

FINAL MEETING SUMMARY

HANFORD ADVISORY BOARD

HEALTH, SAFETY AND ENVIRONMENTAL PROTECTION COMMITTEE MEETING

June 11, 2009

Richland, WA

Topics in this Meeting Summary

Welcome and Introductions 1
Uniform Site-Wide Safety Program..... 1
Site Infrastructure..... 4
Tank Vapors 7
Committee Business..... 13
Action Items / Commitments 14
Handouts 14
Attendees..... 14

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 the committee, introductions were made and the committee adopted the February meeting summary.

Uniform Site-Wide Safety Program

Steve Bertness, Department of Energy – Richland Operations Office (DOE-RL) provided an update on the site-wide safety program. Training and common safety procedures have been standardized and included in the Mission Support Contract (MSC) for the CH2M Hill Plateau Remediation Company (CHPRC) and Washington Closure Hanford (WCH). Steve said DOE has started the transition process with Fluor Hanford and will finish this process in approximately two months. Ken Hoar, Department of Energy – Office of River Protection (DOE-ORP), said one important issue is ensuring that the facility characterization is an adequate baseline. The goal is to have this characterization phased in and implemented within six months. Steve said because this is a site-wide program DOE has asked for an integrated implementation plan so all of the contractors arrive at full implementation simultaneously.

Steve reviewed the respiratory protection program, which is currently being developed. DOE has a charter and ground rules and is meeting with the Building Trades to identify

committee participants. The next meeting is June 22. Fluor Hanford designed a process that will guide the development of those programs and mandates the establishment of a worker level committee. Steve said this committee will have technical workers from the contractors represented as well as provisions to involve labor. The committee will conduct blue-sheeting of the existing procedures, which is a commitment to implementing existing procedures until there is time to go through new procedures. Steve said any substantial changes to procedures will be reviewed by DOE.

Steve said the work toward site-wide safety is less of a program than a set of common safety procedures. DOE does not have a schedule, but once the contractor transition is in place and the MSC has more of a role in implementing this, DOE will prioritize the remaining items on the list. Other common safety processes that will be included are hoisting and rigging, radiation safety and excavation permits. Steve said committees are working on those issues which do not have an identified process, such as the interface between industrial hygiene and occupational medicine. Since contractors have individual databases recording their samples, Steve noted a challenging issue is contractor transitions when previous data is archived and it is difficult and time consuming to retrieve it. Another issue is respiratory protection, for site service workers. These workers typically work in different contractor facilities using different respiratory equipment they are used to using. Steve said there are more than 90 combinations of respirators, which contributes to an inefficient program and DOE hopes to resolve it with implementation of common safety processes.

Regulator Perspectives

- Ron Skinnarland, Washington State Department of Ecology (Ecology), said the need for common safety processes is raised occasionally during contractor transitions. Ecology does not specifically regulate worker safety, but there are Resource Conservation Recovery Act (RCRA) and Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) regulatory requirements for this.

Committee Discussion

- Keith asked whether the committee working on common safety procedures includes workers. Steve said it does include workers and DOE is working to get a Building Trades representative on the committee. As the contract stabilizes, DOE wants to run more committees and is hoping to have a strong contingency of people available to participate.
- Keith asked whether minor adjustments will be made to establish programs like radiation adsorbed dose (RAD) and hoisting. Steve said adjustments regarding how

requirements and expectations are interpreted will be made. DOE is working to prepare existing committees for when the formal program is ready and aims to have transparent ground rules common to all committees.

- Keith said the Hanford Advisory Board (HAB or Board) has made previous recommendations on involving workers in safety processes and these are still valid recommendations. He said regulations should reflect the reality of the workplace. DOE-RL and DOE-ORP have been clear in the expectation that when committees are established workers should be involved. Ken said DOE is also looking at site-wide processes such as stop-work so procedures can be implemented.
- Mike Korenko commented that the site-wide common safety processes are great. He expressed concern that DOE may be missing an opportunity with the contract transitions because contractors are expected to say specifically what they will be doing. He encouraged DOE to think of this effort in terms of an integrated project rather than a program that has a timeline and goal associated with it.
- Mike said integrated safety management system (ISMS) should be included in this project. He said it is important to identify hazards, come to a solution and ensure senior management is driving this effort. Mike identified tank farms and pit areas as specific problem areas on the site where in the past safety processes were not communicated between managers and workers. He said ISMS would provide real protection from new hazards at the worker level, and DOE should make sure this is being embraced while the programs are being implemented. Steve said all contractors have ISMS in their contracts, but the issue is standardizing this system to make sure the contractor considers safety at all points during planning and execution. Mike commented that at the planning level it is important to plan and mitigate risks, but this is most important at a worker level on a day-to-day basis. Ken said a safety model called the Antecedent, Behavior, Consequence (ABC) model suggests that if there is not an investment in the consequences that are driving the behavior, the behavior will not happen. He used the example of the Waste Treatment Plant (WTP), which is scored monthly on workers' safety behavior.
- Tom Carpenter asked whether there are clear goals and a plan for achieving them. Steve said a more accurate name for the program is common safety processes. While the requirements are the same for all contractors, DOE is trying to drive a constant implementation of the common safety requirements.
- Keith commented that workers are informed that compliance with safety requirements is mandatory, so if workers are in a location where the requirements are applied differently they worry that their job is in jeopardy. He emphasized the importance of having worker-led safety committees and suggested that a system should be identified to make sure processes are implemented correctly. Steve said the lock-and-tag issue resulted in a site-wide committee and that same process is being planned for the

beryllium program. He said he is not sure when DOE would say a particular process is finished, as these are continuously being improved.

- Mike suggested that for the respirator protection program the end state for the committee should be to say that the near-term, end-state objective is to reduce the number of respirators to three or four and then set a goal for when that will be accomplished. He said metrics help drive these programs. Ken asked whether metrics should be added during or after the development of the programs. Mike said it could happen both during and after, and adding metrics to the objectives for the committee each year would help this. Ken said for beryllium a new institutional group is looking at how to measure the performance of a site-wide plan, and this effort will include short-and long-term metrics.
- Margery Swint asked whether there are still meetings with workers before a job begins to discuss planning and safety. Keith said this is part of the ISMS process, but there have been issues with the pre-job conditions not matching the work-site conditions. Mike said at Rocky Flats workers went through a pre-job evaluation but had to stop work if the conditions changed. He commented that how to behave in current and existing circumstances on the site is important and should be part of training. Keith said that has to happen along the chain as well and it is up to the contractor to make sure ISMS practices are managed or focused.
- Susan Leckband said the list of processes looks like recognition that all the contractors are required to meet the same requirements and need to standardize the implementation of these. She asked if there is integration between the tank farm and vitrification plant since there are union workers who go between tasks with the two field offices. Steve said Washington River Protection Solutions (WRPS), the tank farms operating contractor, has these requirements in its contract but the vitrification plant contractor does not. Susan asked whether this will be included in the future. Ken said the new vitrification plant manager is willing to implement these plans even though they are not in the contract, and he attended the first respiratory protection meeting.

Site Infrastructure

Keith introduced the discussion about site infrastructure, and said there have been concerns about the possible influx of drivers on site roadways and the conditions of the roads. He said HSEP wanted to learn the safety measures that are in place to maintain safe working and infrastructure conditions.

Elizabeth Bowers, DOE-RL, reviewed the site's strategic plans for the 2015 Vision. Fluor Hanford has an Infrastructure Services Master Plan for each utility, including water,

sewer and roads, and these have been updated at certain intervals. Elizabeth said the MSC transition will go until August 23. Prior to this transition, Fluor Hanford has been developing strategic plans and priorities to implement the DOE-RL 2015 Vision that incorporate the Master Plans and American Reinvestment and Recovery Act (ARRA) funding impacts to each utility. Now that the mission support alliance (MSA) contractor is on board, they are verifying Fluor's data and will be keeping it updated. Elizabeth said infrastructure did not get ARRA money, so DOE will either have to re-prioritize funding or use funding to update infrastructure that is needed to meet ARRA project deadlines.

Elizabeth reviewed the average weekday traffic at Hanford. She said the total traffic in 2004 was nearly 10,000 cars per day and in May of 2009 the average was approximately 7,700. The average weekday traffic is expected to increase to 8,400, as measured by the number of vehicles going through the WYE Barricade, Rattlesnake Barricade and Yakima Barricade. Elizabeth also reviewed Hanford and the Pacific Northwest National Laboratory (PNNL) employment levels from fiscal year (FY) 1989 to FY 2009. The lowest number of employees was approximately 10,000 and the highest was 19,000, including sub-contractors. Projections for the future peak level of employees show that this number will be less than 19,000.

Elizabeth said in the strategic plan DOE identified the primary use of the roads on site, such as commuter roads and haul roads. She said Route 4 South, Route 10 and Route 11A are major roadways into the Hanford work areas, predominately the 200 Area. Some workers also travel to the 100-K area. Haul roads are used for decontamination and decommissioning (D&D) work, and Elizabeth said these are undergoing a great deal of wear and tear. She said the size of the trucks using the haul routes is much larger than when the roads were originally built and are single axles rather than double axles. She said DOE is encouraging workers to stay on the major commuter roads.

Elizabeth reviewed the proposed commuter route project priorities, some of which are funded in the 2010-2012 timeframe, and some not until 2014-2015. She said these have been reprioritized based on anticipated traffic rates, where projects are, and who will be traveling on the roads. Commuter route project priorities include overlaying Rout 3N from Route 3 to Route 11A, completing enhancements for rutting at the WYE Barricade, chip sealing Route 11A from Route 4N and 4S to Route 3N, chip sealing Route 3 and 20th Avenue from Route 4S to Beloit Avenue, overlaying and chip sealing the interior 200-West Area roads, and chip sealing and overlaying the 200-East Area interior roads. Elizabeth said some routes are not a priority because they will not be used for a long period of time. Major routes that will be maintained were prioritized, such as Route 11A, a major route coming from Yakima.

Elizabeth said haul routes were prioritized differently than commuter routes. The haul route to and from the Environmental Restoration Disposal Facility was a priority, but long-term feedback on how the roads would be affected by heavy traffic was not available. She said test strips may be installed to see how these roads hold up. The Old Road 6 to the B Reactor was re-graded, rather than re-paved. Old Road 6 is gravel and will be sprayed for weed control, since traffic on this road is infrequent. Elizabeth said DOE is communicating with WCH to see if gravel roads are satisfactory. Haul route project priorities are rebuilding Route 1N from Route 2N to Route 4N, overlaying or rebuilding Route 4N from Route 1N to Route 2N, chip sealing Route 4N from Route 11A to Route 1N, overlaying Route 11A from Route 2N to Milepost 5.2, rebuilding Route 2N from Route 1N to Route 4N, rebuilding Route 2N from Route 11A to Route 1N, and rebuilding Route 1N from K Avenue to B Avenue.

Elizabeth said in the next two years, due to ARRA funding, DOE is anticipating 16,000 to 17,000 workers at Hanford and PNNL. In 2004 there were approximately 12,000 workers, 10,000 of which were on the roads.

Regulator Perspectives

- Ron asked how much money the site should have for infrastructure and whether enough is being spent to maintain site infrastructure. He asked when the contractor will have revised estimates on water lines and other infrastructure. Elizabeth said this was the justification for separating Fluor's contract and bringing in a separate MSC. The baseline is due for 2010 and Elizabeth said DOE will make sure the priorities are identified.
- Sharon Braswell, Ecology, asked if the average traffic chart only counts cars as they cross through a barricade, or if it also counts traffic that stops. Liz said it only counts Outer Area traffic as it crosses the barricade.

Committee Discussion

- Margery asked when bus service to Hanford stopped. Bus service stopped in 1999. Elizabeth said there are many workers in vanpools and commuter roads will be maintained to accommodate the impact to increased traffic.
- Susan commented that the Board has been supportive and has provided advice specifically indicating that there should be adequate funding for infrastructure.
- Susan asked whether there is a contractual way to encourage contractors to use the Benton-Franklin bus systems. She said there are environmental and safety considerations for the increased number of workers. Elizabeth said this has been discussed and it is the MSA's responsibility to contract with local bus service.

- Susan asked whether there are plans for future roads or rail systems, and whether there is a timeline for this. Elizabeth said this is a concern, and because of WTP construction there are no projects that talk about a barricade from Route 2 South since DOE took this over. She said this issue has been raised because the new tank farm contract does not include plans for this.
- Keith said there have been discussions about capping the canyons and if this goes forward there would be a great deal of dirt that would need to be hauled, which would require crossing 240 to go in the Rattlesnake Barricade. Elizabeth said DOE has raised this issue and the Navy has indicated they would be willing to pay for at least part of the upgrades for Route 2 South, which would help the financial situation. Susan asked when the decision will be made. Liz said this is on hold until the MSA is in place.

Tank Vapors

Ken provided an overview of the DOE-ORP proposal for approaches to reduce the risk of tank vapor exposure to site workers. Ken reviewed the DOE-ORP Industrial Hygiene (IH) assessment of WRPS, which focused on policies and procedures. DOE-ORP's findings on four areas for improvement are scheduled to be released Monday, June 15. The goal of this assessment was to determine if IH policies and procedures are being consistently implemented during work activities. The assessment prioritized five items, with human health risk management and assessment as the highest priority; followed by heavy and toxic metals, carcinogens and asbestos; HEPA, respiratory protection and personal protection equipment (PPE); confined space and instrumentation; and hazard communication and toxicology. Ken said the priority is to have the assessments of these five areas finished by March 31. DOE will create criteria review assessment checklists and guides for each area.

Ken said another oversight activity was the Hanford Concerns Council Report. DOE-ORP reviewed the Expert Panel report and identified areas that should be reviewed by the Expert Panel, including supporting policies and procedures, instrumentation data, sampling information, and technical basis conclusions.

Ken reviewed vapor protection communications. The Chemical Vapor Solutions Team (CVST) conducts forums. The first CVST initiative is to update its charter. Ken said the CVST is putting together a list of all of the chemicals in tanks and a list of all of the chemicals used on site in order to compare the two. The second initiative of CVST is to expand Vapor Control Zones (VCZs) to determine whether VCZs could be reduced by retrieving tanks and foam pits. Ken said this is a main element in communicating with

workers on the benefits of changing VCZs. The third CVST initiative relates to chemical hazard awareness training, and the team is updating the training program to increase awareness of the data available through the monitoring program. The fourth CVST initiative is communications, which will improve the process to submit questions and comments to management.

Ken reviewed safety communication venues, which are external organizations that workers can use to elevate safety issues. The DOE-ORP Health and Safety Community Forum is another way to provide workers with an avenue to communicate safety issues. Ken said the goal of these forums is for DOE to identify key areas of focus, and DOE-ORP and DOE-RL will both participate in these events. DOE-ORP is also developing a fact sheet for external medical providers to help the medical community understand chemical exposures at Hanford.

Ken said DOE and WRPS continue to participate in site-wide safety programs, including lockout and tagout, the Chronic Beryllium Disease (CBD) Prevention Program, respiratory protection, stop-work, and transportation safety. Ken said these will be included in the fee plan so there are consequences that drive the behavior.

Ken next reviewed As Low As Reasonably Achievable (ALARA) standards which are not commonly practiced in the chemical world. He suggested giving the committee a future briefing with more detail on this standard. ALARA levels range from the limit of normal adjustment to the threshold exposure. Ken said this standard applies to all chemicals, except beryllium, which is different. Vapor protection approaches to ALARA include establishing and expanding the VCZ, especially if conditions change from the initial baseline exposure assessment, selecting appropriate PPE, and establishing an occupational exposure limit (OEL) strategy. Technology investigations can also be considered to obtain better data and a voluntary respirator program allows workers to request respirators in tank farms. Ken said after the S-102 spill, CHPRC implemented a dose reconstruction approach to the work, locating samples along the waste transfer lines and collecting samples during waste transfer activities. DOE-ORP is investigating ALARA strategies used by other organizations, such as the Savannah River Site and National Aeronautics and Space Administration (NASA). He said DOE-ORP will investigate how NASA manages chemical exposures and look at passive scrubber technologies, as they may have more knowledge of smaller exposure to chemicals.

Ken said occupational medicine and work compensation initiatives are also part of the tank vapors effort. WRPS is developing an Administrative Interface Agreement with AdvanceMed Hanford (AMH) to identify organization responsibilities. DOE also agreed to have a medical expert meet with AMH staff to gain familiarity with Hanford medical

clinic operations. Ken said the Contracts Claims Services, Inc. (CCSI) contract ends September 30 and when the new contract is awarded it will incentivize the contractor to provide customer service, innovation and overall excellence for worker's compensation.

Ken said for Energy Employees Occupational Illness Compensation Program Act (EEOICPA) initiatives, DOE has developed a strong relationship with the Department of Labor. DOE met with the Hanford Atomic Metal Trades Council (HAMTC) and the Building Trades organized labor groups to identify key positions that have a greater likelihood of having chemical exposures. He said this will be compared to the WRPS database and labor category, and WRPS has tasked a principal investigator with reviewing 20-30 Hanford Health Studies. Additionally, DOE has requested AMH to provide epidemiological data for the current work force to assess a number of factors, including pre-existing illness of disease. DOE is meeting with the National Institute for Occupational Safety and Health (NIOSH) to discuss the potential for a health study of tank farm workers. Ken said these studies typically take years to do and deal with complex issues of cause and effect.

Tom Carpenter provided an update on the Hanford Concerns Council's assessment of this issue. In 2004, DOE, NIOSH and Washington State issued reports about the chemical vapor issue and found many issues about what is not known about chemical vapors. The contractor at the time WCH asked stakeholders for feedback on their technical basis report. This caused a disagreement that was taken to the Hanford Concerns Council, which hired an expert panel. Tom said the expert panel issued a report in September 2008, and found that there was not enough data to support some conclusions and expressed concern about the adequacy of the available data. Tom said this report was accepted by all parties. Shortly after CHPRC left and WRPS came in, WRPS accepted the expert panel report and agreed to continue considering the issue.

Tom reviewed the recommendations from the expert panel, which included lowering the thresholds at which action is taken, expanding VCZs, and considering adding known cancer-causing agents to the chemical of potential concern list. Tom said this is ongoing and the Council is expecting WRPS to release a document on this soon. The Hanford Concerns Council is now in phase two of its assessment, which includes interacting with the contractor and workers, evaluating the contractor's response to its report and evaluating the issue through site visits. Tom said he thinks DOE-ORP has responded well and the goal is clearly to reduce exposures as much as possible. There have been a number of people who have had medical problems because of chemical exposure and have received long-term worker compensation due to this. Tom said this usually happens from an episodic release due to an accident, but a few have resulted in long-term, serious health consequences.

Tom noted one main element of the work being done is evaluating the contractor's response to an event and treating it more seriously. This includes looking at the appropriate medical response to a worker who thinks they have been exposed to vapors. Potential responses include taking a blood test. Tom said some volatile organics only stay in one's system for 12 to 24 hours, so a response needs to be decided. Tom said there has been dissatisfaction with the current response, and the current contractor, AMH, is not equipped to evaluate someone who has been exposed. Additionally, there are few physicians in Washington who will take these cases. Tom said this is an area of systemic disconnect and an important matter of feedback for the contractor. He said he would like to see engineering controls implemented to relocate chemicals away from workers. There is a history of chemical vapor exposures at Hanford, and Tom said he thinks DOE-ORP is on the right track.

Regulator Perspectives

- Ron asked whether there is still a flaw in the existing chemical plans. Ken said he thinks the technical basis for the existing plans is correct, and the question raised was whether enough samples have been completed to thoroughly characterize the exposure. Ron said there has been a great deal of work on this and at a future meeting it may be helpful to have a contractor provide statistics and a list of chemicals that have been investigated. Ken said the 1,800 chemicals in the tank were identified, and from this it was determined how many of these were reaching the head space above OEL, which was 59, and the number of chemicals that were reaching the riser. Steve Lijek, Ecology, said this does not explain the acute symptoms some people have experienced, and 200-East has been closed previously without a known source. Keith said this was due to a battery that was blown up and caused a release of hydrogen sulfide.
- Ron said the Hanford Concerns Council did a previous review and did not have a chance to look at field operations, and asked whether this is being done now. Tom said the first field visit was scheduled to take place the following week, and field investigations will take approximately six months.
- Steve Lijek remarked that the problem is the chemistry occurring in the tanks is extremely complex and poorly understood, making it difficult to predict what will happen. He said certain hydrogen and sulfur gases have never been detected in any tests, but there has been evidence that more toxic gases have affected WTP workers.

Committee Discussion

- Tom asked if DOE-ORP has a preferred ALARA approach to vapor protection. Ken said if levels reach half of the OEL, an OEL strategy must automatically be put in place.
- Mike asked whether the tanks breathe when there are temperature or pressure fluctuations. He said this may be important to discussions about creating larger holes for the Mobile Arm Retrieval System and putting waste into WTP. Ken said contractors have attempted to model this and cannot correlate what the tank release is based on metric pressure. Mike asked if it is possible to look at the organic content of the tank to see whether there is more risk to workers.
- Tom said previous studies have found that pockets of gas are often stuck in the tank and can bubble up in response to changing conditions. He noted this takes place during the highest period of vapor generation caused by salt-well pumping. Tom said ammonia and nitrous oxides were the chemicals most measured. He said there are 1,400-1,800 chemicals to test for.
- Mike said radon exposure contractors must be brought in to do a radon assessment. He suggested pairing this assessment with how to mitigate tank vapors would be valuable for DOE-ORP to explore. Tom replied that DOE-ORP has attempted this but due to the moisture in the tanks these do not tend to work well.
- Tom expressed concern about the difficulty to predict which chemicals will be released and how, and where and when they might react with a person. He remarked that an engineering solution would be a challenge. Mike asked whether the vitrification plant uses gas scrubbers. He said since the industry knows how to deal with gas it is possible there is a technology transfer. He said he agrees with Tom that going to the source may be best.
- Tom said one common agent is NDMA, which is a cancer-causing agent that breaks down but turns into another substance, making it difficult to filter. Additionally, there is not a field test for NDMA, only a laboratory test. He said it must be determined what is happening in advance by taking head-space samples and being protective. Ken said the OEL for NDMA is 300 parts per trillion. Tom said for American Conference of Governmental Industrial Hygienists (ACGIH) and NOISH there is not an acceptable OEL, so the level is effectively zero. He commented that it has not necessarily been studied for health effects since it is not a common industrial chemical.
- Susan asked whether there is a feedback loop available to all employees as part of the communication venues, such as an Internet safety page where workers can ask a question and have the answer available to all employees. Ken said employees can submit questions, but he does not know whether there is a questions and answers section on the contractor's safety page.

- Susan asked if DOE-ORP is investigating using technology to protect workers more. Ken said DOE-ORP is considering technology on and off site. DOE sent workers to Toronto to see the latest instruments on collecting more vapor data in the tank farms.
- Susan said there are former employees who participated in salt-well pumping who no longer work for tank farm contractors, and asked if there is any attempt to monitor those workers for long-term affects. Ken said NIOSH is working with current and former workers to conduct its studies and build hypotheses. Susan asked if this includes an attempt to contact past workers. Ken said DOE is trying to work with NIOSH to develop a process for this.
- Keith said it would be helpful to hear from a contractor at a future meeting, but he hopes that once all of the information is accumulated HSEP will be able to develop advice on a topic such as source mitigation or a compensation program.
- Keith said last time there was a discussion of centralized ventilation of the tanks as an option. He asked what the decision process was that kept this from happening. Ken said he does not know the answer to this but can find out.
- Keith said at the Single-Shell Tank (SST) Integrity Workshop it was mentioned that certain tank vapors may help protect the shell integrity of the tank, which is another complication that may need to be investigated.
- Tom commented that the compensation systems are poorly suited for dealing with the chemical exposure industries and people do get victimized by this. Keith said workers began to attend Hazardous Materials (HAZMAT) training in 1991, which helped raise awareness about the hazards of certain chemicals.
- Margery said based on reports for the state there is not an increased incidence of cancer in Benton and Franklin County. In fact, these counties have lower rates than many areas in Puget Sound. She suggested contacting DuPont or a similar organization to find out how they evaluate chemical exposures. DuPont has a good safety record, and Margery said this could be modeled for occupational medicine at Hanford. Ron said a contractor could come in and tie this in with recommendations from the expert panel.
- Margery said monthly presentation at the hospital and two continuing education conferences in the Tri-Cities are other ways to spread information about how to treat these conditions to hospitals and general practitioners.
- Todd Martin said WRPS and AMH have contracts that outline their scope and responsibilities, and asked more about the interface agreement. He said he does not understand how those two contractors can define organization responsibilities. Ken said this is a communication tool between the tank farm contractors and AMH. He

said DOE is hoping this is more detailed than in the past and DOE works through Roger Pressentin, DOE-RL, if DOE needs to get involved.

Worker Perspectives

- John Swain asked why one-hose pumps go through the quality control (QC) process but this process is not completed when Industrial Hygienists take samples for analysis. He said he does not understand why QC is completed for pumps but not for human health. Ken said field blanks are used to identify contamination as part of the QC process.
- Diana Gegg said she was exposed to chemicals from S-102 when she was 1,600 feet away. She said she now has neurological and speech issues and shakiness. She said as a subcontractor employee she was not aware of what she smelled and did not have an understanding of what she may be exposed to. She suggested chemical exposure should be discussed in the classes workers attend. Keith said subcontractors on the site need to know about chemical exposure. Mike said this is part of the ISMS. Keith said if it is not that is an issue the HAB should address.

Committee Business

Follow-Up Topics on Chemical Vapors (as captured on flip chart notes at the meeting)

1. Contractor overview - WRPS
 - Transfer subcontractor information
2. Centralized ventilator system
 - What happened to this?
3. Medical response procedure and evaluation
 - Medical facility at Hanford for protocol
4. Commonality of disease/symptoms
 - Is there a pattern? (Besides smell)
 - What is the consequence?
5. Timeline/Next steps:
 - Keith check with ORP in summer
 - Further discussion may be ready in the fall
6. New technology development (out of Science & Technology workshop)
 - Go toward engineered solution
 - Real time testing/detection
7. SST Integrity Workshop findings
 - Joint topic with TWC
 - Ammonia mitigation for leaking
 - Consequences of this
 - High temperature mixing - health effects?

Action Items / Commitments

- Keith will check with DOE-ORP this summer to determine the next steps for the tank vapor issue.
- The committee will track the response to the Beryllium advice.

Handouts

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

- Required Standardized Training and Common Safety Processes, Steve Bertness, June 11, 2009.
- Hanford Site Roads Commuter Traffic Report, Elizabeth Bowers, June 2009.
- Overview of Vapor Protection Initiatives, Ken Hoar, June 11, 2009.
- United States Department of Energy Office of River Protection Tank Operations Contractor Industrial Hygiene Technical Basis Assessment, Richard Urie, March 10, 2009.
- Summary of the Expert Panel Review of a Hanford Contractor's Technical Basis Report on Chemical Vapor Exposure at Hanford, September 2008.
- Tank Vapor Standards for Safety Questioned, Annette Cary, September 30, 2008.

Attendees

HAB Members and Alternates

Tom Carpenter	Susan Leckband	Keith Smith
Harold Heacock	Todd Martin	Margery Swint
Mike Korenko		

Others

Steve Bertness, DOE-RL	Sharon Braswell, Ecology	Brian Fawcett, AMH
Elizabeth Bowers, DOE-RL	Steve Lijek, Ecology	Molly Jensen, EnviroIssues
Paula Call, DOE-RL	Nina Menard, Ecology	Cathy McCague, EnviroIssues
Roger Pressentin, DOE-RL	Beth Rochette, Ecology	John Martell, WDOH
Juli Yamauchi, DOE-RL	Ron Skinnarland, Ecology	Diana Gegg
Ken Hoar, DOE-ORP	Jeanne Wallace, Ecology	John Swain