

FINAL MEETING SUMMARY

HANFORD ADVISORY BOARD

February 2-3, 2006

Kennewick, 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.

Executive Summary

Board Action

The Board adopted one piece of advice regarding the Tank Closure and Waste Management Environmental Impact Statement (TC&WM EIS) scoping.

Tank Closure and Waste Management Environmental Impact Statement (TC&WM EIS)

Board members received an update from Mary Beth Burandt, Department of Energy-Office of River Protection (DOE-ORP) on the TC&WM EIS. The Board is concerned that the planned accelerated scoping process for the EIS will prevent sound public involvement. Shirley Olinger, DOE-ORP, said DOE would look into extending the scoping period. The advice was adopted.

The Hanford Solid Waste Settlement Agreement Congratulatory Letter

The Board created a letter to DOE and the Department of Ecology (Ecology) congratulating them on the Hanford Solid Waste Settlement Agreement.

Agency Plans and Strategies for Public Involvement in 2006

Karen Lutz, DOE-Richland Operations Office (DOE-RL), presented the agencies' strategy for public involvement in 2006. The agencies would like to re-design the format of the State of the Site and other meetings to focus more on one-on-one dialogue opportunities between agency staff and the public. The Board requested that the new strategy include pertinent budget and priority information and that any forum emphasize accountability.

2005 Annual Report and Board Self-Evaluation

The 2005 Annual Report was distributed. Board members completed self-evaluation forms; the results were compiled and can be viewed at the next Board meeting. The Executive Issues Committee will review the forms and discuss the results at the Leadership Retreat in May.

2006 Board Priority #1: The Board's Values for Prioritization of Cleanup Work

The Board was broken into groups to brainstorm criteria for use in making decisions about setting priorities. Results of the discussion will be used as the basis for continuing work on prioritization.

Tutorial on Historical and Current Programs for Workplace and Worker Monitoring, Environmental Monitoring, and Worker Health Screening and Compensation

The Health, Safety and Environmental Protection (HSEP) committee arranged an afternoon of expert presentations on the history of workplace monitoring, current workplace and environmental monitoring programs, current worker health screening and monitoring, and worker health compensation programs.

Public Comment

Steve and Virginia Wallace, Gai Oglesbee, Fay Vliger, and Mabel Velajo offered public comment.

Board Business

Possible topics for the next Board meeting include: scoping for the TC&WM EIS, bulk vitrification, the budget, and a Board Speakers Bureau.

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Todd Martin, Citizens for a Clean Eastern Washington (Regional Environmental/Citizen Organizations) Chair, called the meeting of the Hanford Advisory Board (HAB or Board) to order. The meeting was open to the public and offered ongoing opportunities for public comment.

Board members in attendance are listed at the end of this summary, as are members of the public. Three seats were not represented: City of West Richland (Local Government), Oregon Hanford Cleanup Board (State of Oregon), and one Public-at-Large seat.

Welcome and Introductions

Ed Aromi from CH2MHill Hanford Group (CHG) has accepted a new position; Mark Spears will be taking his place.

Doug Frost was introduced to the Board; he is the Designated Federal Official for the Environmental Management Site Specific Advisory Board. Doug is taking over from Sandra Waisley.

The U.S. Department of Energy-Richland Operations Office (DOE-RL) has designated Dave Brockman as their Deputy Designated Federal Official (DDFO) and the U.S. Department of Energy-Office of River Protection (DOE-ORP) has appointed Shirley Olinger as their DDFO. Dave and Shirley will be “co-chairs” for the Board.

Jane Hedges is the new Washington State Department of Ecology (Ecology) Nuclear Waste Program Manager, replacing Mike Wilson.

Madeleine Brown, a former HAB member representing the Washington League of Women Voters, is now an Ecology Environmental Education Outreach Specialist.

An article entitled “Hanford 100 Area – The Influence of Expressed Stakeholder Values on Remediation Decisions” was published in the Federal Facilities Environmental Journal by Tim Takaro and John Abbots. It outlines how the Board has given input to the Tri-Party Agreement (TPA) agencies and influenced 100 Area decision-making. Copies were available at the meeting.

Betty Tabbutt, Washington League of Women Voters (Regional Environmental/Citizen) announced a guide to state, local, and tribal government designed for 7th grade classrooms, and requested members make the project known to educational institutions and professionals.

Lynn Lefkoff, EnviroIssues, announced the new EnviroIssues five-year HAB contract. Penny Mabie, EnviroIssues, will transition out of HAB facilitation when Cathy McCague, EnviroIssues, returns from maternity leave.

Tim Jarvis is a new Board member representing the Government Accountability Project (Hanford Work Force).

November Meeting Summary

The Board has yet to finalize the November meeting summary; Board members were asked to submit any changes soon so the summary can be finalized.

Tank Closure and Waste Management Environmental Impact Statement (TC&WM EIS)

Mary Beth Burandt, DOE-ORP, presented an overview of the recently combined Tank Closure and Waste Management Environmental Impact Statement (TC&WM EIS). On January 9th, DOE and Ecology signed the Hanford Solid Waste Settlement Agreement resolving the issues and errors surrounding the Solid Waste EIS. The Solid Waste EIS will now be rolled into the Tank Closure EIS; the TC&WM EIS is the result. Ecology was, and will continue to be, a cooperating agency. The Memorandum of Agreement (MOU) was updated to identify in more detail the role Ecology will play.

The Notice of Intent (NOI) for the TC&WM EIS was announced in the federal register today. Also, it was recently decided that the Fast Flux Test Facility (FFTF) would be included in the TC&WM EIS.

Jeff Lyon, Ecology, confirmed the good working relationship with DOE and expressed Ecology's hopes that the TC&WM EIS will be a cumulative EIS for the entire Hanford Site.

Board Discussion and Questions

Betty Tabbutt briefed the Board on the previous day's Public Involvement and Communication Committee (PIC) meeting regarding the TC&WM EIS scoping and public involvement. PIC is concerned about the short timeline for public notice and comment with no apparent justification. Draft advice was written to DOE and Ecology regarding an appropriate public involvement process. Public meetings are scheduled for February 21, 22, 23, and 28 in Hood River, Portland, Seattle, and Pasco. The committee is concerned because that is less than 3 weeks away, and right after the President's Day holiday. The end of the comment period is currently scheduled for March 6, which is not adequate for general public understanding and response, and is not enough time for the HAB to deliberate and issue advice. Another issue of concern from the committee was the wording of the newspaper advertisement, which the committee thought did not use strong enough or direct enough language to inform the public.

Greg deBruler, Columbia RiverKeeper (Regional Environmental/Citizen), said he is encouraged to see a comprehensive EIS, but he was very concerned about the timeline: The EIS will be very large, past mistakes need to not be repeated, and the public needs to be involved. Greg also hoped there was enough funding to do proper analysis and scoping. Ken Niles, Oregon Department of Energy (State of Oregon), agreed and said it was not wise to strive for a deadline when the timeline is pinched from the beginning, and that deadlines become artificial if the EIS bogs down.

Rick Jansons, Non-Union, Non-Management Employees (Hanford Work Force), said the Tank Waste Committee (TWC) heard assurances from DOE-ORP that scoping comments and Board advice would be considered even if the scoping period had ended. Jim Trombold, Physicians for Social Responsibility (Local/Regional Public Health) also wanted assurance that previous comments would be considered.

Shirley Olinger responded that DOE-ORP shares those concerns and they will evaluate what needs to be done to extend the scoping period. She also said DOE needs to evaluate the potential impacts of moving the already-scheduled public hearings. Mary Beth said anyone who would like to resubmit comments may do so, even though the NOI says that previous comments will be considered. Mary Beth also said that DOE would most likely come back to the HAB and other groups for clarification about how their previous comments will operate within the new EIS. DOE will continue to communicate after the scoping period.

Paige Knight, Hanford Watch (Regional Environmental/Citizen) said that much of the EIS input will be on an individual basis and she would like to make sure there are public scoping hearings where attendants can hear all the comments, learn from each other, and build on each other's comments. She stressed that it is an important part of the public process. She also agreed with the rest of the Board that the scheduling was poor.

Norma Jean Germond, Public-at-Large, asked how comments will be incorporated if they are received after scoping ends on March 6. Mary Beth said that 15 days notice is required prior to a meeting, and that the end of scoping will be on March 6. The NOI said that comments received after March 6 will be taken into consideration "to the extent practical," meaning that comments received a year later probably will not make it into the production cycle. She also commented there needs to be more means of notification than just a postcard, as was suggested at the PIC meeting.

Pam Larsen, City of Richland (Local Government), said she was mortified to learn that DOE recently decided to include FFTF in the TC&WM EIS. FFTF is such a divisive issue, the Board has learned not to talk about it. She said the Board should say no to FFTF being included in the EIS.

Keith Klein, DOE-RL, said that DOE wants the EIS to be comprehensive, and FFTF needs to be considered one way or the other because it will generate waste. He said he appreciates the advice and comments on this, but to wait for further information from the scoping meetings.

Rob Davis, City of Pasco (Local Government), said that he was glad the settlement agreement had been negotiated, but he was disappointed that it had to happen in the first place. He also said we need to remember that people lost their jobs because of the lawsuit, and DOE needs to be more sincere and understanding and provide adequate time for public involvement.

Shelley Cimon, Public-at-Large, said that this really isn't a comprehensive EIS (e.g., Purex is not included), and she thinks it is folly to include FFTF at this point.

Harold Heacock, TRIDEC (Local Business), thought the advice was too much "how you should do it" rather than policy advice. He singled out instructions regarding the wording of the newspaper advertisement.

Paige agreed with Pam that to include FFTF in the TC&WM EIS is a mistake. She was concerned about delaying FFTF comments, fearing that it would be too late.

Tim Jarvis, Government Accountability Project (Hanford Work Force), stated his concern that there may not be any defensible groundwater data to use in the TC&WM EIS; the EIS has to meet Quality Assurance (QA) standards. Keith Klein clarified that the groundwater data itself was not flawed; it only appeared so because of how the data was organized. Todd requested the Board flag that issue for discussion during preparation of scoping comments.

There were questions about an FFTF EIS: Mike Weis, DOE-RL, said DOE was working on one, but there is no FFTF EIS currently. The Environmental Assessment (EA) is separate from what will be the FFTF EIS. There was an EA for FFTF shutdown in 1995. Now there is another EA for sodium residual removal that is currently out for public comment. There was preliminary work done at FFTF for the final disposition, but it was not completed.

The advice was adopted. The Board decided to attach a copy of the Board's Public Involvement White Paper to the advice for reference.

The Hanford Solid Waste Settlement Agreement Congratulatory Letter

The River and Plateau (RAP) committee and TWC had produced a letter congratulating DOE and Ecology on the settlement agreement. At the RAP committee meeting, Maynard Plahuta, Benton County (Local Government), said they wanted to commend DOE and Ecology on their progress. The Board debated on whether to write a letter of congratulations or to include the congratulations in the TC&WM EIS public involvement advice.

Board Discussion

Betty suggested the congratulatory letter be kept separate from the advice; others thought the letter and advice should be combined into one document.

Pam Larsen wanted to single out individuals at DOE-Headquarters (DOE-HQ) and thank them, especially since the Board is often critical of DOE-HQ. Todd proposed making the congratulatory letter more concise and adding DOE-HQ. Pam also advocated for thanking Ines Triay within the letter; however, the Board decided it was best not to single anyone out. Mike Weis said he would relay the personal thanks and Todd will also send a personal thank you letter to Ines, Mike Wilson, and Howard Gnann.

The Board decided to keep the settlement agreement congratulatory letter separate from the TC&WM EIS scoping and public process advice.

Agency Plans and Strategies for Public Involvement in 2006

Karen Lutz, DOE-RL, presented the agencies' Public Involvement Outreach/Activities Strategy for 2006. She thanked the Board for the presentation opportunity and spoke of working with the other agencies' staff with a renewed sense of public involvement opportunities for this year. She explained that DOE looked at last year's feedback and heard that there were limited opportunities for the Board and the general public to interact with TPA agency leadership; that meetings were not conducive to interactive dialogue; that more detailed budget information is needed; that challenges and issues along with successes need to be presented; that broader public outreach was desired; and that the public wanted a better feedback loop. DOE would like to see new meeting formats to encourage interactive dialogue. Karen said the strategy for this year is to provide multiple opportunities for broader outreach, and to use existing forums, such as Rotary Clubs. The State of the Site meetings will now be called Leadership Forums and DOE wants the Board to help identify new audiences. She also said DOE recognizes that there is not one approach to fit everyone's need.

Since the agencies agreed there needs to be better outreach, they came up with the Hanford Fair/Open House idea. All kinds of different groups and agencies would be represented in a casual, booth atmosphere that gives the public the opportunity to walk around and talk one-on-one with various organization and agency representatives. The Hanford Fair/Open House would take place during the day, and the Leadership Forum would immediately follow with agency representatives present and able to talk one-on-one with the public.

Karen received feedback from the PIC committee: they want to ensure there is opportunity for public debate and more of a panel-style question and answer period. The committee felt this type of format would also allow for greater accountability.

Board Discussion

Ken Niles, Oregon Department of Energy (State of Oregon), said he and Karen had previously agreed that public involvement and community outreach is in a rut. He was pleased that the TPA agencies, including senior managers, were taking it seriously and were looking at ways to reenergize. However, the budget meetings have not been satisfactory for years because of a lack of sufficient information. A budget presentation needs to show what has been completed, where progress was made, what money was freed up, what ended up being more costly, if overall budget increased or decreased, what is starting, where is the current focus, how much things will cost, etc. Added security costs also need to be addressed. It would be useful to know if Hanford received more funding, what would be added to the list? If funding were lost, what would fall off the list? Where is the difference between the regulators and DOE in priorities? The public can begin to understand priorities when these issues are addressed. There can be good public budget dialogue with that kind of information assembled and presented. It is not helpful only hearing about bottom line.

Ken also repeated his concern of only having one public meeting in Oregon. He believes the audiences in Hood River and Portland are diverse and separate enough to justify two meetings.

Shelley said she agrees with Ken, especially regarding the Hood River and Portland meetings. On the State of the Site meetings, she liked the format change, but was concerned that changing the name may lead to confusion or poor turnout. At last year's meeting, there were too many "talking heads" and the meeting ran extremely late. Shelley suggested having the fair an hour before the hearing-type portion would start, to let the public come and see all perspectives (health, tribes, etc.).

Greg also appreciated that the agencies got together to reevaluate what can be done better. He is also concerned about the content of budget meetings: the public needs to know about decreased funding and how cleanup will be achieved if there is less money. DOE had stated that when a cleanup project is completed, that the money would be put back into a Hanford cleanup project; now we find that is not the case. Greg agreed there should be a State of the Site meeting in Hood River and also said the format of the previous State of the Site meetings worked well in Hood River. He doesn't want secretive one-on-one discussions going on where no one else hears the questions and responses. He wants a front panel format

because that stimulates dialogue and has greater accountability. Greg also noted lots of things are happening at the same time: TC&WM EIS, budget, State of the Site, Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Five-Year review. There needs to be better planning so there is meaningful public involvement.

Norma Jean reiterated that the public has to know what can and cannot be achieved at Hanford with budget money this year. They don't need specific numbers, but they need to know if certain projects will have funding so they can help prioritize and indicate where they would like to see the funding directed. Also, the State of the Site/Leadership Forum meetings need to be accessible and in the evening when most people can attend. She thanked the agencies for being creative in their thinking.

Keith Klein emphasized Ken's points on the budget: budgeting comes down to prioritizing and also realizing what else is going on in the country (e.g., hurricane relief). If a project has to be completed, it becomes a question of when that will happen. There are always uncertainties, projects encountering new conditions, and the need to create new technologies. The focus should be more on priorities and the big picture rather than absolute dollar numbers. The budgeting process in Washington D.C. is very sensitive and political; Keith said sometimes they are left in the dark and don't know until the last minute. .

Tim Jarvis said people have different ideas of what "budget" means; perhaps the budget discussion should be in the form of the cost of work vs. funds available.

Rob Davis acknowledged there was a great effort being made to stick to the core values of openness and accountability. A problem he previously encountered in Portland was that nobody picked up the stack of comment letters that were still on the table after the meeting. Comments need to be recorded and documented, on a blog or a website, so there is external and internal accountability. The public needs to see that their comments were addressed.

Health, Safety and Environmental Protection (HSEP) Committee Tutorial on Historical and Current Programs for Workplace and Worker Monitoring, Environmental Monitoring, and Worker Health Screening and Compensation

Keith Smith, Public-at-Large and HSEP chair, introduced the tutorial. In response to interest in how Hanford affects the environment and workers, the committee brought in numerous experts to their committee meetings and decided the Board would benefit from a series of presentations on monitoring, worker's compensation, health and safety, etc.

Historical Overview of Workplace Monitoring Programs

The first speaker was Ron Kathren, a former professor and expert with more than forty years of experience in health physics and related areas. Ron presented a historical overview of workplace monitoring programs.

Ron described how life was different in 1940: automobile safety was different; there were no antibiotics, no dramatic surgeries; the median lifespan was 60 years; Social Security was new and the age for retirement was 65. Also, occupational health and safety was crude by today's standards.

The primary concern in the workplace was safety and obvious medical effects, such as falls. The Public Health Service put out a "Manual of Industrial Hygiene," which dealt with radiation. There was some knowledge of toxic chemicals, but, contrasting with today, there were virtually zero regulations. There was the belief in a level of radiation that one could tolerate, and if a worker were exposed day in and day out to that level, there would be no demonstrable effects. That was the tolerance dose concept, the basic principal of radiation protection in the beginning.

Much of the knowledge about radiation came from radiation workers and x-rays. The 1934 dose limits for the US were equivalent to 34 rem per year, which is a large dose by today's standards. The international community thought that 50 rem was allowable. There was only one commercial Geiger counter.

During the Manhattan Project, the first radiation safety program analyzed internal radiation and developed instruments to measure radiation. People who worked with radiation were given silver-backed badges that had dental x-ray film or “pencils,” ion chambers, to make sure no one was overexposed. Other personnel monitoring and instruments included air sampling and urine analysis, and also included an extensive medical program. The Maximum Exposed Individual concept was developed, a theoretical person who receives the biggest dose and who has the biggest risk.

The longest running environmental monitoring program in the world is at Hanford. It started off primarily monitoring the salmon runs because the Army didn’t want to incur “the enmity of the people of the Northwest.” The warm water being dumped in river could have affected the salmon, and over the years the program expanded to radiological and chemical monitoring.

There was an integrated safety program at Hanford. There were accidents in the early years, but no record of accidents that involved an acute exposure death. Accidents did happen, but Ron believes there were so few because of the extensive safety program.

It has only been in recent years that other contamination has been monitored using devices such as noise and chemical dosimeters. Medical monitoring included annual physicals and x-rays. Hanford labs were world famous in radiological discoveries, which led to refinement and reduction of radiation standards.

Ron concluded by noting that today there is different societal acceptance of risk than in 1940. There is an ever-increasing number and complexity of standards and regulations. There is an increasing reduction in acceptable dose standards, for workers and the public, and more radioactive nuclides, more chemicals, and predictive models are considered rather than looking at things retrospectively. It has gone from idea of a tolerance dose to looking at the genetic effects. All doses are looked at now, no matter how small.

Jack Fix, CHP, presented “Hanford Worker-Related Radiation Health Studies.”

Radiation comes from multiple sources, such as:

- Natural Radiation: terrestrial, cosmic
- Medical: diagnostic and therapeutic use of x- and gamma-rays; nuclear medicine
- Occupational: external radiation, internal radionuclide intake
- Nuclear weapons: worldwide fallout, workers, incidents

Some radiation risk references Jack provided are:

- Biological Effects of Ionizing Radiation (BEIR) Committees I-VII
- United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR)
- Internal Agency for Research on Cancer (IARC)
- National Cancer Institute (NCI)
- National Institute for Occupational Safety and Health (NIOSH)

All collaborate internationally; NIOSH was assigned to DOE workers in 1990.

Jack referred to two things on the Radiation Risk chart: 1) the policy of linear lifetime risk for any exposure, including at the lowest dose level, has been used to establish radiation exposure standards; and, 2) actual risk and low level risk have not been scientifically determined. The chart illustrates the relative risk calculated under an assumed risk for a worker who has been there for 50 years. Basically, there is some risk at any level of exposure, but nobody really knows what the response is to low-level radiation, which is typical of occupational and medical exposures.

The Atomic Energy Commission (AEC) ordered the Hanford Health and Mortality Study in the 1960s. There was much collaboration, including a progress report from the University of Pittsburg to the AEC in 1966, to determine if they agreed with the doses shown at Hanford. There were three research centers established, one at Hanford. Since then, there have been a lot of Hanford health and mortality studies

published over the years. (Jack noted that all the documents referenced in his presentation are available online). There are many recent studies, especially in 2005:

- Hanford Health and Mortality Study (1965-2005): Association between occupational exposure to external ionizing radiation and mortality
- Hanford Lung Cancer Case-Control Study (1989)
- Hanford, ORNL & RFP Mortality Study (1989)
- Multi-Site Paternal Congenital Malformation Case-Control Study (1988)
- Multi-Site Multiple Myeloma Case-Control Study (1998)
- IARC 3 Country Mortality Study (1995)
- IARC 15 Country Mortality Study (2005)
- BEIR VII Review (2005)

Jack noted that he likes the IARC studies because they are very structured and follow protocol. To look at current Hanford worker studies, NIOSH has a good website.

Leukemia is the most commonly associated cancer with radiation exposure. Jack also touched briefly on Japanese atomic bomb survivors, a well-documented and significant group because there was a large population; excellent follow-up data; a wide range of doses; a “normal” (non-diseased) population; whole body irradiation; and populations of all ages and both sexes. There are compounding factors, though: the Japanese population was in a wartime situation, malnourished, and depleted in young healthy males. Also worth noting is that only healthy people were originally selected to work at the Hanford Site.

To improve risk estimates, follow-up to conclusions with long-term cohorts, such as Hanford workers, is necessary. (50% of atomic bomb survivors are still alive; 94% of those in the IARC 15 country study are still alive.) Also necessary are morbidity studies based on cancer registries, biometric indicators of radiation exposure, and studies of highly-exposed workers such as the Russian Mayak Workers.

Margery Swint, Benton-Franklin Public Health (Local/Regional Public Health), distributed additional historical information, noting for the first several years, DOE did annual audits, accident management training, and yearly meetings with site physicians. There was frequent interaction between doctors. Margery emphasized Hanford has a well-studied workforce, probably more studied than any other workforce.

Board Discussion

Pam Larsen commented that one of the documents said analysis of UK and Oak Ridge Works show considerable risk, but not so for Hanford. Is it because workers at Hanford were younger and healthier? Jack said it is uncertain, which is why there is a need to combine studies.

Tim Jarvis also brought up the point that you have to be careful with radiation studies because someone with cancer doesn't necessarily die from cancer. They could have cancer as a result of exposure, but the cause of death could be a heart attack. Some studies are based on the induction of cancer or diagnosis; all studies are not always comparable.

Rob Davis asked for a description of risk – a risk value of one, for example. Jack encouraged him to look at documents like BEIR VII, where scientists draw conclusions from looking at studies as a group; overall risk needs to be assessed, i.e., all organs and tissues of the body need to be looked at.

Environmental Monitoring Programs

John Dorian, Duratek, gave a brief presentation on near-facility environmental monitoring at Hanford. He has been involved at Hanford since he was a university student, and did some early work at N Reactor.

Environmental monitoring includes:

- Effluent monitoring
 - o Facility effluent monitoring (stack; end-of-pipe)

- Near-facility environmental monitoring (near-field)
- Environmental surveillance
 - Surface environmental surveillance (far-field)
 - Groundwater surveillance
 - Meteorological monitoring
- Department of Health Oversight/Quality Assurance

Near-facility monitoring is the monitoring of environmental media at or near facilities that have potential to discharge (or have discharged), have stored, or have disposed of radioactive/hazardous contaminants. The objectives of near-facility monitoring are 1) to comply with federal, state, and local environmental protection requirements and guides; 2) to monitor performance of effluent controls and radioactive waste-confinement systems, and; 3) to evaluate trends of radioactive materials in the environment at and adjacent to nuclear facilities, waste disposal sites, and remediation activities. Near-facility monitoring does not serve workers because they have their own safety controls, and it also does not include river monitoring or the general environment.

Near-facility monitoring utilizes many techniques. Thousands of bait boxes and animal control devices are in the field at a given time. They look for any breaches of waste management controls. Health physics technicians use Geiger counters out in the field, and mobile radiation monitoring devices, road surveys, and sampling are also used.

Scope from year to year varies, but 2004 is a typical example:

- Ambient Air – 87 stations
- Soil – 83 locations
- Vegetation – 69 locations
- External Radiation – 135 sites
- Surface Water – 8 locations
- Radiological Surveys – 10,000 acres
- Investigative Sampling – 99 samples

All of Duratek and the Pacific Northwest National Laboratories' (PNNL) monitoring results are published in an annual report available at: <http://hanford-site.pnl.gov/envreport/2004/index.htm>

Ted Poston, Surface Environmental Surveillance Program (SESP) Project Manager for PNNL, gave a brief presentation on the Public Safety and Resource Protection Program (PSRPP).

Environmental monitoring was “born” at Hanford in 1944, and it was a major learning experience. Field measurement was the focus from 1944-1957, and from then on the focus has been on field and laboratory measurements.

PSRPP Program Elements

- Program Management and Integration
- Meteorological and Climatological Services
- Surface Environmental Surveillance
 - Ted is the manager; trying to merge with Ecological Monitoring and Compliance
- Ecological Monitoring and Compliance
- Cultural Resources

All work is done according to a plan and surface environmental surveillance is done in the same manner as John's near-field work, but in a far-field capacity. It includes assessing contaminant levels in the Hanford environs and nearby communities and assessing impacts of site operations on human health and the environment. The complete findings can be found in the Hanford Site Environmental Report.

The scope of the work includes a multimedia environmental monitoring program that deals with radiological and chemical contaminants, on and offsite. It also includes preoperational monitoring and

technical support to DOE-RL. A major aspect of scoping is communicating through the Annual Report the potential offsite impacts to the public.

Ted used a similar exposure pathway diagram as John used to show what is within their monitoring scope. For example, the 2004 dose contribution to people surrounding Hanford was 0.02 mrem/year. In contrast, the dose from eating fish from the river in the 1960s was closer to 60 mrem/year.

Radiological and non-radiological surveillance is performed, with water quality focusing mainly on the Columbia River. The Ecological Compliance Assessment Project assesses impacts to biological resources from Hanford operations (e.g., geese populations on the river islands) and legacy contaminants in the environment. Other aspects of the project are:

- Conducting and documenting ecological compliance reviews for all Hanford-related cleanup and operations actions with the potential for impacting the biota and environment.
- Providing data to identify biotic contaminant transport pathways, characterize ecological risks, and support mitigation actions and land use planning.
- Providing information and assurance to the public and stakeholders concerning the status and protection of Hanford's biological resources.

Aquatic sentinels, such as clams, serve as indicators. Clams are especially good indicators because they are well established and will accumulate contaminants because they are filter feeders.

Ted encouraged everyone to look at the Hanford Site Environmental Report for more information.

Debra McBaugh, CHP and head of the Environmental Radiation group at the Washington State Department of Health (DOH) (ex-officio), gave a short presentation on Environmental Assessment and Monitoring. In 1970, state law required DOH to develop a statewide environmental radiation-monitoring program, starting with Hanford (RCW 70.98). The main purpose was to verify adequacy and accuracy of environmental programs conducted by the federal government or licensees. DOH is responsible for the public health and oversight and ensuring regulatory compliance, but not replicating the monitoring work that is already being performed. Specifically, DOH looks at the potential impact on public health due to Hanford Site activities; for example, DOH assures compliance with regulations regarding dose limits and air emissions standards.

DOH oversight activities include river monitoring, performed jointly with PNNL. The 100N Columbia River shoreline is monitored for potential doses, mainly low-level, and is investigated for the exposure potential to people who use the river. Debra also explained that the Thermo-Luminescent Dosimeter (TLD) is used on fence lines, for example, to monitor ambient radiation.

The DOH groundwater well-monitoring program performs a small percentage of oversight; about 10-15% of wells are sampled. All of the wells used for drinking water are monitored. PNNL's data is compared with DOH's to verify program accuracy. Sometimes the results look different, such as the 2003 data regarding the amount of U-238 found in sediment. In that case, the differences were consistent and allowable because they resulted from different analytical methods. In some data, a plume can be seen going through a groundwater well; the well continued being monitored after the plume had passed.

DOH does not perform worker monitoring. However, if a worker were to be contaminated onsite and then went home or out in public and possibly contaminated other places, it then it becomes DOH jurisdiction.

Current Workplace Monitoring Programs

Wayne Glines, DOE-RL, described Hanford dosimetry programs. His scope is worker occupational monitoring and the dosimetry programs themselves, not the standards or what drives them. Dosimetry programs need to be proven protective and demonstrate regulatory compliance. The DOE dose limit is 5000 mrem/year, but 500 mrem/year is typical and anything above 2000 mrem/year requires DOE-Headquarters approval. In Wayne's experience, a worker has never received more than 2000 mrem/year.

The programs are:

- External dosimetry
- Internal dosimetry
- Area monitoring
- Nuclear Accident Dosimetry

The purpose of external dosimetry is to measure exposure to sources of radiation external to the body. There are two types: whole body and extremity. Whole body exposure can be deep (more than ½” into the body; x-rays, gamma rays, neutrons) or shallow (skin and lens of the eye; low energy x-rays, beta particles). Extremity exposure refers to the hands and feet, and lower arms and legs.

TLDs are used to measure external exposure. Most Hanford workers have a standard dosimeter. Those at higher risk (potential exposure of 100 mrem) would be assigned a Hanford combination neutron dosimeter.

The purpose of internal dosimetry is to measure the exposure to sources of radiation inside the body, as a result of ingestion, inhalation, or a wound. Specific radionuclides are looked for, as opposed to specific radiation. There are two types of internal dosimetry: in vivo and in vitro. In vivo is “whole-body” counting performed by whole body scans or looking at target areas when a radionuclide is known to be specific. In vitro is excreta sampling, such as urine, feces, and blood.

The area-monitoring program ensures that unmonitored workers do not exceed the monitoring threshold. It is designed to measure ambient exposure levels adjacent to radiological work areas. Hanford Standard Dosimeters or Hanford Combination Neutron Dosimeters are posted adjacent to radiological work areas, exchanged quarterly and adjusted for how long a worker would realistically be in a particular location.

Nuclear Accident Dosimetry is for a criticality incident. A Fixed Nuclear Accident Dosimeter is used in work areas with sufficient fissile material; a Personnel Nuclear Accident Dosimeter is assigned to workers in the same area. The dosimeter components are the same: TLD chips for gamma rays and foils/sulfur disks that are activated by neutrons to measure neutron exposure.

Steve Bertness, an industrial hygienist for DOE-RL, gave a brief presentation on non-radiological monitoring at Hanford. There are three types of non-radiological monitoring at Hanford: Employee Job Task Analysis (EJTA), Job Hazard Analysis, and DOE oversight. EJTA and Job Hazard Analysis are both required by the DOE Order 440.1A, 10 CFR 850, the Chronic Beryllium Disease Prevention Program, the Occupational Safety and Health Administration (OSHA), and Integrated Safety Management (ISM). DOE oversight is required by DOE Order 440.1A and the Worker Protection for Federal and Contractor Employees.

The purpose of EJTA is to identify potential health hazards (beryllium, asbestos, lead, etc.) to the employee based on job assignments for the purpose of establishing a medical monitoring protocol. The supervisor and the employee discuss the job assignment; the EJTA is signed off on by a safety and health professional, and transmitted to AdvanceMed Hanford (AMH) where an occupational physician develops the protocol for that employee.

The purpose of Job Hazard Analysis is to identify job-specific safety and health hazards (trenching, ladders, hazardous materials, etc.) in order to establish required controls and employee exposure monitoring. The design is a collaborative effort involving hazard identification, control development, and feedback and improvement.

DOE oversight involves evaluating contractor performance and compliance in relation to the contractually mandated requirements. The primary focus is on the evaluation of contractor processes and programs. The standard or requirement that is most protective of the employee is used. The oversight program design involves an integrated evaluation plan, including a review of work packages and observation of work activities. Operational awareness field inspections are performed on a routine basis and specific facility representatives provide day-to-day oversight of contractor activities.

Board Discussion

Helen Wheatley, Heart of America NW (Regional Environmental/Citizen), asked how assessments are documented and whether there is information about individual workers. Steve responded that they monitor individual employees for thirty years, as required by law. They have surveillance and operational awareness and a QA database. Surveillance has a separate format and is formally transmitted to the contractor and is maintained in the records by a management system. Steve types up his own reports recording what is happening, especially monitoring records.

Dick Smith, City of Kennewick (Local Government), said he has heard lots of stories about air monitoring difficulties at the tank farms; how does the program work there? Mike Weis said that DOE-ORP has the exact same systems in place as DOE-RL (facility representatives, shared resources, etc.). Survey assessments are given to the contractor and maintained by DOE-RL either electronically or in books. DOE-RL does not collect personal names when making assessments, usually just the person's position. However, interviews are noted and specific operators are recorded by name for readiness reviews.

Current Worker Health Screening/Monitoring

Loren Lewis, MD, MPH, the Medical Director for AMH Occupational Health Services, gave a brief presentation about current worker health screening and monitoring.

AMH's focus is the health and safety of the worker in the workplace. They look at other general medical issues as well (e.g., diabetes), but the focus is on exposures and other hazards in the workplace. They recommend medical qualification and clearances to perform certain types of work and work with specific hazards. They also ensure that it is "safe" to perform work from a medical standpoint based on individual medical status.

There are many drivers and regulations for the medical surveillance programs. For example, if someone is exposed to benzene, there is a standard procedure to follow that is driven by federal regulation. Other agencies often establish medical standards, which AMH follows in testing workers. For exposures such as chromium, there is no federal standard but there are medical standards of care that are followed.

Loren explained AMH's role in EJTA, involving the management of the employee with input from industrial hygienists and the employee him/herself. It is individualized and comprehensive, and defines the type of work activities the worker performs and the potential hazards he/she may be exposed to.

There are 64 medical programs, which can be used individually or combined. An example of specific monitoring programs is a potentially exposed beryllium worker. A baseline test is performed and is repeated annually. There is also an exit exam. A comprehensive medical and occupational history is required for the worker, as is education information and a signed consent form. The monitoring procedure is strictly prescribed for a worker potentially exposed to beryllium, including general labs (blood count, chemistry panel), specific labs (beryllium LPT), chest x-rays, and a pulmonary function test.

Another example is a tank farm worker. They receive a baseline, routine, and exit exam, also. Mercury becomes an element of interest since it was identified in the tank waste, so a mercury questionnaire was developed. A complete medical history is compiled and general lab work is performed, as well as special labs. There is also respirator and hazardous waste worker tests and monitoring done; the tank worker ends up with a combination of a multitude of general and specific tests.

The program is to some extent age-based. For example, cadmium has specific requirements based on age because cadmium exposure carries a risk of prostate cancer if the worker is above the age of 40. Generally, though, the monitoring is risk- and hazard-based. Workers receive all of their test results, whether they are considered normal or abnormal. If results are abnormal, the worker comes back in for the necessary follow-up and further testing and treatment.

Board Discussion

Tim Jarvis asked how long-term and chronic health problems as a result of exposure are handled. Loren said those are targeted; usually organ systems that are known to potentially be affected and have occupational data for exposure-related health programs are monitored. When periodic exams are performed, those systems that may indicate long-term effects are specifically looked at.

Tim said that, in his experience, the quality of health monitoring depended on other factors, like politics, the manager, etc. He said reliability was low and that he never met an industrial hygienist, although with his work, he thought they would bother him all the time. Keith Smith agreed that the employer has a lot to do with monitoring. His last employer ordered all EJTA's redone with a steward present to ensure they were done correctly. Loren said he has heard those concerns before. They try to encourage a three-fold interaction between the workers, industrial hygienists, and managers. That is often what drives examinations.

Helen Wheatley asked about the beryllium rule and the education and consent required for an employee to work with beryllium. Is the consent and education being applied to other types of hazardous exposures, like cadmium? Loren said that education was universal. Consent is very particular to the beryllium rule; prescribed text is used with the intent to inform the worker of that specific hazard. Consent is not required in any other type of program.

Worker Health Compensation Programs

Steve Beehler, Hanford Energy Employees Compensation Resource Center, gave a short presentation on federal compensation through the Energy Employees Occupational Illness Compensation Program Act (EEOICP).

There are two parts of the compensation law: Part B and Part E. Workers who have any cancer, beryllium sensitization or Chronic Beryllium Disease (CBD), chronic silicosis, or an approved Title 5 RECA illness are eligible for compensation under Part B. Also, workers must have been employed by DOE, a DOE contractor or subcontractor, beryllium vendors, an atomic weapons employer, or have been a RECA 5 employee. There is a \$150,000 one-time, tax-free, lump sum compensation, as well as full medical benefits to treat the condition and long-term care expenses. Only medical monitoring is allowed for beryllium sensitivity (no monetary compensation). This has been in effect since 2001. Over \$1.361 billion has been paid out nation-wide from Part B. To date at Hanford, Part B has paid out \$55.4 million (372 cases). Hanford families are starting to see more money; most of it is going to surviving spouses. If the worker has died as a result of the above conditions, then a spouse, children, parents, grandchildren, or grandparents are eligible for compensation. Steve said that most of the claims at Hanford are cancer-related, and about 25% are beryllium-related. The Resource Center helps people file claims with the Department of Labor; they do not decide who receives compensation.

A worker who has any occupational illness at least as likely as not caused by exposure to a toxic substance is eligible for compensation under Part E. The worker must have been an employee of a DOE contractor or subcontractor, or a worker at a RECA Section 5 Facility. Up to \$250,000 based on percentage of impairment and lost wages is possible, as well as medical care for covered conditions and compensation for survivors if death was caused, contributed to, or aggravated by covered illness. If the worker is deceased, the spouse or a child at the time of the worker's death (a child who is under the age 18, under the age of 23 and a full-time student, or of any age if incapable of self-support) is eligible.

Steve said the Resource Center can help workers with the initial paperwork and send it on their behalf at no cost. Their primary means of reaching workers are onsite trainings. It is hard to reach retirees; a lot of people could benefit from this program, but they have a hard time finding them. Steve also noted HAB members can help with finding former employees who are eligible for compensation.

Board Discussion

Mike Keizer, Central Washington Building and Trades (Hanford Work Force), commented that it is difficult for people to receive compensation because it is hard to find their records. Steve agreed, saying without records it will be tough to receive compensation.

Joyce Gilbert, DOE-RL, discussed the Hanford workers compensation program. From 1943-1999, workers' compensation was provided through a Special Insuring Agreement between DOE and the Washington State Department of Labor and Industries (L&I). In 1999, DOE decided to contract with Contract Claims Services, Inc. (CCSI), a third-party administrator, to administer DOE's self-insurance program.

At Hanford, CCSI's scope includes a fixed-unit price services contract for workers' compensation claims services. CCSI provides services in the processing of workers' compensation claims for covered site contractors in accordance with state, federal, and local requirements and regulations. When requirements differ, CCSI complies with the most stringent requirement. CCSI administers the claims and makes recommendations to L&I, but only the State of Washington can deny a claim.

DOE-RL requires timely, equitable treatment of injured Hanford workers. Approximately 814 claims are processed each year, and CCSI is reimbursed 75% for opening a claim and 25% at closing. DOE's role is oversight, ensuring that CCSI is compliant. Julianna Yamauchi, DOE-RL, is involved with the oversight contract with CCSI. Joyce said at the State of the Site meetings DOE-RL heard much concern over workers compensation and that the program needs fixing. DOE and L&I determined that they needed to improve their credibility, so L&I contracted with Miller & Miller, P.S. (M&MPS) to provide an independent review of DOE's compensation claims process.

Steve Miller, from M&MPS, gave some information on the review process. They will review the integrity, reliability, and efficiency of DOE's worker compensation program, identify problems and suggest ways for process and system improvements. They are currently in the process of interviewing people who have filed a workers' compensation claim under DOE's self-insurance. There were 25 "self-selected" people who wanted to provide input and about 40 randomly select people who filed a claim in 2004. The interviews are almost complete and the review of claim files maintained by CCSI is almost halfway finished. The documentation of the entire workers' compensation process based on discussions with employer representatives, CCSI, DOE, L&I, EEOICP, and others will be done during the next two weeks. The draft report is due by March 24, 2006, and will be provided to L&I. L&I will provide the draft report to DOE for clarification and technical corrections before it is accepted. After the report is finalized, M&MPS will provide a public presentation in early April.

Board Discussion

Betty Tabbutt asked what the average cost of a claim is and the cost of the independent contractor to handle the claim. Joyce said it is a set fee stated in the contract. If a claim were filed, CCSI would invoice back to DOE 75% of that claim. CCSI would then work the claim as long as it stays open; when it is closed or stable, they receive the additional 25%. If a claim is reopened, they work that claim for "free." Joyce also said the claim could be less than the processing fee.

Susan Leckband, Non-Union, Non-Management Employees (Hanford Work Force), commented that there has been concern about workers being able to receive copies of their health records, or survivors receiving the health records of the deceased workers. Is a former worker or survivor able to get copies of their health records to support claims? Loren stated that records are released at the time of a formal request, which is typical of the medical industry because release of information is required under the Privacy Act. He didn't know the details about the Privacy Act in the case of a survivor, but he assumed there were provisions. Jim Trombold, Physicians for Social Responsibility (Local/Regional Public Health), clarified that, by law, everyone has access to his or her own medical records.

Tim Jarvis expressed his concern with the M&MPS contract. He said he read the Request for Proposal (RFP) and that it was not an independent review like it was supposed to be.

Keith Smith asked if all the former Hanford Environmental Health Foundation (HEHF) records had been transferred to AMH. Loren said yes, they have been specially boxed, cataloged, and indexed, and are under observation with a chain of custody and security in place.

Jim asked if DOE is notified when workers requests their medical records, and if the contractor (AMH) needs clearance from DOE to release those records. Loren said no clearance or approval is necessary, or allowed. They are released totally at the request of the individual. Statistics are released as to how many files are requested, but they are not tied to names. Contractors do not have medical records. AMH has five-year old records on hand and the rest are on microfilm in a repository for older records so the old records can be obtained.

Julianna Yamauchi said the Department of Labor would ask DOE for the medical file because they do not have a copy. DOE would go to AMH, who would copy the record for DOE to give to the Department of Labor. Loren said the claim is assigned information.

Mike Keizer said many survivors won't receive any compensation because there isn't good enough tracking of medical problems.

Sounding Board: Historical and Current Programs for Workplace and Worker Monitoring, Environmental Monitoring, and Worker Health Screening and Compensation

Tim Jarvis commented that, while Hanford radiation safety has a good record, industrial hygiene safety and protection is poor. Workers face resistance and retaliation when they are exposed or sick, or question their environmental working conditions. Workers are afraid to request respiratory protection for fear they will end up first on a lay-off list. There is a continuous problem of claim denial because CCSI doesn't have industrial hygiene records. There are enough complaints now that DOE hired M&MPS for a review, but that review does not appear to be very independent.

Tim said the DOE contracting structure monetarily supports this system through rewards for meeting milestones and reducing costs. A proper industrial hygiene process is seen as an impediment. Also, DOE rewards the contractors for not having lost-time injuries, a problematic practice throughout the industry. Workers don't report their injuries and negative things happed to workers who do. Also, DOE is self-regulated; there is no independent third party review, like OSHA. The taxpayers, not the contractors, pay for the programs that compensate sick workers, like the beryllium program. Tim's concern is that these issues need to be addressed for Hanford to maintain a workforce. Safety cannot be sacrificed.

There were no other comments for the Sounding Board.

Agency Updates

Mike Weis provided the DOE-RL update.

- DOE-RL is trying to improve project execution, structure and function. Mike presented a functional organizational chart to illustrate the responsibilities of each subcontractor manager. There were weaknesses found in integrating the regulatory decision-making process with baseline management functions. Now, under Charlie Anderson, they are in the process of building a master baseline for the entire Hanford Site.
- The draft CERCLA Five-Year review is scheduled for public release in late February to try to meet the April deadline.
- The budget rollout for Fiscal Year 2007 is on Monday February 6th.
- The approach to K-Basin sludge has changed slightly. They are working around the sludge now, taking the debris and racks out of the Basin to accelerate progress. All the racks have been removed a month ahead of schedule and progress on debris packages is ahead of schedule. The goal and priority is to get all sludge containerized and set up the hose to transfer from the East basin to the West basin.

- There is a major initiative at the Plutonium Finishing Plant (PFP). They are focused on consolidation and are still moving forward; the old incinerator facility will be ready for demolition in the next couple months.
- Demolition is continuing in 241 and it looks like important non-TPA milestones will be met ahead of schedule. Glove box safety methods are being carefully evaluated. Also, half of the TPA-required wells are completed.
- The apatite barrier is getting underway and DOE has \$10 million from Congress for groundwater work on the site. Mike Thompson, DOE-RL, has requested feedback from Board members to make final decisions on how to spend the additional money.
- DOE-RL Began shipping transuranic (TRU) waste offsite in February. Although there hasn't been TRU waste shipped lately, over 120 bundles of certified shipments ready go.
- DOE is working on management improvements and improving the onsite "culture" by collaborating with workers to improve human performance and make people more comfortable reporting errors.

Shirley Olinger provided the DOE-ORP update.

- Two managers have been selected for the tank farm work and some difficult bulk vitrification and tank retrieval work has been done.
- Tank waste retrieval is focused on S-112, C-201 and C-103. There was hard heel waste in S-112 that was difficult to work with, so a Salt Mantis technology was developed and there's been success breaking up the hard heel. Now the material is being pumped out, but it is difficult because of sand in the mixture; it's about 98% complete.
- Waste removal in C-201 is approximately 75% complete and C-103 is approximately 12.8% complete.
- Bulk Vitrification project: In June 2005, ORP directed CH2MHill to go from a fast track, design-build project to a more traditional plan that calls for design first, approval through HQ, and then construction. The proposal package is at HQ for approval and is scheduled to be approved by August 2006 with the construction plan approved by September 2006.
- The Integrated Disposal Facility (IDF) construction is 94% complete and should be finished by March 2006. Completion is scheduled for May 2006.
- Waste Treatment Plant (WTP) construction has slowed on the pretreatment facility and the high-level waste facility. The other focus for WTP is to develop a cost and schedule baseline with HQ with the review hopefully completed by mid-summer.
- Occupational exposure limits have been set for the 1100 chemicals found in the tank farms that didn't already have exposure limits set. A-Prefix tanks are being addressed first; there was a lot of sampling in that area and DOE is focusing on keeping personal protection equipment (PPE) controls consistent with the hazards there.

Nick Ceto provided the Environmental Protection Agency (EPA) update:

- They have been working on changing the K-Basin sludge milestones. The DOE milestone list was large and penalties were issued, so instead of doing it again, the near milestones were changed and the far ones were kept. They are still trying to meet 2012 baseline of getting out of the basins. It's been frustrating and clearly there were problems.
- The preliminary results of the K-Area calcium polysulfide in situ treatment look good. If the treatment is successful, it will be employed on a broader scale.
- EPA wants DOE to excavate the more highly-contaminated BC cribs, but they don't have specific numbers or volumes and have not reached an agreement with DOE yet. There has been a philosophical approach/plan established to remove the worst waste first and leave the lower-level waste to decay. Ideally, the low-level waste would be completely decayed by the time institutional controls become ineffective.
- Resource Conservation and Recovery Act (RCRA) and CERCLA integration: Still figuring out the paperwork and getting good remedies consistent with both statutes. Want to work them together but not be duplicative.
- EPA has given comments on the portions they have seen so far of the CERCLA Five-Year Review, but Nick says it still needs work and EPA's comments may not be reflected in the draft.

- EPA met with the Nez Perce, the Confederate Tribes of the Umatilla Indian Reservation (CTUIR), and the Yakama Nation and are getting a sense of tribal opinion on cleanup issues and how they complement natural resource concerns.
- Diane Tangamonte is now on EPA's Hanford staff, but she will be in Seattle.
- EPA has the responsibility to look at the TC&WM EIS independently from CERCLA responsibilities. They are getting technical expert advice for groundwater modeling.
- The pace of cleanup is controlled by the budget, and the budget has been reduced. More information is necessary to make the 2008 milestone changes and EPA is concerned the downward funding trend won't support what needs to be done. EPA is trying to project their own baseline (characterization, cost, cleanup pace) to compare with DOE so people understand EPA's view of where things are headed. Priorities need to be clear. There are conflicts over where federal money should go right now (i.e. war, hurricane relief), but Hanford is no less of a national security threat. The President has a big nuclear energy proposal for the future, and people won't be on board unless good cleanup is proven possible.

Nolan Curtis provided the Ecology update:

- Ecology is concerned about having enough budget information to respond appropriately.
- The State's position is that with WTP there will be cleanup and without it there won't be. There needs to be a consistent message about priorities to increase credibility with Congress. Also, valuable time and human power and talent is lost if construction halts completely, as well as future staffing problems
- The TPA agencies are putting forth their best efforts on public involvement and appreciate all the input from the Board.

Board Discussion

Shelley Cimon said to Nick that she understood the frustration of being forced to take a reactive position, but it is imperative to get characterization work funded to support cleanup decisions. She hopes DOE keeps that first and foremost.

Dick Smith asked Mike Weis if the time critical proposal on a pipeline in the U-Plant area is on the active progress list or it waiting for funding. If time is critical, the opportunity to comment should be limited and the project should not go through the full review process. Mike responded that they just completed the pipeline excavation he thought Dick was asking about. That part of the pipeline is covered by a Time-Critical Removal Action (TCRA), and the good news is when they completed the excavation, they did not find contamination around that pipeline.

Susan Leckband thanked the agencies and said she wanted to go on record saying she agreed with all Nolan said concerning the vitrification plant. She asked about the deadline for new tanks if we run out of tank space. Shirley said that, as long as retrievals are slowed or stopped, there is no drop-dead date. Shirley added they wouldn't put themselves in that situation because they won't fill up all the tanks.

Norma Jean asked if the K-Basin sludge is currently packaged in containers. Mike said no, they are in the process of vacuuming and the first milestone is moving it from the East basin to the West basin. After waste is packaged and moved to the West basin, it is put into stable form for storage and disposal. Mike said they plan to move the material through the same system to a local facility to set it up. They are just in the design phase for that aspect currently.

Becky Holland, Hanford Atomic Metal Trades Council (Hanford Work Force), said she was encouraged and would like to commend CH2MHill Hanford Group on their tank vapor data work. She wanted to clarify, however, that the waste was not being disturbed when they were taking samples and that there is still some work to be done. She also asked if the Salt Mantis technology dealing with the tank hard heel is in a test mode or if it is fully operation. Shirley said the Salt Mantis technology is fully operational, it has been proven for that particular hard heel tank waste situation, and they can use it for future tanks.

Gerry Pollet, Heart of America NW (Regional Environmental/Citizen) said he is not surprised that DOE is again considering one alternative out of three in the TC&WM EIS that leaves 10% of waste in the tanks, despite previous HAB advice. Also, Gerry said that funding is the problem with the WTP construction. The HAB has been critical about the cost increases, and the EIS needs to consider sound ideas for a good melter technology and a different configuration. The Government Accountability Office (GAO) reforms should be implemented to get further along on design to save money. Gerry said he is disappointed the Ecology managers have not passed on the Board's advice and concerns about the WTP.

Maynard Plahuta commended EPA on developing an independent baseline for comparison.

Rob Davis asked what EPA thinks about the apatite barrier technology. He also asked if DOE is willing to try to clean the tanks out completely; the technologies they are currently using have already been tried. Nick said he thinks that more technologies need to be explored and employed, like in the vadose zone. All technologies have issues; pump and treat hasn't been 100% effective, but the bottom line is it's good to explore new technologies. Shirley agreed, and added that the other completed tanks didn't have the hard cake problem that made the Salt Mantis technology necessary. Rob commented that other technologies should not be ruled out in the rush to tank closure.

Mike Keizer supported EPA's and Ecology's position that WTP needs to be built; the longer it takes, the more money it will cost. There were lots of WTP layoffs because of the current slowdown. He's worked closely with Bechtel and they determined there are two components necessary for a good safety culture: a long-term project and a workforce. "Outside" workers pose a safety setback because they come from a different culture where production comes before safety; it would be starting from scratch. Shirley agreed with Mike: there has to be a core group to maintain a safety culture. More care, training, and attention will be necessary when construction ramps back up.

Dick commented that DOE should know how much a producing bulk vitrification plant would cost before final decisions are made. Also, he is anxious to see DOE's response to Advice 183.

Committee Reports

River and Plateau Committee (RAP)

RAP will meet February 8th. They are preparing a groundwater tutorial and are reviewing past HAB advice regarding groundwater values. They also reviewed the advice pertinent to the TC&WM EIS and discussed scoping issues, in conjunction with the Tank Waste committee. They will have a joint budget discussion with the Budgets and Contracts committee (BCC), specifically looking at 2006 funding decisions.

Tank Waste Committee (TWC)

TWC is meeting Thursday, February 9th jointly with BCC. They want to develop advice principles for the double shell tanks. They will also have DOE-ORP talk about the TC&WM EIS. Between February and March, they will be discussing possible advice on research and development on iron phosphate and milestone M-62-08.

Health Safety and Environmental Protection Committee (HSEP)

Keith Smith said there has been a great deal of interest in HSEP committee activities. A long list of buildings with possible beryllium contamination generated interest with the Board, and HSEP intends to get that out to a wider audience. HSEP spent much time preparing the health and safety tutorial, and they're still learning.

Budget and Contracts Committee (BCC)

BCC will meet on Thursday, February 9th to discuss the contract strategy and whether or not advice should be issued. There will be a good overview of the budget strategy process. He would like further discussion with EPA and Ecology regarding their alternative baseline; the budget committee would like to contribute.

Public Involvement and Communication Committee (PIC)

Norma Jean explained DOE's public outreach strategy and PIC's committee's response. PIC is pleased with the effort and wants to help, and also wants further discussion regarding the issues discussed at Thursday's meeting. PIC also wants to develop a "Speakers Bureau," to promote the availability of HAB members as public speakers. PIC suggested a website with names, representation, links to particular members' constituencies, links to the HAB webpage, and possibly contact information. Ken Niles put together talking points for speaker use and there are videos, pictures, and overheads, as well as the Hanford Static Display Board available for use. The Display Board should be available at the next Board meeting.

There was discussion about the Speakers Bureau. Jeff Luke, Non-Union, Non-Management Employees (Hanford Work Force), asked for clarification. It is his understanding there will not be training provided; speaking would be up to each person. It would not be a "canned" speech, but there are talking points available as a starting point; people are not obligated to use them. If somebody would like to be available for speaking, their name would be provided on the website. Todd said he sensed some confusion and asked PIC to develop the idea a little further and present a finished proposal at the next Board meeting.

Executive Issues Committee (EIC)

Todd said in the last three years there's been a large effort to get more active members, increase energy in the membership, and get new people involved and educated. More people are willing to do hard technical issue work. The EIC has found that processes for issue managers need to be developed. Susan and Todd want to develop formal procedures to guide issue manager work and to ensure agency resources and time are being preserved. The procedure would go into the HAB's Policies and Procedures. The Board agreed and Todd said he would have it ready by the next Board meeting.

2006 Board Priority #1: The Board's Values for Prioritization of Cleanup Work

In November, the Board had to postpone to this meeting the discussion about criteria that should be used in making decisions about setting priorities. Board members were broken into groups for discussion and the results from each group are listed below. The Executive Committee will decide where to go next with the results of the discussion.

List your group's top five thoughts about priority criteria:

Group 1:

1. Determine the risks to human and ecological environment
2. Congressional perception and public visibility
3. Continue to show near-term success but balance with long-term projects (River Corridor vs. WTP)
4. Continuity of funding and with funding to completion.
5. Development and use of new technology to meet identified needs
6. Use TPA milestones and schedule as a starting point
7. Safe configuration - wait for new technology or until it arises as a development need

Group 2:

1. Near-term risk to the workers and public
2. Percentage of completion
3. Trained and stable workforce in place
4. Identify work that can be most safely delayed

Group 3:

1. Focus on near-term risk
2. Long-term risk – prepare for long-term problems
3. Invest in technology
4. Pursue cost-effective results
5. A trained and stable workforce in place

Group 4:

1. Identify the most immediate and biggest risk to public health and safety
2. Vitrification plant completion and successful operation – technology for the future
3. Continuity of experience workforce

4. Public image improvements to facilitate budget flow
5. Critical paths constantly examined; evaluate how current projects can impact future projects

What does your group think the next step(s) for the Board should be?

Group 1

- Put criteria into decision tree/values flow and prioritize
- Create finalized, structured advice
- Board agreement on criteria, prioritize according to criteria, and provide advice based on criteria

Group 2

- Determine the impact/risk of work delayed or not performed

Group 3

- Get the IPL and look at what is “above and below the line”
- Work with regulators to develop our own IPL
- Be persistent; keep asking questions about technology needs
- TC&WM EIS should include our priorities, it should be transparent, and it should be cumulative

Group 4

- Committees should develop priorities and then present to the full Board

2005 Annual Report and Board Self-Evaluation

Todd emphasized this was the Board’s opportunity to evaluate their work: what is well done, and what can be changed. He encouraged the agencies to participate. Board members were given the 2005 Annual Report and the Board broke up into groups to visit three different stations. Station One information to evaluate committee work, Station Two was about Board meetings, and Station Three was about Board support.

Board Business

Topics for the next Board meeting include:

- Scoping for the TC&WM EIS
- Bulk vitrification
- Funding research and development for iron phosphate; double shell tank budgets
- Budget in general
- PIC Speakers Bureau
- CERCLA Five-Year Review

Public Comment

Steve and Virginia Wallace, Gai Oglesbee, Fay Vliger, and Mabel Velajo offered public comment. Their statements are included as an attachment to this summary. Todd thanked them for their input.

Attendees

HAB MEMBERS AND ALTERNATES

Rob Davis, Member	Keith Smith, Member	Wanda Munn, Alternate
Greg deBruler, Member	Margery Swint, Member	Nancy Murray, Alternate
Norma Jean Germond, Member	Jim Trombold, Member	Wade Riggsbee, Alternate
Harold Heacock, Member	Mark Oberle, Member	Dave Rowland, Alternate
Rebecca Holland, Member	Maynard Plahuta, Member	John Stanfill, Alternate
Mike Keizer, Member	Jane Twaddle, Member	Dick Smith, Alternate
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