

FINAL MEETING SUMMARY

**HANFORD ADVISORY BOARD
HEALTH, SAFETY AND ENVIRONMENTAL PROTECTION COMMITTEE**

*March 8, 2012
Richland, WA*

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

Welcome & Introductions

Keith Smith, Health, Safety and Environmental Protection Committee (HSEP) chair, reviewed the meeting agenda. He led a round of introductions. The committee approved the January 2012 meeting summary.

Tiffany Nguyen, United States Department of Energy-Richland Operations Office (DOE-RL), announced that DOE would host an Open House on the Waste Treatment Plant (WTP) on March 14 from 5:00 – 7:00 p.m. at the Richland Red Lion. Susan Leckband, Hanford Advisory Board (Board or HAB) chair, said the Budgets and Contracts Committee (BCC) would be meeting the following day followed by a public workshop on the Hanford Site budget. BCC will then briefly meet again following the workshop to consider potential advice points. Susan encouraged people to attend.

2012 Priority and Strategic Planning

Issue Manager introduction

Mike Korenko, HSEP vice-chair, said he requested time for the committee to discuss their priorities from a strategic perspective. He provided two handouts: one handout listed general site risks (Attachment 1)

and the other included a list of questions for HSEP to ask themselves about the committee's objectives (Attachment 2).

Jessica Ruehrwein, EnviroIssues, suggested using the six month workplan, the priorities tracking table (Attachment 3), and reviewing committee accomplishments to help frame the discussion. A six month review of committee accomplishments was conducted and HSEP priorities were reviewed. Mike said the main priority for HSEP is the generic category of "worker safety", a cross-cutting issue. He said DOE does not prioritize worker safety in enough detail. HSEP should be considering all the potential risks at the Hanford Site over the next 10-15 years and concentrate on the issues where Board advice can provide the biggest value for both the current and future state of the Hanford Site.

Committee Discussion

Note: This section reflects a synthesis of individual comments and questions.

HSEP described a number of potential safety-related concerns at the Hanford Site that the committee may want to follow or develop future advice on. They worked with Jessica to categorize, prioritize, and add to Mike's initial list of site risks. The complete revised site lists can be found in Attachment 4.

Radiation

Plutonium

Newly discovered plutonium in the tanks is a huge safety risk. Plutonium has been found greater than 10 microns in size. The safety basis for the tanks farms assumes plutonium is smaller than 10 microns. There have been statements that there will never be criticality in any of the tanks, but it is possible the plutonium could go critical if it is transported to the WTP. Most of the emphasis has been on mixing in WTP because components become dynamic and plutonium can settle. There might not be a criticality issue in the tanks, but there should be studies to further evaluate the questions.

There are nine tanks in the tank farm with warnings on them to not allow any disturbing activity or conduct any work on these tanks because of the plutonium. A group of people were sent to take samples from those tanks and no one knew why they were disturbing the sludge when there was a sign clearly saying it should not be disturbed.

Tom Carpenter and Becky Holland are the Issue Managers (IMs) for plutonium-related issues.

The committee also noted that the Plutonium Finishing Plant (PFP) and the Radiological Control Technician (Rad Con) program are areas of concern under the radiation category. Tom is the IM for both of these topics. PFP should continue to be followed by HSEP because there are still worker complaints. There is now a 70% confidence level in PFP by some workers. Although this is a significant improvement from the earlier 30% confidence level, there are still a lot of concerns. PFP and the Rad Con Program are both topics HSEP has received briefings about, but have not had time to fully discuss as a committee.

Chemical

Beryllium

The beryllium topic will continue to be monitored, which is a priority for the Tri-Party Agreement (TPA) Agencies. There does not need to be any Board involvement for the next several months while more data is gathered to determine the effectiveness of the program. Keith and Mike are IMs.

Chemical Vapors

The committee identified a number of concerns related to chemical vapors. Tom is the IM for these issues.

The biggest risks are the unknowns for tank vapors. There are uncharacterized tank vapors that largely cannot be characterized. No one knows what chemical is going to emerge out of all the chemicals in the tanks and what the consequent health effects might be. There are thousands of chemicals, many of which require elaborate and expensive lab tests. Testing may require weeks or more in addition to the time required for the chemical collection protocols. There are unmanaged health risks that accompany unmanaged exposure to tank vapors.

Workers in the tank farms avoid some areas simply because of the vapor smell; they know there are vapors only because of the smell. The Industrial Health Technicians (IHTs) are in the field with their instruments, but they do not identify anything because they cannot detect every chemical. No one knows what is out there. The vapors you cannot smell are another huge issue.

IHTs are no longer required to be present during transfers. Having an IHT present was a recommendation from an independent panel. DOE committed to this recommendation, but now the requirement to have an IHT present has been removed. The argument is that there are not enough people for IHTs to be present at every transfer.

A second independent report, the Concerns Council Independent Technical Assessment of Tank Vapors, was issued and DOE also embraced that report. It has now been a year and a half so it would be useful for HSEP to determine what actions have occurred as a result of the report. The stack height was increased, but what else was done? Tom said the report is available online and he will send the link via Jessica.

Several other topics were added under the chemical vapors heading including: an update on the monitoring program and an examination of whether appropriate instruments are available to detect all the vapors that present a risk to humans or the environment. The Board would like to hear an official answer to this question.

Asbestos

Asbestos has been an on-going area of concern for HSEP. Asbestos work was occurring all summer. The training people were receiving and the way management handled the asbestos issue was inadequate. Safety precautions for asbestos seemed to only be adhered to when it was convenient for management.

DOE's response since receiving concerns about asbestos procedures is still not satisfactory from the perspective of some HSEP members.

There are inadequate procedures and inadequate training for asbestos workers in every area. Health physical technicians (HPTs) are no longer trained to be certified asbestos workers, even though they are still working in asbestos areas performing the same tasks side-by-side with trained asbestos workers. This reduction in training is due to budget. HPTs now receive asbestos awareness training as part of Hanford General Employee Training (HGET). This training does not qualify workers to enter asbestos zones so there is a question about what the training qualifies workers to do.

DOE has stated that due to pressure to demolish buildings in order to receive \$1.5 million per facility, the contractor proposed wetting material down with fire hoses and then using machines to demolish facilities. When the water interacted with the asbestos it spread asbestos beyond the footprint of the building, in some cases substantially. The local United States Environmental Protection Agency (EPA) office approved the procedure so it was considered legal, although there is now a lot of controversy about the legality even within EPA. Due to the large amount of activity and other investigations around this event, the Board may want to let others take the lead and follow events as they progress to determine if there is an appropriate place for Board advice.

The committee added that asbestos can also be captured in air monitor filters and then expand through the air, leading to concerns about workers breathing asbestos.

HSEP should consider what the asbestos issue encompasses and what can be learned going forward.

Hydrogen

Hydrogen build-up is a concern because of the ways pipes are designed at WTP. There are also concerns about the methods for detecting hydrogen build up. Hydrogen is an issue the Defense Nuclear Facility Safety Board (DNSFB) is particularly concerned about because they are not convinced hydrogen is adequately addressed by DOE.

HSEP could request a briefing from DOE and wait before assigning IMs or following the issue too closely. The issue is a result of the insufficiency of mixers to prevent the formation of hydrogen. If the velocity of the pulse jet mixers (PJMs) are increased there is an erosion/corrosion problem so DOE is trying to find the appropriate balance. Some aspects of this are more appropriate for the Tank Waste Committee (TWC). However, there are also safety concerns such as if the pipes explode. HSEP might want to ask TWC to provide an update on their work to date on the hydrogen issue.

Biological

HSEP discussed the need to receive a briefing on West Nile and the procedures for mosquito spraying since it is getting close to the time when spraying should be done. The Hanford Site now uses larvicide, which causes much less environmental damage than the pesticide used previously. There is a lot of standing water on site, but there should not be an issue if DOE continues to manage the mosquito

population. HSEP can ask DOE for an update on a call. Hantavirus is also still an issue at the Hanford Site.

Maintenance

Construction of the WTP is one of the biggest risks in terms of construction activity, especially when people are working from heights and with electricity. Construction is generally a high-risk activity. Once the WTP is running and all the pump and treat systems have been installed, the safety concerns will be focused on an industrial facility as opposed to construction with unknown risks. The WTP operation will become management of known risks and training workers on compliance.

The next fatality could easily be from an electrical accident. Workers at the Hanford Site have been very lucky over the years and there are many reasons to be concerned about the procedures on site for working around electricity.

HSEP would like a presentation from DOE-RL on infrastructure maintenance. There is a concern that the assumption is for all equipment to run to failure and then be fixed without adequately analyzing affects on the workforce or the environment. HSEP should provide specific questions to DOE on what information the committee would like to hear during this presentation. Ray Corey has expressed concern and has a presentation that could be given to HSEP.

There are good Occupational Safety and Health Administration (OSHA) safety statistics for the Hanford Site, which is a good indication that the site is being well-managed in terms of safety concerns.

Traffic

The single greatest risk to the Hanford workforce is traffic. There are major intersections that have huge potential for accidents (for example, Route 240/Route 3, Route 240/Route 11). However, these are state highways and not Hanford Site roads so DOE does not maintain them.

HSEP initially thought of traffic as an inconvenience instead of from a safety perspective. There were many people who were simply irritated with congestion. Traffic risks were discussed with a focus on the potential for accidents involving elk and the dangers of driving after working long hours at the Hanford Site. It was not solely a discussion about inconvenience. Safety concerns were disregarded as an easy fix through a change in traffic speeds and installation of more stop signs. Now there has been an incident with an overturned vehicle, although that was a result of inclement weather and high speeds. The real issue is with the standard daily traffic crossing at highway speeds.

Another issue under traffic is the increase in truck traffic that will occur when material is brought to WTP. Three hundred extra trucks might be on the roads every week, which could pose traffic hazards to other vehicles. Transport for the Environmental Restoration Disposal Facility (ERDF) provides a good example of how traffic can be routed to avoid accidents. The impacts of using trucks or trains for transporting waste at WTP should be evaluated.

The elimination of buses to the Hanford Site also leads to traffic concerns. No one asked how eliminating the buses would affect the workforce. It was not considered as a decision that affects safety; it was a cost-saving decision for DOE. Buses are safer because buses reduce concerns about fatigued drivers and buses will not suffer as much damage as a car if an elk is hit. The number of people commuting by bus versus by car is also an environmental protection issue, which HSEP does not address regularly.

The committee also noted traffic concerns involving inclement weather. There was no delay in work when a storm several months ago left the roads covered in snow and ice. Thousands of people were driving in unsafe conditions. An all-employee message went out saying employees were responsible for their own safety. Employees were told to not come to work if they did not feel safe. However, management would discipline people for being late. HSEP requested to know who drives the roads and makes the determination if it is safe to drive during inclement weather.

One HSEP member noted that the Hanford Site acquired cars from the Sheriff Department. These decoy police cars are placed in locations that are unsafe and run the risk of causing an accident.

HSEP should seriously consider offering advice on traffic concerns. Becky and Laura Hanses offered to be the IMs for traffic.

Environmental

HSEP identified a number of potential environmental concerns they may want to follow. Waste storage transportation, and processing all pose risks to the environment.

The Board knows about the Safety Analysis Report (SAR) for tank farms, but does not know about a SAR for WTP. HSEP has never asked for a review of the WTP SAR, which provides the safety basis. The SAR is based on accident scenarios and identifies how workers can protect themselves from identified risks. It would be interesting to receive a summary report that includes safety basis assumptions. The SAR may not cover all this information.

HSEP could ask DOE or a contractor about waste transportation plans for moving the waste from tanks to treatment. TWC is also dealing with many of these issues. HSEP could focus on the safety concerns and consider waste transportation as a joint topic since there are environmental concerns the committee should be concerned about.

Maintenance of the WTP is another area that HSEP should learn more about. HSEP should understand the as low as reasonably achievable (ALARA) aspects and how the WTP will be maintained. The facility has a 40-50 year life. What happens when components break in one or two years? It would be wise to spend more money up front to avoid exposing workers to contaminants. Additionally, some parts of the facility cannot be maintained, such as the black cells. There may be procedures that would allow entry to the cells in extreme cases. However, some engineers have said it would be physically impossible to enter the cells and if the black cells are non-functional the entire plant would have to be shut down.

The gas discharge from WTP is another environmental concern for HSEP to follow. The committee should understand what is being examined and what is considered acceptable for discharge through the stack. What are the functional requirements for the WTP plant stack? The pH of the stack is also a concern, especially with all the orchards in the area.

Decommissioning and Decontamination Workers

Employees who are actually working with the nuclear waste (excavating material, knocking down buildings) are the most vulnerable population. They should receive special attention.

Safety Culture/ISMS

It is important for the Board to offer advice on the overall safety process at the Hanford Site. We do not want an environment where people are afraid to raise concerns. There is evidence that workers are reluctant to report concerns out of fear of retaliation. Any of the potential actions that threaten safety culture should be seriously addressed. Several HSEP members stated that they have been told by DOE that any safety culture advice would need to be structured within an Integrated Safety Management Systems (ISMS) framework in order for it to be useful.

Worker involvement and buy-in is critical to encourage reporting of problems. Workers should be involved in management decisions otherwise workers will not report problems because activities have already been dictated. Management gives themselves high grades for ISMS, but there are serious concerns about ISMS. If leadership does not believe in the processes, the process will not be effective. DOE will respond to any advice the Board submits on safety actions with assurances that they are already implementing processes to improve safety culture.

The Board is an advisor to DOE; they are not advisors to the contractor. Many of the problems are occurring at the contractor level. DOE admitted that they could convey their requirements to contractor senior management more effectively, which they are in the process of doing. DOE would like advice from the Board on this topic.

It seems certain contractors are able to terminate employees without DOE input more easily than they were five years ago. DOE constantly states that they do not tell contractors how to run their operations. Contractors are not policed by DOE. If an employee brings a concern to DOE and then that employee gets fired, DOE will not get involved in the dispute. The worker must seek assistance elsewhere and file an official complaint. When this occurs, DOE is even less inclined to get involved because of pending lawsuits. The system is broken and there are flaws in the contract. HSEP may want to offer advice on how contracts are written with the help of the Budget and Contracts Committee (BCC).

HSEP discussed concerns with the implementation of ISMS at the Hanford Site. Some felt there is an inadequate level of attention paid to the ISMS process. If ISMS is integrated at the management level, it will allow the unknowns to become known and ISMS will become a part of the culture. ISMS at the Hanford Site is very bureaucratic, which can hurt safety. Streamlining procedures would be helpful. The

amount of paperwork associated with safety issues may discourage people from reporting concerns unless they become very serious.

Behavioral

Many HSEP members expressed concerns about how behavior affects safety culture at the Hanford Site. System drivers are a major concern. The drivers at the Hanford Site appear to be cost and schedule, which can leave safety concerns at a lower priority. There is a lot of pressure to meet deadlines and stay within budget. Management at the Hanford Site believes safety costs too much or slows work down to the point of becoming inefficient or ineffective. This is a false assumption; a safe workplace is an effective workplace.

Contractors needed to spend \$2 billion in American Recovery and Reinvestment Act (ARRA) funding within strict schedules or risk losing that money. This pressure can have an unhealthy effect on procedures by indirectly encouraging noncompliance. Worker health and safety concerns become suppressed because those compromise the target deadline. ARRA funding allowed a great deal of work to be completed, but there were also other effects that should not be ignored.

Workers may be reluctant to report concerns because of fear or peer pressure. Safety concerns that are not captured lead to unmanaged risks and accidents in the future. Safety incidents are often obfuscated and not reported at the Hanford Site. This attitude sends a message to employees that the Hanford Site does not care about workers. Workers may also be reluctant to report concerns out of fear of reporting concerns that occur as a result of mistakes or error. This prevents learning from mistakes. A healthy safety culture should move beyond blame unless someone does something harmful deliberately. The whole safety incident should be considered instead of focusing on certain elements.

There is a frame of mind at the Hanford Site that work should be completed like it is “in the real world.” People believe they have to put themselves at risk in order to get the job done because that is how it is done in the real world. This is another false assumption. A change in paradigm is essential before there can ever be an ISMS or safety conscious work environment. Some cases from the Hanford Site are applicable to the real world, but not many. Does DOE want the same safety statistics as in the real world? The Hanford Site is much safer statistically than the “real world.” This comparison gives the Board traction since we do not want to operate like the real world; we want to continue to have better safety standards at the Hanford Site.

Another major safety issue relates to budget. Budget cuts led to the layoff of some individuals working at the tank farms within DOE-Office of River Protection (DOE-ORP). These individuals were part of the safety team. The notion that budget does not impact safety is not borne out by the facts. There should be back-up plans for reduced funding scenarios.

Discussions of principles of behavior and factors influencing behavior might be a better way to discuss safety than to focus on safety culture.

Workplace violence and employee substance abuse were also noted as behavioral issues for the sake of completeness. HSEP will likely not offer advice on these topics, but it is important to know they exist and might warrant some discussion in the future.

Training

HSEP shared many concerns about the potential inadequacy of training and decreased training requirements, such as no longer requiring full asbestos training for HPTs.

The format of training is very important to ensure it is effective. Lecturing a group of employees should be classified more as an orientation than training. Training is not as effective through lecture as if the training is hands-on. Hazardous Materials Management and Emergency Response (HAMMER) was established 25 years ago in part to address the inadequacy of lecture-based training. HSEP noted they would like an update on HAMMER in the next several months.

Today at the Hanford Site employees sign a sheet of paper acknowledging they have received training, which leaves them liable for any mistakes in addition to being generally less safe than if they had more thorough training. There is also a growing emphasis on computer-based training, which leads to concerns on how effective this type of training really is. Also, contractors all have individual trainings with different products and processes so there is no consistency across the Hanford Site.

The turnover of contractors and subcontractors is a huge risk. The Hanford Site was much safer in the past when workers knew what was expected of them and followed directions. Additional subcontractors are being brought on the site who have never worked in this type of environment, leading to a higher number of accidents.

DOE/Kadlec Procedures

Issue Manger introduction

Keith described a situation which occurred on February 22, 2012 where an employee at the tank farms collapsed in a radiation zone. The employee was transported to Kadlec by ambulance. The ambulance maintained contact with Kadlec while en route to the hospital so personnel at the hospital knew the employee had been in a radiation zone. When the ambulance arrived at the hospital, they were told the employee could not be brought into the hospital. After determining he was not contaminated, the employee was allowed to enter Kadlec and receive treatment. He was diagnosed with a mild heart attack and is now recovering.

Hospital staff told the employee that if he had been contaminated, he would have had to wait outside until a tent was built. Luckily, the employee was already recovering on the way to the hospital. There are major concerns about what would have occurred if there was a crisis situation and the employee was not able to receive treatment. Keith said he learned that DOE has agreements with all three hospitals in the Tri-Cities

as do other large companies in the area. He is very concerned about the potential for any interruption in someone receiving medical treatment.

Keith said he wrote a letter to Scott Samuelson, DOE-ORP, and Matt McCormack, DOE-RL, detailing the incident. Both responded right away and have taken immediate action. Keith has received subsequent letters detailing how staff are working to correct the situation so that this type of incident does not occur again. DOE offered to brief HSEP about the actions they have taken to date.

Agency perspective

Gary Loiacono, DOE, and Brian Harkins, DOE-ORP, provided brief updates on DOE progress in addressing the issue. Gary said DOE does have Memorandums of Understanding (MOUs) with all three Tri-City hospitals. When dealing with a contaminated or potentially contaminated patient, the ambulance should communicate that to the hospital en route. The ambulance does appear to have communicated that in this case. The hospital should then set up a decontamination room or tent, whichever they choose. Kadlec did deny access to the patient in this case. DOE has been working with Kadlec as well as the other two hospitals on further training to ensure this does not happen again. The goal is to not delay any medical aid, regardless of whether the patient is contaminated or not. Kadlec has agreed that the procedures did not work as planned. The next step for DOE is to ensure all three hospitals are in line with the expectations. DOE does conduct exercises with the hospitals at least annually.

Committee Questions and Response

Note: This section reflects individual questions, comments, and agency responses, as well as a synthesis where there were similar questions or comments.

Q: Is there an indication of where the breakdown occurred? It is important to understand the causal factor.

R: We are more concerned about what happens in the future as opposed to what occurred in the past. There could have been a number of individuals who did not act as we would expect. We are not sure where exactly the process failed.

Q: Are there plans for DOE to supervise exercises with the hospitals?

R: The hospitals are not audited from that perspective. DOE does have someone at each hospital during all the exercises to ensure drills run smoothly.

Q: Should drills be held more often than once a year?

R: That is an area DOE is exploring further. We are questioning how frequent training should be offered, how training should be delivered, and what information should be included in the training content. The hospitals have a large amount of turnover and one of their biggest issues is training new people.

Q: In addition to the three Tri-City hospitals, can employees choose to be transported to the hospital in Yakima?

R: Employees cannot choose to go to Yakima Valley Memorial Hospital (Yakima Hospital) in emergency events. Employees can choose to go to another hospital, such as Yakima Hospital, if there is not an immediate need for emergency medical care. Kadlec is the first and best option in an emergency situation. If for some reason Kadlec is unable to treat the patient, they would be transported to one of the other two local hospitals. DOE can provide more official details about these options at a later time.

Q: Wasn't Kadlec designed to treat contaminated patients.

R: Each of the Tri-City hospitals has a decontamination tent, which can be used for radioactive contamination as well as in the case of nerve agents. These tents are part of the chemical stockpile program. Kadlec is the only one of the three hospitals to also have a specific decontamination room.

Q: The implementation of lessons from these yearly exercises were clearly lacking during this event. Is there any verification on what the hospitals know or do not know? A liaison should verify that all people on the rotation shift are educated and trained.

R: DOE relies on the hospitals to communicate who has been trained. We have not seen a problem before. This incident appears to be somewhat isolated. There is documentation on who has attended the trainings. We try to ensure new people get all necessary training.

Q: An emergency implies more than one person, possibly a dozen people. What is the limitation of Kadlec?

R: DOE will attempt to decontaminate anyone before they are taken from the location where the emergency occurred. The hospital should be able to communicate to the ambulance(s) how many people can be treated at that location depending on the criticality. The tent can accommodate multiple patients and one patient can be treated in the decontamination room. All three hospitals combined can treat a lot of patients.

Q: Did anyone say there was a decontamination room at Kadlec when the ambulance arrived and the patient was denied access?

R: We are not sure if anyone made a statement to that effect. We were surprised to hear from the hospital that they would not admit the patient until he had been surveyed. The hospital could have directed the ambulance to the location closest to the decontamination room.

Q: Can the hospitals opt out of the MOUs? Since DOE does not provide funding to the hospitals, what is the incentive for the hospitals to participate in the MOUs and how can the MOUs be truly effective?

R: The hospitals still have to address community needs. The question of opting out of the MOU has never been discussed. There are expectations under the Federal Emergency Management Act

(FEMA) for what hospitals provide to the community. DOE offered to research the question further and provide more detailed answers when they are available.

Q: What topics are included in the MOU? Does it include training and qualifications?

R: The MOUs includes how the Hanford Site will support the hospital, what training the hospitals will receive from DOE, and specific medical protocols that would be necessary for Hanford Site patients. The MOUs are available to anyone who is interested.

Keith asked Brain to convey his appreciation to Scott Samuelson for his work in stimulating this discussion and for his immediate action. This incident was a good wake-up call and it is very fortunate the outcome was not more serious. DOE is now in the process of tightening up their procedures for the readiness of medical facilities.

WTP Safety Culture Advice Discussion

Issue Manager introduction

Keith, IM for the WTP Safety Culture advice, said DOE has expressed a desire to receive some type of advice from the Board. DOE has also stated that if the advice is not framed using ISM, it will likely not be useful to them.

Committee Discussion

Note: This section reflects a synthesis of individual comments and questions.

C: The Board operates by consensus. If HSEP does bring advice forward, it will be important to find those areas where there is agreement. This advice does not have to contain everything; the Board can offer a number of pieces of advice on safety. Simple advice is often better advice than advice that tries to convey too much information.

C: This topic was originally framed as a joint topic and now it is being discussed as an HSEP topic without the presence of the Tank Waste Committee (TWC). It is difficult to move forward when all those who are interested in the topic and have been participating in discussions are not present. This was not announced as a joint topic and TWC is not present. There will be problems in the future reaching consensus if everyone is not part of advice development. The Board is under pressure to offer advice and advice should move forward. This is an urgent issue and it has been an urgent issue for some time. However, we should not destroy the Board process by offering advice without TWC.

C: No one has been excluded from the conversation. People can participate by phone if they cannot attend the meeting. It has never been stated that this is not a joint topic.

C: The advice development process should include drafting advice points on-screen so that everyone can participate. Then there are calls. The process breaks down when people write advice in their own words.

This advice development has been a very frustrating process. Advice points should be drafted as an entire committee.

C: There are questions about the technical aspects of WTP that are clear-cut and questions about safety – will the people who operate WTP be safe and will it be safe for the community? HSEP/TWC can either develop joint advice with two sets of advice points or develop separate pieces of advice: one on technical issues and the other on safety.

C: There are Board members who feel very strongly about excluding ISMS from the advice or at least not using ISMS to frame the advice. There are issues at the engineering and scientific level. People are worried about WTP design. Scientists and engineers are stating that WTP is not going to work through high level discussions. Six senior managers have come out in public to voice concerns. ISMS do not really fit into this discussion. ISMS are a great tool, but there are other issues and concerns beyond ISMS that should be addressed. It is concerning to hear that the Board should offer advice a certain way because that is how DOE would like to receive it.

C: There was advice on safety culture developed in October that reached consensus. This advice was delayed and was not discussed at the November Board meeting. Many pieces of the advice were then excluded. WTP safety culture advice development needs to follow the standard Board process. Advice should not be developed by one person and then be brought to a meeting, especially when there is so much disagreement about certain points.

C: The problem lies in behavior, beginning with management. If senior management waffles on safety, regardless of the type of program, it will be ineffective by the time it works through all the employee ranks. ISMS can become the flavor of the day if management treats it as a burden. Attitudes and behavior are often amplified. HSEP may want to examine how the behavior of DOE affects the behavior of the people who report to them. DOE does have concerns about their ability to convey information about behavior to the contractors.

C: The lack of collegiality on technical discussion is not only at the management level; it is present throughout all levels of the workplace. Workers have the same concerns: cost and schedule. When workers discuss safety they hear about cost and schedule. Collegiality should be built into ISMS. When everyone's voice is valued and accepted regardless of who the employee is, it produces efficiency as well as safety. These are principles of behavior that allow a free flow of information.

C: The consent decree is a major system driver. WTP must be operational by 2022. Congress is pressuring DOE to stay within budget and within the timeline. The governor just issued a statement that schedule is the most important consideration, implying that safety is less important. Nobody wants an accident or for WTP to be ineffective. One finding from the DOE Office of Health Safety and Security (HSS) is that there is a lack of full engagement from DOE-ORP to safety in the face of schedule and cost pressures. How would ISMS improve that? There needs to be another, more essential system change. The HSS report could have been issued 25 years ago since many of the findings reflect issues the Hanford Site has struggled with for decades. The common denominator is DOE; the contractors have changed.

C: HSEP should think about what the problem is. Is there something in the 2011-1 HSS report that is missing? Is DOE not responding to the report properly? How can Ecology, representing WTP, articulate and frame the issue to management in order to step in and appropriate based on our oversight role. What is the Board asking Ecology to fix?

C: The problem is on two fronts. First, principles of behavior are broken. These principles feed safety culture and ISMS. The second breakdown was in the functional requirements of WTP. What are the future risks and how can those risks be mitigated? The functional requirements were not written correctly.

C: There seem to be two lines of inquiry: process safety versus personnel safety. Personnel safety involves the safety of workers and the ability of workers to raise concerns. Process safety involves whether WTP will be built and operate correctly. Having these distinctions would make responding to the advice simpler.

C: The advice was originally linked because the technical issues seemed to be an intricate component of the safety culture problem. You cannot understand what the problems are if people do not voice their concerns. The Board wanted to frame concerns about the WTP in a simple way that would be understandable. Some people do not want to blend issues in this manner. TWC can easily write advice on technical issues; a number of people on the Board have considered the technical questions. The overall goal of the advice should address why people should care about safety culture. Safety culture is important because without it, the WTP will not function. People will not have confidence in WTP if they think safety culture is lacking. Concerns about safety culture also apply to areas of the Hanford Site beyond WTP. The Board should respond to all these concerns.

C: There should be another joint meeting between HSEP and TWC to reach agreement between the committees on how WTP safety culture advice should proceed. There will not be advice at the April Board meeting, which is fine. People are frustrated and want advice to go forward. It is frustrating to write advice and have it criticized by the Board. This does not mean the work is not valuable; it means it is time to move onto the next step. The Board should think about what is best for the worker and what is best for the public. The safety culture advice does not need to be rushed.

C: Safety culture advice should incorporate items beyond ISMS. Hanford Site safety culture is bigger than ISMS. There should be an acknowledgement of some of the process history. There is an urgent need to fix the safety culture and address the fact that the major drivers at the site are cost and schedule, which is why ISMS is not being implemented properly.

C: The issue is a lack of management's will to integrate safety culture properly. Management must be one hundred percent committed to safety. The principles of behavior are broken at the Hanford Site. Taking away all the other terms, the basic factor is principles of behavior.

C: There is a lack of integrity within DOE to enforce a program like ISMS, which the agency cannot seem to get beyond due to the same drivers that have been pressuring DOE for decades: cost and schedule.

After the consent decree, the design was considered closed regardless of any safety issues that are identified. This needs to be addressed in any Board safety culture advice. Safety culture should be enforceable and DOE should be accountable aside from regulating themselves.

C: When DOE first started talking about ISMS around 1999 they promised that the program would have the force of law. Somewhere between that promise and actual implementation, something has gone wrong. The Board has asked why the implementation was ineffective many times.

C: The Board could hold a three hour meeting on this topic alone. Interested parties from any committee could attend. The original advice focused on advice from DNFSB recommendations. There has been a lot of activity and new information that has come out since the recommendations were first issued.

HSEP decided to ask the original IMs from both HSEP and TWC (Dirk Dunning, TWC chair, Sam Dechter, Becky Holland and Liz Mattson) to work together and determine a path forward. HSEP and TWC will clarify the intent of advice and identify a path forward, including providing potential advice points. HSEP suggested that the committee develop draft joint safety culture advice with TWC and jointly debrief the sounding board from the Board meeting in February sometime in April or May. Separate ISMS advice may be drafted by HSEP focusing on how to fix ISMS at Hanford and why ISMS is not working. History and background should be included in this advice, along with issues such as cost, schedule, management, enforcement, drivers (such as budget, consent decree, etc.), and principles of behavior. Issue managers were not identified.

Committee Business

Mike said he would like to conduct a values workshop for TWC and HSP where the joint committees could come up with core principles of behavior. He said this would be a great way to understand commonalities and shared values. Mike would also like to conduct a risk assessment going through a 24 hour day and identifying potential risks along with how to protect oneself from that risk.

Jessica led the committee through potential April meeting topics. There were too many topics initially listed to be covered in one meeting. Many of the topics were not time sensitive and would be timelier in future months. The IMs are still researching many topics before bringing them to committee and DOE does not have new information on other topics. For instance, beryllium will be delayed until August or September when there is more data on the program to consider.

HSEP would like DOE to provide a presentation on computer-based training. The committee is interested in DOE's explanation for why there is so much training via computers and why they think it is effective. The perception is that there is more computer training largely because of budget. There is also an issue with having safety surveys over the computer since there is not always anonymity. Computer training can be excellent and very cost effective, but it needs to be done right. Hands-on work should require a different type of training.

HSEP would also like to hear about the impact of recent layoffs on groundwater monitoring, potentially as a joint topics with the River and Plateau Committee. There are rumors that monitoring has stopped or has decreased and HSEP would like to hear details. Groundwater monitoring is a priority for the Board.

Mike was nominated and affirmed as HSEP chair. Becky and Keith were both nominated for the vice-chair position. They each briefly shared why they wanted to serve as HSEP vice-chair. All HSEP official committee members were given the chance to offer their selection anonymously. Jessica said she would follow up with committee members who were not present in order to offer them an opportunity to make a selection via email. HSEP decided to hold a call in March sometime after the TWC call in order to discuss what TWC decided about WTP safety culture advice.

Attachments

- Attachment 1: Site risks
- Attachment 2: HSEP 2012 Priority/Strategic Planning (framing questions)
- Attachment 3: 2012 Hanford Advisory Board/TPA Agency Priorities Tracking Table
- Attachment 4: Site risks (committee’s revised version)
- Attachment 5: 2012 Hanford Advisory Board Priorities

Attendees

Board Members and Alternates

Tom Carpenter	Rebecca Holland	Keith Smith
Lynn Davison	Mike Korenko	Margery Swint
Sam Dechter	Susan Leckband	
Laura Hanses	Liz Mattson	

Others

Gary Loiacono, DOE	Erika Holmes, Ecology	Nicole Addington, EnviroIssues
Brian Harkins, DOE-ORP	Dan McDonald, Ecology	Jessica Ruehrwein, EnviroIssues
Pamela McCann, DOE-ORP (phone)		Sharon Braswell, MSA (phone)
Tiffany Nguyen, DOE-RL		Donna Thelen, MSA
		Barb Wise, MSA
		Angela Day, Public (phone)
		John Britton, WRPS (phone)