

**FINAL MEETING SUMMARY**

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

*November 14, 2013  
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.*

**Opening**<sup>1</sup>

Becky Holland, Hanford Atomic Metal Trades Council and Hanford Advisory Board (HAB or Board) Health, Safety and Environmental Protection (HSEP) Committee Chair, welcomed the committee and introductions were made. The committee approved the August meeting summary.

Kim Ballinger, U.S. Department of Energy-Richland Operations Office (DOE-RL) announced that she has been designated deputy to the Deputy Designated Federal Officer (DDFO) for the Board, deputy to Jeff Frey, DOE-RL.

Laura Hanses, “Non-Union, Non-Management” Employees, announced that effective November 27, 2013, she is resigning from the Hanford workforce. Laura said she hopes to remain active on the HSEP committee from the sidelines. The committee thanked Laura for her work on the committee and the Board.

**DOE’s Emergency Preparedness Program** – *Joint with the River and Plateau (RAP) Committee and Public Information and Communications (PIC) Committee*

*Introduction*

Pam Larsen introduced the topic of DOE’s Emergency Preparedness Program and noted that the purpose of this portion of the discussion is to debrief the August Emergency Drill and identify what worked well and what areas could be improved. After more than 60,000 acres of Hanford Site land were burned during

<sup>1</sup> Please see Attachment 1 – Transcribed Flip Chart Notes for key points/follow up actions recorded during the committee discussion.

the 24 Command Fire of 2000, DOE instituted changes including the Emergency Preparedness Program to better address Hanford Site emergency response and the communications process therein. DOE regularly holds a series of drills to test procedures in different emergency scenarios. This year's August drill tested emergency response in a hypothetical 7.0 magnitude earthquake.

### *Committee Discussion*

Discussion focused on HAB participant impressions of the August emergency drill. Overall, HAB members involved in the drill expressed that it went well and demonstrated vast improvements to the Emergency Preparedness Program prior to the 24 Command Fire. The following impressions were shared with the group:

- The drill went well because people were able to get information quickly. The drill incorporated different analyses, including air quality, wind direction and outlined what actions might be taken given the circumstances presented. State Patrol were in office on call if roads needed to be closed, Red Cross representatives were available to address cases of exposure, spaces were available in nearby communities designated as safe places for evacuees and hospitals in the region are trained to deal with radiation exposure.
- The Emergency Operations Center (EOC) Web page is available and allows people to view the boards in the Emergency Operations Center, the press releases, and updates on actions taking place at the center to create a transparent response system.
- It would be great for the HSEP committee to visit the Benton County EOC and get a tour of DOE's Joint Information Center (JIC).
- The August emergency drill demonstrated that the Emergency Preparedness Program is operating better than it ever has in the past. Prior to the 24 Command Fire, the program experienced difficulties. Efforts to coordinate actions have since been improved. The EOC location and layout has been improved, and the technical center is situated across the hall from the EOC. During an emergency situation or drill, the lines are blurred between agencies, and everyone is able to work together to accomplish individual tasks to collectively implement the emergency response processes. The technical team uses computer models to identify the event, what is happening and what it means. This information is routed to the decision-makers to determine what can be done based on a conservative estimate of the worst situational outcome.
- The website was a great improvement to keep everyone on the same page and convey consistent information. During the 24 Command Fire, workers were called in at night to collect GPS data in burning areas, which could have put workers at risk. In the August drill, communication with workers and how information was distributed to the public was clear and process-oriented. Following the August drill, social media was discussed in terms of how to control rumors. Workers on site may provide social media updates online that may be different from information on the DOE web site, may not be accurate, and could be misleading to members of the community.
- The information distribution path at the EOC and JIC is tiered by design. As a result, one group may have information before another group in the analysis and decision-making process.

The committees discussed the next steps for responding to the 2014 HAB Work Plan topic for how the Emergency Preparedness Program might be improved and better communicated to the public. Committee members noted the following ideas:

- Because information travels so quickly via social media, an approach should be taken to embrace Twitter and Facebook. Once the event has been determined, DOE should refer to the event consistently with one name so that people know what to look for to get updated information. There should also be a continuing message distributed to direct people to the website. People who work on site and community members outside the event can all reference the same site for the most updated information.
- Contractors should provide training for their on-site workers on what processes are in place in emergency situations. Getting workers safely transported off-site in an emergency also needs to be addressed.
- It is important to consider the community that visits the area but is unfamiliar with potential local emergencies. Information should be available in the community on how to respond in the event of an emergency and explain what those procedures are.
- DOE should have a plan in place to deal with emergencies should the EOC and JIC be taken out of operation as part of an emergency scenario.
- A publically available video of the EOC process during an emergency drill would be a great way to inform the public of the processes in place to deal with an emergency and how situations are handled. This will help increase the confidence of the general public.
- There is an effort in the agency to train on-site workers on what to do in an emergency. Computer screens on site, for example, turn red to indicate there has been an emergency; the agency carefully considers what to communicate expediently while making absolutely sure facts are checked and information is accurate. In order to make sure information is accurate, DOE must often be conservative in the information it releases.
- There is a media telephone team in place and a number for people to call for updated information.

### *Agency impressions*

Erica Holmes, Washington State Department of Ecology (Ecology), noted that Ecology's communications manager Dieter Borhmann participated in the August drill, and Ron Skinnerland observed the drill. They each reported that the response worked well overall, and the process was well organized. Ecology would use the emergency medical dispatch as a main communications channel. Ecology does not see significant areas for improvement other than the need to continue carrying out emergency preparedness drills. Ecology would like to be involved in a discussion of how to use social media in emergency preparedness communications.

### *Public Comment*

Ed Boettcher, a member of the public, provided public comment, noting he has a working history at Hanford, having worked in locations all over the site for over 20 years. Workers on site do not have access to phones during work and as such may not be able to check updates on site in an emergency situation. He noted that blowing the lid off of tanks is the greatest thing to consider from the perspective of the worker.

Committee members thanked Ed for attending the meeting and providing comment.

### *C-Farm Incident*

Kim Ballinger, DOE-RL, noted that a C-Farm alert was declared on August 21 when a higher than normal radiation reading was taken outside of the tank indicating a potential leak. WRPS controlled an organized response to the alert. Radiological and chemical monitoring yielded no abnormal readings. The alert set off alarms and was considered an event. Event evaluation noted a satisfactory ratio for each of the 8 evaluated objectives. Event lessons learned concluded that DOE may have been overly conservative in its response, and that too many alarms went off.

### *Agency response*

- Tom Rogers, Washington State Department of Health (WA-DOH), said that he would encourage DOE not to relax their level of conservatism in response to emergencies. The impacts of over-responding are small, but the downside of under-responding is enormous.
- Jeff Lyon, Ecology, noted that DOE made a big effort to keep Ecology involved in the process and said that he did not think the conservative approach was an overreaction. DOE did exceptionally well for the workers; Ecology encourages DOE to keep the same measures in place in the event that a future emergency response is needed.

### *Committee discussion*

Committee members discussed lessons learned from the August 21 C-Farm event and noted that they generally felt the response to the event was appropriate and not too stringent. It was noted that while it can be expensive to shut down systems, such actions result in reinforcing agency intentions to protect human health and the environment. Overall, committee members agreed that the program could be improved through increased clarity in who is responsible for communicating which information to whom. Clarity on the communications process would help define the program not only for agency members, but also for members of the public. Increasing transparency in the process will strengthen the program.

### *Next Steps*

The committee agreed that it would request a tour of the DOE and Benton County EOC and DOE's JIC. EnviroIssues will check into the availability of the Federal Building for this meeting for easier access to the site tours. Using what they learn, they will then discuss how to best address their work plan issue for this topic.

## **Safety Culture Update** – *Joint Topic with the Tank Waste Committee (TWC)*

### *Introduction*

Liz Mattson, Hanford Challenge, noted that HSEP, joint with TWC, prepared Board advice for safety culture (HAB Advice #258). One outcome of the advice was to ask the Organizational and Safety Culture Improvement Council (previously known as the Safety Culture Integrated Project Team) to provide the HSEP committee with regular updates on what the team is working on and provide an opportunity for informal discussion with the committee to share ideas on a continuous basis. The committee recognizes

that safety culture improvements will not happen immediately, but rather will take time and occur gradually.

#### *Agency presentation*

DaBrisha Smith, U.S. Department of Energy – Office of River Protection (DOE-ORP), provided an update from the ORP Organizational and Safety Culture Improvement Council. DaBrisha noted that she has taken over as the lead on the team, replacing Steve Pfaff. In addition to the information provided in her presentation, DaBrisha emphasized the following key points:

- The leadership transition went very well. There were many areas Steve was tracking with safety culture, including briefing U.S. Department of Energy Headquarters (DOE-HQ) regularly, and providing status update presentations outside of DOE-HQ and DOE-ORP.
- In July, new team members solicited ORP staff volunteers to join the council. The original team was formed in 2012, and DOE-ORP decided to transition half of the team off and incorporate new employees to get fresh ideas and new faces on the council. There are a total of eight new members. All ORP employees are welcome to attend staff meetings.
- The council went through a name change. Previously called the Safety Culture Integrated Project Team, the group is now referred to as the Organizational and Safety Culture Improvement Council. The group decided to change its name to better represent its function.
- The government-wide survey and Site-wide Hanford Safety Conscious Work Environment (SCWE) speak-up survey identified clarifying roles and responsibilities and improving communications as main topics for improvement.
- The council has not recently identified any new safety culture issues.
- Staff will be asked to participate in media days. When there are inquiries for stations or newspapers that want information on Hanford Site, staff could go with communications team members to integrate and crosscut agency divisions. This will continue to enhance professional behavior and increase trust beyond staff division directors. One-page informational sheets will be developed for the improvement plan defining roles and responsibilities and lessons learned. A total of six one-pagers will be discussed over future staff meetings to keep staff members informed and updated.
- There will be a Waste Treatment Plant Health, Safety and Security (HSS) visit review beginning in December 2013. A WTP review conducted 2-3 years ago on safety culture resulted in ORP direction to Bechtel National, Inc. (BNI) to develop its own improvement plan. Fifty action items are to be completed in the March 2015 timeframe. The December visit will serve as a preparation for a January 2014 full BNI review, which will include a series of interviews of the same employees interviewed 2-3 years ago, focus groups and a survey. These methods will show gaps and room for improvement in a report to come out in April 2014.

#### *Committee discussion*

C. Safety culture is how the site reacts to safety. A follow-up process is needed for how to keep the current safety basis up to date.

Q. Is Glen Bedosky still head of DOE-HSS?

*R. Yes*

Q. Who is the “management champion?”

*R. Paul Harrington*

Q. Are the new team members commensurate with like team members on BNI’s and WRPS’ safety teams so that there’s an integration with the safety culture?

*R. Each division in ORP is representative. This is just ORP safety culture. BNI and Washington River Protection Solutions (WRPS) each have their own safety culture teams.*

Q. Are there any senior management level-staff on the council?

*R. Yes, Paul Harrington is assistant manager. Kevin Smith is the manager, and J.D. Dowel is the deputy manager.*

Q. The presentation indicates there are no new issues. Having an ORP safety culture improvement council is great, but it has to integrate with the contractors. Have any ORP contractors brought up safety concerns? There is likely something wrong with the process if no new issues have emerged. DOE is encouraged to look at the process to make sure there is a conscious effort for how to continue generating new issues.

*R. DOE-ORP is somewhat divided. There is a special team in place to deal with BNI. Clark Reed is taking over for Jennifer Sans at DOE-ORP and will focus on WTP. ORP safety culture focuses on the overall organization. To date the council, BNI, and WRPS have not identified new safety culture issues.*

C. There may be small improvement ideas that could be addressed at a small scale that would collectively add up to make it safer for the workers.

C. I am concerned that there is no comprehensive understanding of what safety culture is. In the world of nuclear disasters, names of disasters stand out. We need to consider what is being done to ensure that things that could lead to such disasters are eliminated to ensure Hanford is not added to that list.

C. I am concerned that employees are not engaged in communications with ORP about safety culture as much as they could be if they were engaged through dialogue to give feedback rather than primarily through programmatic distributions in newsletters and newspapers.

The committee thanked DaBrisha for her presentation and discussion. The committee would be interested in having DaBrisha come back to talk with the committee to provide council updates.

**HSS Independent Oversight Review of Management of Safety Systems at the Hanford Tank Farms**  
*– Joint Topic with the TWC*

*Introduction*

Dirk Dunning, Oregon Department of Energy (ODOE) introduced the topic of HSS independent oversight review of management of safety systems at the Hanford tank farms and noted that the purpose of the discussion is to receive an update on the assessment to evaluate processes for monitoring, maintaining and operating safety systems at the tank farms.

*Agency presentation*

Mat Erwin, DOE-ORP and Dave Little, WRPS, provided a presentation on the HSS Independent Assessment of the Tank Farm Safety System. The presentation provided a summary, findings and conclusions for topics including maintenance, surveillance and testing, operations, cognizant system engineering program, safety system / feedback improvements and ORP safety system oversight. In addition to their presentation, Mat and Dave emphasized the following key points:

- This assessment was designed to solicit feedback and identify improvements for the Tank Farm Safety System, ORP and WRPS' process for safety system oversight. The assessment focuses on the process redesign to support engineers in updating information in a timely manner.
- No areas of improvement were identified for surveillance and testing or ORP safety system oversight, as these systems demonstrated the ability to effectively accomplish safety functions while meeting performance criteria.

*Committee discussion*

C. Are past HSS Hanford Site assessments available to the public in one place?

*R. Yes, past HSS assessments are available online.*

Q. Is there integration between engineering training for DOE-RL and DOE-ORP?

*R. Yes, integrated systems are in place, including a fundamental training program that teaches engineers the same core competencies. With the integration training, engineers will be able to move between facilities as needed.*

C. Please clarify the human performance component of operations procedural improvements.

*R. The human performance piece dealt with people understanding how to operate different valves. Rather than looking up how to operate each individual valve of a series of unique valves, a new process would provide instructions for each valve in a single instruction manual, eliminating the need to look for the appropriate instructions elsewhere for each inspection. It is an ongoing theme in WRPS to address and eliminate so-called human performance traps.*

C. It seems as though fail-safe design is missing in young engineers' training. There was an instance of installing the wrong kind of check valve, which is concerning.

*R. In that instance, it turned out that no one on that team had any experience working with hot shorts. There was a break-to-alarm instead of a make-to-alarm. A program for formal mentoring will be instituted, where senior engineers mentor new engineers. Project teams will include a mix*

*of new and senior engineers to ensure an adequate amount of experience informs decisions and decrease the risk of mistakes.*

*Public comment*

Ed Boettcher provided public comment, noting that the review assessment was conducted on a project that has the highest priority and adequate budget and resources. The assessment deals with a safety system that affects the public. He noted he hoped that DOE was using 343 stop-work authority to address safety issues that arise and move on, as the problem evaluation request system (PERS) could take weeks if a problem is identified. The leak detection system has been bypassed by using cameras to monitor leaks. He expressed concern that monitoring by people is being replaced by automation.

*R. [DOE-ORP] Regardless of the system in question, there is always opportunity for improvement. The assessment did not detect any compromised valves. The human factors identified, rather, were discovered when talking to people about where there were opportunities to make mistakes on the job. DOE-ORP has no problem invoking stop-work when necessary. Facility representatives are watching behavior and looking for imminent safety hazards, and representatives are in the field for workers to approach with concerns.*

Committee members thanked Ed for his comment.

For next steps, the committee agreed they would like to discuss this topic again after the April 2014 HSS safety culture assessment report is released.

**Committee Business**

*Review follow-up items*

The committee reviewed follow-up items, including sharing a link with the committees to where past HSS assessments are posted publicly, looking into getting a tour of the EOC and JIC and identifying where DOE and the county's responsibilities overlap or are different.

*Update the 3-month work plan*

The HSEP committee agreed to update the three-month work plan during their November committee call due to time constraints at the meeting. During work planning, the committee will also consider whether an incident at C-107 should be addressed by the committee as a potential emerging issue with attention to the 2014 HAB Work Plan and priorities.

**Attachments**

Attachment 1: Transcribed Flip Chart Notes

Attachment 2: Synthesized Topics for Potential Next Steps

Attachment 3: DOE-ORP Agency presentation: HAB Briefing on ORP Organizational and Safety Culture Improvement Council

Attachment 4: WRPS presentation: Independent Assessment of Tank Farm Safety System

Attachment 5: Excerpt from August 8, 2013 HSEP Meeting Transcribed Flip Charts

**Attendees**

Board Members and Alternates

David Bernhard	Laura Hanses	Pam Larsen
Richard Bloom	John Howieson	Susan Leckband
Antone Brooks	Rebecca Holland	Liz Mattson
Shelley Cimon	Steve Hudson	Maynard Plahuta
Sam Dechter	Mike Korenko	Keith Smith
Dirk Dunning		

Others

Mat Irwin, DOE-ORP	Tom Rogers, WA-DOH	Sharon Braswell, MSA
Jim Lynch, DOE-ORP	Jeff Lyon, Ecology	Dan Connell, MSA
DaBrisha Smith, DOE-ORP	Erika Holmes, Ecology (phone)	Michael Turner, MSA
Kim Ballinger, DOE-RL	Ed Boettcher, Public	David Little, WRPS
		Rob Roxburgh, WRPS
		Abby Chazanow, EnviroIssues
		Susan Hayman, EnviroIssues

Emergency Preparedness: Observations from August Drill

- Observation that EOC, JIC and public process release info. not always the same
- How social media contributes to info. flow (could be helpful or problematic)

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Emergency Preparedness: Suggestions

1. Quickly determine and use a consistent name for the incident
2. Reinforce website use
3. Engage and train workers on site
4. Share siren info. / other info. with the community
5. Film an incident/ drill and play it back to show capability and operation – publicly available
6. Site transportation an important consideration (item 3c on next steps handout)

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Emergency Preparedness: Suggestions (cont.)

7. Other info. to learn:
  - Scenarios: Power failure, other communication awareness, bomb threat, etc.
  - Questions citizens might have – try to answer them in determining info. public needs and how to get this to them
  - What the “hazards” actually are (health, public perception, cleanup, etc.)
  - Lessons learned from Fukushima

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Emergency Preparedness: Suggestions (cont.)

8. Ensure public knows what systems are in place, how they work, how public gets informed
9. Clarify what counties are responsible for vs. DOE in emergency response – who is responsible for what (answer black box question)?

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Emergency Preparedness: Potential next steps

1. Better understanding of “black box”
2. Visit DOE, Benton County EOC & JIC (have HSEP mtg in Fed. Bldg)
3. Chain of command questions with “military” situations

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Follow-Up Discussion: Safety Culture

1. Process to keep safety basis up to date (full site)
2. Research employee concerns and follow up

3. Integration between agency and contractor safety culture teams/councils
4. Still need to really discuss what the term “safety culture” means

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Safety Culture Next Steps

- More discussion at future meeting (issue raised in meeting)
  - Behavioral side
  - How people can raise issues and get response
  - How to ferret out news items and proactively address
  - Committee goal – tie to work plan

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Next Steps: Safety Systems at Tank Farms

- Learn about findings from HSS report from upcoming December – January visits

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Follow Up

- Confirm if HSS assessments are posted/publically available (*yes – confirmed during mtg*)
  - Sharon to provide link to Susan H. to distribute to the committee

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November Committee Call Topics

- 3 month work plan
  - Does C-107 incident fit on work plan?

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