has expressed a desire for PW-1, 3 and 6 to have significant removal action, and asked for the status of this. Emy said EPA is still discussing this with DOE. There is a letter from EPA in the administrative record that states that EPA wants plutonium to be removed, but the extent and depth of this is an ongoing discussion. Pam asked whether there is an opportunity for the Board to have further conversation on this issue. Arlene said DOE can take this into consideration.

She said DOE has presented PW-1, 3 and 6 and the options have not changed dramatically except for incorporating changes based on received comments. Gerry said the scope of the investigation is an issue and a characterization discussion has not taken place. He said the Board's budget advice includes that in-depth characterization is not funded, and suggested that more discussion on characterization and public review is necessary.

- Pam asked when the RAP should request a briefing with more information on PW-1, 3 and 6 and CW-5. Arlene said she can ask management. Paula said there will be a public involvement process for the draft proposed plan, but DOE has been working to keep stakeholders engaged and informed. Emy said public involvement would take place in April or May of 2010.
- Susan L. said many Board members are concerned about the quantity of characterization, and this has been included in multiple pieces of advice. She asked whether the FS or proposed plan identifies the amount of characterization expected to be performed. Arlene said the RI has been completed and approved by EPA, so that document should include the characterization and data for those waste sites. Susan asked whether this means EPA approves of this. Emy said EPA is ready to move forward with making a decision based on the information.
- Pam asked what CW-5 contains. Craig said CW-5 now includes much of the Z-Ditches, a series of parallel somewhat overlapping ditches from east of PFP to Yukon. Emy said those sites received waste such as equipment and steam condensate liquid waste streams from PFP. Craig said he still has the project for CW-5 which had low concentrations of effluent waste. He said the ditches have plutonium and americium as the main contaminants and nothing below 20 feet, so the preferred alternative is to remove all of their contents. Craig said it is believed that most of this can be done at ERDF, but there may have to be controls due to the alpha aspects of the materials. Emy said she would be happy to speak to Shelley Cimon, the HAB IM, about these sites.
- Bob said the IM meeting on the CP was eye-opening on the sites in the Outer Area. He said it appears there is a chart or legend that displays these waste sites and areas that are lumped into each one, and it would be helpful to have this as well as a schedule for all of these documents. Pam said the IMs learned that the seventh ROD is no longer being considered. Bob said each one would be a ROD, and it would be nice to have a schedule for these.
- Pam said it would be helpful to determine whether there is an opportunity for RAP to receive an update before the draft RI/FS is complete. Paula suggested that this could be included with the CP Strategy agenda item on the committee's October agenda. She noted that the deliverable date for the strategy document is now the end of September, so presenting on it at the beginning of October may be difficult. She suggested including a brief overview on the October agenda and a full briefing in November. Bob said it would be useful to have a schedule at this briefing. Paula said she thinks a tentative timeline will be part of DOE's strategy document that is due at the end of September.

- Susan H. will follow up on the briefing opportunity for PW-1, 3, and 6 and CW-5 and on obtaining a legend of waste sites and the schedule for the RI/FS.

Proposal to Construct a New Limited Purpose Landfill

Kevin Leary, DOE-RL, presented a plan to create a new on-site landfill northeast of U-Plant, which would be restricted to on-site, clean, conventional construction and demolition debris. Kevin said there is currently no regulatory path for clean debris to go to ERDF. Clean debris has historically been shipped off-site to the Roosevelt, Washington regional landfill. He said an on-site landfill would save transportation costs. Additionally, if radiological material is ever found at Roosevelt, the site would be liable even if it was not from Hanford. Kevin said that with American Reinvestment and Recovery Act (ARRA) funding it seems like a good time to address this issue. He said the landfill has not been decided on, and the purpose of his presentation was to introduce the concept and obtain feedback from RAP.

Kevin provided an overview of a limited-purpose landfill. He said the landfill would be restricted to disposal of conventional construction and demolition debris and would only permit non-hazardous, non-radiological dry waste materials and debris such as wood, glass, paper, concrete and bricks from activities such as construction, demolition, segregated industrial solid waste and land clearing. Kevin said there has been concern that the landfill will take off-site debris. Kevin said it will not take off-site debris and all of the material must comply with Washington Administrative Code 173-350-400.

Kevin reviewed key compliance requirements for limited purpose landfills. The design standards must be approved by regulatory agencies, and operational standards such as inspections, approved waste types, record-keeping and reporting, and monitoring must be in place. Kevin said he would like the process to be auditable so it is clear that only clean debris is being disposed. Closure requirements including a final cover and monitoring system and post-closure requirements such as maintenance and monitoring are additional compliance requirements.

Kevin said the limited-purpose landfill is needed at Hanford because the site will continue to generate on-site, non-radioactive, non-hazardous as structures are demolished. Waste is currently routinely shipped to Roosevelt, which is approximately 110 miles away, and he said it is more economical to dispose of these materials on-site. Kevin said there is a higher potential risk for subsidence in ERDF resulting from demolition waste disposal, and a higher consequential risk compared to disposal in a limited-purpose landfill. Demolition debris is currently not disposed of at ERDF because ERDF is designed to take low-level waste (LLW) and mixed low-level waste (MLLW) rather than clean debris, it may require an ERDF ROD amendment to begin disposing of clean debris, and buildings need CERCLA or RCRA documentation for ERDF disposal.

The proposed limited-purpose landfill would be restricted to on-site clean demolition debris, and a screening process would require regulatory approval, would be transparent

and would be auditable. Kevin said DOE is looking at an unlined landfill, but that would have to go through regulatory approval. He said this would have a positive impact on carbon footprint reduction at Hanford for a potential savings of more than 3,300,000 miles and a resulting direct fuel savings of \$2,000,000. Kevin said a cover would be needed for the landfill and DOE is looking at a large barrier that will go on other landfills, but has not yet decided whether to include a limited-purpose landfill in the EA with the other landfill. The debris would be covered daily, and he said he envisions the landfill being open on an as-needed basis.

The total capacity of the landfill is estimated at 154,000 cubic yards. A 2004 study projected that Hanford-wide volume will average 5,000 cubic yards per year exclusively from non-hazardous aboveground building demolition activities. Kevin said it would cost approximately \$55 a ton to dispose of this at a current on-site facility such as ERDF, because current disposal practices would need to be modified. The limited-purpose landfill is proposed to be located at a site northeast of 221-U Plant that is currently being used for burning tumbleweeds and limited borrow material. The site is already excavated to 20 feet. Kevin said there is a possibility that additional monitoring wells would need to be installed in the area.

The landfill is proposed to be operational within two years and projected to close in 2035. Kevin said DOE is proposing to use ARRA funding to move the project forward and use the current groundwater monitoring system that is at the site. The site consists of four Waste Isolation Division (WID) sites: the 200-W ash disposal basin, the 200-W ash pit demolition site, the 200-W burning pit and the UPR-200-W-70. Kevin said these WIDs would be remediated. The path forward for the project is to incorporate HAB ideas early in the decision process, conduct a value engineering study, prepare an EA, address the remaining WIDs sites per the TPA requirement, conduct a public comment process, make a decision, then implement the project.

Regulator Perspectives

- Craig said he does not think disposing non-radioactive, non-hazardous waste at ERDF would require a ROD amendment.
- Craig said there is a provision in the ROD for U-Plant to be able to put an inert level and screen in it to be used as fill. He asked why this material would not be used. Kevin said that is a good solution. Buildings will be undergoing decontamination and decommissioning (D&D) until 2035, and if it can be used for part of the materials that would work well.
- John said Ecology is not completely in favor of the value engineering study because it would like to look at alternatives such as U-Plant and ERDF before starting a new waste site. Ecology would like to see the numbers and know whether this material could be disposed of in ERDF before building a new waste site.

Committee Discussion

- Maynard asked whether the tumbleweeds at the proposed location are contaminated. Kevin said they are not, but DOE may run the tumbleweed through a chipper and dispose of them at the site if the landfill is approved, rather than burning them.
- Dick asked why the landfill would need to be monitored if it is non-hazardous. Kevin said monitoring will need to be resolved with the regulators.
- Wade said this site used to be used for disposal of shock-sensitive chemicals. He said there is a need to do the value engineering study to determine the costs, since the fee may be as much as the \$55 fee for disposal in other on-site facilities. Kevin said the fee could be less. Wade said there is already construction debris going in ERDF so the cost will be based on what is going in there and the additional cost of monitoring. Kevin said he thinks there should be a monitoring network to demonstrate to the public that it is nebulous, but this is something that will be resolved with the regulators.
- Sandra said she did not get a good sense of the cost of the landfill, besides the gross savings, and she would like to see that.
- Sandra said if one of the primary reasons for considering the limited-purpose landfill rather than disposal at Roosevelt is the potential liability of contamination, then that carries to this site and she would like to see a liner and monitoring.
- Harold said it makes sense to bury the clean material on site rather than hauling it to Roosevelt. He asked whether clean structural steel is recycled for scrap. Kevin said he does not think it is recycled due to liability issues, and this is DOE's decision for the entire complex. He said since some will be left in place and bio-barriers will be needed, one option is to use some of the concrete as a bio-barrier.
- Gerry expressed concern that if one reason for building the landfill is to avoid liability for disposing of a material not under the acceptance criteria, then a leachate collection and monitoring system is needed for this landfill.
- Gerry said he understood that Ecology's policy is to discourage the use of landfills statewide. Rick said he is not sure about this as a policy, but he knows it is a concern. Kevin said there is a provision in the regulation to waive that for a limited-purpose landfill.
- Gerry said he is concerned that the limited-purpose landfill is not in the upcoming TC&WM EIS, which is supposed to cover all solid waste on site. He said he was told that U-Plant debris would be included in the EIS. Kevin said the landfill concept was accelerated by ARRA funding and this is why DOE would do an EA. He said he believes this are covered in the EIS but it is not releasable yet. Gerry said it needs to be in the TC&WM EIS and a separate EA is not adequate.
- Gerry said he would like to know DOE's policy of having another unlined landfill. Kevin said most places are disposing of LLW and MLLW, and the general policy is to have a liner for landfills. He said this is a unique case in which there are many buildings on site that are clean. Gerry said the definition of clean may be problematic, as some clean buildings have been found to contain beryllium. Kevin said the screening criteria for this will be worked out with the regulators with input from the public.

- Dick said he is not enthusiastic about the proposal to dispose of clean debris in a dirty environment. Kevin said Craig was referring to material external to the canyon, so it would be clean fill from the slope outside of the canyon.
- Dick asked whether the non-radioactive dangerous waste landfill and solid-waste landfill that Kevin mentioned currently exist. Kevin said they are no longer being used and are in closure status. These landfills are already filled with operational caps.
- Pam said she thinks this is an excellent suggestion and taking clean debris to Roosevelt does not make sense. She said this is a unique opportunity to deal with this material in the long term, and as long as it is being done safely and an appropriate process is completed then she thinks DOE is going in the right direction.
- Maynard asked for clarification on the concern about the liability from Roosevelt. He asked whether this liability referred to a scenario in which DOE could be blamed for suspect material at Roosevelt even if DOE is not the guilty party.. Kevin said this is correct.
- Gene Van Liew asked whether DOE has done a study to see how many years Roosevelt can continue to take materials. Kevin said this is a good point and Roosevelt could be closed in a number of years.
- Dick said for value engineering work it seems reasonable to consider the relative cost for a clean landfill rather than dumping it in ERDF. If the debris is disposed of in ERDF it would eliminate questions about monitoring, so if the costs are comparative this needs to be examined. Kevin said he agrees, and there may be buildings that are partly clean and partly dirty, so the cost of doing the analysis may be more than the cost of this material going to ERDF. He said DOE will also have to look at the extra cost of spreading the material throughout ERDF due to the potential subsidence problem.
- Gerry asked whether DOE considered adding a debris cell to ERDF. Kevin said that has not been considered but would be difficult from a technical standpoint.
- Pam said she would like Kevin to brief the committee after the value engineering process is completed but before DOE reaches a decision point.
- Gerry suggested that since Kevin was hoping for input from the HAB, the meeting minutes could serve as a source of preliminary suggestions.

Committee Business

- Pam asked why the Settlement Agreement briefing was removed from the September RAP agenda. Susan H. said this was removed because there was a HAB briefing on the topic, and there may be a future Committee of the Whole (COTW) meeting on the agreement.
- Maynard said the IMs need to meet regarding framing the “Base Assumptions” workshop, and suggested this discussion could take place at the November RAP meeting, with a placeholder for a December COTW.

- Pam said there is activity at PFP, and the RAP has not been briefed on this for awhile. Gerry said DOE-HQ recently reviewed ARRA work plans, including PFP, which had corrective actions.
- The October RAP meeting will have a short briefing on the CP Strategy document, with a more robust conversation scheduled for November.
- The Hanford Framework is currently under public comment, which ends in mid-November. The HAB may issue advice on this, and it was suggested RAP coordinate this with PIC.
- Bob asked whether a new groundwater fact sheet would be released in October. Paula said she would check in the status of this.
- It was suggested that Kevin could potentially come back in March to brief the committee on the value engineering study for the limited-purpose landfill.
- Wade will follow up regarding contract incorporation, and whether the Pacific Northwest National Laboratory (PNNL) also does contract incorporation. Gerry said he hoped the Budgets and Contracts Committee (BCC) would not duplicate this effort. Wade will be the lead on this issue.
- The committee wishes to review ongoing work and future actions on pre-70 transuranic (TRU) waste remediation and trenches and their relationship to M-91. Craig clarified that this does not include PW-1, 3 and 6 or CW-5. Gerry suggested a presentation from Bob Alvarez, a Yakama Nation consultant who completed estimates on this.
- Pam suggested updating the RAP IM chart based on recent assignments.

BIN (as captured on flip chart notes by Susan H.)

1. Differentiate between closure under RCRA/CERCLA
2. CERCLA landfill permitting process vs. RCRA
3. ROD under NEPA/CERCLA – compare and contrast
4. NRDA Tech committees – Provide periodic updates to RAP on technical findings
5. Interest in alt development for PW-1,3,6/CW-5
6. Discussion/advice on characterization and public review

Action Items / Commitments

- Craig to send out “Superfund is fun” to Susan H. to distribute to the committee. Craig provided this to Susan, she will send by the end of the week.
- Susan H. to distribute slide 23 comparative slide to committee.
- Craig and John will check with EPA and Ecology’s legal staff members regarding the ability to release the NEPA/CERCLA/RCRA presentation. Susan H. will follow up.
- Susan H. will check on the next briefing opportunity for the committee on PW-1, 3 and 6.

- Susan H. will follow up regarding the legend of waste sites and schedule for RI/FS. Paula will work on this, potentially for the October RAP meeting.
- Rick will follow up with Susan H. regarding whether Ecology requires that landfills are lined.

Handouts

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

- Hanford Natural Resource Trustee Council: Who are we? What is NRDA?, Paul Shaffer, September 9, 2009.
- Setting NRDA Claims by Appropriately Valuing Injury and Damages, Suzanne C. Lacampagne and Jeffrey C. Miller, Summer 2009.
- Conceptual Plans for Hanford Site Limited Purpose Landfill, Kevin Leary, September 9, 2009.

Attendees

HAB Members and Alternates

Dale Engstrom	Doug Mercer (by phone)	Wade Riggsbee
Harold Heacock	Emmett Moore	Dick Smith
Pam Larsen	Maynard Plahuta	Bob Suyama
Susan Leckband	Gerry Pollet	Gene Van Liew
Sandra Lilligren		

Others

Paula Call, DOE-RL	Rick Bond, Ecology	Jim Butner, CHPRC
Kevin Leary, DOE-RL	John Price, Ecology	Janice Williams, CHPRC
Arlene Tortoso, DOE-RL	Craig Cameron, EPA	Barbara Harper, CTUIR
Woody Russell, DOE-ORP	Emy Laija, EPA	Susan Hayman, EnviroIssues
		Molly Jensen, EnviroIssues
		Barb Wise, MSA
		Paul Shaffer, Oregon/HNRTC
		Dave Swanberg, SAIC
		Annette Cary, Tri-City Herald
		Gary Petersen, TriDec
		Debra McBaugh, WDOH