

FINAL MEETING SUMMARY

HANFORD ADVISORY BOARD HEALTH SAFETY AND ENVIRONMENTAL PROTECTION COMMITTEE MEETING October 9, 2008 Richland, WA

Topics in this Meeting Summary

Welcome and Introductions	1
Tank Farm Vapor Exposure.....	1
Emergency Preparedness Plan	6
Environmental Monitoring Program.....	8
Beryllium	10
Waste Treatment Plant Safety.....	13
Review Response to Uniform Site Wide Safety Standards (HAB Advice #208).....	16
Action Items / Commitments	17
Handouts	17
Attendees.....	17

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

Keith Smith, Health Safety and Environmental Protection (HSEP) Committee Chair, welcomed everyone and introductions were made. The committee approved the October 2007 meeting summary.

Susan Hayman conducted the committee leadership process. Keith Smith was confirmed as Chair and Jim Trombold was confirmed as Vice Chair of the committee.

Tank Farm Vapor Exposure

Bill Taylor, Department of Energy – Office of River Protection (DOE-ORP), provided an update on the tank farm vapor exposure issue. Bill said DOE conducts a yearly oversight assessment of the tank farms. ORP has just completed the 2009 integrated assessment schedule, which included overseeing Washington River Protection Solutions (WRPS) functional areas such as conduct of operations, radiation protection, industrial hygiene, occupational safety, as well as many other project elements. Bill said there is a new DOE quality assurance (QA) board designed to implement QA consistently across the complex. Bill said DOE is constantly looking at emergency management to make sure the contractor has appropriate plans in place. DOE uses facility representatives when reviewing work in the field. The facility representatives spend 45 percent of their time in the field and they are familiar with site characteristics and day-to-day work that is taking

place. Facility representatives go through an 18 month qualification process that consists of an oral board. They know the training requirements for the workers and verify work is happening safely through observations. Bill said they currently have seven facility representatives that have completed the qualification process with two additional facility representatives undergoing qualifications, for a total of nine. Bill discussed the daily oversight activities that are conducted in the tank farms.

Bill reviewed the pictures of the tanks in his presentation and described where people work in relation to the vapor control zone. Bill said some of the workers wear lapel samplers that are sent to labs for analysis. While not every worker wears the lapel sampler, an average of 240 samples are taken in a month, resulting in an average of 850 data points per month from the label samplers. The lab looks at organic and inorganic compounds including direct reading instruments for ammonia. Bill said they have a gas chromatograph mass spectrometer on site for grab samples. Bill showed a picture of a vapor control barrier that is placed around the tank filter. He said the barrier is unmistakable to workers and they know not to wander into that area.

Bill provided a summary of the two incidents that were reported on recently in the media. Bill said during the May 27, 2008 incident an alarm sounded because of work being done on the exhaust system. Workers smelled an odor at the same time the alarm sounded. The Industrial Hygiene Technician (IHT) was thirty feet away and reported no organic measurements. The two workers were sent to AdvanceMed Hanford (AMH) for medical monitoring and were released to full duty without restrictions. During the June 5, 2008 incident two electricians and instrument technicians were working on a new exhaust system and reported odor and a metallic taste in their mouth. AW Farm allows routine work without respiratory protection if it is outside the vapor control zone. Other people doing service work at the time did not report a smell, but all seven workers went to AMH for monitoring. All workers were released to full duty without restrictions. Bill said they measured 1,500 chemicals in the headspace, including 58 chemicals of potential concern that were above 10% of the occupational exposure limits in the headspace. There were 3 samples showing 2 chemicals measured above 10 percent of the occupational exposure limit (OEL) in the work areas. Bill distributed a tank vapor information sheet for the committee to review.

Angela Day, Hanford Concerns Council (Council), provided an update on the report the Council did recently concerning tank vapor. Angela said there are several perspectives represented on the Council including worker advocate members, company representatives, and neutral members. Angela said the Council works to resolve employee concerns that are brought before the Council. The Council uses a consensus process to determine if they can effectively address an employee concern. Each member of the Council has to weigh in on whether the final solution is appropriate to address an employee concern. Angela said the tank vapor report is outside the council's typical activities, but they got involved because Tom Carpenter and Mark Spears asked the Council to convene an expert committee to evaluate the tank vapor issue. Angela said the council formed a subcommittee and solicited participation from experts on this evaluation. Max Power chaired the sub-committee, and three experts were selected to

participate. The documents that were reviewed as a part of the evaluation are included in an appendix to the report (www.hanfordconcernscouncil.org).

The sub-committee came out to the site, toured the tank farms and met with workers and agency staff. They went back, completed their review, and developed the independent report, which was presented to the full Council this spring. Council members had a chance to check the document for accuracy and to comment. The Council asked the subcommittee to determine if CH2M HILL's (CH) methodology was consistent with industry best practices for setting occupational exposure limits (OEL), and whether the program was protective during waste disturbing activities. The expert panel determined that CH's program was consistent with regulatory and industry best practices, but came up with recommendations for improving the conservativeness of the data for use in the technical basis document and additional protective measures for consideration until it can be shown the data provides a greater level of conservativeness. The report did not look at the industrial hygiene program and other programs that Bill listed earlier. The report did look at whether CH's sampling sufficiently identifies uncertainty in the worker breathing zones and tank spaces. The expert panel suggested adjusting head space, personal monitoring equipment, lowering screening levels for contaminants of potential concern (COPCs), identifying carcinogens on the COPC list, and also making sure the technical document is a living document and is updated based on new literature and findings for best practices. Angela thought the multiple perspectives represented on the panel were beneficial and a unique way to work through issues on the site. She said the report is not an end point but a start to a larger discussion.

Tom Carpenter said this was a great process to take a step toward resolving a disagreement and concern on a technical basis. Tom said he is glad the Council is available to help with employee issues in this way. Tom said he learned some new things from this process and is happy to see that CH did certain things right. Tom said there are some remaining issues that need to be addressed. Tom said the data that underlined the technical basis was found to be thin. Tom said exposure is a concern again with work starting at tank farms. Tom said there are still just a few chemicals monitored, which concerns Hanford Challenge. Tom said he is worried that when a worker comes in with a symptom they are not taken seriously because the agency's model does not show risk under certain scenarios. Tom said different people have different sensitivities that make them more susceptible, and long-term exposure could have an effect as well. Tom said he has had good communication with WRPS so far, and it is important to get to the bottom of this and ensure that the workers are safe. Tom said the companies need to answer employee questions about how concerned they should be and how workers should be treated when reporting issues. Tom said he is trying to think outside the box to deal with some of these issues and make it safer. There are still 110 tanks left that need to be emptied, and this work needs to be taken seriously so workers can complete the retrieval safely.

Ed Kennedy, Washington River Protection Solutions, said he entered into the process to help ensure CH's technical evaluation was reviewed fairly. Ed agreed that a neutral party was needed and the Hanford Concerns Council was an equitable solution. Ed thought this

turned out to be an exceptional process and said he would use it again. Ed said there were perspectives represented on the panel that he would not have otherwise considered had the Council not brought them forward. Ed said the process provided an opportunity for contractor subject experts to have an interaction with the expert panel and gain insight and innovative ways to look at things. CH2M Hill has provided the results of the document to its workers and shared the information. Ed said he has worked with CH's chemical survey team to look at what the document said and discuss what is needed to make improvements. WRPS is taking an aggressive and proactive look at this and is identifying things that should be done in the short term and long term to make sure CH's (now WRPS') program is protective. Ed said he now has the opportunity to work together with Tom, DOE and the Council. Ed said WRPS managers are taking a new look at what the company has in place to determine a path forward for managing the process.

Regulator Perspectives

- Ron Skinnarland, Washington State Department of Ecology (Ecology), said he is happy about reaching this point in the process. Ron said the state supports the cleanup work happening safely. Ron said the chemicals are complex, and by the time people are sent out to monitor after someone reports smelling them, the odor might be gone. The site is in the middle of an important time with the change in contractors; Ron said CH has done a great job and the report focused on the technical information. Ron said it sounds like there is an opportunity to look at implementation in the field. Ron said the waste needs to be safely stored but also retrieved and treated safely. At the State of the Site meetings recently, the agency listened to workers concerns and made a commitment to keep looking at these issues and hearing from workers. Ron said chemicals do not have established safety levels and the agencies need to keep considering what is protective.

Committee Discussion

- Keith asked if there is a vapor control zone in the pit. Bill said the vapor control zone is a bigger area than just the pit and is permanent around an active ventilation system. When work involves waste disturbing activities, Bill said they start by controlling the area around the farm until monitoring results show it is safe to down post work areas.
- Tom said he thought that during the May rigger incident there were workers on the scaffolding. Bill explained that there were two activities going on; two workers were working on the tank and were being monitored, while the other workers were working on scaffolding nearby. Tom asked if monitoring is looking for just ammonia and nitrous, or if it looks for COPCs also. Bill said that unless they have lapel monitoring, they cannot monitor for all COPCs.
- Tom asked how long it takes to get the results from the lapel monitors. Bill said it depends on where they are sent; some are done on-site, and others are sent to a lab. Typically the results come back within a few days.
- Keith asked how much communication there is between DOE and the contractor on this subject. Bill said Shirley Olinger, DOE-ORP, spoke with Bill Johnson about this

report and the recommend next steps. Bill said Shirley is very involved with worker safety and is an active advocate. Ed said WRPS has been working on this issue full time since they have taken over the contract.

- Keith asked if the workforce is being engaged in tank vapor discussions. Bill Dixon, WRPS, said they will be working with the Chemical Vapor Solutions Team (CVST) to protect workers, but this work takes time and will be ongoing. Keith said that the pre-work walk downs were not done well when he worked on site. Keith thought that the contractor should involve workers in the walk downs. Ed said they have improved those processes over the last few years. Ed said they have added attributes from the nuclear industry in evaluation of the review to prevent things from going wrong. Ed said they are becoming more effective at post job briefings and are working to ensure that steps do not get skipped. Ed said he believes that there is more involvement now than there was when Keith worked on site.
- Tom said there were a lot of workers at the last State of the Site meeting who were upset about this issue. Tom said he thought the site needed to move beyond only looking at 2-3 chemicals in an area where there are many more chemicals to be concerned about. Tom said he is looking forward to a new era of approaching issues comprehensively.
- Charlie Weems asked who a worker can report to when they are faced with a problem in a tank farm. Ed said CH, now WRPS, has about 13 established ways that workers can raise issues. Workers can report to safety representatives, program managers, line management, or any manager in the company. A worker can also report an incident through labor relations, human resources, human performance improvement council, chemical vapor solutions team, employee concerns program, and Hanford Concerns Council. Ed said they have seen the number of issues that go outside the company reduced because they have been able to handle them inside the company more effectively. Charlie asked how the data on incidents is collected and managed through the various ways incidents can be reported. Ed said they have methods to track and trend the incidents to closure. Ed said they use a problem evaluation request (PER) system for employees to use when reporting an issue. They have committed to looking at all reports within 24 hours. Ed said an employee can decide how involved they want to be; they can help in analyzing and/or fixing the issue or choose to receive a report when the issue is solved.
- Keith said there used to be an issue with close out in the PER system. Ed said CH surveyed the entire workforce 3-4 years ago to see what they thought about the safety culture and how the company could manage their concerns more effectively. Ed said they put together a value engineering group to look at the issues reported and improve the program. Ed said closure is managed closely and there is a chain for management to review the cases. CH (now WRPS) has a group dedicated to evaluating closure documentation to ensure it effectively addresses the causes of the issue. CH continues to survey employees to see if people are happy and each time they survey it has shown improvement.
- Tom thought that things have gotten better at tank farms under CH. Tom said CH has made an effort to improve the industrial hygiene and vapor issues and have listened to

workers. CH took a commercial approach to solving these issues which helps encourage innovation. Tom said with the transition of contracts he is nervous about whether these improvements will continue; he said the workers are nervous, too. Tom said he has heard good things from Bill Johnson at WRPS, but said everyone should continue to track these issues and make sure the standard does not degrade. Ed said employee concerns have been quiet so far with the transition. WRPS management has said they will continue to support this program, and now is the time to make sure the improvements made over the last few years are not lost.

- Charlie asked if DOE is funding this program properly. Tom said CH is engaged in litigation with DOE in the cost of the vapor issue for approximately \$7-10 million. Tom explained that the argument is over whether this is a new issue or not. Tom said he hopes this will not be an issue under the new contract because the work is going to cost money and money should not be the driver. Tom thought the companies should not have to worry about their bottom line to protect workers. Keith said many of the safety programs will pay for themselves with increased efficiency.

Emergency Preparedness Plan

Keith said a concern has been expressed about DOE's emergency preparedness program during contractor transition. Keith said he remembers when the site transitioned from Westinghouse to Fluor Hanford (FH). The new contractor had to designate someone as the emergency manager, and in some cases that role went to a secretary that did not know she was assigned. Keith said it caused problems during fires when people did not know what their role was. Keith said the committee has asked DOE to report on how the emergency preparedness plan is being transitioned.

Yvonne Sherman, DOE – Richland Operations Office (RL), reported on DOE's ability to respond to emergencies during the transition period. Yvonne said she is interested in making sure there is sufficient coverage during the transition and a good response organization. Yvonne said her first concern during the transition was staffing at the facility. The Facility Emergency Response Organization (FERO) takes care of situations at the event scene and the Emergency Operations Center (EOC) takes care of emergencies at the rest of the site. Yvonne said ORP, RL, Pacific Northwest Site Office, and contractors all play a role in emergency preparedness. Yvonne said the Fire Department and State Patrol are also key during emergencies and were not affected by this contract change. Each of the groups feed into a structure called the incident command system which is an international standard for how to manage emergencies.

Yvonne said CH2M Hill Plateau Remediation Company (CHPRC) did not offer positions to all former FH employees. However, there were virtually no losses to critical FERO positions. Yvonne said some of the other groups are thin on staff. Yvonne said DOE has required staffing at the facility which includes an incident commander who is called the building emergency director (BED). BEDs are trained positions in the incident command system and are responsible for the site until the fire department arrives. Yvonne said there are a number of formal positions on site during an emergency and each person wears a

vest that says what they do. Yvonne said a facility representative is an important position and takes someone who is familiar with the area because they communicate directly with the fire department, who may not know the facility. Yvonne said that radiation technicians serve as hazard assessors during emergencies and go out to take readings and ensure that emergency personnel that go in to fight the fire are not contaminated. Yvonne reviewed the other positions that are required during an emergency, including scribes and staging area managers. Yvonne said that BEDs can act in all positions and are trained in all positions. During the transition, DOE lost almost no BEDs.

CHPRC has a much larger total response system than WRPS. CHPRC has divided their projects into seven groups for emergency preparedness (EP) and each group has an EP coordinator who is responsible for filling vacancies, training, and to conduct the local drill program. CHPRC had little to no losses for BEDs; they have over 50 total. Yvonne said some facilities are light on staff currently because not all positions have been offered. BEDs can fill other positions and, prior to transition, they traded radiological control technicians (RCT) between facilities. CHPRC's priority is to identify the holes in staffing, fill and train the staff positions, and drill staff.

WRPS lost fewer than 5 FERO positions, which Yvonne said is not a significant number; they have a total of 30 BEDs. WRPS lost no BEDs to transition. Yvonne said she met regularly with EP points of contact on both contracts during the transition and will follow the staffing issue during this period. Yvonne said there are certain areas of weaknesses in terms of transition, but DOE overall is prepared to respond to emergencies.

Regulator Perspectives

- Eric Van Mason, Ecology, is Ecology's point of contact for emergencies. Ecology does not respond to spills, but plays a role through the Dangerous Waste Permit by helping to prepare emergency plans. Eric said Ecology has not been approached by DOE or contractors yet about transition. Eric said he appreciated hearing the update from Yvonne today. Eric said DOE's emergency plan is enforceable under the Dangerous Waste Permit, which will continue through the contractor transition. Eric said he was sure that there would be a few hiccups when drills start and Ecology will be interested in how those turn out.

Committee Discussion

- Tom asked if Hanford's emergency standards are site-wide or contractor driven. Yvonne confirmed they are site-wide and included in every contract. Tom asked if there is adequate budget for emergency preparedness. Yvonne said budget has never been an issue for her and there has never been something she has wanted that she has not been able to get. Yvonne said FH had money set aside for a program notification system. The site now has a more efficient telephone system so if an emergency is declared, phone messages can be sent to tell people what to do. Yvonne said they also have a computer system site-wide that can alert people about an emergency with a pop up message. She said these improvements were funded by the contractor. Yvonne

said that she has management support at DOE for her program. WRPS has arranged their organization structure to allow for management oversight as well.

- Tom said in the past there has been good radiological coverage but not chemical coverage. Yvonne said that has been addressed by having both RAD technicians and chemical assessors.
- Charlie asked if there is an alternate communication method planned in the case that phones are not available. Yvonne said there are a lot of redundancies built into the plan. She clarified that the telephone communications system and the computer systems she just described were extras and DOE does not rely on those alone. Charlie asked if DOE has wireless communications capabilities. Yvonne said more and more people on site are carrying cell phones, but the cell phones could go down as well. Yvonne said there is no way to promise that in 100 percent of situations 100 percent of the people will be saved, but she said DOE will do the best they can and strive for improvements. Boyd Hathaway, DOE-RL, said they have Sprint, AT&T, and other service providers that allow wireless access on site. Yvonne said that in addition to 911, everyone is given a seven digit number for the Hanford Patrol.
- Bob Suyama asked what the procedures were for Rattlesnake Mountain. Boyd said Rattlesnake Mountain follows the same procedures as the rest of the site. He said DOE wants to limit activities and consolidate facilities on the mountain and are tracking use of the mountain for emergency purposes. Energy Northwest has a tower on Rattlesnake Mountain that is used for communications; there are also private commercial operations up there. Boyd said that cellular services are not high wattage services but sight services so the state has a system relay up there for coverage. All of the utilities on the mountain have emergency power and there is a hard line phone as well. Yvonne said DOE has a redundant system and has additional facilities on Gable Mountain as backup.

Environmental Monitoring Program

Dana Ward, DOE-RL, provided a presentation on the Public Safety and Response Protection Program (PSRPP). Dana said the PSRPP provides the mechanism and information through which, at the site-wide level, RL demonstrates compliance with applicable public health, worker protection, environmental compliance, and resource protection regulations, DOE Orders, and Federal Policy. Dana reviewed the program elements and key personnel. Dana summarized the program's environmental surveillance work including monitoring, technical support and sampling, and communication of potential offsite impacts to the public. Dana explained that DOE uses a worst case scenario to evaluate a maximally exposed individual's risk from Hanford contaminants. Dana said the Hanford Site Annual Report is currently out and provided copies for committee members.

Regulator Perspectives

- Ron Skinnerland, Ecology, said the trustees are interested in long-term impacts to biota off site. Ron thought that sampling should continue to address the public's concerns. Ron said the agencies and the public should continue talking about whether the right areas are being monitored and ensure that levels are not going up. Ron said so far the results have been positive. Dana added that DOE's program includes oversight by the Department of Health (DOH). Dana said DOE-RL splits samples with DOH, and the results have been in agreement to date.

Committee Discussion

- Charlie said page nine of the presentation says that the program conducts land releases. Charlie wanted to know what land has been released, and to whom. Dana said DOE released parts of the 1100 Area to the Port of Benton a number of years ago. Ron explained that the 1100 Area is located by the Steven's Building and had some garage activities that included chemical waste. In releasing the land, DOE had to determine that there was no chemical threat. DOE drilled wells to make sure the area was safe.
- Tom asked how this program is connected to the worker safety program. Dana said he provides their monitoring results to the department in charge of worker safety. Dana clarified that his program is not in charge of worker safety. Ron added that Dana's program provides a general sense of contamination levels around the site year after year. There are other programs that measure specific areas. Dana clarified that his program is the final environmental monitoring program at the outskirts of the site and there is a near-term program that looks at the areas around the facilities. Dana said DOE has a redundant approach and also looks at what is coming out of the stacks and other potentials for worker exposure.
- Tom said in the past, worker safety levels were set lower than the public's. Tom said this has posed an issue for co-located workers because they are not considered members of the public so they are exposed to the same levels other workers are. Dana said this issue falls under another program and he could not comment on whether that was true. Rob Hastings, DOE, said it is true that a radiological worker has a certain exposure limit, and a member of the public has another exposure limit. Tom explained that there are people who come onto the site who are not workers, but are not considered public either and those people are not being monitored. Rob said he could not confirm whether this was true but said Hanford workers have radiological and chemical and vapor monitoring as appropriate for the work they are conducting. Tom said this was an issue during last year's S-102 tank spill where there was no monitoring being done outside of the tank farms where people were working when the spill occurred.
- Tom said Hanford Challenge has found elevated thorium levels along the river that contradict some of DOE's sample results. Dana said he recently heard about this issue and would like to evaluate why Tom's results were different than his programs. Dana said he thought this was important for DOE to look at and resolve. Keith said in the past thorium has been found in test wells on the other side of the river and was the result of farmers over fertilizing their crops.

- Dana offered to provide the committee a more in depth presentation on their monitoring results if there is interest. Keith asked if in general, DOE has found anything that would be of concern to the public. Dana said they have not. Tom asked if the apatite barrier along the river is working. Dana suggested asking Mike Thomson from DOE-RL about this work. Harold said the River and Plateau committee received an update on the apatite barrier recently and the discussion is included in the meeting summary.
- Paula said DOE produced a fact sheet a number of years ago, in collaboration with Ecology, regarding what areas are safe to visit and what areas the agencies have concerns about. Paula said the Department of Fish and Wildlife Service used it extensively. Paula offered to distribute this to the committee.

Beryllium

Steve Bertness, DOE-RL, provided an update on the beryllium program. Steve said he wanted to clarify the differences between the beryllium and the worker compensation programs. Steve said the department is in the process of revising 10 CFR 850 which outlines DOE's beryllium program. Steve said the rule was designed to reduce the number of workers exposed, minimize exposure levels, establish medical surveillance, and improve the state of information on beryllium. Steve said DOE also has a Beryllium Health and Safety committee that looks at sources of beryllium. Steve said the primary purpose of the Energy Employees Occupational Illness Compensation Program Act (EEOICPA) is the compensation of workers for exposure to an illness acquired from working on site. Steve said if it is determined that a person's illness has a 50 percent chance of being caused by working for the program, the person will be included in the program. Steve said the EEOICPA is administered by the Department of Labor. Steve said he heard that there was a lot of discussion about EEOICPA at the State of the Site Meetings last week and offered to have Juli Yamaguchi, DOE-RL, put together an additional packet of information on the compensation program if the committee is interested.

Steve said 10 CFR 850 was built for worker protection and monitoring. The contractor has to go into any areas they are responsible for and determine if beryllium was ever used or present on-site. They conduct physical, bulk and air samples to determine if beryllium existed in the facility. If there is a probability for exposure, a hazard assessment is required. Steve said some older buildings only have walk through surveillance, which does not allow for much exposure, but there are also decontamination and decommissioning (D&D) activities taking place which have a high risk of exposure. After the hazard assessment, exposure monitoring is required which includes air monitoring; if an exposure threat is found, the contractor must mitigate for that threat. The current exposure limit is 2 micrograms per cubic liter. Steve said the department has taken that exposure limit and put a provision in the rule for an action level which is set at 0.2. When an action level is detected, the contractor has to provide personal protection equipment and conduct monitoring.

Steve said access to contaminated sites is regulated so that only trained workers are allowed on site. The worker protection level for beryllium is similar to RAD and includes Tyvek suits, rubber gloves, and other personal protection equipment. Steve said they have not seen any levels that would jeopardize the safety of workers using this equipment and following the standards set in the rule.

Steve said the medical process is often confused with EEOICPA. Steve said if a contractor makes someone a beryllium worker, they need to provide medical surveillance and need to check workers for current levels and sensitivity before they start work. The contract has established that sensitive workers will not be assigned to beryllium work. If the site Occupational Medical Director determines that someone has a condition that requires their removal from exposure to beryllium, the contractor has two choices: they can provide that person with a job that is the same as their current job level and pay but lowers their exposure to beryllium, or the person can be put on medical removal and is entitled to two years compensation. Steve said there is enough work on site that DOE encourages contractors find work for these people.

Steve said currently DOE is in the middle of a group effort to develop a beryllium working group which will include contractors, DOE, worker groups, and other interested parties. Steve said DOE is going through the rule to write the requirements for a beryllium prevention program. The program currently has performance based requirements so a contractor could conduct a baseline inventory in a number of ways. Steve said DOE wants to create one method for doing a baseline inventory so that when a building has been identified it follows an established process. Steve said they are going through the rule paragraph by paragraph, line by line, to address everything they want to see in a program. Steve said they are currently struggling with what additional protections can be put in place to protect the workers that are sensitized. The rule revision process was initiated in July 2008. Steve said the secretary has to approve the rule, the Office of Budget reviews it, and the rule is published in federal register with any public comments. The department will then do any revisions and the rule will go through a final review cycle before being approved in the federal registry. Steve said they are currently four months into the process.

Bob Immele said he is a member of the Beryllium Awareness Group (BAG) and represents the worker perspective on this issue. Bob said he has been working at Hanford for 35 years. In 2000, he was diagnosed with chronic beryllium disease (CBD) and has tried to help with safety and prevention ever since. Bob said he has taught at the Hazardous Materials Management and Emergency Response (HAMMER) Training and Education Center in the past and now teaches classes for Pacific Northwest National Laboratories (PNNL) workers. Bob said on April 24, BAG members met with DOE regarding concerns about affected workers and beryllium. The lack of a site-wide beryllium plan was a main concern of the BAG. In July, Chris Jensen was tasked with putting together a working group for a CBD. The work group meets twice a week and is making good progress. Bob said several difficult areas have been worked out, but there are still more items to deal with. When the plan is done, Bob thought it would be a huge improvement. Bob said improvements with beryllium safety have varied by contractor.

Bob thought that having one plan to standardize the rule would help. Bob thought that the contractors read and interpret the language in 10 CFR 850 differently. Bob said all of the contractors probably meet intent of rule, but their programs have varying degrees of effectiveness for protection.

Bob said he personally has been through the EEOICPA program. He said once you get the designation as CBD, you still have to deal with everything else that goes along with being diagnosed, including getting all associated illnesses covered. Bob said many doctors do not know what CBD is and it is very hard to find good doctors in this community; Bob said he goes to Denver for experts in treatment.

Committee Discussion

- Charlie said he has heard some concern over how the detection limits were set. Steve said before WCH goes into a building for D&D, and depending on what they have to do in the building, they will assess all areas to evaluate the risk from beryllium, lead, polychlorinated biphenyls, and other contaminants. Charlie said that the contractor is not required to assess the threat of anything above eight feet if they are just working on the ground level, but the dust could still affect someone. Steve thought it would depend on what they are doing in the building; in Plutonium Finishing Plant where they are doing heavy activity there is a potential for dust to expose someone, but in the case where there is just walk through surveillance they may not have exposure issues. Steve said the default is to put workers in respirators.
- Charlie said he thought that the worker was allowed the choice of being re-assigned or taking medical removal (rather than it being the contractor's choice). Steve confirmed that the worker is allowed to choose the medical removal option. Keith said there have been employees in the past that were reluctant to be removed for various reasons. Steve agreed and said there were people in the 300 Area that were sensitized and all of the buildings in that area were contaminated so they had to go to the 100 Area. Steve said medical consent is voluntary and there is a form and complaint form a worker can fill out. The program also includes training so that before a worker becomes beryllium worker they are trained and know how to deal with the work. When someone is diagnosed with a beryllium condition, counseling is provided so the person knows what the diagnosis means.
- Charlie asked what elements are being considered in the rule. Steve said he could not discuss the elements of the rule at this point. Keith said the committee will have to wait for the draft regulation to come out. Keith said this committee and the HAB has been supportive of a site-wide beryllium plan and sees this rule revision as a step in the right direction.
- Charlie asked what elements of a program Bob felt were important to bring the exposure and sensitivity rates down. Bob said the department has made great leaps to make things better for workers on planned work over the last five years. Bob thought that there is still a lot of work that happens that is not planned and there are major hazards involved. Bob said training the work force and making sure they recognize the hazards is a big effort. He said not all facilities have been characterized yet and

thought all areas need to be sampled. Bob said if you go out to look for beryllium, you will find it in surprising places.

- Keith asked if some people are more sensitized than others. Bob said 45 percent of people have markers that make them more susceptible, but people who are not sensitized can be exposed as well. Bob said a single high exposure could affect someone and make them have issues with sensitivity.
- Tom asked if the complaint process through Coordinated Care Services Inc. (CCSI) is getting better or worse. Bob said about three years ago at the State of the Site Meetings workers reported that dealing with CCSI is worse than having the disease. Bob said he understands the desire to avoid fraud, but thought once the illness is verified by a professional it should be easier for people to get care. Bob said there have been reviews of CCSI, and he has participated in those. Bob felt that the reviews did not look at the right things and the problems still exist. Keith said he has talked with Dave Brockman about this and he and Shirley are committed to doing something about it. Keith encouraged Bob to continue to provide input when there are opportunities.
- Charlie asked how well records are kept on site so that if someone is exposed, but does not present with symptoms until years later, they can receive care. Steve said if a worker can prove they have worked on a DOE site at any time in their life, and they have a beryllium related illness, they can make a claim under the program. Steve said it is a rare enough condition that they accept employment as proof and they do not force workers go back and show dose exposure.

Keith said the committee will continue to follow this work and would be willing to help bring issues to DOE if workers feel they need help in encouraging progress on the site-wide program.

Waste Treatment Plant Safety

Keith said he asked for an update on the Waste Treatment Plant (WTP) safety program because he has heard a concern from workers about the safety program not making it down to them. Keith said DOE did a survey of the workforce which confirmed this. Dale Gergley, Bechtel National Inc., said the survey was done in 2004; DOE and Bechtel responded appropriately and set up a training program for the workers and foreman. Dale said they continue to survey workers and just completed their fourth survey.

Ken Wade, DOE-ORP, said he has worked at tank farms for 13 years and has just moved over to WTP. Ken said he is the Division Director for construction oversight and assurance and is in charge of the surveillance and surveys that are done in the field. Last year about this time, there were 300-400 manual laborers on site. Since then, construction has more than doubled so DOE-ORP is working to maintain a safe work environment. Ken said integrated safety, worker safety and health, and acquisition regulations for Integrated Safety Management System (ISMS) is what keeps the program going. Ken said Bechtel has a safety program which includes an extensive suite of procedures for

work planning, work control, and confined space. Bechtel has safety professionals to implement their program and give input out on site to workers. The program includes training, workforce involvement, and feedback for improvement.

Ken said DOE will be diligent to maintain programs and keep everyone up to speed. Ken said they are working to define the scope of the ISMS. The work package is screened through a hazards analysis. Dale said Bechtel had problems in 2005 with the lock out/ tag out process, so they created a group to put rigor to those processes and make them safer. Dale said they formed the Hazardous Work Control Center and increased screening and planning. Dale explained that as they get into the higher hazards they wanted to put a higher level of rigor into those processes. The center developed a grading system for how difficult a job will be so the right level of rigor is applied. Dale said they just implemented this system in August and believe that it is conceptually good, but will have to see how it works in practice.

Ken said DOE developed and implemented controls like the Safety Task Analysis Risk Reduction Talk (STARRT) card system. The STARRT system has workers develop a work package which includes a safety analysis. The safety analysis identifies specific hazards at the work site. Ken said the workers are involved in the Safety Education Through Observation (SETO) program by helping identify risky behaviors. Ken said DOE can take that information back and track it to see if there are certain issues that need to be addressed in a specific area. Craft safety representatives are the go between for craft and management. Ken said this program is a work in progress and they need to continue to develop the right roles and responsibilities and move forward.

Ken reviewed a chart on page seven of his presentation that shows a positive trend in safety over three years. Ken said the way they have achieved this is by diligence. Each year DOE comes up with performance measures and commitments and challenges Bechtel to reduce site cases by a certain percentage. Ken said DOE investigates accidents and makes improvement and adjustments to continue the progress. In 2008 the workforce doubled and the site case rate is still going down. Ken said they are working to reduce the rates down to the DOE EM average.

Regulator Perspectives

- Ed Fredenburg, Ecology, said Ecology supports programs that promote safety on site and in the office. Ed said he did not think Ecology has a regulatory authority under Resource Conservation and Recovery Act (RCRA) or the Dangerous Waste Permit for safety. Ed said he believes that Bechtel has a robust program. He said he goes out on site periodically and has to go through the same safety program that the construction workers do. Ed said it is evident that there is a strong safety presence out on the site. Ed said 15 years ago there were a couple accidents that lead to deaths on site. Ed said this renewed the focus on worker safety; Westinghouse at the time had policy that safety was a condition for employment. Ed said incidents went down, and thought incentives should be used to encourage employees to report incidents.

- Ed said asked what programs Bechtel has for improving safety statistics. Ken said Bechtel currently does not have any reward programs in place for workers safety statistics. Tom said in 2000, DOE told contractors they would start returning fee for improvements in lost work days. The numbers dropped, but they found that the incidents were not being reported through the system. In 2004 measures were put in place to prevent that. Keith agreed and said there was peer pressure on site to not get hurt. Ken said DOE does not have those types of incentives with Bechtel. He said sometimes workers start asking when they will be rewarded for time without incidents, so it goes both ways too. Ken thought that Bechtel is encouraging the reporting of any injuries, minor or not.

Committee Discussion

- Keith asked if craft input was included in the TOP safety program. Dale said craft input was included in the work planning process. Dale said they created craft safety representatives and made them a mandatory sign off on the job hazard analysis (JHA). Dale said there is a start card process that has the craft looking at the job each day and add to the JHA based on specific issues like weather and location of other work.
- Tom said the SETO program was in the newspaper in September and is a serious issue. Tom asked what DOE is doing to address the negative feelings conveyed in the newspaper. Ken said the issue has been taken seriously within DOE. Bechtel has investigated it and is taking action. Ken said he has met with the craft safety representatives several times to talk through the issue. Ken said there is mistrust that has come out of the recent events and that will take time to rebuild. Tom asked if workers feel there is an open door with Bechtel. Ken said the surveys have shown that the feeling is mixed depending on who you talk to. Overall, workers think it is the safest site they have ever worked on, but workers continue to report that they bring up issues and nothing ever happens. Ken said he thinks that management does not go back and follow up with the workers who report issues to show something is being done. Dale said he is not proud of the event that happened and he thought that it has had an effect beyond the craft safety representatives. Dale said they have accomplished a lot over the past four years and have built shaky trust. Dale said he personally is committed to trying to rebuild that trust.
- Keith thought the lost time metric shows dramatic improvement and said this improvement means money in the bank to the contractor. Keith said he has tried to convince site managers to look at injury in this way so that they are encouraged by the dollar amount that avoiding incidents can save. Keith said when he worked on site there was a safety culture and the workers slogan was “we are each others’ keeper”. Keith said people were encouraged to watch out for each other, and if they saw something unsafe they would say something because they had an interest in encouraging better behavior and keeping everyone safe. Dale said he has seen the same culture elsewhere; he did not think the site was like that currently though.

Review Response to Uniform Site Wide Safety Standards (HAB Advice #208)

Rob Hastings, DOE-RL, provided a brief update on the response to the Board's advice encouraging a Uniform Site Wide Safety Standard. Rob said DOE did not want to wait for the new contractor to come on board before implementing a lock out / tag out program. DOE had the tank farm contractor work collaboratively to develop a single lock/tag procedure for the site. Rob said they have approved that procedure and RL contractors are working under that procedure currently. Rob explained that the tank farm contractor did not have any money to put everyone through the training so they are waiting until the new contractor is on board to have training for their staff.

Rob said DOE is also working on the beryllium site wide program. Rob said they are waiting for the new Mission Support Contractor (MSC) to be onboard before they complete this work. Rob said DOE feels that this work is very important and DOE is working on it as much as they can. Rob said this program presents a unique challenge for ORP, RL, and site contractors to work together and balance their different motives.

Committee Discussion

- Charlie asked where all of the training would take place. Rob said the proposal is to do it at HAMMER, unless the contractor can propose something else equivalent. Keith said the contractor may say they can do it cheaper somewhere else but they may not include the training costs when they do it in house. Rob thought that was a good point and said the contract captures that risk; DOE does not give the contractor full ability to make changes to the training, DOE has to agree to any changes.
- Margery Swint thought that the Occupational Safety and Health Administration (OSHA) would have procedures that DOE could use so all of the agencies would not have to hash out the details for months. Rob said there are top notch procedures available, but a lot of it is specific to the site and specific terminology and tags that the workforce is comfortable dealing with. Rob said they did not want to confuse workers by changing the procedures too much. Ron said they had to meld all of the contractor's methods together to get the best product that is easy to implement.
- Margery asked how the tasks are prioritized in terms of worker safety. Rob said they addressed lock and tag first because there is the potential for someone to die. Beryllium is a significant hazard as well and was something DOE has wanted to address and improve on. Margery said it seems like there is a risk from falls as well and hoisting and rigging should be looked at while work is happening on WTP. Rob said the MSC will have to submit a plan for prioritizing programs and DOE will approve that.

Keith said he was pleased with DOE's response to the Board's advice. Sam Dechter suggested that the committee receive an update a year from now to see if there is additional progress.

Action Items / Commitments

Future topics:

1. Tank vapor issues – follow up with report recommendations
2. Environmental monitoring program – in depth presentation of findings for scientists (Board and public tutorial)
3. Beryllium – site wide CBDPP (possible public tutorial)
 - o Follow up on recommendations
 - o Sampling program
 - o CCSI
4. WTP?
5. Site wide safety standards – June?
 - o Progress report next year
 - o Report after MSC contract is in place
 - o Priorities

The committee decided that they would not meet in November, but may have a conference call to discuss future topics.

Handouts

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

- DOE Response to Uniform Site-wide Safety Standards Advice #208, David Brockman, DOE-RL, August 28, 2008.
- HSEP FY 2009 Work Planning Table.
- CH2M Hill Hanford Group Tank Vapor Information Sheet, October 2008.
- Tank Farm Safety Oversight, Chemical of Potential Concern & Procedures in Place for Handling Chemicals and Exposure Levels, William Taylor, DOE-ORP, October 2008.
- Public Safety and Resource Protection Program, Dana Ward, DOE-RL, October 2008.
- Beryllium Screening – Where are we in 2008, AdvanceMed Hanford Occupational Health Services, 10/9/2008.
- Chronic Beryllium Disease Prevention Program Requirements, DOE-RL, October 9, 2008.
- Hanford River Protection Project Overview of the Waste Treatment Plant Safety Program, Ken Wade, DOE-ORP, October 9, 2008.
- Site Safety Standards, DOE-RL, October 2008.

Attendees

HAB Members and Alternates

Tom Carpenter	Margery Swint	
---------------	---------------	--

Sam Dechter	Jim Trombold (phone)	
Harold Heacock	Charlie Weems	
Todd Martin		
Keith Smith		
Bob Suyama		

Others

Kim Ballinger, DOE-RL	Sharon Braswell, Ecology	Dale Gergley, Bechtel
Steve Bertness, DOE-RL	Ed Fredenburg, Ecology	Patrice McEahern, CHPRC
Paula Call, DOE-RL	Ron Skinnarland, Ecology	Mike Keizer, CWBCTC
Pete Garcia, DOE-RL	Beth Rochette, Ecology	Susan Hayman, EnviroIssues
Rob Hastings, DOE-RL	Eric Van Mason, Ecology	Emily Neff, EnviroIssues
Boyd Hathaway, DOE-RL		Angela Day, Hanford Concerns Council
Yvonne Sherman, DOE-RL		Bob Immele, PNNL
Dana Ward, DOE-RL		Annette Cary, Tri City Herald
Lori Gamache, DOE-ORP		John Britton, WRPS
Brian Harkins, DOE-ORP		Bill Dixon, WRPS
Ken Hoar, DOE-ORP		Ed Kennedy, WRPS
Tom Hoertkorn, DOE-ORP		DT Taukness, WRPS
Lori Huffman, DOE-ORP		
Erik Olds, DOE-ORP		
Ken Wade, DOE-ORP		