DEFENSE NUCLEAR FACILITIES SAFETY BOARD

Board Public Meeting and Hearing

Thursday, March 22, 2012

Session II

6:00 p.m.

Three Rivers Convention Center

7016 West Grandridge Boulevard

Kennewick, Washington

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

DEFENSE NUCLEAR FACILITIES SAFETY BOARD)
BOARD PUBLIC MEETING AND HEARING)

Thursday,

PARTICIPANTS:

MR. PETER S. WINOKUR, Chairman
MS. JESSIE H. ROBERSON, Vice Chairman
DR. JOHN E. MANSFIELD, Board Member
MR. JOSEPH F. BADER, Board Member
MR. TIMOTHY J. DWYER, Technical Director
MR. RICHARD E. TONTODONATO, Deputy Technical Director
MR. RICHARD A. AZZARO, General Counsel
MR. RICK SCHAPIRA, Deputy General Counsel
MR. BRIAN GROSNER, General Manager
MR. STEVEN STOKES, Group Lead, Nuclear Facility Design & Infrastructure
MR. WILLIAM LINZAU, DNFSB Hanford Site Representative
MR. ROBERT QUIRK, DNFSB Hanford Site Representative

ALSO PRESENT:

(6:30 Panel Discussion)

MR. WILLIAM ECKROADE, DOE-HSS Principal Deputy Chief for Mission Support Operations

MR. WILLIAM MILLER, Deputy Director, DOE-HSS Office of Safety and Emergency Management

(7:15 Panel Discussion)

MR. FRANK RUSSO, WTP Project Director
Mr. RICHARD KACICH, WTP Assistant Project Director, Integration

(8:00 Panel Discussion)

MR. DAVID HUIZENGA, DOE Senior Advisor for Environmental Management

MR. JAMES HUTTON, DOE-EM Chief Nuclear Safety Advisor

ALSO PRESENT (Cont'd)

MR. SCOTT SAMUELSON, DOE Manager of Office of River Protection

MR. DALE KNUTSON, DOE Federal Project Director for WTP

I N D E X

P R O C E E D I N G S

CHAIRMAN: Good evening. My name is Peter Winokur and I am the Chairman of the Defense Nuclear Facilities Safety Board. I will preside over this public meeting and hearing.

I would like to introduce my colleagues on the Safety Board. To my immediate right is Ms. Jessie Roberson, the Board's Vice Chairman. To my immediate left is Dr. John Mansfield. Next to him is Mr. Joseph Bader. We four constitute the Board.

The Board's General Counsel, Mr. Richard Azzaro, is seated to my far left. The Board's Deputy Technical Director, Mr. Richard Tontodonato is seated to my far right.

Several members of the Board staff closely involved with oversight of the Department of Energy's defense nuclear facilities are also here.

Today's meeting and hearing was publicly noticed in the Federal Register on January 5 and March 8, 2012. The meeting and hearing are held open to the public per the provisions of the Government in the Sunshine Act. In order to provide timely and accurate information concerning the Board's public and worker health and safety mission throughout the Department of Energy's defense nuclear complex, the Board is recording this

proceeding through a verbatim transcript, video recording, and live video streaming.

The transcript, associated documents, public notice, and video recording will be available for viewing in our public reading room in Washington, DC. In addition, an archived copy of the video recording will be available through our website for at least 60 days.

Per the Board's practice and as stated in the Federal Register notice, we will welcome comments from interested members of the public at the conclusion of testimony, at approximately 8:30 p.m. this evening.

A list of speakers who have contacted the Board is posted at the entrance to this room. We have generally listed the speakers in the order in which they contacted us or, if possible, when they wished to speak. I will call the speakers in this order and ask that speakers state their name and title at the beginning of their presentation.

There is also a table at the entrance to this room with a sign-up sheet for members of the public who wish to make a presentation, but did not have an opportunity to notify us ahead of time. They will follow those who have already registered with us in the order in which they have signed up.

To give everyone wishing to make a presentation

an equal opportunity, we ask speakers to limit their original presentations to five minutes. The Chair will then give consideration for additional comments should time permit.

Presentations should be limited to comments, technical information, or data concerning the subjects of this public meeting and hearing. The Board Members may question anyone making a presentation to the extent deemed appropriate.

The record of this proceeding will remain open until June 23, 2012. I would like to reiterate that the Board reserves its right to further schedule and regulate the course of this meeting and hearing to recess, reconvene, postpone, or adjourn this meeting and hearing, and to otherwise exercise its authority under the Atomic Energy Act of 1954, as amended.

The Board's statutory charter is to ensure the adequate protection of the public health and safety, including safety of the workers. In the case of the Waste Treatment Plant, however, this statutory charge is made more complex because we are not just concerned about whether this plant can operate safely, we are also concerned about whether the plant is fully capable of processing the large volume of toxic and radioactive wastes now stored in underground tanks at Hanford. The

oldest tanks, which were built with a 20-year design life, date back to World War II and will be almost 100 years old by the end of the projected treatment mission. The Board has therefore inquired into many issues that involve a mixture of accident risk and the ability to reduce risks posed by continued storage in Hanford's tank farms due to potential performance limitations of the Waste Treatment Plant.

The Board recognizes that the Waste Treatment Plant serves a vital function in the cleanup of the Hanford Reservation, and that it is important to get the plant operational. However, the Board also recognizes that the Department's decision to pursue a design-build, fast-track approach for this project involves potentially greater risk than would a traditional design and construction approach. What concerns the Board are the Department's decisions to continue design and construction of the plant when there are many major unresolved technical issues that can impact not only safety-related controls needed to protect the public and workers, but also the reliability and capability of a plant that must operate safely for decades.

Once the plant is operating and processing radioactive waste, options for physical changes in process cells will be extremely limited, costly, and

likely to expose workers to hazardous situations. To the maximum extent possible, solutions to design and operational issues must be accommodated before commissioning. A learn-as-we-go operating philosophy is not prudent or safe for this facility.

The Board held a hearing at Hanford in October 2010 to better understand the project's progress towards resolving technical issues dealing with mixing, hydrogen control, and safety basis development. The Board's evaluation of the technical issues was broadened in the summer of 2010 to include an investigation into the project's safety culture after the Board received a letter from Dr. Walter Tamosaitis, a former engineering manager for the project. In his letter, Dr. Tamosaitis alleged that he was removed from the project because he identified technical issues that in his view could affect safety. He further alleged that there was a flawed safety culture at the project.

The Board's investigation concluded that the Waste Treatment Plant project suffered from serious problems in safety culture and in the management of safety issues. As a result, the Board issued Recommendation 2011-1, Safety Culture at the Waste Treatment and Immobilization Plant, on June 9, 2011, identifying the need for prompt, major improvement in the

safety culture of the project. From the Board's perspective, the "flawed" safety culture at the Waste Treatment Plant is an indicator that significant organizational weaknesses may be adversely impacting the project's ability to identify, address, and resolve critical technical issues which directly impact the ability of the plant to treat waste safely and efficiently. The Department of Energy accepted the Board's Recommendation and is executing a plan to fully characterize and address problems in safety culture at the Waste Treatment Plant.

The Board called this public hearing and meeting to receive testimony from the Department of Energy and its contractors concerning several issues that are central to the success of the Waste Treatment Plant project. During the session earlier today we received testimony on: (1) the significance of the timely integration of safety into the Waste Treatment Plant's design and (2) the relationship between the resolution of safety issues and the development of a sound nuclear safety strategy. In this evening's session, we will receive testimony concerning the Department of Energy's progress towards implementing the Board's Recommendation on fixing flaws in the project's safety culture, which is closely tied to the project's ability to resolve

technical issues like erosion/corrosion and pulse jet mixing discussed during this afternoon's session.

There are four fundamental things to remember about organizational culture that guide us. First, culture is a learned behavior, and it characterizes how the group will respond to both internal and external influences. On this project, internal tensions between the organizations responsible for completing the design and the organizations responsible for the nuclear safety basis are well documented and need prompt resolution. External influences must be viewed as value added and leveraged to improve the project's execution, which is a key to a learning organization. Second, the group's leaders are the designers, modelers, and teachers of the culture. It's what the leaders say and do that matters. It isn't enough to say safety is an overriding priority on a project. Such pronouncements quickly ring hollow if subsequent actions demonstrate otherwise. Third, one evaluates culture by looking at what a group actually does versus what the group claims to believe. Fourth, peer pressure within the group is what maintains the culture.

We will begin this session by receiving testimony concerning actions that the DOE is taking to understand the cultural issues at WTP and to implement

the steps necessary to improve the work environment. The Board will explore the findings and recommendations of DOE's Office of Health, Safety and Security's Independent Oversight Assessment of Nuclear Safety Culture and Management of Nuclear Safety Concerns at the Hanford Site Waste Treatment and Immobilization Plant, which was issued in January of this year. It is vital that the Department ensures that all WTP workers know that their safety concerns are valued and that all safety issues are appropriately identified and will be dispositioned in a timely fashion.

We will then spend some time receiving testimony from senior project personnel concerning their plans for improving management and resolution of technical issues, as well as removing institutional barriers that inhibit the development of a strong safety culture. Resolving technical issues and incorporating the resolutions into the project plans will demonstrate the project's commitment to both the Department of Energy and its own workers that they will produce a plant fully capable of safely meeting its mission objectives.

Finally, as the Board tracks DOE's implementation of Recommendation 2011-1, the Board needs to understand DOE's assessment of the project's difficulties in obtaining resolution of safety and

technical issues, and the potential risks those difficulties impose on the ultimate and safe operation of the plant. As DOE continues to learn from its experiences with the Waste Treatment Plant project, the Board encourages DOE to feed those lessons back into its design and construction projects to avoid the types of problems encountered at the Waste Treatment Plant.

I note that the Board will be continuing this public meeting in Washington, DC, on May 22, 2012, to hear from senior Department officials. At that meeting, the Board will provide those officials with an opportunity to discuss their approach to addressing the broader policy and program issues associated with Recommendation 2011-1 and their efforts to evaluate the safety culture at the Waste Treatment Plant other design and construction projects, sites, and programs within DOE.

This concludes my opening remarks.

I will now turn to the Board members for their opening remarks.

VICE CHAIRMAN: No thank you, Mr. Chairman.

CHAIRMAN: Dr. Mansfield.

DR. MANSFIELD: Nothing at this time, sir.

CHAIRMAN: Mr. Bader.

MR. BADER: No comments at this time, Mr.

Chairman.

CHAIRMAN: This concludes the Board's opening remarks for this session. At this time I would like to invite Mr. David Huizenga, DOE's Senior Advisor for Environmental Management, to the witness table to provide a statement on behalf of the Department of Energy.

Welcome, Mr. Huizenga. I would ask you -- we'll take your full written testimony into the record. I would ask you to limit these comments to about 10 minutes.

MR. HUIZENGA: So do we think we got the mics fixed, Mr. Chairman? Well --

CHAIRMAN: We were a little nervous before, to be frank.

MR. HUIZENGA: Well, good evening, Mr. Chairman, and distinguished members of the Defense Nuclear Facilities Safety Board. I appreciate the opportunity to be here today to represent the Department of Energy's Office of Environmental Management Program and discuss the important topic of safety culture. I'd like to offer a few thoughts to set the stage for tonight's session.

Nuclear safety has been an integral part of our vital and urgent mission from its inception. And our goal is to continuously improve our safety performance. Our overall approach to nuclear safety is further

articulated in DOE's nuclear safety policy. We are firmly committed to this policy and expect a similar commitment from all DOE employees, contractors and partners. DOE is committed to a strong and sustained safety culture where all employees are energetically pursuing the safe performance of work, encouraging and questioning work environment and making sure that executing the mission safely is not just a policy statement but a value shared by all. A positive safety culture is an integral aspect of an effective integrated safety management system.

DOE defines safety culture in the Department's integrated safety management system guide as safety culture is an organizations values and behaviors modeled by its leaders and internalized by its members which serve to make safe performance of work the overriding priority to protect the workers, public and the environment. These words are important. Behaviors modeled by its leaders, organizational safety culture is in large part as you said a product of the behaviors of management.

The organizational safety culture is the environment in which the integrated safety management system is implemented and work takes place. I want to make it clear that safe performance of work is the

overriding priority in the office of environmental management and it is a reflection of leadership starting with me. It's not a priority, it's not an overriding priority, but the overriding priority.

I take these concepts seriously. In this venue I am focused on three things: Instilling and holding managers accountable for leadership behaviors that foster a strong safety culture and driving these behaviors all the way down through the EM headquarters and field organizations. Ensuring line managers encourage a vigorous questioning attitude towards safety and fostering constructive dialogues and discussions on safety matters. Establishing a high level of trust in which individuals feel safe from reprisal when raising safety concerns. Differing points of view are solicited and encouraged, management provides relevant and timely information to the workforce and vigorous corrective action programs are effectively implemented.

I would note that the actions within the Department's implementation plan for Board recommendation plan 2011-1 develop and deliver training to senior contractor and DOE managers that will assist leaders in creating an open and collaborative work environment.

Turning specifically to recommendation 11-1, the Department's response team for the recommendation

reviewed a wide variety of materials and reference documents related to the safety culture topic, including those recommended by the Board in your letter to the secretary of June 30 of 2011. In doing so, the response team identified underlying causes it believes led to the findings and concerns stated in your recommendation.

The response teams review found that some technical staff at WTP hesitate to raise safety or technical concerns that might affect project schedule or costs believing their managers may not support them or find the resolution process too difficult or too lengthy. Some staff also believe the employee concerns program, or ECP, as we would refer to it, has been effective in management actions and implementing the ECP have reduced its value and credibility. These observations indicate weakness in the safety conscious work environment.

I'd like to discuss the underling causes we identified in our implementation plan. First, departmental expectations for implementation of the safety culture concept at nuclear facilities were not developed. In other words, there's a need to do a better job of converting high level policy expectations for a strong safety culture into detailed guidance for implementation of those expectations.

A strong safety culture is expected by the DOE's

nuclear safety policy and our worker safety rule and integrated safety management policy. There is a need for better implementation and dissemination of the safety culture concept. That employees not only have the right to raise concerns but also the responsibility to raise concerns and that they can do so without fear of retaliation is a message that DOE and its contractors must constantly reinforce.

Second, DOE and contractor management did not adequately mitigate the unintended impact on the safety conscious work environment that occurred as the WTP project shifted from the research and design phase to be more focused on construction and commissioning. We discussed this in the afternoon session that the WTP contract awarded in 2001 is a concurrent design build contract.

In a sense, the convergence of design completion and the project construction schedules is manageable but inherently creates additional complexity and tension between organizational elements assigned to resolve technical issues and those responsible for schedule and cost goals. This tension contributed to management behaviors detrimental to safety conscious work environment. Thus, the WTP contracting strategy had an unintended impact on WTP safety culture.

One of the highest ISMS guidance principles is balance priorities. The response team observed that the WTP contract incentives cost and schedule performance and project milestones was focused on this. The performance measures reported to headquarters and contract performance incentives focused there but do not do enough to reinforce the safety culture.

Third, DOE and contractor management require more knowledge and awareness of safety culture. Some managers need more knowledge and awareness of the overall topic. Managers must thoroughly understand the value and value elements such as the differing professional opinion process, the employee concerns program, the treatment of staff who raise issues and concerns. Federal and contractor managers have not generally been required to have specific training on management roles and responsibilities for safety culture attributes, behaviors and expectations. Moreover, the managers performance plans do not always include specific measures for meeting safety cultures expectations.

And fourth, technical issue resolution and communication of results at WTP are sometimes inefficient and ineffective. The response team found three areas in which WTP's resolution process needs improvement. First some personal perceived -- some personnel perceived

pressure from managers not to submit issues into the resolution process. Second, after the issues were submitted, the issue resolution process sometimes took too long to disposition. And third, after issues were resolved managers did not always effectively communicate the decisions and the basis to the technical staff. These underlying causes combined to negatively impact the safety culture at WTP.

I'd like to briefly turn to the recent HSS review of WTP safety culture, which I know we'll be speaking more about later on. EM and ORP have reviewed the HSS report and accept the report recommendations. We will take timely and appropriate action to address the findings and other deficiencies in the report that are directed at the federal workforce and will ensure that Bechtel develops and implements meaningful and responsive corrective actions as well.

To promote constructive dialogue and gain a better understanding of the issues, I recently joined Scott Samuelson and Federal Project Director Dale Knutson, Matt Moury and Jim Hutton of my staff to meet with some of the DOE and contractor individuals that have raised safety issues and voiced concerns. We were able to do this on a recent trip that I made out here a couple weeks ago.

I found these individuals to be highly motivated and to contribute to the success of the WTP projet. They presented detailed information regarding some of the issues we discussed earlier today such as erosion and corrosion and the ability of the pretreatment facility to safely process waste. They presented concepts they had developed that may help us to address these issues and may help ensure safe operation and the success of the WTP. I found this information compelling, believe it may have merit and have directed the ORP staff to review the concepts and develop an approach to maturing these ideas for further consideration.

I believe these kinds of positive discussions are central to nurturing a strong safety culture. Model appropriate management behaviors to engender a strong safety culture and also hold promise to help us resolve the technical issues that we're dealing with at WTP. We are now focused on developing and implementing corrective actions in response to the issues and recommendations in the HSS report. The DOE oversight will ensure that BNI corrective action plan for the HSS report is fully responsive, comprehensive and effectively implemented. DOE will provide the Bechtel corrective action plan to the Board following our DOE review.

Second, consistent with an ISMS guiding

principle of clear roles and responsibilities, EM has revised the project execution plan for the WTP to be similar to other EM management acquisition plans -- major acquisition plans, excuse me, and to more clearly describe roles and responsibilities within the WTP project organization and supporting elements from the ORP and the Richland operations office.

Third, ORP has directed Bechtel to amend the nuclear safety quality culture plan to assure it responds to issues from the most recent HSS report and relevant issues from the external assessment that they conducted. The ORP will revise the Bechtel contract performance evaluation plan and project performance measures to achieve balance, priorities and include safety culture elements. ORP will review the Bechtel WTP contract and implement appropriate mechanisms to achieve balance, priorities and include safety culture elements.

And fourth, ORP will prepare an action plan formally documenting DOE's responses to the HSS report. The action plan will include federal actions to improve accountability for a strong WTP safety culture such as changes to management, employees performance plans. ORP will solicit involvement of federal employees and their union representatives in preparing the action plan.

The Department of Energy and Bechtel plans will

be discussed at the Board's public meeting scheduled for May 22nd, as you referred.

In summary, we understand the critical role that a robust safety culture plays in an effective integrated safety management system. We know we need to strengthen our safety culture and we're making progress by taking actions to identify where weaknesses exist and to implement necessary corrective actions. We recognize that changing culture will not occur overnight, it will require sustained effort by senior managers to develop or improve the mechanisms and processes necessary to facilitate a strong safety culture and to reinforce the behaviors we want our leaders and employees to demonstrate. The Department is committed to this effort.

I will have to say just in closing, Mr. Chairman, and others that I found the discussion this afternoon very encouraging in the sense that I think I heard a good dialogue amongst our own team and with the Board. And I appreciate the opportunity for that to have taken place. Thank you.

CHAIRMAN: We appreciate your comments very much, Mr. Huizenga. Thank you.

Before we hear from the Board staff, at this time I would like to enter into the hearing record the following reports, which the Board will be discussing the

evening. One, the DOE Office of Health Safety and Security Independent Review of Nuclear Safety Culture dated October 2010; two, the Pillsbury Assessment of the Safety Conscience Work Environment at the Hanford Waste Treatment Plant; three, the Independent Safety and Quality Culture Assessment Team Report on assessments and recommendations for improving the safety and quality culture at the Hanford Waste Treatment and Immobilization Plant dated November 30, 2011; and four, the DOE Office of Health Safety and Security Report on Independent Oversight Assessment of Nuclear Safety Culture and Management of Nuclear Safety Concerns at the Waste Treatment and Immobilization Plant dated January 2012.

Now the Board would like to recognize Richard Tontodonato, who is the Deputy Technical Director for our staff. He is going to briefly review the status on DOE's implementation of Recommendation 2011-1, set the stage for the panel discussions to follow.

Mr. Tontodonato, please proceed with your statement.

MR. TONTODONATO: Thank you, Chairman Winokur. For the record, my name is Richard Tontodonato, and I'm Deputy Technical Director for the staff of the Defense Nuclear Facilities Safety Board. My purpose here is to set up tonight's discussions. I will summarize the actions that the Department of Energy has taken to date

in response to the Board's Recommendation 2011-1 on safety culture at the Hanford Waste Treatment and Immobilization Plant, and describe the Department's plan to fully implement the recommendation.

As the Chairman said, the Board issued Recommendation 2011-1 on June 9, 2011, identifying the need for prompt, major improvement in the safety culture of the Waste Treatment and Immobilization Plant project. The Secretary of Energy accepted the Board's Recommendation. Furthermore, Secretary Chu signaled his recognition of the importance of the recommendation by designating the Deputy Secretary of Energy, Mr. Daniel Poneman, as the Responsible Manager. The Board has designated its Vice Chair, Ms. Jessie Roberson, as its lead for the recommendation, to work directly with the Deputy Secretary.

The Secretary of Energy initiated actions in response to Recommendation 2011-1 even before the Department finalized its formal implementation plan. One very significant action was accomplished on December 5, 2011, when Secretary Chu and Deputy Secretary Poneman issued a memorandum to the heads of all Department of Energy elements. The memorandum described their expectations for nuclear safety in the Department, including roles and responsibilities, safety culture,

standards and directives, and Integrated Safety Management. The memorandum clearly stated their commitment, which I will quote directly here, "to a strong and sustained safety culture, where all employees - from workers with shovels in the ground to their managers all the way up to the Secretary and everyone in between - are energetically pursuing the safe performance of work, encouraging a questioning work environment, and making sure that executing the mission safely is not just a policy statement but a value shared by all."

Additionally, in parallel with developing its implementation plan for the recommendation, the Department began a major independent assessment of safety culture and the management of safety concerns at the Waste Treatment and Immobilization Plant project. DOE's Office of Health, Safety and Security (HSS) performed this review, assisted by external independent experts in safety culture and a specialist in group dynamics and focus groups. The HSS team issued their report in January. It provides substantial insight into the project's safety culture, its management of safety issues, and the relationship between the two. The report gives an extensive list of conclusions and recommends numerous specific corrective actions. Both the Deputy Secretary of Energy and the Department's Acting Assistant

Secretary for Environmental Management have specifically accepted the findings and recommendations of the HSS report. The first panel of tonight's hearing session will focus on these findings and recommendations.

The Secretary of Energy provided his formal plan for implementing Recommendation 2011-1 to the Board on December 27, 2011. The plan includes actions to address the issues specific to the Waste Treatment and Immobilization Plant project, including a commitment to address the findings of the HSS assessment. The plan also includes important actions to review the project's contract, performance evaluation plan, and performance measures and implement appropriate mechanisms to achieve balanced priorities and include safety culture elements.

A validation and effectiveness review for all of these actions is to be completed by the DOE Office of Environmental Management by May of next year. The second and third panels of tonight's hearing session will focus on the actions being taken by the project contractor and by DOE in the areas of safety culture and the management of safety concerns for the project.

DOE's plan also includes actions to evaluate whether similar issues exist elsewhere in DOE defense nuclear complex. DOE-HSS will perform independent assessments of five other major design and construction

projects including the Uranium Processing Facility project at the Y-12 National Security Complex. Other sites, facilities, and DOE-Headquarters offices will use training and guidance developed under the implementation plan to perform assessments with oversight by DOE-HSS. DOE will use the results of the self-assessments to determine whether to conduct additional independent reviews.

Based on all these assessments, DOE will develop actions needed for the ongoing management of safety culture within the DOE defense nuclear facility complex. One action already included in the implementation plan is to develop and provide training on safety culture attributes and management behaviors for key senior leadership in DOE and its contractors, and to assign the line organizations to sponsor and conduct training for other employees. The final actions in DOE's implementation plan are the development and approval of site-specific tools to sustain a robust nuclear safety culture throughout the DOE defense nuclear complex.

The first and third panels of tonight's hearing session will provide an opportunity for the Board and DOE to discuss the actions that extend beyond the Waste Treatment and Immobilization Plant project. These topics will also be a focus of the final session of this hearing

to be held on May 22 at the Board's Washington, DC, office.

The Board evaluated DOE's implementation plan and concluded that it is an acceptable response to the Board's recommendation. The Board issued a letter to DOE accepting the implementation plan on March 2, 2012. The letter included a request and a caution, however. The Board requested that DOE update the implementation plan using the information gained from the HSS independent assessment, since much of that information had yet to be developed when DOE was formulating the plan. It should now be possible for DOE to include in the plan a more specific set of actions to be taken at the Waste Treatment and Immobilization Plant project.

The Board's letter also noted that the findings of the HSS assessment of the project underscored the need for independent viewpoints and specialized expertise in safety culture assessments. This is an important observation, because DOE's implementation plan relies on self-assessments to characterize the state of safety culture from facilities, activities, and on organizations other than DOE's major construction projects. The Board's letter cautioned DOE that a broader suite of independent reviews may be needed if self-assessments do not prove to be a reliable means of evaluating safety

culture.

That concludes my testimony. Thank you.

CHAIRMAN: Do the Board members have any questions for Mr. Tontodonato? Seeing none at this time I'd like to invite the first panel of witnesses from the Department of Energy's Office of Health, Safety and Security or HSS to take their seats as I introduce them for the topic of this panel HSS's assessment on safety culture at the waste treatment plant. Mr. William Eckroade, DOE Health Safety and Security Principal Deputy Chief for Mission Support Operations; and Mr. William Miller, Deputy Director, DOE Health, Safety and Security Office of Safety and Emergency Management.

The Board will either direct questions to the panelists or individual -- and to the panel or individual panelists who will answer them to the best of their ability. After that initial answer other panelists may seek recognition by the Chair to supplement the answer as necessary. If panelists would like to take a question for the record, the answer to that question will be entered into the record at the hearing at a later time.

Does anyone on the panel wish to submit written testimony at this time?

MR. ECKROADE: I'll submit testimony at the conclusion of my remarks.

CHAIRMAN: Thank you. We'll certainly accept that for the record.

I'd like to thank each of you for your testimonies. With that we'll continue with questions from the board members to this panel.

Ms. Roberson will begin the questioning.

VICE CHAIRMAN: I'm sorry, Mr. Eckroade, did you have something you wanted to say to begin with?

MR. ECKROADE: We have prepared statements if you'd like hear those or we can move right into questions and answers. It's up to you.

VICE CHAIRMAN: Move into questions.

CHAIRMAN: Okay. Let's move into the questions.

VICE CHAIRMAN: I think we'll probably give you an opportunity to make those comments along the way I hope.

Mr. Eckroade, can you tell us who was your on HSS assessment, the assessment that concluded with a report in January of this year?

MR. ECKROADE: Sure. As you know, we've done two assessments and HSS has a standard independent oversight program that's been longstanding with a good set of technical expertise. For this safety culture assessment that was completed in January we supplemented our normal technical experts with behavioral specialists

because we learned in the first review when you use engineers and scientists who are very good at asking questions, in individual interviews you don't learn everything there is to learn. People will tell you answers to questions but there's other tools and resources that we found during this review that really help. So we complimented our normal team with experts that then helped us use other tools and the methodologies that were endorsed and utilized by the Nuclear Regulatory Commission as well as the Commercial Nuclear Industry. And I think a couple critical things, and these may be other questions you want to get at, but, you know, these other tools really, you know, gave us great insights. And the analogy I have in our first review when you had, you know, individual interviews we learned people were comfortable telling us their strong feelings. We don't have a concern here or we have strong feelings. But we didn't learn about the middle ground, the uncertainties we didn't learn about through that mechanism. So the tools we put in place on the second review were much more informative.

VICE CHAIRMAN: So how did you get to that? How did you get at that? What kind of tools did you use or what kind of expertise did you bring that you didn't have before?

MR. ECKROADE: Sure. Well, the behavioral specialists that we brought on board, you know, have decades of experience. Dr. Sonja Haber was the lead expert. And I will tell you, and hopefully it meets with the Board's satisfaction, that we are maintaining the same team that we have used for the WTP effort, you know, for about the next five projects as far as the extended condition review.

So we're using the same tools. So the -- a couple key things with the focus groups. We've learned that in focus groups as you get peers that are comfortable with each other, there's no supervisor relationships, they're peers, there seems to be a facilitation of discussion in that forum. And so in the focus groups folks were much more open to describing their concerns, including things about their uncertainties. So that format was good. And then we used a couple of different survey mechanisms that Mr. Miller would probably be able to describe in much more detail. Behavior anchored rating scales was a key tool for us as well as a standard survey that was utilized by the commercial nuclear industry that gave us quantitative data perceptions of safety culture attributes by labor category across the project.

VICE CHAIRMAN: So can you categorize for me

your major findings or tell me what your major findings were by category?

MR. ECKROADE: By labor category?

VICE CHAIRMAN: No. By your assessment, you know, as you did your assessment and you categorize your findings and conclusions, can you give me at that level is what I'm looking at, not the details.

MR. ECKROADE: Right. And I'll ask Mr. Miller to help me out this point. You know, I'll start with the issues of safety culture and a safety conscience work environment.

One of the key goals was really to get to the bottom of how people -- what are the perceptions of the employees broadly across the project both in the Office of River Protection as well as BNI and their subcontractors. And so managers, technical staff, clerical staff, craft workers, you know, we put them into focus groups and did a broad survey.

And with respect to, you know, the feedback from those workers we certainly learned that quite a few, you know, had either strong concerns about their ability to objectively and freely raise safety issues where they had concerns about whether they really -- the environment was right to challenge their management's decisions and so that gave us a lot better understanding of the scale of

the concerns across the employees of the project and the site office.

VICE CHAIRMAN: So safety culture is one. How about management of safety concerns specifically? Can you talk about that.

MR. ECKROADE: Since our first review, which had strong conclusions on management of safety issues, we found during this review that activities had gone on to try to get at some of those issues. There were some improvements to kind of look at the mechanisms and there are many mechanisms to raise safety issues within the project staff. And so there were some improvements to re-look at those methods. But ultimately we still found substantial implementation problems where issues weren't getting into the systems but once they got in they typically stayed in, but they weren't always analyzed fully for causes and communications with the individuals submitting the issues weren't always kind of closed so they understood what the issues were.

VICE CHAIRMAN: And what about management of nuclear safety design and safety basis organization?

MR. ECKROADE: Sure. One conclusion as I was working with Bill and his team on developing the report that really struck me was the clear conflict between the nuclear safety and environmental organization and the

design engineering groups. And this is such a fundamental issue. As we're dealing with complex technologies and very difficult issues and an environment with difficult project schedules and milestones, you know, not to have the teamwork, you know, working together to kind of optimize solutions that optimize for the mission, optimize for safety and budget, it was very difficult.

And so ultimately we found that the issues of safety basis where the Department's -- the contract requirements for the safety basis weren't aligned with the actual practices and the Department standards, which ultimately contributed to the conflict between the groups as they're trying to engineer the system to one set of standards that's in the contract, you know, it is different than reviewing the safety basis to the standards of the Department's regulations and directives.

VICE CHAIRMAN: So one last question, Mr. Chairman. So there have been a whole host of reviews, right? Your earlier review, many, reviews. Where does your latest review stack up? I mean, what interview is the overriding assessment and set of findings? Where's your latest review sit in the hierarchy?

MR. ECKROADE: Well, I think one of the things that we acknowledge in our report is there are a lot of

reviews and there are a lot of conclusions and some of them overlap and some of them don't. We're confident, based on the expertise we brought in to this team that -- and the methodologies that we utilized in this review that are validated and tried and true in the commercial nuclear industry, that the information that we deliver to the secretary and to the manager of environmental management is very reliable information and will serve the Department well moving forward to solve these problems.

CHAIRMAN: Before we go to Dr. Mansfield, I want to follow up with a few questions. If I heard what you said, and tell me if this is true. You said that a person can be an expert in nuclear safety but that does not make them an expert in nuclear safety culture.

MR. ECKROADE: That is true.

CHAIRMAN: So I think that's an important thing for people to keep in mind. I mean, I have studied, a lot of people in this room have studied culture to some extent but there is a difference between an engineering perspective on this thing and somebody who really has a true understanding of culture and how -- how organization of culture works. Would you agree with that?

MR. ECKROADE: I certainly do. I'll leave it to my colleague here to -- that's got more experience here.

CHAIRMAN: Mr. Miller.

MR. MILLER: Yes. We clearly agree with that statement.

CHAIRMAN: In Mr. Huizenga's testimony, which I appreciated very much, he used the word some, some. And we heard in the earlier HSS report this thing about isolated and some. What does the word some mean to you when you think about your assessment? How does the word -- how does that impact you in terms of what you're trying to understand when somebody says some of the people or a few of the people?

MR. ECKROADE: Well, you know, in many contexts when you get the word some it doesn't give you a clear understanding of what the context is. And in this context of safety culture really the articulation of some is -- in quantification is a very important factor in understanding the importance of the issue. So I have to first say that.

In our first review we used terms pockets of individuals had concerns because through the regular interview process, that's what people told us. They would tell us when they had strong concern.

But what we learned through the different tools that we applied, the surveys that we had statistical data, you know, the -- Dr. Haber put this into different

categories that she showed in charts. And I was there when she briefed the Secretary of Energy and the Deputy Secretary of Energy. It was the first time I had seen those charts. So what you saw was by labor category, you know, reds were when they had a strong concern about a cultural attribute and green was when they had a very positive view of that attribute. And then the yellow in the middle was uncertainty about management's expectations for those attributes.

And so when you those charts the term some seems inadequate. The quantification of these attributes through these survey methods really provide a powerful tool for line managers to really understand their safety culture and give them accurate information about those groups that they need to take care of more and make more investment in time so they understand management's true intent.

CHAIRMAN: I'll have more questions later. But let me go on to Dr. Mansfield now.

DR. MANSFIELD: Thanks, Mr. Chairman. I appreciate your remarks. And I say also that your description of the four elements of safety, of safety culture in your opening statement is informative and describes very well what we have seen here.

On the number of or percentage of people that

seam to have a problem with the safety culture in the organization and are maybe hesitant to say it but eventually do and it shows up that five percent of the people think that things aren't going well, it is very easy for management to say, well, it is only five percent. But I'm going in the hospital for a rotator cuff next month, and well, five percent of the nurses think that the doctors are only in it for the money and five percent of the doctors think that the lab techs are incompetent, and five percent of the lab techs think that the nurses are lazy. Should I pick another hospital? Five percent is a big number. I mean, it is a whopping number. Any organization that has the -- tolerates five percent of total distrust of management in its organizational principles is in a lot of trouble. Thanks for letting me spout off here. Here's the question I have for you.

CHAIRMAN: Did I have a choice? (Laughter.)

DR. MANSFIELD: There are two features of your HSS report, to my mind, it is well thought out, it is organic, it holds together very, very well, it is understandable, it is not just a lot of social science talk, that's very valuable. It evaluates the interactions between groups that have built in conflicts and what that can do, what those interactions can do to

the feeling that the organization is working together to accomplish a safety goal.

In particular we talked about two elements of tension between the contractor, between the safety basis organization and engineering and within the Office of River Protection between the task -- the waste treatment plant manager and the rest of ORP. I think those were -- we can perceive those are strong conflicts. Could you explain -- was it hard for you to find those out? Dig that out? Or was this something that stood out to you from the beginning?

MR. MILLER: First of all, for ORP, the office of ORP, we sponsored our own survey result and so that survey result gave us very quantitative data on that conflict. That was pretty apparent by those results. And also, we did have focus groups that also brought out that conflict.

DR. MANSFIELD: So it was apparent from the beginning because of the tools that you picked?

MR. MILLER: Right.

DR. MANSFIELD: That you were getting convincing answers right away, not just a lot of master's theses.

MR. MILLER: Correct.

DR. MANSFIELD: Nothing against master's theses.

MR. MILLER: Fundamentally that's the strength

of this NRC methodology for safety culture.

DR. MANSFIELD: You mentioned -- I won't quote very much. This is a quote from your report. "Although most of the symptoms are evident within the ENS and engineering departments, most of the contributing factors are not there but they're from actions or inactions at higher levels, both ORP and DOE, WTP and BNI." Could you describe how you discovered that it was actions or interactions inattention or attention by the higher levels that had that formed behavior?

MR. MILLER: Yes. One of the major issues of the conflict between the environment and nuclear safety organization and engineering design is this conflict with the standard 3009 implementation. And when we spent time looking into that and when that occurred, it actually went back several years. So that's what that statement is based on is that there was many opportunities over the years to resolve that issue by senior management and those opportunities were not successful.

DR. MANSFIELD: And has that conflict on Standard 3009 been resolved or is it just put -- hiding in the bushes until sometime in the future?

MR. MILLER: At the conclusion of our review it was -- it still existed.

DR. MANSFIELD: Is it your opinion the progress

was going slowly or has there been a breakthrough both in the contractor and DOE that they have to solve this problem?

MR. MILLER: Yes. There's -- you know, actually, our report goes through some of the actions that they have taken and plan to take. And one of them is that they need to have a contract revision to actually implement some of these changes. And they have identified an integrated strategy to address this problem.

DR. MANSFIELD: Yes. I would say then in judging from our afternoon session a light bulb has gone off and people are -- people get it, to a certain extent. Would you agree with that?

MR. MILLER: Yes. Very much.

DR. MANSFIELD: Thank you, Mr. Chairman.

CHAIRMAN: Let me follow up with a couple good questions. We did have a lot of discussion today about this tension between the nuclear safety organization and design organization on this project. And my understanding is that this tension sometimes exists, it may have been unusually high, I think it was unusually high on this project. And we have discussed it. But you're also talking about a tension here between the project and the site office. From your experience is

that something that you typically see in the Department?

MR. MILLER: I'm at a little bit of a disadvantage because our extended condition review would kind of give us that extra perspective on the project. I'm sure that in terms of management of a project that's unusual.

CHAIRMAN: Because the project director does support -- does report to the site manager.

MR. MILLER: Yes. I think the conflict was this alternate path where he could report directly to the secretary. And that has initiated some of this conflict between the two groups.

CHAIRMAN: So you think those roles or responsibilities helped create some of that tension?

MR. MILLER: Yes.

CHAIRMAN: And that is not typical of a DOE project; is that true?

MR. MILLER: That is correct.

CHAIRMAN: Mr. Bader.

MR. BADER: Before I get to the question that I had planned to ask, I wanted to comment and get some clarification.

We're using words "conflict" and "tension." The words used most this afternoon was tension. I view tension as something you frequently deal with on a

project and if it is, quote, unquote, "healthy tension" that helps get the job done. Your report and you have used the word conflict. That to me is an unhealthy situation. Do you agree with that interpretation.

MR. MILLER: Yes, I do. I think the tension perceived by those involved has gotten to the point where they do have fear of reporting issues. And so at that point it is significant.

MR. BADER: And whereas a healthy tension is something that really could facilitate the progress of the project, this is destructive; is that correct?

MR. MILLER: Correct.

MR. BADER: Thank you. The earlier session today focused on several technical issues that could have significant impact on the project's likelihood of success and could also require significant time and resources to address. However, these issues have not been resolved, as we just discussed, even though they have been known to exist for a decade or close to a decade. This would appear to me to be another case of an organization struggling with competing goals of project completion versus safety in design. Mr. Miller, did your team assess the formal goals established by the project's contract and the methods that DOE is using to incentivize those goals?

MR. MILLER: We did spend sometime looking at that area but not a lot. We were mainly focused in just finding out what the true safety culture was using the NRC methodology.

MR. BADER: Would you believe that the incentivization drives behavior on the part of the contractor?

MR. MILLER: Yes, I would agree with that.

MR. ECKROADE: That's why they do it. That's the whole point, you want an outcome so you incentivize that outcome.

MR. BADER: From your look at the contract, how much do you -- do you remember roughly how much incentivization there was for safety?

MR. MILLER: No, I don't. I don't have that.

MR. BADER: Does the number one percent or less sound about right? (Laughter.)

MR. MILLER: I know it is low but I wouldn't be able to quote you on actual percentage.

MR. ECKROADE: I think it is important to acknowledge that the implementation plan for the Board recommendation does, you know, recognize the need to go back and re-look at the incentive plans and to fix that issue.

MR. BADER: Do I take that as a belief on your

part that it is important to do that?

MR. ECKROADE: It is.

MR. MILLER: Yes.

MR. BADER: And that it would be helpful?

MR. ECKROADE: Absolutely helpful. And that's something that I think the extended condition review, looking at those contracts and seeing, you know, if that's -- has a correlation with the results from the surveys and focus groups data, which will be an interesting exercise. But ultimately we already know that that's an important area to re-look at as far as DOE's management practices.

MR. BADER: Okay. Thank you.

MR. MILLER: I just wanted to mention that there is a recommendation that related to that in our report. Although we didn't spend an inordinate amount of time in that area of reviewing, we do recommendation about looking at the incentive part of the contract.

MR. BADER: Thank you.

CHAIRMAN: I have a question too, but I want to first turn to Ms. Roberson.

VICE CHAIRMAN: I have a question. And actually think it's to both either/or, it matters not. We talk a lot of about safety culture and it tends to sound like something very soft, yet earlier today we talked about

misalignment between project design and safety strategy. So we see it as the way it demonstrates itself is something very hard and very important. I hear a lot of the terms being used like perception or poor communication. And I guess in my mind if I perceive something there's a reason I perceive it. What did your behavioral specialist advise? In your assessment, did you consider whether perception was the problem here or was perception an indicator of something more?

MR. MILLER: Well, I mean, this whole safety culture review is gathering perceptions, that's the key. What the NRC methodology does is give you a very systematic measurement to do this via 17 organizational behaviors. So but you are ultimately trying to get workers, staff, perceptions of safety, because again, perceptions become reality. You will use those perceptions in how you perform your job.

VICE CHAIRMAN: Is that the case? Is that what you guys saw? That whether their perceptions were real they're impacting what's getting done.

MR. MILLER: Yes. So our report is based on perceptions and we say that a lot in our report, these of the perceptions we observed.

CHAIRMAN: Just about every assessment and we entered a few of them into the record before we

introduced Mr. Tontodonato, talks about the fact that the project does have a problem resolving technical issues. And many of these issues have been around for 10 years. And the Board strongly believes that that's an indication of a flawed or problematic safety culture. That there's a very strong link between the safety culture and the inability to resolve technical issues. Do you agree with that statement?

MR. MILLER: I think there's two parts of it. We actually spent some time looking at their technical issues. And currently they're doing a good job of tracking the issues. And then making sure those come to conclusion. So I'd rather take the timing out of it. It is more important that they have the issues identified and then they take the appropriate time to correct that. I don't know if that answers your question.

CHAIRMAN: So you don't think the fact that issues drag on for very long periods of time, that might not be a measure in some way that workers are having a very difficult time raising technical issues to management's attention?

MR. ECKROADE: Let me actually add, if you don't mind.

CHAIRMAN: Please.

MR. ECKROADE: It is a real connection in our

report. We do, as Bill mentioned, the goal is to get perceptions to surveys and focus groups. And we have really good data on perceptions. But what's driving those perceptions. And I think our report does a very good job at digging into some of those things like the safety issues. And there are examples in our previous report and this report where processes were not supporting the users of those systems. And if normal human beings, if a system's not supporting you, you're wondering why. Do they not care about my problem? Is it a low priority. Do they not believe me? Are they going to do something now to me to retaliate against me for raising this issue they don't want to seem to deal with. So yeah, the safety issues is a really big linkage to safety culture perceptions. We believe that to be to true.

MR. MILLER: I just wanted to comment that I think the importance is to keep open communication on the status of the issue throughout the process so that whoever raised the issue knows the current status and can understand where it is. It's not necessarily a rush to get it closed, but to keep the open communication.

CHAIRMAN: Well, I said in my opening remarks based on my understanding of safety culture, it is important what the leaders say and do. And so when you

get into a situation where somebody actually raises a technical issue but management doesn't respond to it, that's almost the worst situation. To actually have been able to feel they could at least raise the issue and then nothing was done about it and that leads to I think in the end people not wanting to raise issues in the future because they just know management's not going to do anything. So management in that case might be doing a pretty good talk but there's not very much walk to back it up. Is that something you'd accept?

MR. MILLER: No, I wouldn't.

MR. ECKROADE: We wouldn't accept it for the systems that we look at, but we would accept it as a conclusion.

CHAIRMAN: Okay. All right. Let me get to my question. That was -- so where should the primary focus of the corrective actions take place? So now we have a situation where we have a problem with a safety culture that you've identified. Do you think these corrective actions can take place effectively at the contractor level or do they warrant significant action on the part of the Department or the Department's leaders?

MR. ECKROADE: Well, I think we have heard from Mr. Huizenga today about the Department's strategies for moving forward in developing corrective actions, having

those reviewed really through the site office and the EM program office and their commitment to delivering those to you for your review. Clearly, the entire chain of command, line managers, are ultimately responsible for resolving significant safety issues. And for the kind of issues we're dealing with here, because they have such significant outcomes, you know, it would be our expectation that all levels of the line organizations take their responsibilities seriously for having these issues resolved.

CHAIRMAN: So it would be important for the site office to have responsibilities as well as headquarters to have corrective actions at all levels of the Department, would that be true?

MR. ECKROADE: That's true.

CHAIRMAN: Okay. One of the other things you said in your report is that you needed to gather additional information about the role of headquarters, line management organizations and safety culture in terms of being able to address issues at the waste treatment plant.

What do you have in mind in terms of what you're expecting from the role of headquarters the do in this process? What does that look like? What role are they going to play in this process of correcting safety

culture problems in this project?

MR. MILLER: Well, what you're referring to, your statement is we're actually going to go and do some interviewing with the headquarter staff to understand their safety culture. And so headquarters does play a role as part of the line management for the project and, therefore, that's why we want to also review them. So they're important to safety culture at the project.

CHAIRMAN: Do you have any sense if you look at headquarters versus the site versus the contractor where the biggest bang for the buck is going to be? What's the thing that's really going to start to move things in the right direction? I mean, the Board, for example, has said that the secretary needs to assert his influence at the highest levels at the Department of Energy for this thing to begin to move in the right direction. Do you think that's a fair statement?

MR. MILLER: No. I think the highest level management needs to push improvements in this area. And so I would agree with that.

CHAIRMAN: I'll have some later, but let me move on to you, Dr. Mansfield.

DR. MANSFIELD: Thank you, Mr. Chairman. These questions are for you, Mr. Eckroade. In your opinion, might this be a lesson that the Department should learn

that it is -- the dealing organization managing a contract like this should have someone who keeps track of all of the project issues, the evaluation reports that have been raised up, and all of the differing professional opinions, those methods -- mechanisms by which people raised issues that rose to the imperium and were never seen again, should somebody track those so that DOE knows when -- at least when they're being disposed of so that you don't -- you don't have this festering situation where people are demoralized by their PIER's ignored or their DPO's never ruled on.

MR. ECKROADE: I appreciate the question. You know, in a generic question across the Department, which has a lot of very low-risk industrial type operations and we have some of the most hazardous operations known to mankind, so we have the whole range of things. So when you're dealing in a low hazard environment, the need for a federal manager to engage on issues may be less pressing. When you're dealing with higher hazard operations I think there's ultimately a need for federal line managers to be informed about what the issues that are coming up from the workforce, particularly in an organization that has challenges and is known to have challenges to me it makes only sense that a deliberate strategy is put together to monitor the health of that

issues management process so that they can determine whether there's issues that are indeed festering.

DR. MANSFIELD: You think such an arrangement might have helped in the last few years in the Waste Treatment Plant?

MR. ECKROADE: It certainly could not have hurt.

DR. MANSFIELD: Do you think there's been a change now in what the Department's going to expect of contractors in this situation?

MR. ECKROADE: I think there's a lot of learning that's going. I mean, as an oversight organization have learned about the approaches to address safety culture. I think the Department is going to grow in its capabilities and its focus, as you've heard Mr. Huizenga speak to. So yes, there's going to be a lot of growth in our attention to these kind of issues.

DR. MANSFIELD: I'm not sure where you would put this in your incentive program. There is a big chunk of incentives in this contract and as was mentioned less than one percent was for environment, safety and health. Is this something you would incentivize in a contract somehow?

MR. ECKROADE: You know, when I first came to the Department of Energy in 1989 it was under the Watkins administration, and one of the things he did to kind of

get on top of, you know, kind of the uncertain environment and safety and health conditions is he demanded 51 percent of the award fees be environment, safety and health. And that got everybody's attention. And ultimately I think it was unnecessary to specify that uniform across the organization but he sent a message that this is important. And it led the Department and Energy on a path to focus its energies on safety, environment and health issues. And ultimately, we're better for it.

DR. MANSFIELD: And you're coming up to some large projects like the uranium processing facility. Will this be an opportunity to structure a contract to instruct the DOE site management to take advantage of what you've learned here?

MR. ECKROADE: One of the things that is true and I was at a meeting with the EFCOG board of directors last week and they are very interested in learning from our safety culture assessments and want for us to come and brief their members, you know, as we do each one of these. And there's not much time between these assessments so I didn't commit to that. But they would like to get briefings periodically.

So there is an interest in the contractors and there's an interest in the federal managers of these

projects. And I am certain that the kinds of communication that will continue during the whole extent of the condition review and I believe afterwards will be very healthy to share these lessons learned. I can't predict any specific outcome of Y-12 on how they manage the projects but I am certain they're paying attention to what's being learned at WTP.

DR. MANSFIELD: Thank you, Mr. Chairman.

CHAIRMAN: Mr. Bader.

MR. BADER: This is just a small question. My understanding is that yesterday Mr. Podonsky in his testimony before Congress was asked a question about the various safety culture studies that had been performed. And one of the questions he got on that was which one or ones should the good Congressman who was asking the question really focus on. And Mr. Pondonsky said that his 2012 study was the definitive study. I assume you would agree with that.

MR. ECKROADE: I was with Mr. Podonsky, we had many discussions in advance of that hearing and we absolutely do agree that our report has a tremendous amount of information that will be of extreme value to the Department of Energy.

MR. BADER: Thank you.

CHAIRMAN: So in summary here, and we do

appreciate your testimony, give me your best assessment, big picture assessment of when you looked at the safety culture at this project what you found it to be. Just in very generic terms.

MR. MILLER: There's three statements that kind of summarize it if you'll permit me.

CHAIRMAN: Please.

MR. MILLER: Overall there's a reluctance to raise safety concerns at ORP and BNI. And within some groups at BNI there's a fear of retaliation. The approach to safety and safety culture, it is highly proceduralized across WTP and not yet internalized at all levels of the organization. WT managers do not have a full appreciation for the current culture or the level of effort needed to foster a healthy safety culture. I think those are our overriding conclusions.

CHAIRMAN: Thank you. When will you perform your next assessment of the project to get another snapshot in time of how it's is proceeding on improving the safety culture?

MR. ECKROADE: We're committed to doing a followup in 2013. We haven't selected the month but we want to make sure that enough progress has been reported to justify the return visit schedule.

CHAIRMAN: Any other thing you want to share

with the Board? Any other burning insight that you have? Our time is very brief but is there anything additional you'd like to say?

MR. ECKROADE: No, I will just tell you that we as an organization, the Department of Energy, you know, aspire to be a learning organization. The focus on safety culture over the last few years in the end I predict will be a great learning opportunity that will help the Department immensely as we move forward to these complex projects. So we're focused on it from the Office of Health, Safety and Security. We have many roles. We do our oversight role and that's been the subject of today's discussions. But ultimately as a tool for the secretary and a tool for the line organizations, you know, we take the responsibility seriously to help line organizations be successful in meeting their mission and their safety goals and you have our commitment that we'll stay focused on this issue.

CHAIRMAN: And Ms. Roberson does have one more question.

VICE CHAIRMAN: Mr. Miller just succinctly cited your three overriding concerns. I want to make sure those are as clearly communicated in the statement you're going to provide for the record. I'm going to ask him to provide that for the record.

MR. ECKROADE: Mr. Miller will provide that for the record. It is also in our report.

VICE CHAIRMAN: Okay. Thank you.

CHAIRMAN: I want to thank you both very much. Appreciate it very much. And I think we'll thank you for your testimony and we'll move on to the next panel.

At this time I'd like to invite the second panel of witnesses from the Department of Energy's contractor at the waste treatment plant Bechtel National Incorporated, or BNI, to take their seats for the topic of this panel session, BNI's assessment on safety culture. Like to introduce Mr. Frank Russo, the WTP project director, and Mr. Richard Kacich, WTP Assistant Project Director, Integration. The Board will either direct questions to the panel or other panelists who will answer them to the best of their ability. After that initial answer other panelists make seek recognition by the Chair to supplement the answer as necessary. If panelist would like to take a question for the record the answer will be entered into the record of this hearing at a later time. Does anybody on the panel wish to enter a statement into the record?

MR. RUSSO: No. Thank you.

CHAIRMAN: Thank you very much for your testimonies. We'll continue with questioning. And the

first question will be Mr. Bader.

MR. BADER: The Deputy Secretary of Energy, Dan Poneman, and the Department's Acting Assistant Secretary for Environmental Management, Dave Huizenga, both accepted in writing the findings and recommendations of the 2012 report by HSS on safety culture and management of nuclear safety concerns at the waste treatment plant. Mr. Russo, do you accept the findings and recommendations of the report?

MR. RUSSO: Yes, I do.

MR. BADER: Do you believe that any of the findings of the HSS assessment reveal the important factors behind the project's difficulty in resolving safety and technical issues?

MR. RUSSO: A more complex answer but yes, I believe so.

MR. BADER: Do you accept Mr. Podonsky's statement that his report is the definitive report?

MR. RUSSO: What I wrote to my team when his report came out was that this report had special importance to us because the HSS understands the complex, they understand the culture of the complex, they understand the lessons learned from a lifetime of being involved in the conflicts. So in my mind it is the definitive report because it is the one that best

understands the context of the issues we're dealing with.

MR. BADER: Can you give a -- I assume you've read the report.

MR. RUSSO: Yes.

MR. BADER: Can you give a specific example from the HSS report that you have found particularly helpful?

MR. RUSSO: Again, I think the part of the report that we have to understand and focus on is in preparing our response how do we ensure that we don't have unintended consequences. And Sonja Haber was very helpful in this question about people feeling uncomfortable raising issues and how do you deal with that.

The Pillsbury report had a similar finding so I'd like to use that for an illustrative purpose. If you look at their outlier on their survey the outlier question was it takes too long to get issues resolved on this project. It was a full point lower than the next lowest score. And it stood out and in the analysis it stood out. And I really wanted to get a sense of granularity on what that meant. So we did ask the focus groups without any influence by supervision, just note takers, what did it mean to you? What do you mean when you answer that question it takes too long to get issues resolved? And we got two very actually, three distinct

answers. From the craft it was a fundamentally basic answer of I want a tool and it takes too long to get it. There's just too much bureaucracy to get from Point A to Point B to get my tool.

But from the technical folks it was a very enlightening, for me a very enlightening answer because one group said I have to really persevere to be heard. Another group said I spend my entire day answering questions that I thought were answered before.

Now, if we don't address both groups in terms of making it more comfortable for both of them to understand the nature of their jobs, the unintended consequence for one or the other would be they're going to feel left out of the answer and feel that they weren't heard.

So, then, I think the most telling thing that came out of the HSS report was that we have to be extremely sensitive to what our folks are telling us. And before we just step off and say we're going to do this, this and the other anything, it is not a check the box process. We've got to make sure we really understand the steps we can take as a management team and as a complete organization so that we answer everyone's concerns: The people asking the questions, who think it takes too much effort to get it out there, and the folks who are answering the questions who feel it takes too

much effort because they have to answer that same question multiple ways and different times.

MR. BADER: Is there any particular area in the HSS report that you felt you didn't accept or couldn't accept or had a problem with?

MR. RUSSO: No. There's nothing in the HSS report that I had a problem with. However, I have spent a lot of time both with that report and the others as well as the feedback I get from the members of the team. And I think there's a couple of things again from the point of making sure we get this right that point out I think are the major hurdles for making sure we get this right.

We're following a set of processes fundamentally that exist either in the nuclear industry through NEI [Nuclear Energy Institute] and INPO or for the most part, in operating facilities. There have been major construction jobs, but I would say that WTP is quite unique for a variety of reasons.

So whereas a lot of those organizations are very stable, our nuclear plant has about a thousand people, we're very fluid, so we have already had 11,000 people work on this project and that's to fill the current 2,800 positions roughly.

So the techniques that work for a very stable

workforce have to be analyzed against what would it take not just in the technique, I think the techniques are fine, but in the frequency of application and the frequency of checking because your workforce is, for very valid reasons, you know, in a state of turnover. As the civil folks are finished, they go to their next project. As the mechanical folks are finished, they go to their next project. As the units that we have, you heard earlier, as LBL [Low Activity Waste Facility, Balance of Facilities, Analytical Laboratory] finishes, those folks will move on and operation folks will come on. Start up forks. So what works today has to be reinforced tomorrow and the next day and the next day and the next day. And we have to continually keep focused on that the people we're talking to, both the worker and the supervisor, are different people and that critical mass is always evolving.

MR. BADER: Did you consider the conflict between the engineering organization and the environmental and nuclear safety organization that's described in the HSS report to be a problem that needed to be addressed?

MR. RUSSO: And yes, for a variety of reasons. And I think that the primary reason -- and again, I'll regress for a second, but I want to provide you with as

much context as I can. Back in 2001 a decision was made to do the design of this project in the Tri-Cities. A typical design build firm would have it in a production office somewhere other than the community it is being built. But the decision was well thought out and I felt an appropriate decision because to the question of Will you be here? Well, maybe the brand won't be here but the people will be here. This is their community. They live here their whole lives. They're passionate about it.

Now that passion creates an extremely interesting dynamic, especially on a project that's already been 11 years in design and will be many more years in design. People become, on all sides of the question, they become very married to their beliefs. And it relates to the point I made earlier about it is too hard for me to ask a question if the person you're asking is very married are they really actively listening. On the other side, if you're answering the question and you think you've really got it right are you really willing to provide the right feedback.

So an unintended consequence of doing it in a place where everyone feels true passion about their work is the potential for not empowering them to understand, all of them, that it is okay in a 21st Century nuclear facility, any 21st Century nuclear facility, and I worked

in the 20th Century ones and it's very different, part of your job is constantly having a questioning attitude. And if you're answering the question, part of your job, not a distraction from your job, not something that takes you away from your work, part of your job is answering their questions.

MR. BADER: Mr. Russo, how do you plan to deal with this situation going forward?

MR. RUSSO: We have already taken some steps, and again, I want to make sure we get them correct because I don't want an unintended consequence. First and foremost is we've brought in Ward Sproat. Ward's reporting directly to me, he's got experience at Yucca Mountain in terms of taking the licensing of that facility and combining it with the production work that was required to produce the license. We have had a meeting with our senior management team that Ward facilitated with the understanding, and this was about 25 of my senior leaders, not just the direct reports but the next level below my direct reports, because there's a need that whatever plans we come up with, the senior leadership teams owns them. You've heard that several times tonight from others and we absolutely should share that. If we don't own them, if we can't walk the talk, then words are very cheap. So we have to get alignment

on what is a plan that everyone can own and carry forward.

We are then going to use a process where you turn change agents into champions so that you empower them to both make the change and then you recognize them when they accomplish it. And we have put it into our measurement plans, our performance measurement plans, both from a contract point of view and an individual point of view that ensuring that our culture is constantly questioning and answering questions is part of how we assess your value to the project and how we assess our performance to the government.

MR. BADER: Do you feel you've had any successes yet?

MR. RUSSO: I think we've had successes from a culture point of view yes, I believe we have had some successes. But I believe that unless you ingrain them they're short lived. We got last year 1,350 PIERs, so people wrote PIERs [Project Issues Evaluation Report]. And from the people having to answer to those PIERs it creates, you know, a tremendous work load. We got to make them comfortable that that's their job, it's not a distraction from their job, as I said before.

I think the amount of information that's going into PIERs is much stronger than it was when I first came

to the job. I saw PIERs that were 20 pages and I couldn't quite get to the issue. They're much more crisp and distinct.

We have a PIRB [Performance Improvement Review Board], which is our PIER review group and that group seeks to find more than is in the PIER. So, for example, I saw one a couple of months ago where we had non-manual in craft violating rad barriers when we were doing non-destructive examination at night. And it was written up as a singular issue. But I had also seen other PIERs when they were violating do not pass through the red barriers. And basically in some cases ignoring signs like put on your hearing protection. So I didn't see it a single Level B PIER that required specific action, I saw it as something that was systemic and needed to be reviewed at a systemic level. What's the cultural issue that is allowing folks to feel comfortable ignoring posted warnings.

MR. BADER: Did you feel you've had any failures recently?

MR. RUSSO: I think whenever folks feel uncomfortable for whatever reason, and we have heard a lot of about perception, trusting the tools that are available within the project and feel the need to go outside of those tools, we fail.

MR. BADER: All right. Thank you.

CHAIRMAN: I'm going to turn it over to Ms. Roberson but I have one or two brief questions. Well, first a statement. I want you to know that we understand you have a very committed and capable and dedicated workforce, that's not what this discussion is about. Do you think the HSS report that came out in 2012 changed your perceptions of the safety culture on the project?

MR. RUSSO: I believe that report was additional validation of the first report, our own analysis and my growing understanding of what makes this project unique. When I came on the project everyone said this is -- I have been doing this for 45 years. They said this is the most unique thing you're ever going to go on in your life. And you don't understand until you've lived it for a period of time. And again, the complexity of the technical issues. The fact that if we really are open to an issue it's going to take longer because there are things you glean out of the data that weren't gleaned five years earlier, three years earlier, two years earlier. And you can either just turn a blind eye to them or you've got to take them on. Well, that creates its own set of cultural issues and it creates its own set of pressures.

So yeah, I believe the HSS report and

particularly the way Sonja Haber described the process and the use of the focus group and the freedom it presented them, I thought that was very informative and very useful in terms of how I looked at dealing with these issues.

CHAIRMAN: Let me just share an insight that I hope is helpful to you. We get to see your communications to your workforce because the minute you send it out of course it's in the press and everywhere. They see it in a microsecond, you know, we see it in a millisecond.

MR. RUSSO: I noticed that.

CHAIRMAN: And in my opinion you're a leader, one of the key leaders on this project. And I don't think from what I read in your communications it really conveys the message to the workforce that we need to work on this safety culture and improve it and that we have problems with this safety culture and we need to improve it. When I read your messages -- and this is my opinion -- it says we're really very good and robust in this safety culture but we can always get better. And it's a very different perspective. So I'd like you to just at least consider the message you send to your workforce, which I have already acknowledged is an outstanding and committed workforce, and just see if that

really conveys the right message to them. You are the leader and what you tell them is really going to matter.

MR. RUSSO: I appreciate that input. Thank you.

CHAIRMAN: And I'll turn it over to Ms. Roberson.

VICE CHAIRMAN: Thank you. Mr. Russo, in the first session we had earlier today we discussed two technical issues, two significant technical issues facing the project. In one form or another these issues were -- surfaced early in the project and they remain unresolved today. They might have wore a different colored dress in 2002 to 2004 and a different color after that, but essentially they haven't been resolved to the point that the project can move on. And these are just two in a larger collection of significant technical issues. You are the man in charge, what is your assessment as to why, you know, the reasons you're facing these issues at this point in time?

MR. RUSSO: I would say first and foremost we talked earlier about design build, and I want to lay a framework for this answer. I have done design build and I have done design bid build. And they both carry their own set of opportunities or ambitions. If you do design bid build right you have to procure the material or you have to buy the vendor data. And by the time you get to

the builds sometimes those vendors are gone or they've changed their designs, so there's iterations there.

So one or the other in my mind would have a difference but not a significant one. But what has a significant difference is R & D design build. And I think everyone would acknowledge that, certainly in my company.

And I believe with hindsight in the Department of Energy. The idea was at the time that the waste is sitting there, the tanks will be 100 years old and the research and development will just confirm, you know, beliefs that came out of Sellafield or some of the other locations. The reality is it wasn't. When you have research and development design build, the research and development needs to be done by 20 percent complete design. There's thousands and thousands of documents that support that answer. So it isn't. And it isn't for I think good reasons. I agree with Bill Miller when he said if you looked at a particle as being what controls the erosion and then says -- someone says well, no, maybe it's an agglomeration of particles coming out of that PJM [Pulse Jet Mixer] and it changes then the calculation you can either turn a blind eye to it or you can say I've got to go and look at this again. And I think that is the underpinning. I fully agree with what you said, culture

is getting the technical issues resolved and the technical issues resolved is culture.

But I believe it is important and you said it and I thank you for that, Dr. Winokur, the folks on this project are working as good as any team I have ever seen to get them resolved. And some of them get very frustrated when a new question comes up because they don't -- they just want to get it done. It's a human, you know, sense.

And again, our job, my job to take the full accountability is to make them comfortable that they -- if there's something there that has to be answered, to answer it. If it is already answered and we're just not capable of articulating it in the best way, and we have quite a bit of that, when we're looking at the safety basis and the design, one of the things that is absolutely clear to me because I have gone through an operational readiness review, is when the mat team comes in I'm going to have to be able to point to a valve and say, even though I bought it in 2001 I can tell you the pedigree, I can tell you the material, I can tell you how it's been maintained. And it is not coming out of my mouth. It's coming out of an evidence file. And I think one of the areas where because we have a number of PIERs, because we have a number of technical issues, we probably

haven't put enough focus is development of those evidence files. So now when we look back at something that was solved and you look at what well, what's the evidence file that says it is solved? It's not a trust me conversation, it can't be because you won't get through an operational readiness review. We have to do some work there. So some of this is just reconstituting the record. When you can't reconstitute the record, then we have to go back and it is a very valuable lesson learned.

VICE CHAIRMAN: So we heard from Mr. Knutson and Mr. Samuelson about their concern. Do you think some of these open technical issues can present a risk to plant commissioning and the ultimate safe operation of the plant?

MR. RUSSO: I don't think we can ever get to a point where we would ever get to a DSA [Documented Safety Analysis] if we don't have alignment and agreement on the resolution of those issues, what that looks like and how it then reflects in the PDSA so that when we go to DSA that's all melded together.

There was a conversation on incentives. Our fundamental incentive is to get that waste treated. And, you know, the way I review the contract, that's our incentive. Even if the contractor didn't see it that way, I have got 700 engineers and safety basis folks who

do. And they would quickly trump me.

VICE CHAIRMAN: Do you think you've got your arms around the significant technical issues? Do you think you have your arms around the risk that you have to deal with or do you think that risk is going to grow?

MR. RUSSO: On mixing, and the reason I commissioned that trade study, I -- we feel as, you know, the company whose been working on it for a long time that the vessels will mix. But we also know that saying it and demonstrating it are two very different things. I believe when we do the large scale testing there will still be some questions.

Gary Brunson mentioned one, and that the chandelier. The geometry of each of those vessels, even if we do a 14-footer, is different. The number of PJMs in each vessel, different. Not everyone but the ones that have the different diameters have a different number of PJMs. The orientation of the nozzles, different.

So will the testing be conclusive enough to say, you know, it is so overwhelming that we don't have to do a test for each vessel or will it be, you know, we demonstrated this one works but do we have to demonstrate another one works. That's why Bill Gay mentioned we're making provision to have a pad to where we could actually put a 28-footer if the 14-footer isn't overwhelming.

We've been looking for an overwhelming answer for a lot of years now and they were always right on the edge.

VICE CHAIRMAN: I'm going to let somebody else ask you questions. Thank you.

MR. RUSSO: You know, he's here too.

CHAIRMAN: I know that. And Dr. Mansfield didn't ask him a question. We're going to ask you a couple question. Dr. Mansfield.

DR. MANSFIELD: Okay. I was going to ask this of Mr. Russo but I'll ask it of Mr. Kacich. In our morning session today we were discussing the disconnects, so-called misalignments between the preliminary document safety analysis and progress and plant design. And I asked Mr. Knutson whether there was -- whether this disconnect existed and was -- did the safety culture of your organization have some cause -- did it cause this in some way? Was the impeded communication, et cetera, that's implied by the safety culture issues that we talked about earlier, did that have something to do with getting into misalignment and is it when you fix that do you -- can you see progress towards fixing the misalignment?

MR. KACICH: I would start with going back to the Chairman's opening remarks when he talked about two sides of the same coin. I think the improvement

opportunities extend both to efficiencies in how processes work and clarity and decision making responsibility and authorities. And at the same time advancements in the safety culture starting with, as has been mentioned before, the values and behaviors that are modeled by the leaders and internalized by the workforce. So either in our preference both of those improvement areas would serve to diminish the challenge or accelerate the pace with which we're going to realize the progress that we all want to.

DR. MANSFIELD: Everybody agrees that this kind of disconnect and misalignment is a risk to completion of the project.

MR. RUSSO: We have to have a DSA before we ever can ever declare readiness for anything. Cold commissioning much less hot commissioning.

DR. MANSFIELD: Mr. Kacich, is it easy to keep track of this? Is the gap between the design and the safety analysis so immediately apparent that you can't miss it or do you have to dig in a bit? Do you have to ask a lot of questions? How do you tell how bad it's getting?

MR. KACICH: Well, I think the investment of time that some very accomplished people spent in performance of the root cause analysis that was alluded

to earlier today and the depth of that report and the number of recommendations that are being made there speak to the complexity of that challenge. I think they've done a us a big service by outlining the fundamentals of what's going to be required to get it right. And it will equally important for the leadership responsible to demonstrate accountable behaviors in the course of discharging the improvement actions associated with that.

DR. MANSFIELD: Specifically with the gaps between the safety analysis and design, can they get too far apart? Is there a risk that if you don't catch this at the right time that you're really in trouble?

MR. RUSSO: They were diverging and they are now at a point where we think we have hit the apex and we're trying to bring it back into alignment. We did maintain the SRD, the Safety Requirements Document. And there is a road map to get there. And we talked earlier about putting together a team of safety basis folks and engineering folks to really go out and both find where those misalignments actually would have an effect on how the safety basis folks do their work where the design folks continue to do their work. And we got -- we got not just limit it to the list of 99, that list is going to be a living document. It will grow and shrink as we go through system by system. You heard earlier that in

LBL we have now set the template for doing that. High level is going to be that much more complex, Category 2 facility, a lot more safety systems. And then by the time we get to the point where the process definition stuff is validated, we should have a good model to get to the real hard one, which is pretreat.

DR. MANSFIELD: Mr. Kacich, this is my last question. Is this situation something you don't want to ever see again? Or is this something that you will expect in complicated projects forever?

MR. KACICH: In answering that I would like to go back to the Yucca Mountain project that Mr. Russo alluded to earlier. I worked in the capacity of the manager of licensing and nuclear safety there for three years, that was my first Department of Energy job. And I think the parallel that's most compelling for the discussion we're having here concerns, and I'll summarize it briefly, is we had one group of accomplished people who were responsible for the preparation of the text of the license application of 8,600 pages. We had a group of accomplished people who were responsible for the performance of the preclosure safety analysis. Lots of Ph.D.'s and a unique endeavor with respect to risk informed performance based. We had a group of people who were very accomplished to perform the engineering

functions for the design of the repository. And we had a group of even more Ph.D.'s in connection with the post closure safety analyses. And we had the Navy nuclear propulsion program preparing its confidential portion of the application all needing to consolidate into a document that had to conform to the regulation and its interpretive guidance.

So I don't mind telling you that the outset of my arrival there was very similar in the sense that there was divergence and each party knew that they were right. We had to improve both our processes and we had to improve the ability with which they work together because one person isn't successful unless the entire team is successful.

I will share with you that when it came to yardsticks like cycle times we went from weeks and months to days and hours with respect to the improvements that were realized over that three-year period. We need to do that here.

DR. MANSFIELD: Thank you.

CHAIRMAN: Do you have a question on that topic?

MR. BADER: Yes. You mention, Mr. Russo, that you have a road map that you're using to identify the gap and narrow the gap. Is that a document that you could submit for the record?

MR. RUSSO: We have the 99 that came with 5731, and that's going to be a living document.

MR. BADER: Yeah, but I mean, you said -- my understanding of what you said was that you had a road map for the process. Is that a correct understanding?

MR. RUSSO: We're developing a road map for the process. Yeah.

MR. BADER: Okay. Could you --

MR. RUSSO: Yes, we will.

MR. BADER: Thank you.

CHAIRMAN: I'll try Mr. Kacich for 10 points. (Laughter.)

The HSS assessment also identified safety culture issues associated with current construction activities. And we found this somewhat unexpected because previous reviews had not identified these. Some of the things in the HSS report were that, for example, a significant number of crafts personnel indicated that schedule pressures and other factors have resulted in instances where safety rules, procedures and practices were not followed. And then there was another finding that the perception that the rating system is arbitrary and unfairly implemented in a way that inhibits or penalizes the raising of safety and quality issues is a particularly important factor in many crafts workers'

views of safety culture and so on and so forth. There were a lot of findings about the construction workers that we found kind of surprising. So my question is: Were you previously aware of these kind of concerns in the construction crafts?

MR. KACICH: Well, the nature of my responsibilities keeps me a little more distant from that.

CHAIRMAN: Okay. So Mr. Russo would be appropriate person. Okay.

MR. RUSSO: I wasn't surprised but it was very troubling. And the reason it was troubling is because of the uncertainty within this type of project. And to go further, we had when I came on the job our relationship with the craft had improved immeasurably from a year or two before. They were working very hard. We had a construction manager named Dave Leeth, he formed a craft safety review team, craft safety reps. It was a grass roots movement with the craft. We got VPP [Voluntary Protection Program] star, VPP superior star. This year we got a NIOSH [National Institute for Occupational Safety and Health] award for hearing, which I wish they put into place when I was a young man, I wouldn't be wearing these hearing aids. But the reality is that we get into an unwritten contract with our craft workers.

And it's unwritten from the point of view of if they come, do a good job, don't violate process, they basically can project out how many years they'll be on that project.

And on this something this big, this is a stable job for craft. And when we had to -- and we were very careful about this, we were going from a 740 funding profile to an 840 funding profile, and that meant a ramp up of craft. But when we were starting to hear from Congress that that's not going to happen, we actually throttled back the ramp up. But when the information came in on that plan for 740 and '12 but plan for 690 and '13, those are not step function changes, projects ramp up and they ramp down. So what that meant is we had to start laying off craft. And the layoff of the craft came at the time that the HSS folks were interviewing the craft.

The rating and ranking system that was in the report is one that the union actually wanted, the union leadership wanted and negotiated into the labor agreement as what they felt was an appropriate way to have an input with Bechtel supervision on if you are laying off people there's a manner in which you would choose other than I don't like that guy, I do like that guy. So yes, it was surprising but not totally surprising because of the fact

that we had to release people. But again, it was a wakeup call that we have to be courageous in our leadership with not just the craft but all our workers.

There was a discussion about do we, you know, tell them more layoffs were coming or not. And there was a school of thought that said not. And I, you know, I decided that they need to be fully informed. And it does again create a sense at the site right now, if you notice are just normal routine industrial safety statistics, we were on a very good path, and now we have had a spate of reportable injuries. People get distracted when they're worried about am I going to be able to pay for that car? Am I going to be able to send my daughter to college? Am I going to be able to do the things I want to do? So it is troubling, yes.

CHAIRMAN: I want to focus on that aspect of the rating system. I think what the craft workers were saying, and there was a lot in the report on it, was that schedule pressures and other factors resulted in instances where safety rules, procedures and practices were not followed. They were being pressured to do things unsafely. I mean, that's what the HSS report said. That's what I really want to focus on. Was that conclusion a surprise to you?

MR. RUSSO: Not totally. And the reason I say

that is we have craft supervisors that are both non-manual, meaning they work for the company, and the foreman and general foreman. And they come from other jobs. And they want to be successful. And they measure success in terms of if I have got a piece of work I want to get done today, I want to get it done today.

We try to what we call the parade of trades, we try to make it so that the work areas are available so that they can. But if they run into some kind of a complexity, be it someone else working in the area, they would have a tendency to want to work through it. The way we're addressing that is the SCWE [Safety Conscious Work Environment] training that we did for a group of our folks earlier actually last year, we're now providing that SSCWE training across the entire site.

CHAIRMAN: Help me out here. I'm just trying to -- I mean, there are a fair number of near misses on the construction site, right?

MR. RUSSO: Yeah.

CHAIRMAN: Things do fall 50 feet and miss workers by a few feet. It is an environment where the workers really have to be quite careful and follow procedures. They can't be moving cranes outside of zones and things of that nature.

MR. RUSSO: Exactly right.

CHAIRMAN: How do you think you're going to address that concern? What do you think are the most important things to do in terms of the actual construction crafts?

MR. RUSSO: I think starting with, and this is a conversation we had with David Huizenga and with people on Capitol Hill, what we need more than anything else is within the context of budgeting annually, which again is a unique thing to a government project that you don't typically see in commercial work, we would rather have a predictable number that there's alignment on than one that may not be fully supported by whoever is in Congress in a given year. If we can plan under that basis then we can provide that predictability to our craft worker in terms of their longevity, and their mind gets on to your point, keeping the crane where it's supposed to be, keeping the spud wrench in the bag. That kind of stuff. So predictable funding, whatever level is supportable, for a craft worker is the underpinning of getting to a culture where everyone feels comfortable.

CHAIRMAN: Thank you. I'm going to turn to Mr. Bader in a second. But first Ms. Roberson has a question.

VICE CHAIRMAN: My question -- I'm still thinking about that question and the response. But my

question I think I'll ask it to you, Mr. Kacich. If you're not the right one, you guys seem to tag off pretty well. Another area that the HSS report recommended some improvement occurring was in your employee concerns and your differing professional opinions programs. What do you plan to do in those areas.

MR. KACICH: The differing professional opinion procedure is something that the HSS team gave us some very helpful suggestions about how we could improve it. And we're pretty far down the road, actually, on getting to the stage where we're prepared to issue a revision to it reflecting the enhancements that are recommended as well as some other input that we've received.

A predecessor to that of course would be to make sure that the senior team is aligned with it because the procedure is only as good as the team is able to appreciate the instances where its application will be valued. So again, the HSS team did us a good service there.

VICE CHAIRMAN: My recollection is procedurally you guys have great processes, its the implementation, how you carry out. And I assume that's what you're going to focus on.

MR. KACICH: Well, yes. I would add that for the two applications of that process in 2011 that

occurred, I think they were reasonably successful from the standpoint of the user in that we went to great lengths to thank and appreciate the value to the individual raising the issue, making every effort to treat that person with dignity and respect at every stage. We engaged very accomplished external parties in both instances. And not withstanding the procedural imperfections that were identified, the application for those two instances I think was respectable.

Again, the broader application is are we using it at the right -- for the right occasions and with the right encouragement. And I think that's probably the values and behaviors dimension of the application that we needed to do more work on.

VICE CHAIRMAN: I think there was one more -- do the people who would rightfully use it believe that will result in the attention its intended to get?

MR. KACICH: Indeed. And every -- one of the best demonstrations of that is that for those instances where it is used and to the extent there's cognizance of it on the project that the user would say that in fact they were quite satisfied with it. And I believe in these two cases that is true.

MR. RUSSO: One of the learnings from that, Ms. Roberson, is it really did take too long to get either a

feedback to an employee or something triggered into DPO [Differing Professional Opinion]. And it did take a lot of effort and will to do so. So in modifying our work processes, one of the things we're putting into place is a measurement in metrics when someone brings something up how quickly do they get a response. And if it's not something that they're comfortable with, I mean, again, we're not going to get everyone 100 percent aligned on everything, but what we want them to feel is fully heard and understood. So if it is not satisfactory, a much quicker mechanism to introduce the option of DPO, much quicker.

VICE CHAIRMAN: Thank you.

CHAIRMAN: Mr. Bader.

MR. BADER: Mr. Kacich, could you describe the role you're going to play versus the role that Mr. Sproat is going play in improving the safety culture at WTP and then how you plan to accomplish that.

MR. KACICH: Right now Mr. Sproat is serving in the capacity of management advisor. And as Mr. Russo alluded to earlier, he has led and facilitated a number of sessions and will continue to do so for the leadership team to get its fingerprints deeply immersed on the improvement plan we're going to effect. Frank has asked me to succeed Mr. Coyle in the capacity of the NSQC

manager. So in the capacity of someone whose in the line in the organization. And I'm going to very much welcome Mr. Sproat's contributions to this cause for as long as he's on the project. And I think fundamentally it reverts back to an observation that Mr. Miller made when he was up here that perhaps we as a senior team underappreciate the challenge that this represents. And to the extent that we can utilize our past experiences to provide evidence of that, we will do so.

MR. BADER: Have you decided what metrics you will use in order to measure your success?

MR. KACICH: We have not decided that, no. But we will be developing them as part of the overall improvement plan that we need to deliver to the Department of Energy next month. And we -- that's not to say that we don't have some metrics that I'm sure we'll be able to either continue or with some adaptation. But part of the plan is to develop those in a way that further informs our pace of progress.

MR. BADER: But you're basically going to use the tools similar or the same as what Mr. Miller used, correct?

MR. KACICH: I'm not quite prepared to prejudge exactly what metrics we'll have. But they will be a part of our plan.

MR. RUSSO: One of the things we know we're going to measure is as I mentioned to Ms. Roberson, is timeliness to get feedback to an employee who raises a concern. We are definitely going to measure that. And if we can't come to alignment or acceptance of that feedback then a quicker DPO process. We're also going to measure the number of times when someone brings something up and the answer is always no, it's fine and then later on it becomes, wow, they were right. We should have listened to them. That's very important to me to walk the talk.

MR. BADER: I'm not making myself clear, I don't think. I'm addressing the broad suite of tools that Mr. Miller used in his assessments. Are you going to try to mimic that? I believe that was the recommendation of the HSS report in doing your broad assessments.

MR. RUSSO: Yes. So I believe I'm getting the question correct. We will, we have and will continue to do pulse surveys. I have asked Glenn Podonsky at the last meeting I had with him, although the next actual review will be somewhere in 2013, I would welcome an effectiveness review somewhere before that as we're setting off into the direction we think is the right answer. Just to get the Department's and HSS in particular's feedback on what you're doing even though

preliminary looks like it is hitting the issues that we thought created the perceptions that he talked about. Another thing we're doing aside from the pulse surveys is Admiral Coyle, whose told us he's retiring, we've asked him to stay with us part time because we want the continuity of his experience but we've also talked to his new employer about making him available from the contractor or the -- whatever perspective. For the -- when the extent of condition reviews are being done what are the lessons learned that we could bring to those facilities. And just as importantly, what are the best practices that they could bring back to us. And we think that combined with our pulse surveys, our focus groups, will help us make sure we're not leaving anyone behind, to my earlier point there's a diverse number of things that make people uncomfortable.

MR. BADER: The last thing that I wanted to ask is there's been quite a bit of discussion of the importance of management leading by example and that employees, what they really watch is what's being done, not what's being said. Is this, in talking about the things you're going to measure or asking about what you're going to use as metrics, do you believe you'll use that as one of your metrics?

MR. RUSSO: Not just the metric but sort of a

measure of leadership. So an example is that at a point in a particular activity that was very, quote, schedule sensitive to a lot of the world, I had a team of people that were working seven days a week, and the guy in charge said well, we're going to work this weekend. And I said, no, you're not, everyone needs to go home and take the weekend off. And they actually resisted that notion to the point that I actually had to get sort of tough with them in terms of you need to take some time off. I was very surprised at how well that rippled through the entire project in terms of to your point there was an example of walking the talk.

It takes empowerment for people in the supervisory level to feel comfortable to do that. And again, part of what I'd like to both incorporate into our culture but also make sure it is a measure of your leadership as an individual on this team is not just your empowerment to do it but your willingness to use it. I have worked in the craft and I know that you reach a point where you work so many hours, you're not just safe anymore, you're not productive anymore. So there's no utility from a purely business point of view to having people working seven days a week. And we just have to make people comfortable with that. And I think we've not done a good enough job of that and we got to do much

better. And that's going to be one of my focus areas.

CHAIRMAN: I would like to thank you, Mr. Russo and Mr. Kacich for your testimony. I appreciate it very much. We have one more panel tonight I'm going to introduce. I want to make an announcement that we will begin the public comment no later than 8:45 but it will slip by a few minutes tonight.

I want to introduce our third and final panel for tonight on the topic of safety culture. They are Mr. David Huizenga, DOE's Senior Advisor for Environmental Management; Mr. James Hutton, DOE Environmental Management Chief Nuclear Advisor; Mr. Scott Samuelson, DOE Manager of the Office of River Protection; and Mr. Dale Knutson, DOE Federal Project Director. Does anybody on the panel wish to submit testimony at this time? Seeing none I want to thank you for your testimonies today and we will continue with the first question from Mr. Bader.

MR. BADER: Almost there. Mr. Knutson, do you believe that any of the findings of the HSS review led by Mr. Miller revealed important factors behind the project's difficulty in resolving safety and technical issues?

MR. KNUTSON: Yes, I do.

MR. BADER: We discussed two technical issues

earlier that were facing the project that had been unresolved for a long time. The Board understands that those are only two of a larger collection of significant unresolved technical issues. What is your assessment of the reason these issues haven't been resolved for so long?

MR. KNUTSON: I believe it is two-fold. One is the fact that for such a long time we have been a process driven organization. As I mentioned earlier this afternoon, we have gotten locked into the idea of identifying technical issues and then layering and layering and layering and layering and layering technical issues on top of technical issues, and never really stepping back to understand the integrated system effect and understanding the outcome associated with it.

Second thing is -- so that's item one. Item two is that we're structured in integrated project teams that flow from the federal project team into each of the major facilities. And every single member of the federal staff is assigned at some point to one of those integrated project teams. And what we have discovered, as we continue to pull the string on the HSS report, is how we establish expectations within those IPT's for the participation of its members. And how that participation results in increased communication, results in an

extensive understanding of what the daily business is that's going on. I believe both of those are contributory to HSS findings.

MR. BADER: You're touching on something that Mr. Brunson touched on earlier today, and that was the necessity of, as I understood his comments, looking beyond the specific issues and looking at the broader project and the need to establish what is the level of conservatism and margin in the systems and components all together. Is this part of what you're referring to?

MR. KNUTSON: That's one element of it. And quite literally, I'd like to talk to the specifics of margin, for instance. The Board in its seismic analysis went through a very extensive process to understand that the margin associated with the structural capacity of these facilities was sufficient. So we -- in that particular case we were able to demonstrate exhaustively that margin existed and that it was robust. It is our detriment that we have not been able to carry that forward across every system that's available in the Waste Treatment Plant. So our inability to actually discuss that on a daily basis or with a routine mechanism leads to part of the concern. It may be a concern that is based exclusively on perception. But our inability to describe it at a system level is a failure.

MR. BADER: Let me go back to the subject of the what's been called the conflict between the contractors engineering organization and its environmental and nuclear safety organization. And similar divisiveness within DOE organizations at the site. Do you believe those are problems that need to be addressed by DOE?

MR. KNUTSON: I do indeed.

MR. BADER: How would you address those problems?

MR. KNUTSON: As I mentioned, every element or every federal position is assigned to an integrated project team, that includes people that support nuclear safety, quality, environment permitting and so forth. And we really haven't done a good job at being able to establish those effective linkages within the IPT's to be able to communicate and to communicate well. And I think that's one of the very first steps that needs to be -- needs to occur as we move this forward.

MR. BADER: If -- we talked a moment ago about the metrics that might be put in place to measure this at the Bechtel level. Is this something that you will involve yourself in or pay attention to and manage too?

MR. KNUTSON: It is indeed. And it is one of the areas that we have put some time into already. Things such as metrics on the timeliness ABAR

evaluations and things associated with our ability to provide appropriate technical justifications and the bases of those technical justifications as we enter into these conversations on nuclear safety.

But it goes beyond nuclear safety. It's not a limited set. It goes into the issues of one of the expectations that this project has had to shoulder is rebuilding the NQA-1 infrastructure of the vast majority of the manufacturing capability of this country, and how have we learned from that and built that into the processes that will carry forward into the future. We need to be able to extend the communication that we have within our IPT's to be able to articulate things like that across every subject matter expertise that we have in place.

MR. BADER: If I take that to the highest level, do you believe that this is a situation where DOE and yourself as project manager may need to be a more demanding customer?

MR. KNUTSON: We do indeed need to be a very demanding customer, not just of our contractors but of ourselves.

MR. BADER: Thank you.

CHAIRMAN: Ms. Roberson.

VICE CHAIRMAN: Mr. Knutson, do you believe that

unresolved technical issues not uniquely limited to pretreatment but in general, you talked about all the other facilities in the plant, but do you think these unresolved safety issues like the two we explored earlier run a risk of impacting plant commissioning?

MR. KNUTSON: Yes, they do.

VICE CHAIRMAN: And ultimate operation.

How are you managing the accumulated risk of the unresolved issues?

MR. KNUTSON: There are a number of ways that we do it. Number one is this question of maturity, system maturity. The assessments that are done within nuclear safety associated with the DSA process, the PDSA evolution in LBL, for instance, gives me assurance that that group of facilities is at a level of maturity necessary to continue on. And that the level of risk associated with that is manageable. As you proceed to the other extreme to our least mature systems in the pretreatment facility, you can do the same assessments, just as Ms. Busche described earlier today, and understand that at that level of risk and the ability to move forward routinely, if you will, towards an expectation for unfettered construction carries an excess level of risk. And is something that does have to be managed more closely.

VICE CHAIRMAN: Are you confident that your contractor or contractors have a good handle on the risk and the number of technical issues, significant technical issues that have to be addressed, whether its LAW, PT, the LAB, are you confident that your contractor has a handle on all of those?

MR. KNUTSON: I'm confident on those areas where we have the greatest maturity, we have the greatest understanding of exactly what you just talked about. For those areas that are the least mature, we have the least understanding of what that level of maturity represents.

I think it's also important for people to recognize that there's almost 36,000 people that have worked on this project at some manner, shape or form across this country. And that the vendor data we that rely on that comes into our designs is also a contributor to our ability to understand technical issues and to resolve technical issues.

That outreach process and that ability to communicate not only our expectations to these vendors' as well as the vendors response back to us is a critical element of understanding the maturity of any given design. Pretreat is at the lowest level of maturity with respect to that. LBL is at the higher end.

VICE CHAIRMAN: How do you determine at what point an unresolved technical issue impedes progress on design or construction?

MR. KNUTSON: First and foremost is if it's not in alignment with the authorization basis by definition the stop work order is already -- the stop work system is already in place. The MSOW kicks in before anything else takes place. That's a first indicator. That's a great very realistic indicator.

To go beyond that, the issues associated with how many iterations does it take to complete any given specification or iterative process associated with talking to a vendor. That's another indicator. The ramps associated with instrumentation and control systems that have to be delivered in time to support the realtime maintenance of LAW facilities or LAB facilities or the basic facility infrastructures, those are indicators of when are we at a point where our communication processes and our inability to stay latched up with our vendors could impede construction in a way that's unacceptable.

VICE CHAIRMAN: What's your sense of how well the systems are working to reveal those indicators for timely decision making?

MR. KNUTSON: I believe today they're working reasonably well. I believe that until we had established

an integrative project team that was focused on the shared systems, the shared systems actually happened to be the largest financial commitment of the individual project. It's some $4 billion worth of work and it includes all of those activities that interact with the commercial industry outside this project. Until that was able to communicate very effectively within an individual project team and then lash the shared services to each of the facilities specific to integrated project teams we were at risk of not being able to be confident. I believe today we are much more confident than we were two years ago.

CHAIRMAN: All right. Dr. Mansfield.

DR. MANSFIELD: Thank you, Mr. Chairman. You're going to get tired of this question because we've discussed what I'm going to talk about earlier today and that's the misalignment, the disconnect between the preliminary documented safety analysis and the design for WTP. The Chairman asked you about it, Mr. Knutson, this morning and I asked Mr. Russo about it sometime later.

Inasmuch the substance of that problem is the interaction of the engineers and the BNS safety basis organization, do you think the safety culture played a role in prolonging that disconnect?

MR. KNUTSON: I honestly believe that it is too

simple an answer to simply say yes. The affects of safety culture, Frank and I have had many very in depth conversations about this particular topic and we both grew up in construction environments from the time we were very young people. Clean sites, people that are working hard, looking out for each other, sites that have low accident rates, even in the most technically complex arenas where engineers and nuclear safety are pulling together have technical challenges that take a long time to resolve. And it can become a convenience to allow a safety conscience work environment or a nuclear safety and quality culture finding to become a crutch. That's not okay.

Safety conscience work environments and nuclear safety and quality culture are foundations that must exist to do the job to start with. You can't be a crutch that's used for why performance is or is not existent. And that's one of the biggest issues that I have personally struggled with in the evaluation of the multiple reports and findings that have been issued is, again, we're in the process phase. We're dealing with the evolution or the measurement of unique processes and we keep or we continue to allow process to overdrive the fundamentals of people working with people. And I think that's the place we gain the most benefit from these

evaluations.

DR. MANSFIELD: I wasn't very clear on what I asked. Let me ask it a different way. How long -- a good part of your job is oversight of the contract. Your oversight has been looking at the facility specific preliminary documented safety analysis process for a long time. How long has your -- have your oversight activities indicated there was something wrong with the maintenance of the document safety analysis?

MR. KNUTSON: Since approximately February of 2011. And in other words, the first five months of coming on board the project.

DR. MANSFIELD: And has that been on the top of your chart of priorities?

MR. KNUTSON: That has been the number one issue that I have been pursuing with Frank and his team since then up to and including Bechtel.

DR. MANSFIELD: And tell me if it takes -- what kind of effort does it take to do that and simultaneous watch the progression of design? A good part of your workday just to figure that out?

MR. KNUTSON: What I find is that it requires constant re-attention. And that in order to continue to make the, you know, Frank said it best, ramping up, ramping down, turning this $2 million a day project does

require constant attention to the rudder. And I believe that that rudder has now turned and I believe that it has taken a year's worth my of personal effort to make -- to try to help make that turn. And in partnership with Frank we have done a great job in actually getting it there. Keeping it there as Frank used the term institutionalizing that change in direction, is the part that will occupy the balance of our futures.

DR. MANSFIELD: So just so you know, our focus is going to be watching how fast that gap closes.

MR. KNUTSON: That's a great metric. And that's one that we're interested in as well.

DR. MANSFIELD: Thank you.

CHAIRMAN: Mr. Hutton, can you summarize the major actions and objectives of the secretary's implementation plan for Recommendation 2011-1?

MR. HUTTON: Major objectives and --

CHAIRMAN: Well, specifically, what needs to change in how the contractor manages safety and technical issues would be something.

MR. HUTTON: Well, we found that the issues resolution process, as we've said here today a few different times, was just simply taking too long. And we believe that management behavior in responding to safety issues and safety concerns is an element of that. And an

important element of setting the safety culture. So I think when the project -- as you heard Mr. Huizenga say earlier, it will be important for those management behaviors to encourage a positive safety culture and we'll have to be very diligent at that to be successful.

CHAIRMAN: And what about the local DOE office? What kinds of suggestions would you have in terms of what your looking for in the implementation of that?

MR. HUTTON: We spoke about that earlier today also when Mr. Miller and Mr. Eckroade were up here. And what the HSS said in the report and I think it's, you know, I have no reason to doubt it, I think it's a good report and I think it's very valid. They said there's a strong indication of an unwillingness and uncertainty among ORP staff about the ability to openly challenge management decisions. And they said that most ORP staff members also strongly believe that constructive criticism is not encouraged. In my view, those things are important in order to get to the bottom of issues quickly, get them surfaced and get them resolved.

CHAIRMAN: Mr. Samuelson, do you feel you're making progress on resolving those concerns?

MR. SAMUELSON: I believe we are. We have certainly opened a much more active dialogue inside the office on those issues where employees are encouraged

regularly, both in writing and verbally, to participate and to share their concerns. We have established on our internet site mechanism for people to go ahead and submit things easily, put them up where they are seen by anybody in the office that wants to see them. And we're committed to providing responses to those as quickly as we can. We're not there yet but my objective is to get them answered within a week after somebody puts them up. And again, we're telling people if we put something up there that's a response to a concern you raised and it doesn't make any sense to you, you've got to tell us that too so that we can figure out why the heck we're not communicating clearly.

CHAIRMAN: I think if I remember, the concern on your staff's part wasn't the fear of raising safety so much as that it wouldn't really -- nothing would happen. Management wouldn't respond to it.

MR. SAMUELSON: I believe that the piece of that that I'm confident I understand is that we have not done a satisfactory job of closing the communications loop. That when people did raise issues, it wasn't that they weren't heard or that they were lost or something, but rather that they got caught up in the 101 other things that people were worried about that day and we never communicated back to people what it was we were doing

with what they had told us. And if you don't do that people just go, why am I bothering? And so we're very committed to doing that.

Like I said, that website is a first mechanism that we're using. But at the same time, our internal systems for capturing concerns and corrective actions, the systems themselves, depending on who you talk to but I would say there's a general consensus that they're not particularly user friendly or transparent. And we are -- we have a group of people now that are looking very hard at what is it that we need to put in place to handle that aspect of it, to have a zero threshold transparent system in place and how are we going to get that established. And hopefully in a little later on this year we're going to get an answer to that -- that comes from the people that have to use that system and helps us get past this instead of just Band-Aiding old systems.

CHAIRMAN: In the final analysis it's your organization that will license the facility; is that correct?

MR. SAMUELSON: Yes, sir.

CHAIRMAN: So you really have a critical role and then Mr. Knutson will do a lot of heavy lifting here to get that safety basis in place, but you've got to say it's okay.

MR. SAMUELSON: That's correct.

CHAIRMAN: And the project's ready to go operational and go forward; is that true?

MR. SAMUELSON: That is absolutely true.

CHAIRMAN: So your folks need to be very intelligent customers and very demanding customers and very willing to raise concerns about issues.

MR. SAMUELSON: Absolutely.

CHAIRMAN: Let me go to you, Mr. Bader.

MR. BADER: No more lound noises.

MR. HUIZENGA: Yes, it's late.

MR. BADER: Mr. Huizenga, one of the early actions under the secretary's implementation plan was to issue a new project execution plan for the WTP project. Can you discuss the importance of that plan and what concerns it will address relative to Recommendation 2011-1?

MR. HUIZENGA: Yes. I think as was pointed out in the HSS report and by others, there was some confusion about roles and responsibilities. One of the important things we did by issuing the project execution plan was to clarify that. And, you know, we had Mr. Samuelson and Mr. Knutson and myself and others had an opportunity to sit down with the Secretary of Energy in his office and discuss clearly how we wanted to operate and that's

what's reflected in the PEP now. We've got a normal reporting relationship consistent with what we do at the other EM sites with our major construction projects and we're quite comfortable with that and that's how we're moving forward.

MR. BADER: So you would consider that concern addressed?

MR. HUIZENGA: Yes, I would.

MR. BADER: Is that correct?

MR. HUIZENGA: At the highest levels.

MR. BADER: Let me move to a slightly different topic. DOE often uses a generic phrase Risk Acceptance Official to identify the individual who was assigned the authority to accept various risks on behalf of DOE. In the case of the WTP project who's that individual?

MR. HUIZENGA: I might ask Mr. Hutton to answer that question because I'm not quite sure I understand the question. If you want me to answer it you could try to help me.

MR. BADER: We'll go to our former assistant specific secretary, to be more specific.

MR. HUTTON: One thing we could say, as Mr. Samuelson just mentioned, he's the individual, in response to your question, he's the individual who takes the document safety analysis and essentially states that

the facility is safe to be operated in accordance with the FDSA. That's a delegated authority that's been delegated by Mr. Huizenga to him and of course as we know, delegation of authority doesn't relieve Dave of the accountability for the decisions that are made with regard to that. If that goes to the question.

MR. BADER: That's a piece of it. But to me there is a broader -- that's the safety license piece. But there's a broader issue here in that there is more to it than the safety license. There are various elements at risk; DOE essentially becomes the ultimate risk holder, if you want to say that. And what I was trying to ascertain was who is -- what level of person who by title is the person who is able to say I accept the risk, we move forward.

MR. SAMUELSON: Relative to operation of the facility?

MR. BADER: It could be --

MR. HUTTON: What kind of risk are you thinking?

MR. BADER: Welding, vessels and placing vessels.

MR. KNUTSON: I think it is critically important that the risk management profile that's defined and maintained within the mandatory requirements of the DOE order for 413 project delivery, those belong to me. The

issues associated with operational risk or Site regulatory risk or issues associated with permit and external conditions are Scott's. The biggest difference that we have got at the Office of River Protection right now is that we have a full-time Site office manager and that has been a great benefit to being able to resolve some of these roles and responsibility questions.

MR. BADER: Thank you.

CHAIRMAN: All right. We have two questions remaining. (Laughter.) Ms. Roberson, you asked one of the them.

VICE CHAIRMAN: Actually, Chairman, I have two short questions.

CHAIRMAN: We have three questions remaining. (Laughter.)

VICE CHAIRMAN: My first question's actually to you, Mr. Knutson. You said something a couple of times and I want to make sure we have the benefit of clarity and understanding what you intend to say. It's kind of relative to the issue of why some of these technical issues keep re-emerging or don't die and haven't been resolved. And you used the term -- this is my paraphrase so you correct me -- that one of the contributing factors has been things are sliced or diced and parsed and we haven't looked at them at a system level. Can you

briefly take one of the technical issues we've been talking about and illustrate for us what you mean by that?

MR. KNUTSON: Let's take erosion and corrosion as a very, very good example. We have 28 different reports. Each of them focusing on one or more aspects of a very discrete technical element associated with erosion and corrosion. And in none of those reports have we stepped back and looked at this evolution of particle size distribution expectation, have we stepped back and looked back at the overall integrated system question about to what extent does this particular type of issue extend beyond the very narrowly defined technical content. I believe that's where our greatest benefit lies as we move forward. And it is actually a result, and pardon me for using the term, but it is the result of the pivot message. The idea that we actually do have to be planning to operate these systems. And in the process of pivoting towards that kind of thinking, take ourselves from this component design, uniquely discrete technical element description to the more integrated systems that it takes to actually run as an operating facility.

VICE CHAIRMAN: Okay. And, Mr. Hutton, my second question. The implementation plan for Recommendation 2011-1 identifies actions to revise the

performance measures and performance evaluation plan for the WTP contract. And later it talks about the contract itself. Can you -- I'm not asking you to negotiate. I'm just saying can you describe generally for us what changes are envisioned and how that will contribute to resolving the issues raised in the recommendation itself?

MR. HUTTON: Well, his goes to something that came up earlier in terms of, you know, how the award fee is identified. Obviously the contract sets the priorities for the contractor and tries to attempt to incentivize the behavior that we want to see. And so when you look at -- when I look at the way award fee is distributed, it's easy for me to come to the conclusion that we need more emphasis in the area of safety and nuclear safety. So, you know, I would expect that would be the kind of thing we would want to do. As well as, you know, sometimes it is -- sometimes it's not so much what's in the contract but maybe what's not in it. You know, sometimes it's important to be explicit about things that, for instance, a strong safety culture is required to be able to satisfactorily implement the ISMS and to have a satisfactory ISMS system. And so the, you know, we have clauses in the contract which say you have to have a satisfactory ISMS or we'll hold the award fees at stake. Sometimes it's important to be explicit about

that that includes safety culture. So I guess that's the kind of things I would envision. But that's just my opinion off the top of my head.

VICE CHAIRMAN: Okay. Thank you.

CHAIRMAN: So the final question is yours, Mr. Huizenga, because you are the senior DOE official here. And I need your help on this. I understand that you were testifying with Mr. Podonsky in Washington, DC, before you came out here. And as you know, there has been an allegation made that there was an investigation by the Office of Nuclear Safety Enforcement, an HSS investigation taking place and that one of your contractors sought to prevent a senior official on the project from participating in that oversite investigation by the HSS organization. That's an allegation that was made.

Can you give me, and I know it was raised to Mr. Bolton in Mr. Podonsky's organization, can you shed some light and some status on that allegation, whether it has merit or not.

MR. HUIZENGA: Yes, I'll attempt to address that, Mr. Chairman. It's a sensitive issue obviously associated with personnel issues. But the fact of the matter is I had contact with the URS people to make clear to them that we will not abide by a situation where

they're actually trying to undermine the HSS review. That being said, I think there's a good chance that there was some miscommunication in this area. And that it wasn't necessarily their intention as to undermine it, but that being said, we have a clear understanding that that is not something that we would tolerate. And we have an agreement from URS that that's not something that they would seek to do.

CHAIRMAN: Well, my concern is that it is a safety culture issue. Another perception on the part of everybody on the workforce here that -- and I believe that we are making progress -- maybe we're not making much progress in terms of the safety culture issue at this project.

MR. HUIZENGA: I would agree that this is the exactly the kind of thing that we don't need because I, like you, actually believe we're making progress. And every time we have one of these things happen, whether it's through just sheer incompetence or miscommunication or confusion, it contributes to this perception that things aren't right. And nobody really wants that. So if there's actually a substantive real problem we're going to correct it. If there's a misperception we have to try to address it because it contributes to just digging us deeper into our hole here. And that's not in

anybody's interest.

CHAIRMAN: Well, if it has substance what is the Department going to do to impress upon its contractors that this type of behavior is not tolerated?

MR. HUIZENGA: I have been in consultation with Scott Samuelson already and we will provide direct communication to the contractor as I have done verbally, but we can do more than that to make sure that we clarify. There shouldn't be any confusion in this area anyway. But to the extent that we need to reemphasize it, we can -- Frank and I talked about this earlier today, there's no confusion about really what needs to be done. And what will not be tolerated. Let me be clear about that. What actually happened was unfortunate. We need to see to it that it doesn't happen again.

CHAIRMAN: You can imagine, you can sense my frustration because I think I have seen positive signs on the project, I have seen a more empowered site office, we have had good discussions here today, which makes me think that a lot of these have been identified, which is obviously the first step to beginning to resolve them and move forward in a very positive direction. And this to me was, you know, this is something that's being discussed on Capitol Hill.

MR. HUIZENGA: Yeah, I was there. (Laughter.)

CHAIRMAN: You were there. So, I mean, obviously it's going to have a lot of visibility. A lot of people read the papers, a lot of people read other things. This is going to be in their consciousness. And I don't think as you already said that it's the kind of thing we need when we're trying to move in a direction of establishing a very strong safety culture on this project.

MR. HUIZENGA: It is definitely unfortunate and we will address it.

CHAIRMAN: And I just want to say I felt I had to raise it. I felt I would be remiss not to have an honest, straightforward conversation with you and this group without raising this issue. There are too many people in this room here who work on this project and understand the intricacies of what's going on to not pay attention to an issue like this.

MR. HUIZENGA: No, I appreciate it. It's relevant, it's current.

If you would indulge me, Mr. Chairman, just for a moment since I did poorly, I only answered one of my two questions today. I would like to try to answer some of the ones you asked other people when I was sitting in the audience taking notes. Just give me a minute.

CHAIRMAN: I'm going to give you two, because

it's 8:45.

MR. HUIZENGA: So relative to some, we decided it wasn't worth debating what percentage it really was. We have percentages, but we don't really think that matters because the some we've decided was enough to take seriously this issue and we're going to address it. So that's how we're thinking of some, if you wanted a definition of it.

And the tension, the conflict, that was discussed. I witnessed that when I came out here on my last trip firsthand, hadn't seen it before. It is there. We had a very open, blunt discussion with Mr. Russo and he's aware of it and I'm convinced he's addressing that issue. It's going to perhaps take a little time but it's not something anybody's hiding from and we're going to work on that.

The 3009 implementation, that's now a contract responsibility. It is in the contract. We're going to deal with that. Incentivizing the contractor, you know, on the one percent issue it might not get to 51 percent like Watkins was driving. But we're going to do a lot better than one percent, I'll tell you that.

MR. KNUTSON: I will also add that there were those of us that were actually on the receiving end of the implementation of a 51 percent safety function

driver. And those of us that were at Rocky Flats in the days of those fee structures understand exactly what it meant to implement those types of measures at our bench levels. So that I think there's a very important message there that needs to be actively managed.

MR. HUIZENGA: Relative to issues dragging on too long. Scott and I had a discussion, a useful, very useful discussion earlier today of this tracking system that they're putting in place. Indeed sometimes they got lost and now we're finding them. And we're going to do a much better job of communicating with people when they raise issues and get back to them in a timely fashion. Sometimes we actually agreed with people and we didn't bother to get back and tell them. How silly is that? That's just, you know, not useful.

But in closing, if have don't mind, I would say I am actually, despite the issues that we discussed today, I'm optimistic. I'm not naive enough to think that it's going to be easy. But I'm hopeful. Each time I have come to Hanford I have seen areas of improvement. You might ask how I measure that. I measure that in part now because people are talking very openly about the issues and I think that's the first, you know, step toward actually accepting you have a problem and figuring out how to address them. As Frank said, has a dedicated

contractor staff. We have a dedicated federal team as well. These people have been working on these issues for a long long time. It's in nobody's interest to build a plant that won't operate safely. And we will not do that.

The issues that we were discussing here openly today will be tracked and measured through our 2010-2 or 2011-1 responses. You've given us an opportunity to clearly track them through our interactions with you.

So together with our partnership with you, the contractor, the local stakeholders, we intend to be successful and bring home an operating WTP. We owe nothing less to the people and the citizens of the state of Washington and Oregon to do that.

CHAIRMAN: I thank you very much and we wish you and the project well. Believe me. Thank you, Mr. Huizenga, Mr. Hutton, Mr. Samuelson and Mr. Knutson. And with that we're going to turn to the public comment period.

It is the Board's practice and as stated in the Federal Register notice to welcome comments from interested members of the public. A list of those speakers who have contacted the Board is posted at the entrance to this room. We have generally listed the speakers in the order in which they wish to speak. I

will call the speakers in this order and ask the speakers to state their name and title at the beginning of their presentation. There is also a table at the entrance to the room with a signup sheet for members of the public who wish to make a presentation but did not have an opportunity to notify us ahead of time. They will follow those who have already registered with us in the order in which they have signed up. To get everyone wishing to speak or to make a presentation an equal opportunity, we ask that speakers limit their original presentations to five minutes. The Chair will then give consideration for additional comments should time permit. Presentations should be limited to comments, technical information or data concerning the subject of this public meeting and hearing. The Board members may question anyone making a presentation to the extent deemed appropriate.

And with that we're going to begin. The first member of the public to speak will be Beth Giansiracusa. Welcome back, Beth.

MS. GIANSIRACUSA: Thank you very much. What a wonderful forum tonight. Thank you for bringing out so much information. I was at the Open House last week that I guess it would be Bechtel or WTP and the DOE gave, and I got a little concerned in listening to some of this tonight when the DOE was up there because when I spoke

with one of the DOE engineers, nuclear engineers, and I went around with him and he had has gadgets and he was all excited and I was talking to him and I said, well, how do you guys deal with the whistleblowers? What do you guys do? And he said that mainly the whistleblowers were all going into the PIER groups, and those PIER groups reviewed what they had and they took it to the management and then he pulled out some little device in his hand, he says, well, sometimes people just want to change this little thing over here and then they take it to their manager and then their manager goes, well, that's not really what we want to look at. And then he says, I'm the one that goes, no, we don't need to look at that. And he said, most of the time what they are, they're looking for attention.

Now, I thought about that because I'm kind like with Occupy and there's a lot of people learning how to communicate now and they're uneducated or just learning different things. I'm expecting that the people that are on this Board in these things that are working with nuclear energy are a lot more educated. And that if one of the educated people needed attention that they got it. And so that's kind of what I wanted to say tonight. That when I had the DOE telling me that and then here you are saying strong safety culture and the DOE is not

presenting that to just your average person that's coming to an open house. I'm concerned. So that's what I have to say. Thank you.

CHAIRMAN: Thank you. Tom Carpenter.

MR. CARPENTER: Good evening. My name is Tom Carpenter. I'm Executive Director of an organization called Hanford Challenge. And I have worked with workers at the Hanford site in and on the waste treatment plant and currently work with Walt and Donna and other workers out there. So I have a long perspective on some of these subjects being talked about tonight. And one of the phrases I have heard throughout the Hanford history is that the DOE does not tolerate retaliation or reprisals. And I have yet to see evidence of that. So that's one of the -- one of the catch phrases that you hear a lot. What does it actually mean that they don't tolerate it when it happens in front of you?

So here tonight we're looking at some people in the audience here like Dr. Tamosaitis and like Donna Busche and other names have come up that are living examples of people that have suffered retaliation and reprisal because they raised concerns. And that's speaks more to the culture and to the workers out there than almost anything else. That's who comes to mind when I hear that there, you know, there's a bumper sticker out

there saying we don't tolerate reprisal. And it has to be real. If you're going to deal with safety culture you got to deal with the actual examples of reprisal that happen.

So I have been posing the question now that the DOE and the contractors have gotten some religion to this, partly in thanks to you, partly in thanks to the media attention, and some people well meaning people within the Department, I'll say. But where, you know, what's going to happen when the lights go off or when people go away. So that's -- there's been a long, long history of promises in the area of safety culture change. I've got hanging on the wall in my office a 1988 news article from a gentleman name Mike Lawrence, his name is well known here in the Tri-Cities, and he said we don't tolerate reprisals against workers who raise safety concerns. And that was in reference to a gentleman named Ed Bricker that was raising concerns at the time. And then out along came Hazel O'Leary in 1994 and had a program of zero tolerance for reprisal against whistle-blowers. That program came and went. There was a Congressional hearing in the year 2000, saying Hey, where are the reforms? They're not sticking. Oh, don't you worry, Congressman, we definitely are committed to a program that's going to make sure that it sticks. And so

forth and so on, and here we are today.

The problem is that the Department of Energy does not hold contractors accountable when there is reprisal. They don't investigate it. They don't deal with it. It's like it never happened. You don't hear about it tonight. No one here talked about what happened to Dr. Tamosaitis. They've never investigated it at the Department of Energy. Their answer has always been, well, we'll let the Department of Labor look at it. Well, the Department of Labor never investigated and never will investigate it. So it's just going to be, you know, a living example out there for all workers to see. And that's what concerns me, is that as opposed to the nuclear regulatory commission decided to deal with this issue 15 years ago it said if there's reprisal or an allegation of reprisal, we will look at it and we will deal with the perception of it and bite down on it if there has been reprisal and make sure that the licensee understands very clearly through a license suspension or through other accountability that they can't behave in that manner. And it's worked. So they have got a program there that works. Why cannot the Department of Energy take on the same kind of responsibility and the same kind of accountability? We need that kind of approach here.

CHAIRMAN: Could you summarize your comments in the next minute or two?

MR. CARPENTER: Thank you. I sure will.

So we need that kind of approach here at Hanford and throughout the Department of Energy. The HSS report talked about 70 percent of the those surveyed, 70 percent, seven out of 10 said they were not comfortable in challenging a management decision. And 50 percent were uncomfortable in raising a safety issue. These are the kind of numbers that would result in a license suspension at a commercial nuclear facility. They would stop work. They would investigate why. And they would say you cannot restart until you fix that. I don't see that kind of action here. I see the same architects of the reprisal testifying up here tonight. What's happened to them? Nothing. There hasn't been any change as far as a meaningful way that you need to have if you really are serious about changing the culture.

So what's going to be done to re-empower, rehabilitate, and reinstate those who have been sacrificed for raising valid safety concern? And why is the Department of Energy paying the legal bills for the contractors in these cases? We want to see some meaningful process changes that stick. Thank you very much for considering my comments.

CHAIRMAN: Thank you. Allen Fridlund.

MR. FRIDLUND: Hi, I'm Allen Fridlund. I'm a retired senior health physics technician. I worked for WRPS and retired last October 1. The reason I retired is because I felt that I was going to be fired for bringing up safety concerns. And this was going on throughout the whole arena that I worked in. I got out because I could get my benefits and everything even when I wanted another couple, three years of work. It only made sense to leave instead of take a chance from getting fired by bringing up concerns.

I contacted everybody within my company, WRPS, right up the ladder. No results on anything I brought up. I've actually talked a couple times with Rick Shapiro of your group who sent me to Andrew T., who I thought had a confidential letter from me but it is on your website right now and that got me a call from Mr. Podonsky a week later, who was going to look up and follow these concerns because he thought they were quite valid. He really didn't do anything either.
And so what I'm really finding out that I've talked to a lot of great listeners. But I'm really having trouble finding doers. And when you talk about the safety culture that you have a problem with now, one of the words I never heard was trust. And if you get trust

you've got a lot going for you. But you have to earn it. The trouble with trust is that you can lose it in an instance.

So when you see all these violations going out, you know, lock and tag two, three times a week, probably one of the most important safety programs within there. And you put that in the PER system, I think they wordsmith this so you don't have to put them all in there anymore. But it would spit out like a jackpot at a slot machine how times has happened.

Any contractor prior to WRPS if we had two in a month they'd shut it down. They would make all of those lock and tag packages go over the vice president's desk. And he had to sign off to be able to do it. They don't do that anymore. They'd just go on. And we're working on like 440, you know, steam, just the waste itself and the routes for these waste transfers, there's valves closed and all these other things.

So I guess what I'm trying to convey to all of you right now is when you look at this safety culture you've got to have trust. And as one of the people that -- just like the gentleman over here, I was put in a no end work area for the last -- well, ever since WRPS got there, basically. But where I didn't do anything. And they just pushed me aside so I couldn't see anything

either. And that -- when you have that going on and you tell DOE representatives and they say we can't do anything. Then you go, well, why am I saying anything? And I've just a high school diploma, not a master's. Thank you for your time.

CHAIRMAN: Thank you. David Bruce.

MR. BRUCE: My name is David Bruce, I have been a nuclear chemical process engineer here at Hanford for 46 years. The last six of that on the WTP project. I'm still employed there in the process engineering group. And I think I'll just whip through what I've written so I don't miss anything.

I want to first to establish my credibility to talk about the nuclear safety and quality culture. And that started when I came here in 1965 to work for General Electric at B plant. I came with a fresh bachelor's degree in chemical engineering and of course I was leery of the nuclear industry. But my mentors were all of those people that had separated the first plutonium out of the production reactors in the '40s and '50s. And they were the same people that started up the large reprocessing plants, the radax plant and Purex plant in the '50s and '60s. So I got a good grounding in practical application of nuclear quality and safety. I worked there 24 years. I was processing engineer and

manufacturing engineer. I was through many plant startups, worked in the B plant startup for waste fractionation, design startup, construction of the waste encapsulation storage facility.

In 1980 I went to the Purex plant to get it restarted. And we restarted it in 1983. And I was there. I was the principle engineer, principle process engineer in the Purex plant. When I retired there in 1989, the plant shut down in '89 and looked like they weren't going to do anything. I took early retirement from the Purex plant in '89. I was retired three days because I don't idle well. And I took a job providing technical expertise to the Department of Energy, DOERL. And I worked that job 17 years. I was in the 10-3 plant, clean out, shut down, the first facility representative for DOE at the Purex plant. And then I spent the last 10 years or so up at the plutonium finishing plant.

And so during that time, that 17 years, the DOE nuclear quality -- safety and quality culture matured. And it grew up with all the bells and whistles that it has as we know it right now. So it's with that back-ground that I took a job with the WTP project. And I was absolutely appalled at the total lack of the functioning nuclear safety and quality culture. It just doesn't exist.

In 2006 when I started there, shortly I discovered a major problem with the vacuum evaporators where the process solution could be sucked up into the R3 C3 areas during shutdown. And I thought well, they're going to be real proud of me for finding this. So I, I went to visions of bonuses and so forth. And anyway, I talked to another engineer, he'd been there eight years and I explained the technical part of it and he said, you better shut up or they'll fire you. And that was his first words. And I thought wow, that's not too good. And the management neither in the process engineering group or in the design group, none of them ever helped out to try to get that resolved. I'm going write a PIER to finally get the last part of it -- they did change some of the material. So it's an uphill battle trying to push anything through. I better check my notes here.

CHAIRMAN: I'm sorry. But I have to ask you to in the next couple of minutes finish up, if you might.

MR. FRIDLUND: Okay. There have been many outside reviews. EFRT and then DOE conducted technical ready assessment and those drove us to look at our designs much closer. And they added great value to the plant. And my main message tonight is that the nuclear quality safety and quality culture when I arrived there was nonexistent. And I have documentation. I worked on

another problem on the steam recycle problem, the nuclear quality -- safety and quality culture did not exist in 2002. Right on this particular single technical item right up to 2009 it still didn't exist.

So I've -- what I'm telling you is you can fix the nuclear safety and quality culture today and it will have no bearing on those designs that were done over the last ten years.

So my message is if this plant is going to ever start up there has to be an independent technical intervention on those designs. It has to be independent because the project is bias to the designs they put out and they're fine with the status quo. It has to be technical because there are undoubtedly many, many technical flaws in those designs that have not been discovered. And it has to be an intervention because the project is in denial and they are not able to make the correction.

Now, I knew I wouldn't get through this so I have got about 300 copies of this. I set over in the corner, so anybody that wants one I'll hand it out.

CHAIRMAN: Would you submit it to the record, please?

MR. FRIDLUND: Sure.

CHAIRMAN: Thank you. Bert Niederer.

MR. NIEDERER: My name's Bert Niederer. I'm health physics technician. I've worked out at Hanford for about 27 years. What I want to address today was lock and tags. And we seem to have a rash of incidents of lock and tag violation. Here I have basically 20 lock and tag violations within the last year. Most of these have to deal with electricity, which could be fatal if anything was to go, you know, drastically wrong. And I think I could give you the PER numbers if you want them. I have -- if you get on your search engines you would be able to find all this information. It is right there and would be able for you.

And then I think from a worker's perception on this I kind of wanted to leave you with this. And I will go down through there. And these are not perceptions, these are things that actually happened while I was at work. Okay? Radcon supervisors tell junior technicians to falsify documents; instrument techs told to work inside a lock and tag boundary without hanging an authorized worker's lock; electricians issued stop work and field work supervisor continue work by applying a lock and tag to the situation on his own; HP Management, which would be the health physics management, was notified of a problem of what they call a crawler, which does the ultrasonic testing on the tanks, was told about

a problem with this crawler, the problem was ignored, the crawler dropped to the bottom of the tank; disintegrations of lines of communication due to isolation of teams led to failure of work stops. People don't know that there's a work stop or a stop work in place so they continue to work without that knowledge. DOE safety concerns have been turned over to WRPS to be investigated and found to be invalid. Chilling effect is solidly entrenched and safety concerns are not being reported for fear of termination/retaliating. Workers won't report injuries on the job for fear of being considered unfit for duty and not allowed to return to work. Thank you.

CHAIRMAN: Thank you. Richard Fleming.

MR. FLEMING: My name is Richard Fleming. 35 years an electrician. Worked all over the country. Worked for Bechtel a bunch of times. And Bechtel is Bechtel. They're going to make money no matter what they do. I'm representing myself today, but I'm also representing the hundreds of people that are former employees and current employees out there mainly at the WTP that are afraid to speak out because what these people have said about retaliation, intimidation, threats, you name it, economic hardship, is true. And it is still going on today. And Bechtel has a real good way

of bleeding money out of the government, especially a design build. It's great because they can just keep building, design, build, design, tear down, design, build, design, tear down, design. It will go on. It is an endless money flow.

But the safety culture out there, I tried my best when I went into that project because I was asked to by a lot of the members of my local because they know I'm a big fan of safety. And I've seen men die on jobs. And you -- I'm hoping I'm wrong on this but I've been right every time I've said it. People will die on this job for the reasons that these people have said tonight. They won't even report injuries sometimes just because they're afraid they'll get laid off. And you need to get absolute power over DOE so that you can tell them that you will be the ultimate decider on what gets built and how the safety culture runs. I urge Congress to give you that power. Thank you.

CHAIRMAN: Thank you. John David.

MR. DAVID: My name's John David. I've been associated with this project from its inception. I'm a craft safety rep. I've been a tradesman for 33 years. I would like to thank all of you for coming into this town tonight to listen to us. But I'd absolutely like to thank Walt and Donna and Mr. Bruce for standing up for

what they've said. Richard and I worked with him as a craftsman. And for having the guts to say what they've said because they're absolutely right, those that speak up most typically disappear.

I'm fortunate enough to be a craft safety rep on this project and that's why I have been able to survive. The culture is supposed to be positive. And management speaks out of both sides of their mouth continually from the top to the bottom. Workers are extremely reluctant bring up things because of, as Mr. Huizenga said, fear of reprisal. Top management makes great statements, you alluded to it to Mr. Russo. They work to really not do anything. Workers ask questions and they never get answers. Management gets notifications to stop doing the work and they don't tell their workers. I see this every day.

Everything in that HSS assessment is absolutely 110 percent true. Mr. Russo talked about answering questions and presenting a questioning attitude. We are in a layoff process and in the facility I work in our top management person stood up there and said I would invite you all to ask us questions. And every single question he was asked he had the same answer. I don't know. Now I'm talking about 10 times, eight times, I don't know. I swear they send these people to school to never answer

anything.

Because of constant concerns on this project in the interest of positivity, the past ORP director, Shirley Olinger, and Central Washington Building Trades president, Dave Smith, urged Bechtel to start the craft safety rep program. We work with the safety committees, safety assurance, management and most importantly the craft to solve issues.

The workers on this project asked for something pretty simple. You tell us all the time, bring it up, and we'll help you. They come up with solutions to problems. You've heard of something called the PIER system. That's great for dialogue with computers, craft workers don't have computers. The PIER system is useless to the craft. We don't have computers in our tool boxes.

I'd like to thank Mr. Bill Miller, Mr. Russo and his team tried to do everything to rip apart the craft safety rep program last year. Mr. Miller called me up on 8:40 Eastern time on a Friday night. He was the first and only guy to call and return my call and he helped me move forward. And he got Mr. Huizenga involved and Mr. Huizenga convinced Mr. Russo that he needed to rethink his process in relationship to tearing apart the craft safety rep program. Mr. Russo decided when he, myself and my steward got a chance to talk with him that he was

totally going to change his mind and he was going to help the others that were helping him trying to rip the craft safety rep program apart and he'd become totally supportive.

We'd also like to thank Mr. Carpenter. It just so happened Mr. Russo wanted to talk to me after he saw me talking to Mr. Carpenter in a restaurant in town.

I'd like to thank Mr. Scott Samuelson, he also helped.

There's a discussion about safety incentives for this project and the importance of how that helps people be motivated. I think Mr. Bader there talked about that that's approximately one percent or less, right, sir? We just cut our safety incentive funding in half because of we have funding issues. We don't recommend anybody goes to employee concerns because that's your quickest route out. That is the most useless program you will ever come across on our site. I know that firsthand because we went to talk to Shirley Olinger because we couldn't get any word from our management and our management listened to our conversation. I don't know if you know about this, they heard us on one of our cell phones, and the employee concerns department was brought in to help protect us. And I don't know where they got these buffoons, but it was impossible to imagine. It was the

most -- it was like watching Barney Fife. This guy told us he was their topnotch man. They sent him the script apparently of what they listened to when we talked to Shirley. That was on a Sunday. He talked to us on a Wednesday. He told us he felt sick because he just realized a couple short hours before he met with us that day right after lunch that that wasn't actually the script of our conversation and they couldn't find it.

CHAIRMAN: Could you summarize in the next couple of minutes?

MR. DAVID: Yes, sir. I welcome that. And I want to finish here in some positivity. One of the many reasons that the safety culture at the VIT plant is what it is, sir, is because this is 100 percent union represented craft. And we spend locally and nationally hundreds of thousands of dollars to train people in safety before they ever hit this job. That's what we live with. That's what we breathe with because if we can't work we don't get paid. We're hourly employees. We're hired by the hour. We don't have sick pay. We don't have vacations. That's how we -- our body is our tool so that's why our safety is so important and that's why we stress it.

And I would also like to say to you that it is rather interesting to me that we have one -- evidence of

one of the best safety records in the entire DOE complex on this Hanford site in relationship to the maintenance and operations. And there is not one word at all ever mentioned about utilizing the workforce that is already on this site to maintain and operate this plant when it's built. And I will tell you the conversation is 100 percent in the reverse. And to ignore not utilizing their services would be a huge mistake in what history has shown us.

I thank you all for your time in coming here and listening to all of us. And it is my honor as a craft safety rep to be associated with my fellow workers. Thank you.

CHAIRMAN: Thank you. Heidi Lambert, please. Welcome back.

MR. LAMBERT: I've never done this before. This is my second time today. My name is Heidi Lambert and I'm from Richland, Washington. I'm here with Occupy Tri-Cities. Please bear with me. I'm very nervous. From being from around here I'm trying not to question authority so it is difficult for me.

So today we heard that there's no WAC and no grasp of really what all chemicals are in all the tanks. We heard this evening about the culture having destructive tensions and conflict. We heard a lot about

what is flawed. But -- and what they were going to do different. And it sounds the same as what I heard 10 years ago. So I want to know why will this be different? And I want to know why is it taking so long? And why is it taking $2 million a day to tell us that the progress really isn't being made? And I want know is this really enough? Is there enough being done to clean up the most contaminated site in America? And thank you very much for listening to our concerns.

CHAIRMAN: Thank you. Jenny McIntyre Dickey. I don't see her so we'll move on.

Walter Tamosaitis.

DR. TAMOSAITIS: Good evening. My name is Walt Tamosaitis and I'm representing myself. Again, I want to thank the Board for your efforts in the past couple of years to oversee the WTP and what's going on here because again without your efforts nobody would be watching. So I personally thank you to help us assure that we get a safe plant that will operate efficiently.

The most recent HSS report in my opinion was very well done. The people who did that report, starting with Glenn Podonsky, really deserve a round of applause because in a culture, in that DOE culture they're really taking a chance to sign their name to a report like that. So within DOE I personally look at them as being really

stand up leaders who are willing to see something done right.

I do take one issue with their report. In their summary page they say safety culture change is different from correcting and resolving technical issues. I would offer that how technical problems are addressed, how they're corrected, whether they're pushed aside, is indeed a reflection of the safety culture. So to say that resolution of the technical issues is not part of it, I would question that.

Relative to the other surveys which have been referenced tonight, all the other surveys, from my review, touched on the issues. Even the most recent, the one that had the NRC people on it, the I-squad or IS-squad or ISCSAT, survey talked about the conflict within the organization and in particular with Bechtel Engineering. For whatever reason those other surveys either didn't know what they held in their hands or they pulled the punch when they issued the summary because obviously they didn't hit the nail on the head.

And again, I compliment the HSS for their report because they went the whole way and did drive the nail home.

What's more important is not the words and not what is said and not what memos are sent out to the

employees but what actions will be taken. People are going to move, time is going to march on. If substantive actions are not taken, the environment will revert to where it was and many people have commented on that tonight. An evolutionary approach is what will not work.

In this culture for where we are after a decade of construction, design construction and the problems that are faced, we need something which is more revolutionary. If the DOE implementation plan is any indication of whether it will provide change I think we have our answer and the answer is no. I mean, first DOE responded last June to the Defense Board rep prior to the public comments being submitted. If that wasn't bad enough, this past December they issued their implementation plan knowing the HSS report's coming out. You would have thought they would have waited, but the arrogance to address it without having information in hand to me is just a blatant indication of their interest to address the issues.

All companies are in business to make money and all customers are interested in schedule. The problem develops when the focus is on profits and not the product. When I think back over my 43 years, wherever we had a great operating system, a great culture, a good

team, people focused on the product first and not profits first. Bechtel's focus, as other people have commented, is on profits first.

With that said, and I've mentioned the word revolutionary, what changes could be made? I think major changes are needed to correct both the technical issues and the culture. We've talked about contract changes. Leadership changes are needed. Design oversight must be independent from Bechtel. DOE needs oversight. Even the most recent example which Dr. Winokur brought up in his last question indicates that DOE errors on the side of slapping the hand rather than taking a stronger enforcement action. You say well, okay, what could we do to show some action. There were 28 EFRT issues. We've talked about many of them today being open. Why doesn't DOE demand that any of those issues that were declared closed that have open work be reopened. And then any money that's been given to Bechtel and URS be given back. And then we'd have a good open accounting of what the open issues are at least relative to those 28.

CHAIRMAN: Could you summarize your comments in the next moment or two, please.

DR. TAMOSAITIS: Yes, sir. I'm just finishing. Without the proactive change, without doing something that demonstrates definite change, the culture is going

to stay where it's at. So I again applaud the Board for their actions and I'll thank you in advance for the efforts you'll do to see that things are improved in the WTP because we need it. Thank you very much.

CHAIRMAN: Thank you. Pat Pento.

MR. PENTO: Hello, my name is Pat Pento. And I have worked for 10 years on the WTP project. These views I'm expressing, however, are completely and solely mine. As far as the authorization basis is concerned, with respect to safety a large portion of it is based on a Pacific Northwest National Lab Study concerning gas retention in the solids. Now, this study tells you that gas is retained in the solids but it takes almost six months for the gas to come up to the surface and result in a hydrogen explosion. So also this gas retention study was based on the double shell tanks and based on a composition of waste that can never exist at the WTP. Because the study clearly points out that this gas retention can occur only in tanks which have very high soil cake content.

So when you form an authorization basis based on the study, you're essentially forbidding the WTP to let the waste settle. And you have this constant -- you have this criteria that the waste has to be constantly stirred and kept well mixed. And what I would like to do is

request you to reconsider that decision because that decision is making this project cost 10 times what it should cost. And there is no logical technical reason to apply the same criteria that was used in the PNNL study to the WTP. It's forcing the WTP to use a process called ultra- filtration, which is a totally inappropriate process for concentrating the solids in the waste. And it's a real struggle. It will make the pretreatment facility operate 10 times longer than what it should operate. If you just use a gravity clarifier or a centrifuge to concentrate the solids you'll be that far ahead.

And I've worked in the nuclear reprocessing in the DOE nuclear field for the last over four years. In fact, I started here at Hanford in 1973. And I worked until 1980 when conditions were becoming so bad that you could hardly get anything done. And then I went to work in the oil business and then I lost my job in the oil company when the price of oil went from $36 a barrel to $12 a barrel. And then I find a job with the Idaho National Lab and I worked there for 16 years. And even -- and things were 10 times worse at Idaho National Lab than when I left here. And just to give you an example of how, you know, I'm not talking about safety and the lock and tag and the electrical safety, but I'm just

talking about going overboard on safety and making this -- making -- forcing the project to use ultrafiltration. It's a totally inappropriate process.

Just to give you an example on this overemphasis on safety that's occurring. When I left the Idaho National Lab in 2001 to come and work on this project -- I'm sorry, I started at Idaho National Lab in 1984.

CHAIRMAN: Could you summarize your comments? Thank you.

MR. PENTO: Yes. I will summarize. And we had three dissolvers running, we were producing product, sending it to Oak Ridge. You know, the mission of the Idaho National Lab is to take the Navy nuclear fuels. And we had 1,100 people at the chem plant. And when I left in 2001 to come here nothing was running. And there were 4,500 people at the chem plant. And that's all because of ISMS and all these overemphasis on safety that's occurring.

CHAIRMAN: Thank you. Let me check again for Jenny McIntyre Dickey. Are there any other comments from the public?

MR. WOOD: I want to thank you again. I was here this afternoon and also presented. My comments from this afternoon really do apply. There seems to be whole lot of acronyms involved with owning different pieces of

this and nobody's responsible.

CHAIRMAN: Could you identify yourself?

MR. WOOD: My name is Richard Wood and I live in Portland and support Portland Occupy and a number of other community groups. And basically we're looking for open government and open information. There's a lot a secrecy -- this nuclear stuff is not a secret anymore. Its safety is.

So anyway, what I wanted to speak to a little bit. I left industry about a year ago because of a whole lot of injustices I see in pay and compensation, in benefits and health and salary. One of the things I've consistently heard here and because I was among you at one time in my career, I've worked in a lot of heavy industry, and one of the constant threads I get is, when I come in and do a safety assessment or a risk assessment, the first thing I'm thinking about is my family at home. When I come into work everything there is secondary to my family at home. So my risk assessment at work is something like this. If I lose my job I have no health insurance. If I lose my job I lose my livelihood. If I lose my job I lose my house. There's my first level of health risk assessment. So now when I come in amongst my peers I've got to worry about this and this is nuclear stuff so the health concerns are global

when you're involved in this. But that job, a short term contract, worrying about speaking out here and going back to the union hall tomorrow and not getting work or being put in a basement job is very real across 35 years of this industry. I'm almost amazed that safety culture would have to be discussed because you're supposed to be a mature industry. I don't understand this. I see a program office. I use a PIER to be the program office. And I know you have a staff you should be doubling that because who is running this show? I don't -- you folks are. And thank you very much for doing that. I appreciate the great questions. But this is out of -- it looks like somebody sold somebody a long time ago a bill of goods and they've just milked the profit machine out of this. Half of this isn't new. This gentleman referred to the mixing. DWPF vitrification was done in Savannah River 10 years before here. So we're being resold a bill of goods somewhere, folks, and it needs to be talked about. I thank you all for the time.

CHAIRMAN: Thank you. Any other members of the public that would like to speak at this time? Seeing none, with that I'm going to turn to the Board members for their closing statements and then I'll end with my comments. Ms. Roberson.

VICE CHAIRMAN: I defer to you, Mr. Chairman.

CHAIRMAN: Dr. Mansfield.

DR. MANSFIELD: I have no statement.

CHAIRMAN: Mr. Bader.

MR. BADER: No comments.

CHAIRMAN: Thank you. I'll now provide some closing remarks. First, on behalf of the entire Board I'd like to recognize the dedication of the workers at Hanford who are working to get the Waste Treatment Plant built and clean up the site. Our discussions with the Department of Energy on safety culture and resolution of safety issues are aimed at making sure that the workers at Hanford have the tools and management support that they need in order to accomplish this vitally important work safely and efficiently.

Second, I want to acknowledge the hospitality of the Hanford site and local community. I'd also like to thank our witnesses and all the members of the public who participated in this meeting and hearing. I want to particularly thank the Congressional staff and its elected officials and other representatives of the state and local organizations that participated here today. An active community with engaged leaders is a vital part of any successful program of this nature.

This is the second time in 18 months that the Board has chosen to hold a hearing at Hanford because of

the essential role the Waste Treatment Plan will play in processing the large volume of toxic and radioactive waste now stored in underground tanks at Hanford. The project needs to resolve its longstanding technical issues, some of which have been known and reported on for more than decade. Left unresolved these technical issues will impact the safety, for the reliability, and capability of the plant to treat waste.

The Board is convinced that these issues have persisted in large part due to a poor safety culture. Unfortunately this resulted in an unproductive cycle where a difficulty in dealing with persistent technical issues in turn contributed to a worsening safety culture. To the maximum extent possible, solutions to the design and operational issues of the Waste Treatment Plant must be accommodated before commissioning. A learn as we go philosophy is not prudent or safe for this facility. To support safe and reliable operation of the plant, the Board will continue its focus -- to focus its oversight activities on the safety related aspects of the design to ensure the plant's design is consistent with the Department's requirements and implementing standards, especially the DOE nuclear safety management rule 10CFR, that's Code of Federal Regulations, part 830, its associated standard for preparing documented safety

analyses, DOE Standard 3009, and DOE's order on facility safety, Order 420.1B.

The Board wants to take a moment to reiterate several recent and positive actions taken by the Department. The Secretary and the Deputy's memorandum of December 5th, 2011, set a clear and unambiguous vision for nuclear safety and safety culture at DOE's defense nuclear facilities. Also, in December the Secretary provided his plan for implementing Board Recommendation 2011-1, Safety Culture at the Waste Treatment and Immobilization Plant. And the Department is now taking steps to improve safety culture throughout the complex.

And lastly, as we discussed in detail at this hearing, the Department's Office of Health, Safety and Security issued a noteworthy report in January 2012 on its independent oversight assessment of nuclear safety culture and management of nuclear safety concerns at the waste treatment and immobilization plant. Mr. Podonsky's team provided significant insights and the pathway to improve safety culture throughout the DOE complex.

Once again I thank everyone for their participation at this hearing. The record of this proceeding will remain open until June 23rd, 2012. I would like to reiterate that the Board reserves its right to further schedule and regulate the course of this

public meeting and hearing to reassess, reconvene, postpone or adjourn this public meeting and hearing and to otherwise exercise its authority under the Atomic Energy Act of 1954 as amended.

This concludes this portion of the public meeting and hearing of the Defense Nuclear Facilities Safety Board. We are now in recess. We will reconvene in Washington, DC, at the Board's headquarters on May 22nd, 2012, to hear from senior department officials to discuss their approach to addressing the broader policy and programmatic issues associated with Recommendation 2011-1 and their effort to evaluate the safety culture at the Waste Treatment Plant and other design projects, sites and programs at DOE.

Thank you all for attending.

(Hearing recessed at 9:40 p.m.)

STATE OF WASHINGTON)
) ss.
COUNTY OF YAKIMA)

This is to certify that I, Jori L. Moore, Certified Court Reporter and Notary Public in and for the State of Washington, reported the within and foregoing hearing; said hearing being taken before me as a Certified Court Reporter on the date herein set forth; that the witness was first by me duly sworn; that said examination was taken by me in shorthand and thereafter under my supervision transcribed, and that same is a full, true and correct record of the testimony of said witness, including all questions, answers and objections, if any, of counsel.

I further certify that I am not a relative or employee or attorney or counsel of any of the parties, nor am I financially interested in the outcome of the cause.

IN WITNESS WHEREOF I have set my hand and affixed my seal this day of , 2012.

JORI L. MOORE, RPR,
CCR NO. 1993