DEFENSE NUCLEAR FACILITIES SAFETY BOARD

Public Hearing and Meeting on Pantex Plant,

Amarillo, Texas

Thursday, March 14, 2013

Session I

1:00 p.m.

Amarillo Civic Center

401 S. Buchanan Street

Amarillo, Texas 79101

BOARD:

Dr. Peter S. Winokur, Chairman
Ms. Jessie H. Roberson, Vice Chairman
Dr. John E. Mansfield, Board Member
Mr. Joseph F. Bader, Board Member
Mr. Sean Sullivan, Board Member
Mr. Steven Stokes, Acting Technical Director
Mr. David S. Jonas, General Counsel
Mr. Dan Ogg, Group Lead Nuclear Weapons Programs
Mr. Ben Laake, Board Technical Staff

ALSO PRESENT:

Mr. Glenn S. Podonsky, Chief Health, Safety and Security Officer, Office of Health Safety and Security, Department of Energy
Mr. Thomas R. Staker, NNSA Acting Director Office of Safety and Emergency Management Evaluations, Office of Enforcement and Oversight
Honorable Neile Miller, NNSA Acting Administrator and Principal Deputy Administrator, National Nuclear Security Administration
Dr. Don F. Nichols, NNSA Associate Administrator for Safety & Health and Chief of Defense Nuclear Safety
Mr. James J. McConnell, NNSA Acting Associate Administrator for Infrastructure and Operation
Mr. Steven C. Erhart, Manager, NNSA Production Office
Mr. John D. Woolery, General Manager, B&W Pantex
Mr. James D. Stevens, Manager, Environment, Safety, Health & Quality, B&W Pantex
Mr. Alonzo Campbell, Department Manager, Emergency Management, B&W Pantex
Dr. Donald L. Cook, Deputy Administrator for Defense Programs, National Nuclear Security Administration
Mr. Dennis E. Huddleston, Division Manager, Projects, B&W Pantex

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PROCEEDINGS

CHAIRMAN WINOKUR: Good afternoon. 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.

Allow me to introduce my colleagues on the Safety Board. To my immediate right is Ms. Jessie Roberson, the Board's Vice Chairman. To her right is Mr. Sean Sullivan. To my immediate left is Dr. John Mansfield. Next to him is Mr. Joseph Bader. We five constitute the Board.

The Board's General Counsel, Mr. David Jonas, is seated to my far left. The Board's Acting Technical Director, Mr. Steven Stokes, is seated to my far right.

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

Today's meeting and hearing was publicly noticed in the Federal Register on January 22nd and February 19th, 2013. 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, a 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 web site 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, which will be at approximately 4:30 p.m. for Session I and approximately 8:30 p.m. for Session II.

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 have contacted us or, if possible, when they wish 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, and 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 April 15, 2013.

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.

I would now like to discuss why the Board chose to hold a public hearing concerning safety at the Pantex Plant. The Board's statutory charter is to advise the Secretary of Energy regarding actions that may be necessary to ensure adequate protection of public health

and safety, including safety of the workers. Pantex is a unique site where workers perform nuclear explosive operations to assemble, disassemble, dismantle, and conduct surveillances on nuclear weapons. These activities must be performed with the utmost regard for safety because the consequences of failure could include release of radiological material to the environment or inadvertent nuclear detonation.

The Board intends to discuss three topics during today's meeting and hearing that are critical for maintaining the highest levels of safety at Pantex. The first topic is the safety culture at Pantex. The second topic is site emergency preparedness and response. Finally, the Board will consider the status of key safety programs and the aging infrastructure of defense nuclear facilities at Pantex. Let me briefly describe each topic.

During this afternoon's session, significant time and focus will be directed at the safety culture at the Pantex Plant. Although the Department of Energy's Nuclear Safety Policy, that's DOE Policy 420.1, explicitly calls out the need to establish and maintain a strong safety culture, the Board became increasingly concerned in 2011 about the harmful effects of a weak safety culture on the design and construction of the Waste Treatment Plant at the Hanford site in Washington State.

The Waste Treatment Plant is a chemical waste processing facility that will treat radioactive liquid waste and turn it into a stable, glass form suitable for permanent, safe disposal.

On June 9th, 2011, the Board issued Recommendation 2011-1, Safety Culture at the Waste Treatment and Immobilization Plant, after investigating the circumstances surrounding allegations of retaliation for raising concerns on that project. In that Recommendation the Board is concerned that "both DOE and contractor project management behaviors reinforce a subculture at the Waste Treatment Plant that deters the timely reporting, acknowledgment and ultimate resolution of technical safety concerns." In early 2012, two Pantex employees reported similar instances of perceived retaliation for raising safety concerns. Using the same independent team of safety culture experts that had assessed the safety culture at the Waste Treatment Plant, DOE's Health, Safety and Security Office conducted a review of safety culture at Pantex during the summer of 2012.

The results of this review were troubling. The team found that "there is a strong perception that retaliation exists for 'rocking the boat' and an environment where the raising of questions or

identification of problems is not the consistently accepted way of doing business." The report also cited employee observations of poor facility conditions, lack of focus on meeting personal needs, and a sense of cronyism as factors that undermine the workers' belief that the organization places a high priority on safety.

The team concluded that the Pantex Plant has not been successful in understanding the organizational and programmatic behaviors that are necessary for a healthy safety culture. The team recommended that, and I'm quoting here again, "significant efforts are needed by Pantex Senior Management to gain the respect and trust of the employee population including demonstrating the commitment to the principles and values of a high reliability organization and taking prompt actions to improve the quality of life at Pantex."

DOE (Department of Energy) and B&W Pantex management appear committed to dealing head-on with the safety culture issues identified by the Health, Safety and Security Team. However, the Board will closely track the National Nuclear Security Administration and contractor efforts to implement the necessary corrective actions that will be required to establish Pantex's safety culture as the "gold standard" for the safety of its operations. Accordingly, this afternoon the Board will hear testimony

from senior DOE officials and separately, from senior B&W Pantex officials, on their perceptions of safety culture and the need for improvement.

During this evening's session, the Board will address issues dealing with emergency preparedness and response, which is a crucial part of the overall safety posture. Recent events like the Deepwater Horizon oil spill in 2010 and the reactor accidents following Japan's devastating 2011 earthquake and tsunami have reminded the world of the catastrophic impact of severe accidents.

The flooding of Pantex plant facilities in 2010, and perhaps, to a lesser extent, the blizzard several weeks ago, demonstrates that even the Panhandle of Texas is susceptible to natural disasters.

The Board acknowledges the work that has been done by the Department and its contractor at Pantex to respond to both natural events and operational accidents whose impacts may cascade in consequence, affect multiple facilities, or be beyond the design basis of its facilities.

The Board sees ample opportunity for Pantex to improve and during this session will examine potential areas where site planning and recovery can be enhanced.

During this evening's final topic, we will

discuss NNSA's strategy to ensure safe nuclear explosive operations within defense nuclear facilities at the Pantex Plant. The Nuclear Explosive Safety Program must ensure the prevention of a main charge high explosive detonation or an unintended nuclear detonation. If Pantex is continued -- is to continue to meet its commitments in support of the nuclear weapons stockpile, the safety of nuclear explosive operations must be guaranteed. During this hearing, the Board will examine if the Nuclear Explosive Safety Program is adequately fulfilling this mission. Additionally, we will discuss concerns regarding safety systems and infrastructure at Pantex that are aging or require upgrades to meet modern safety requirements. More specifically, the Board will examine issues related to several fire protection systems and facility structures.

This concludes my opening remarks. I will now turn to the Board Members for their opening remarks. Ms. Roberson?

VICE CHAIRMAN ROBERSON: No, thank you, Mr. Chairman.

CHAIRMAN WINOKUR: Dr. Mansfield?

DR. MANSFIELD: No remarks.

CHAIRMAN WINOKUR: Mr. Bader?

MR. BADER: Not at this time.

CHAIRMAN WINOKUR: Mr. Sullivan?

MR. SULLIVAN: Yes, Mr. Chairman, I would like to make some opening remarks. And good afternoon to everyone.

While we have three separate topics here today, I believe there's a great deal of overlap between them. In particular, I believe that today's third topic on the National Nuclear Security Administration's strategy to ensure safe nuclear operations likely has a direct and significant bearing on the day's first topic, the safety culture here at the Pantex Plant. As a result, my questions at times may cross over between these topics.

I want to emphasize from the start that I say I believe that there is a likely overlap. I do not have any direct evidence of a connection between NNSA's actions in the area of nuclear explosive operations and the safety culture here at Pantex. But since joining the Board, I've been troubled by a particular tendency at NNSA (National Nuclear Security Administration) to interpret ambiguities in their own directives and standards in a non-conservative manner.

To cite just one example, the directive on Nuclear Explosive Safety Studies says that such studies must be performed within five years of the last study, and it even suggests that the studies be scheduled at the

four-year point to ensure that five years is not exceeded. Nevertheless, since the directive does not say that the five-year-old studies actually expire, the five-year anniversary is exceeded on a regular basis with no apparent consequences; that is, there is no interruption in production, no apparent concern for the deadline established by the directive, and no management individual held to account for allowing the deadline to be missed.

Such non-conservatism is foreign to me. My background is in Navy submarines. I recall vividly one occasion on a submarine where a crew member on my ship made a valve lineup error causing seawater from the ocean to backflow into the pipe for air intake to the ship's emergency diesel engine. Now, our rules said that because water was found in the pipe, we had to assume that water had gotten into the engine until we had a certified diesel inspector say otherwise. The diesel had to be placed out of commission and prepped immediately for an inspection. If you have ever seen a diesel engine try to compress water, you know that the two don't mix. Diesel inspectors were not crew members, so the ship had to go into port. And since the diesel provided emergency power to cool the reactor in the event of a reactor accident, the ship had to proceed into port and shut down the reactor without delay.

Now, these were the rules. They were designed for safety, safety of the equipment, safety of the crew, safety of the ship and safety of the public, and we followed the rules. Never mind that the ship had -- and crew had other important things to be done at sea. Never mind that the water in the pipe still had one more manual valve as a barrier, so it probably didn't get into the engine, and as we later learned, in fact, it did not. Never mind that the odds were infinitesimally small that the reactor would experience an accident where the services of the emergency diesel generator would actually be needed. And never mind that an unscheduled trip into a busy port carried its own risks. In short, we had ample reasons, both technical and practical, to talk ourselves out of the following of the rules, but we didn't. We followed the rules, and we proceeded into port immediately.

Navy submarines have an important mission, war-fighting, just as NNSA does. But short of actual war, safety is paramount in the submarine force. The safety rules get followed religiously, and if there's an ambiguity, submariners assume that the more conservative approach is the correct one, unless directed otherwise from the very top of the chain of command. Doing so sends a consistent signal to everyone in the organization, down

that chain of command to the most junior sailor, that safety is important. Now, that's my experience on how a strong organizational safety culture is established.

Returning now to the five-year Nuclear Safety Study example, I hope it's clear why these examples such as this trouble me. If five years is the right periodicity, then stick to it. Move heaven and earth to get subsequent studies done in five years. If the periodicity is exceeded, hold people accountable. Make the consequences obvious and painful.

On the other hand, I say to NNSA, if a longer periodicity can be justified, then change your own requirement. But do not leave the requirement in place while using ambiguities and loopholes to get around it. Doing so, I suspect, sends a signal to the worker here that safety is not important. Don't be surprised then when the workforce safety culture is not what it should be. Let me close these remarks by stressing again that I have no direct evidence that decisions made by NNSA in nuclear explosive safety operations contributed to the poor safety culture found last year among the B&W Pantex workforce. Perhaps it did not. But all my years of experience tell me that the two are likely connected. As a result, during the day's first session, I will be interested in hearing from NNSA officials to what extent

they have considered the possibility that the Administration's own nuclear explosive operations safety strategy is driving, perhaps, in whole or in part, the safety culture here at Pantex. Similarly, during the day's second session, I will be interested in hearing whether the nuclear explosive operations decision-making process, which necessarily factors technical considerations into the mix of decision making, also considers the potential impact of those decisions on safety culture.

This concludes my opening remarks, and I look forward to hearing from our distinguished panelists here today on these important matters.

CHAIRMAN WINOKUR: Thank you for those remarks. This concludes the Board's opening remarks.

At this time I would like to invite the Honorable Neile Miller, Acting Administrator and Principal Deputy Administrator of the National Nuclear Security Administration, to the witness table to provide a statement on behalf of the National Nuclear Security Administration.

Welcome, Ms. Miller. I want you to know that we will accept your full written testimony into the record, and I would appreciate it if you would be able to summarize your comments now in about ten minutes.

MS. MILLER: Thank you. Thank you for inviting us here today to address the National Nuclear Security Administration's ongoing work to improve the safety culture at the Pantex Plant and more broadly our ongoing efforts to improve our safety culture across the complex.

I will be joined here today by Dr. Don Nichols, Associate Administrator for Safety and Health and Chief of Defense Nuclear Safety, Mr. James McConnell, Deputy Associate Administrator for Infrastructure and Operations, and Mr. Steve Erhart, Manager of the NNSA production office. My colleagues will be available at a later time to discuss safety culture efforts and answer additional technical questions from you.

While I hold the responsibility for operations and specifically the safety culture in the NNSA, Steve Erhart is directly responsible for daily operations at the NPO (National Production Office) and has been diligent in his commitment to bringing improvements in the safety culture at the Pantex Plant and the NPO, as well as sharing his insights and knowledge with the remainder of the enterprise.

Dr. Nichols supports me as the NNSA Central Technical Authority, and James McConnell serves as the Cognizant Secretarial Officer for Pantex. In that

capacity, he leads and manages operations for the enterprise facilities that support the program mission.

This is a strong team and one that has both the technical capability and the professional and personal commitment to execute our mission safely.

In my time here with you today, I want to assure of you two things. First, I am fully aware of the significant safety culture concerns that have been raised by our workers here at the Pantex Plant. Second, we are engaged in and fully committed to the resolution of any and all nuclear safety deficiencies within the department, be they cultural, managerial, contractual, design, or operational in origin. This holds true across the NNSA, as well as the broader DOE complex, including environmental management.

I reaffirm the Administration's and the Department's commitment to safe and secure work environments for all federal and contractor employees.

As you know, the Office of Health, Safety and Security recently completed an assessment of the safety culture at the Pantex Plant. The results were sobering, so sobering, in fact, that my staff immediately convened to discuss options that could be quickly implemented to address these findings, even as we contemplate longer term actions to fully implement the

recommendations from the HHS report.

After a detailed, forthright and open discussion of the situation, we decided to immediately implement a set of corrective actions that Steve Erhart was instrumental in executing. We also developed a detailed plan for both correcting and contributing issues, as well as establishing the controls and processes to ensure -- to keep us on a road to continuous safety culture improvement.

A strong safety culture is essential to ensure work is performed properly at the Pantex Plant, as it is to perform work at any of our facilities. There is no other way, and there is no substitute. The contractor Babcock & Wilcox Pantex knows that I expect them to take the findings and recommendations of this report, as well as the other reviews related to this report, very seriously, and that I and my staff will hold them, as well as ourselves, accountable for making measurable improvements in the culture and operations here at Pantex.

I would like to discuss the potential impact of a flawed safety culture on our nuclear explosive safety operations. Let me say unequivocally that the negative impact due to such flaws is intolerable.

I would like to continue by addressing both the short and long-term corrective actions which we've

taken here to ensure the continued safe execution of the NNSA mission at the Pantex Plant, specifically to nuclear explosive safety.

B&W Pantex initiated an investigation to address the issues identified in your March 2nd letter. The investigation generated eight judgments of need. Following a review of these results, the NPO requested additional causal analysis to address the management issues that directly affect Pantex personnel. This analysis resulted in the expansion of seven of the original corrective actions associated with judgments of need and one additional action.

NNSA then commissioned an independent review of this analysis to confirm the results. The independent review identified a number of weaknesses and provided 13 recommendations. I believe that on both the federal and the contractor's side, we are making progress in addressing these matters, but my expectations are high and much remains to be done until we can consider ourselves to be where we must be.

I have personally taken action to increase the independence of the oversight of NES (Nuclear Explosive Safety) processes. In a memorandum dated 30 January, 2013, I directed the realignment of NES oversight processes. The responsibility for NES policy will now

reside with the Associate Administrator for Safety and Health. This was formerly a responsibility of the Deputy Administrator for Defense Programs.

I have also transferred the responsibility for oversight of the implementation of NES requirements to the Office of Safety and Health, along with the contracting authority and the staff authorizations to execute this function.

The transfer of NES oversight responsibility will be fully effective once funding and reporting relationships have been realigned. In the interim, the Associate Administrator for Safety and Health and the Deputy Administrator for Defense Programs will direct actions as appropriate to ensure a smooth transition of this responsibility.

These actions will help to address our concerns with the process and ensure direct access to me regarding any issues that may arise.

Immediately following the out-briefing of the HSS (Office of Health, Safety and Security) report regarding safety culture findings at Pantex, NNSA issued a letter to B&W Pantex directing immediate focus at all management and working levels to a safety-conscious work environment for all ongoing activities and operations.

This focus included the investigation and

correction in any real potential or perceived lack of clarity for all activities approved under applicable NES evaluations.

NNSA also directed B&W Pantex to evaluate the process used to identify, assess and resolve matters to ensure clarity and traceability regarding the decision-making process in these cases.

We also directed the contractor to conduct an extent of review condition for other NES evaluations.

Other immediate actions included the development of a single stop/pause work process, which was provided to all employees and discussed at daily work planning meetings.

The Employee Concerns Program, an equal opportunity office reporting chain was immediately elevated to a direct report to the general manager's office, providing the highest level accesses for any employee concerns in these areas.

Additionally, the Differing Professional Opinion Process was reinstated, providing a formal mechanism for recognition and resolution of differing views on technical matters.

Further, this letter directed B&W Pantex to prepare a comprehensive, long-term Corrective Action Plan mentioned previously, taking into account the Institute of

Nuclear Power Operations paper on The Principles of a Strong Nuclear Safety Culture.

Our initial actions serve the needed goal of quickly bringing this issue to the front and center of attention to our federal and contractor management at the Pantex Plant. They also demonstrated to the plant personnel the commitment of management to correct the problems identified and the need to rebuild a culture of trust between the workforce and management at the plant.

NNSA's NPO will be closely monitoring these changes and assessing the progress throughout the completion of this plan. I can report to you that the execution of this plan commenced prior to the completion of the HSS final report on November 29th, 2012.

In the development of the long-term plan for improvements of the safety culture, the key elements identified in the Nuclear Regulatory Commission Procedures and documented in the HSS Report were used as a guideline for our actions.

The final and complete results of the HSS Safety Culture Review were communicated to all plant personnel when the final report was received. Plant management accepted ownership of the identified issues and engaged their workers to develop the immediate and long-term plans to rectify the situation and to ensure all

personnel were aware of the actions being taken.

This was the first step in a longer communication plan developed in December 2012 to foster more open communications between management and plant personnel. A key element to this communications included the development and issuance of a consolidated NPO, Pantex, Y-12 (National Security Complex), joint nuclear safety culture policy. Having reviewed DNFSB (Defense Nuclear Facilities Safety Board) Recommendation 2011-1, as well as our own analysis, the NNSA and DOE have embraced the need for an intensified effort to embed a strong safety culture in all departmental policies, programs and personnel.

Also, at a corporate level, we are reviewing our contracting and technical issue resolution processes to understand how they may be affecting safety and what changes are necessary to promote a strong safety culture.

We're also developing training for Department of Energy federal and contractor senior leaders on establishing and maintaining an open and collaborative work environment within the department.

Drawing on the lessons from the safety culture reviews across DOE and NNSA, we have established within NNSA a corporate board led by Jim McConnell

responsible for coordinating our efforts to improve safety culture within NNSA. One of our principal initiatives is to conduct a safety culture survey of NNSA Headquarters.

During the week of February 19th, we trained 23 NNSA personnel from a wide variety of offices on safety culture principles and the process of conducting safety culture surveys. The training was led by the same expert who has been leading the safety culture surveys for the Department.

I consider it essential that we understand the extent to which leadership may be unintentionally undermining the very culture we are trying to promote and areas where we can improve. I expect the actual review of NNSA Headquarters to be conducted this Spring.

Let me close with a few additional thoughts. As an organization tasked with one of the nation's most critical missions, we at NNSA understand the fundamental make-or-break challenges that our work entails. The safe and successful execution of our mission greatly affects our nation's safety and security and demands the very best of all of us, year in and year out. That is why it is so important to embed the commitment to safety deeply in the culture of the NNSA enterprise so that it will be embraced by all of those who succeed us.

Our safety culture is critical to

protecting and improving the NNSA legacy, and we cannot and must not fail in this effort. But we must also see safety culture and any deficiencies that we find in our safety culture to be part of the overall picture of how we do what we do.

If people are our most important asset, as we proudly state and truly believe, then we cannot be held to any lesser standard than the one that clearly demonstrates the truth in this statement: We must walk the talk with every employee at every site in every activity.

I will continue to discuss with you our progress and your concerns in our regular interactions. As always, I invite you to contact me directly if you have any concerns about our activities involving our safety culture improvements.

Thank you again for the opportunity to discuss NNSA's safety culture improvement efforts at the Pantex Plant.

CHAIRMAN WINOKUR: I want to thank you for your comments, Administrator Miller, and I think we'll be chatting with you later during one of the panel sessions.

Now our agenda calls for Mr. Ogg of the Board's staff to provide testimony on the subject of the safety culture at the Pantex Plant. However, in the

interest of time, I would like to ask Mr. Ogg to submit his written testimony for the record.

I would also like to enter into the hearing record the following three reports and one memorandum which the Board will be discussing today.

First, the B&W Pantex Nuclear Explosive Safety Change Control Investigation Report dated March 19, 2012.

Second, the NNSA Independent Review of the Pantex Nuclear Explosive Safety Change Evaluation Process dated September 2012.

Third, the DOE Office of Health, Safety and Security Independent Oversight Assessment of Nuclear Safety Culture at the Pantex Plant dated November 2012.

And, fourth, a memorandum from the Acting Administrator of the NNSA concerning the revision of Nuclear Explosive Safety Responsibilities dated January 13th, 2013.

At this time, I would like to invite the first panel of witnesses from the Department of Energy's Office of Health, Safety and Security to discuss safety culture at the Pantex Plant.

Would the two panel members please take your seats as I introduce you. They are Mr. Glenn Podonsky, the Chief of Health, Safety and Security; and

Mr. Tom Staker, the Acting Director, Office of Safety and Emergency Management Evaluations and the Office of Enforcement and Oversight.

The Board will direct questions to either panelist, who will answer them to the best of their ability. After that initial answer, the other panelists may seek recognition by the Chairman 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 of this hearing at a later time.

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

MR. PODONSKY: Yes, Mr. Chairman, I would like my written testimony that I submitted to the Board to go in for the record.

CHAIRMAN WINOKUR: It will be accepted into the record. Thank you. I would like to thank each of you for your testimony today. With that, we'll continue with questions from the Board Members to the full panel. And I believe I have the first question.

It is to you, Mr. Podonsky. Can you describe why the Health, Safety and Security Office performed the safety culture assessment at Pantex?

MR. PODONSKY: Yes, sir, I can. It

actually started in 2010 when the Assistant Secretary for Environmental Management asked us to take a look at WTP (Waste Treatment and Immobilization Plant) because there was many concerns that you talked about in your opening statement.

And we did that review, and we discovered at the conclusion of that review that, while we had a very capable team, we were missing some critical elements in order to properly assess safety culture. And that was, we had nuclear safety experts, nuclear safety engineers, but we didn't have experts in behavioral organizational expertise and on safety culture assessments.

It was the Defense Board that, as a result of our 2010 review, I believe, you had a -- the Board Recommendation 2011-1 that prompted us to take a look at how we were going to take a good assessment across the complex, and especially we did not want to replicate what we did in 2010. So we benchmarked against INPO (Institute of Nuclear Power Operations), NRC (Nuclear Regulatory Commission) and other power commercial entities and discovered that we really did need expertise that we didn't have previously on our teams.

And we started with the direction of the Secretary in his implementation plan that he sent to the Board to do an extent of condition review at other

projects, and in the course of our doing that, the Board also made us aware that there were issues here at Pantex that we might want to take a look at, and through the encouragement of the Defense Board, which we appreciate immensely, because we are all on this journey together. Then Mr. Staker scheduled a comprehensive safety culture review here at the Pantex Site.

CHAIRMAN WINOKUR: Thank you.

Mr. Staker, can you give me a sense of how you conducted this -- this assessment. I mean, what were some of the key things about what you felt was important in terms of putting this team together to conduct an effective assessment at the Pantex Plant?

MR. STAKER: Okay. As Glenn indicated, we went out and we benchmarked; we met with folks from NRC, INPO, commercial nuclear power facilities, and we learned from that and interface with some experts that we really needed to have three fundamental elements to make sure that this particular assessment was successful, and we wanted to do the best we could, because we thought this information was important to help the Department move forward.

So those three essential elements really are, first, we needed to have some expertise in organizational culture and organizational behaviors. We

didn't have that. We're primarily a technical organization. So we brought Dr. Sonja Haber who was actually an individual who led a study that was commissioned by the Nuclear Regulatory Commission back in the mid-eighties after the Chernobyl event to better understand how management and organization can impact safety.

So she led that study. It went on for about five years, and as a product of that study, there's new reg that came out with certain methodologies that can be used to go out and assess the culture of an organization. So, first of all, we had to bring in the expertise.

The second fundamental element was to use validated methodologies. We didn't want to create, for example, our own survey. We don't have expertise in that. So we used, for example, a survey mechanism that had been validated by experts in the area, had been tested, had been used, actually, for over twenty years, to do this type of assessment.

And the third essential element of this type of assessment was to use multiple methods. There are different methods that you can use to collect information on organizational culture, safety culture. Each one of those has some strengths and weaknesses, and we actually

employed several methods.

First of all, we used an organizational culture survey tool which provided us with an opportunity to capture the perceptions of a large number of individuals at the plant.

We also then employed what we called a functional analysis, where we looked at the papers, the procedures, the policies that describe an organization.

We then went out and conducted interviews and focus groups where you go out and actually talk with individuals to capture their perceptions, their beliefs.

We also did observations -- and I'm sorry, can everybody hear me okay? I'm not moving too much, right? Okay. Sorry.

We did actual observations; we went out and observed work; we went on rounds with folks; we went to meetings, to actually see the behaviors that occurred during those activities.

And we used another tool called a Behavior Accurate Rating Scale, and that's a tool where it fundamentally takes organizational behaviors that are necessary for any organization to actually function and continue to function, such as communications, problem identification and resolution, and it has -- each one of those areas there's a -- I'll call it a definition of what

that area is on top, and then there's five descriptions of that particular area. And as we did our interviews and focus groups, we asked individuals to select which one of those areas best resembled their organization. So that helps provide another set of quantitative data.

We collected all of that data, and through that process, you know, we had actually gone through some training of our technical staff so we could help collect it. But once it was collected, we gave it to the experts in organizational behavior, and they conducted the analysis to come up with the results, the observations and the recommendations that are in the report.

CHAIRMAN WINOKUR: Do you think this approach that you're talking about provides a lot more validity than, let's say, a self assessment, because at times the Board hears that different organizations want to do self assessments, and yet you formed this team with, a seems like, a unique and a very powerful set of skills to do these assessments. How would you rate the kind of information and the data and the analysis you get from this approach vis-a-vis some organization doing a self assessment of themselves?

MR. STAKER: You know, I think this method provided some advantage in that all of the folks on the team had no interface or power over any individual that

was interviewed or part of a focus group, so it could probably allow more free-flowing information.

But if an organization were to do a self assessment, which we're doing a lot of those in the department right now, I think they really need to adhere to those three fundamentals to use validated methods, not create a survey tool with a bunch of engineers, to have some level of expertise on the team, and to use multiple methods and look across the data that's collected across those methods to see where it converges.

CHAIRMAN WINOKUR: Yes, Mr. Podonsky.

MR. PODONSKY: I'd like to capitalize a little bit on Mr. Staker's statement. We have found over three decades of independent oversight in the department is that while we have often developed an expertise in different technical areas, and we went around looking at self-assessment programs, we always found that everybody had good intentions, but we were not always there. In this particular area, I fully agree with Mr. Staker that it is vitally important that the Department learn from our mistake in 2010 where we didn't have the expertise that was required, and we didn't follow those procedures that are necessary to get at the heart of what's going on at a site.

We have a lot of good people in the

Department of Energy, a lot of dedicated workers, like here at the Pantex Plant. We have a dedicated Secretary who's committed to safety culture. But without the full understanding that we have gone through ourselves, it's going to be very difficult to get a really good under -- picture of how effective those self assessments are going to be.

CHAIRMAN WINOKUR: One final brief question. During the Pantex safety culture assessment, was the contractor assessed? Was the federal workforce assessed? Who was assessed during this?

MR. STAKER: During the Pantex assessment, we only looked at the contractor. We did not look at the federal organization. This was conducted as part of the extent of condition reviews, based on information that you all provided to us, which emphasized the importance of coming to Pantex.

When we started the planning for it, we talked with the federal part of the organization and asked if they would like to participate, and they declined. You know, in retrospect, perhaps we should have included them and not asked that they participate. So that's my fault.

CHAIRMAN WINOKUR: All right. Thank you. At this time Ms. Roberson has questions.

VICE CHAIRMAN ROBERSON: Good afternoon,

both of you.

MR. STAKER: Good afternoon.

VICE CHAIRMAN ROBERSON: Thank you.

Mr. Staker, can you kind of summarize the high level findings or weaknesses from the Pantex assessment that the team did?

MR. STAKER: Sure. I think one of -- you know, we keep dwelling on some of the negative things, but there were positives, too. One of the most important observations or -- I don't know if that's the right term -- was that the workforce at the Pantex Plant is very patriotic, and they are very committed to the mission of the Pantex Plant. And they want to do that right; they want to get it done, and to them that's a very high level of importance.

I think a second positive feature of what we observed is that there has been a lot of effort here on formalization, and I think when we think about the work they do here at the Pantex Plant, it's very important that they have good procedures and good training and all those things that go along with formalization.

And, you know, they have done some efforts in this area. They were exploring it. They were working on HRO (High Reliability Organization). So, I mean, I give some credit to the organization. And I think another

positive feature of what we saw was that at the end of this assessment, every assessment that we did, we asked -- we suggested to the management team that we not just brief the management team on the results, that we also brief staff, because they participated in it; they need to hear the results. And, you know, that's all part of moving forward.

We were not successful at getting some of the other organizations to do that. Some were very limited on who got briefed on the results, which was somewhat disappointing.

At Pantex here, we gave the exact same brief to staff in the largest room they had the next day, and I believe they actually videotaped it and made it available to individuals there to see.

So those are some good things.

VICE CHAIRMAN ROBERSON: Uh-huh.

MR. STAKER: Some of the concerns: One was, you know, there's some fear of retaliation. And I think when we look at safety-conscious work environment, you know, there's a number of questions we had associated with that: Do you feel responsible to identify concerns? Are you encouraged? You know, are you willing to raise up issues to your management? And do you fear retaliation?

The scores on the survey tools and the

information we heard in that area indicated that there's a lot of work to be done here to encourage folks and make folks feel comfortable in bringing up concerns, and that's something that's pretty important at a place like Pantex.

Another observation was that, you know, there were a lot of concerns identified by folks during focus groups and interviews with the working conditions, the life conditions there and the feeling that management really wasn't paying attention to that, so there -- you know, there's an importance here to what I'll call pay attention to people and their needs, and people felt like that wasn't being done. But if you're not doing that for folks, then they don't feel as good about being part of the organization.

VICE CHAIRMAN ROBERSON: Okay.

MR. STAKER: There had been a lot of work on high reliability organization here. Our observation was that it really didn't get into the organization. When we looked at some areas like communications and organizational learning, you know, a lot of folks felt like, for example, the lessons learned program, we have one, you know, there's things going on in that area, but we really couldn't get down to, are we making meaningful changes and using that?

There were some other areas, Different

[Differing] Professional Opinion Process, which is an important tool in safety culture. They were actually moving away from having a local process at the plant at the time of the review, which they have changed back; although, there are no DOE requirements for that. But when we met with a lot of folks, even folks in the engineering group, some of them weren't even aware that we had a Different [Differing] Professional Opinion Process, and others were somewhat confused on, you know, what it was for or how it worked.

There were other mechanisms that are associated with it; for example, Employee Concerns Program. Again, there were some folks that didn't understand that.

Stop Work Process. There was some confusion with regard to that.

Open Door Policy. Some folks felt like you couldn't go above your direct supervisor, unless you got permission from that supervisor to go to the next level. Well, that's not really the intent of an Open Door Policy.

So there were a lot of things that came to light that I think gave good information to the folks here on areas to work on.

VICE CHAIRMAN ROBERSON: Okay. Yes, Mr. Podonsky.

MR. PODONSKY: I'm not going to make this a habit, but I would like to emphasize something that I think is important to this Board and it's important to the Department of Energy and important to all of us.

Mr. Staker talked about the workers. And it's vitally important to recognize when he says they are patriotic and they are dedicated to the mission and doing the best job they can, that is hugely important, and that's the first step that this agency needs to capitalize to take advantage of the willingness of the workers to do the mission and do it safely.

And so as we go forward, and as you hold the hearing, and as we continue with our extent of condition review summaries, it's vitally important that the workers realize that this agency really does care, and we can demonstrate that through our actions, but we can't lose sight of the fact that the first step is that we have a dedicated workforce that's proud to do their mission, and they are honored, actually, to have these jobs.

VICE CHAIRMAN ROBERSON: Thank you, Mr. Podonsky. I guess what I want to do is pick a few of the specific weaknesses from the team's report. And, I guess, simply put, in my words -- it doesn't have to be anybody else's words. We're talking a lot about safety culture, and it sounds like this queasy thing, and I'm just -- I

just want to validate with you, at least my understanding is, you can have mechanistic processes, but when you say there are weaknesses in the safety culture, it means there are weaknesses in how you make decisions about safety. It's not supplemental; it's not a bifurcation. It actually is how you make decisions about safety. Is that the way the team views these assessments?

MR. STAKER: I think decision-making is a key element of safety culture, and that influences what people's beliefs, what their perceptions are. But there are a lot of other factors that come into play there, too.

VICE CHAIRMAN ROBERSON: Okay.

MR. STAKER: You know, a lot of different interactions. When people raise a concern, what kind of reaction do you get from your supervisor, for example? Do they act negativity towards it, or do they -- or are they receptive to it? Are folks out there encouraging people to raise concerns?

It's one thing to advertise a process like an Employee Concerns Program.

VICE CHAIRMAN ROBERSON: Uh-huh.

MR. STAKER: It's another one to encourage people to bring up concerns.

So decision-making, yeah, that's a key element. That's a key organizational behavior that can

have a major impact on the underlying beliefs and perceptions of the individuals that work in an organization.

VICE CHAIRMAN ROBERSON: So you talk about a few; let me quote a couple of more, and I would just like for you to tell me, with the team of experts, how these kinds of weaknesses can show themselves in an organization when it comes to making decisions about safety.

So one of them is -- and I'm going to quote, "There is a strong perception that retaliation exists for 'rocking the boat'." How does that show itself in how an organization makes decisions about safety?

MR. STAKER: Well, I mean, I guess there's decisions made at all different levels.

VICE CHAIRMAN ROBERSON: Uh-huh.

MR. STAKER: And if people bring up concerns or, you know, question things, and they get changes in their work assignments, they get treated negatively by management, they even possibly get put in a new position, that's certainly going to have a chilling effect on other people that work in an organization.

VICE CHAIRMAN ROBERSON: Uh-huh.

MR. STAKER: And if people aren't bringing up their concerns, questioning things, there's a potential

to miss out on something that's very important, and I don't think we want to have that potential out there.

VICE CHAIRMAN ROBERSON: Uh-huh.

MR. STAKER: So anything to eliminate that by improving the safety culture, by encouraging folks to bring things up, is very important.

VICE CHAIRMAN ROBERSON: And just one more, Mr. Chairman, at this time.

Another quote, "The belief that the organization places a high priority on safety is undermined by employee observations of poor facility conditions, lack of focus on meeting personal needs and a sense of cronyism."

MR. STAKER: Okay. Those are different feelings, perceptions, beliefs that individuals had that affect how they feel their management -- you know, they are not invested in the people. They are treating certain types of people differently. They can affect how individuals interact in doing their work.

VICE CHAIRMAN ROBERSON: But when you stop --

MR. STAKER: Because they don't believe in the management team or the organization.

VICE CHAIRMAN ROBERSON: Okay.

MR. STAKER: They are not part of it.

VICE CHAIRMAN ROBERSON: And so when you step back from it, if people have those -- and we can say they are feelings and we can say they are beliefs -- this is a delivered and received. Even though someone may not intend it, from a management perspective, if it's received.

When you step back from it, what are the concerns about the potential impacts of these kinds of issues on an organization's decision making about safety?

I mean, DOE clearly communicated in its policy 420.1 that it wants a strong safety culture. So if you don't have it, what are these kind of things -- what can be the effect of that?

MR. STAKER: Again, if people don't feel like they are part of the organization, that they are left out, they might not participate in opportunities to raise things up, to make things better, to make it a better organization, to make it safer, because they are not part of it.

I think that, you know, we do have that policy, but what some of us have learned from this effort to go out and look at safety culture at a number of organizations in the department, I'm not sure if we really understood what it meant. And I think we need to have a big effort to inform and educate people before we can move

forward, because I'll -- you know, I'll just give you an example.

I had someone, not at Pantex, come up to me and say, why are y'all doing all of this stuff? People like you and me, we've been around a long time; we can just walk around and tell what the culture is.

Well, you know, that's not really a wise thing to do. It's a little bit more sophisticated than that. So we need a big educational effort to help us understand what it is, to be more aware of it, so we can move forward.

VICE CHAIRMAN ROBERSON: Yeah. I'm going to stop there, Mr. Chairman.

CHAIRMAN WINOKUR: Okay. Dr. Mansfield?

DR. MANSFIELD: Thank you, Mr. Chairman.

Mr. Staker, do you believe that the problems evidenced by the surveys developed in a short time, or have they been around for a while?

MR. STAKER: Well, let me just say very clear. I'm not an expert on organizational culture. I'm on a steep learning curve. But based on my conversations with individuals that have much more knowledge than me, the culture of an organization isn't something that just changes quickly. It occurs over a lot of time.

VICE CHAIRMAN ROBERSON: That's right,

uh-huh.

MR. STAKER: And there's probably a lot of factors that come into play over a long period of time to get where they are at this point.

DR. MANSFIELD: And to your knowledge, did the contractor report any hints that he was collecting that something was developing along these lines, that the safety culture was in transit or in change, flux.

MR. STAKER: The contractor organization had actually started conducting a survey of safety culture, which they were working with Texas Tech.

DR. MANSFIELD: Uh-huh.

MR. STAKER: And, you know, they hadn't really gotten to the end point of that, so -- you know.

DR. MANSFIELD: So they didn't have -- and I'm going to speak -- I'm going to ask more questions when we talk to B&W. But they didn't have any procedure for hearing about the employee concerns about changes in safety culture or barriers to communicating safety issues. I'm putting answers in your mouth, I realize that. But is it that there was nobody active in management, between the top management and the workers that could communicate up the chain that something was happening, something like chief safety officer?

MR. STAKER: I think what we saw were more

like barriers --

DR. MANSFIELD: Uh-huh.

MR. STAKER: -- to individuals from communicating potential concerns to challenging decisions, those kind of things, and there were a lot of potential barriers that we saw.

DR. MANSFIELD: Good. Thank you, Mr. Chairman.

CHAIRMAN WINOKUR: Before I go to Mr. Bader, let me ask for a brief answer from you about that, Mr. Podonsky, because you're a gentleman who's been involved with DOE for a fairly long period of time, and you've seen a lot of things come and go. What's the time scale in which you think culture changes in an organization?

MR. PODONSKY: Well, Mr. Chairman, I actually thank you for that question, because this is not a flavor of the month. This is going to take a long, concerted effort for the Department to sustain moving forward to a good safety culture. HSS, in fact, we are looking to contribute to that by revising some of our oversight procedures so that we have more constant surveillance going on and working with the sites. Because if this is going to stick and actually grow to improve the way we do business in the Department, it can't just be

safety culture reviews. That's only the first step.

So I see this as -- in talking to the experts that we hired, in talking to -- in fact, I would -- that reminds me.

We actually hired a new federal expert on safety culture in one of our other organizations, and he's going to go around and help the sites with his expertise that he brings to the table. In fact, he's here this week at Pantex, working with the folks here. That's part of our assist mode.

But to conclude in my answer to your question is that I know that this Secretary is very dedicated to making a strong safety culture where people have the absolute feeling that they have the right to be encouraged to raise questions and issue concerns and it has to transcend to the next administration and the next and the next, just like we did with ISM (Integrated Safety Management). It's going to take quite an effort to sustain it.

CHAIRMAN WINOKUR: Thank you. Mr. Bader?

MR. BADER: Let me follow that up with one -- one further question. We've been talking about reviews, both the type that you conducted, Mr. Staker, in your HSS independent reviews, and we've been talking about self assessment. And I would address this question to the

two of you equally, whichever, whoever wants to respond. Which do you think is more likely to provide an accurate assessment of the safety culture? The self assessment or the type you've conducted?

MR. PODONSKY: Go ahead.

MR. STAKER: I'll give my opinion. And my opinion is, as long as it's done correctly, use validated methods, you bring in some expertise, use multiple methods, I think a self assessment can provide good information.

I would be more worried about, you know, creating a survey from scratch, getting a bunch of engineers together that go out and just do this without any expertise. That's what I worry about more than whether it's a self assessment or an independent assessment. I just want to make sure it's done correctly so it provides valid information. So we're kind of baselining to know where we are, and we want to get it right.

MR. BADER: When you say that in terms of doing a self assessment correctly, you didn't mention independence. How would you do self assessment and assure independence?

MR. STAKER: Well, one of the methods -- I guess you can't assure independence. I mean, you can look

at independence different ways. If we look at the way it's done in the commercial nuclear power industry, they do do self assessments of safety culture. And, you know, typically they bring in some outsiders to help out to do the assessment, but their independence is at a different level; whereas, they wouldn't have a manager or someone above an individual in a focus group with that particular individual. So if you're the maintenance manager, you would be conducting focus groups of operators. So that creates some level of independence, and -- but it's not quite the same as a completely independent group.

But I'm more worried about the method and the capability of the individuals doing it.

MR. BADER: Mr. Podonsky, would you like to add to that?

MR. PODONSKY: Actually, I want to start with your first question and then come to the second one, as well.

I'm encouraged by what I hear and see from NNSA going down the path of training their folks, bringing in the experts, looking at the methodologies. That's very encouraging, because that leads me to say that it doesn't necessarily need to have an independent self assessment, provided the leadership is, in fact, setting the stage and the tone for what the expectations are.

And as we just heard Acting Administrator Neile Miller say, she's very committed to this. And that's very encouraging, because that's what it's going to take.

So a little bit different from my colleague Mr. Staker, I sometimes worry about the independence, because then are we forcing the culture onto an organization? And you can't do that and be successful. It has to be coming from the leadership of the organization and carried throughout all levels.

MR. BADER: Thank you. As noted in your report, one of the things that struck me about the results of this assessment was the widespread nature of the safety culture concerns. This assessment was chartered in response to some very specific concerns within one group at the plant. However, your results clearly indicate a concern much broader and deeper in scope. Further, the assessment identified significant differences in values and perceptions between the workers and the various levels of management. Am I correct in these perceptions?

MR. STAKER: (Nods head up and down.)

MR. BADER: Is that a yes, Mr. Staker?

MR. STAKER: Yes.

MR. BADER: Thank you. Both you and --

Mr. Podonsky, both you and Administrator

Miller addressed the existence of barriers between management and workers, between senior management and workers, creating, and I'll use my word, a gap.

Could you discuss the barriers specifically? What barriers did you see? I mean, we've mentioned barriers in general, but what specific barriers did you see?

MR. STAKER: Well, I think we go back to some of these other observations. If I'm working somewhere and I feel I'm going to be retaliated against, am I going to go up to my manager and raise a concern? I mean, that's a barrier to communications between an individual and their manager.

The same with if I don't feel, for example, it's my responsibility to bring up issues. There were some folks that felt that here. That's a barrier. If I feel like they don't want to hear it, that's a barrier. So I think those are the kinds of things we're talking about.

You know, we have to have communications that work both ways, up and down, sideways. And when we have these kinds of things out there, they can inhibit those communications.

MR. BADER: Did you feel that these barriers were clearly understood by the workers?

MR. STAKER: Clearly understood by the workers? I mean, these were based on the workers' beliefs and perceptions, so that's how they felt.

MR. BADER: Did you have a sense that at some levels of management within the contractor there was a sense of complacency?

MR. STAKER: No, I don't think we sensed complacency. I think -- and again, this is my opinion as a non safety culture expert or organizational culture expert.

I think this is an area where we're all still trying to learn in the department. We really haven't engaged in it, although Pantex is engaged probably more than most other sites, and we have a lot to learn.

And I think what I personally learned from this was that, you know, we have a lot of engineers and physical scientists, and I'm an engineer, and I've been trained to fix things. And I fix things through design or process. But what I was never trained on as an engineer is how to deal with people, and a lot about what we're talking about here is how you interface with people and how you work those interfaces. And I just think we have a lot to learn there.

MR. BADER: Mr. Podonsky, you now can head it up conducting a number of these different assessments.

What do you think are the underlying reasons for these differences in perception that we're talking about?

MR. PODONSKY: I think, Dr. Bader, it goes to how we treat people as a department, and I won't get philosophical with you, but in a previous incarnation with the Air Force, I learned, you take care of the people, the people will take care of the mission.

And what we have is we have varying styles at different parts of the Department of Energy at different sites. First I want to go back to my earlier add-on to one of Mr. Staker's statements, is that we have a dedicated workforce throughout this complex. They want to do the right job, just like here at Pantex.

And what we need, and we've had various attempts at this, including currently, we need strong leadership, focused on the importance of safety. But what does that mean? That means that it becomes paramount to mission. Mission is vital, but you can't do the mission, unless you're going to do it safely. And so you have a different interpretation at different sites in the complex.

What I see here, if you'll allow me, I see a golden opportunity for this department with the issues that this Defense Board has raised in the last couple of

years, especially on safety culture, to once and for all change this department so it can be all the things that it can be that we oftentimes squander opportunities because we don't fully understand the behavioral side of it.

So the difference between management perception and workers' perception has to do with the different cultures at the different sites. It has to do with the different messaging that comes out. And so what we need -- and we've started on this path as -- just as Mr. Staker said, it's the beginning of a journey. It's going to be a long journey. But we need more than messaging. We need actions that prove to the workers that they can trust the management to follow through and that we care.

And that in the same sense in one of the -- in Mr. Staker's report it said here at Pantex that the workers were very dedicated to the organization, but there was a perception that the organization was not as dedicated to the workers. We have to turn that around across the entire complex.

CHAIRMAN WINOKUR: I think we're going to move on at this point. We may come back to other questions later, Mr. Bader.

MR. BADER: Thank you.

CHAIRMAN WINOKUR: Mr. Sullivan?

MR. SULLIVAN: Thank you, Mr. Chairman.

Mr. Staker, a few moments ago in response to a question from Dr. Mansfield, you alluded to this prior survey done by the contractor Babcock & Wilcox Pantex. And at the beginning here we entered into the record a report from B&W Pantex that was dated, I think actually, two months prior to your report. So I'm just wondering if you had access to a report from the contractor prior to doing your report?

MR. STAKER: What I was referring to is they have an effort -- had an effort underway with Texas Tech to do a survey of the culture of the site, which actually had been going on for quite a while. That actual effort had not been completed at the time of our assessment, so we did not have the results of that.

MR. SULLIVAN: Okay. So I'm aware of this other B&W Pantex report which was specific to the Nuclear Explosive Safety Change Control process, and I believe that your report actually does make a reference to that.

MR. STAKER: To the eight out of ten.

MR. SULLIVAN: Okay. So you're mentioning there were eight out of ten employees that said that they were concerned that it might be a career-limiting move --

MR. STAKER: Right.

MR. SULLIVAN: -- for them to actually say

something. So was that something that you under -- encountered in your discussion with the employees, or did you simply get that out of the prior report that was done?

MR. STAKER: That section of our report was based on the report you're referring to, which was completed prior to our assessment.

MR. SULLIVAN: So you did not interview these employees about these specific concerns? Is that a true statement?

MR. STAKER: We interviewed a cross section of the plant, and we interfaced with folks from every part of the organization, and we surveyed folks from every part of the organization. But our intent wasn't to further pursue that particular report. Our intent was to go in there I'll say pretty much, let's say, with a blank slate to map out what is the culture of this organization.

MR. SULLIVAN: Okay. So in your report where you said that it was an area that needed attention, did you mean anything by that other than they should go look at their own report?

MR. STAKER: No. It's just another data point that indicates that, you know, we need to work on this area, that people need to feel comfortable raising up concerns.

MR. SULLIVAN: Okay. Thank you.

MR. STAKER: That's all that was.

MR. SULLIVAN: All right, thank you.

CHAIRMAN WINOKUR: Ms. Roberson?

VICE CHAIRMAN ROBERSON: So I'm a little uncomfortable. I am an engineer, so I guess that makes sense. But I think we've talked a lot about how employees feel, but I guess even though I am an engineer and I've had the benefit of discussion with the experts that you guys have, it's the employees' feelings. It's a reflection of their view of the desires of their management and their leadership.

MR. STAKER: Uh-huh.

VICE CHAIRMAN ROBERSON: Is that not right?

MR. STAKER: Yes.

VICE CHAIRMAN ROBERSON: It's kind of the result of, not the cause of?

MR. STAKER: Leadership helps establish the culture.

VICE CHAIRMAN ROBERSON: Okay. I just wanted to get to that.

And the problem is when employees react in accordance with -- in a weak safety culture, information may not get to the decision makers that are needed to make good decisions? Is that right? That's why we're really worried about this.

MR. STAKER: That's correct.

VICE CHAIRMAN ROBERSON: Okay. All righty. So I want to go to another specific in the report. And let me just read it, and then I'll ask my questions. Your report states it is an area in need of attention that interviewees expressed the belief that the Authorization Basis Group should not be inside the engineering division but outside the line, similar to what was done with the Nuclear Explosive Safety Group.

So, first of all, if you can just tell the audience, what does the Authorization Basis Group do? What do they contribute to the operation?

MR. STAKER: They're the people that manage and develop the documented safety analysis documents for nuclear safety. They are critical for safe operation of the site.

VICE CHAIRMAN ROBERSON: Okay. Pretty important?

MR. STAKER: Very important.

VICE CHAIRMAN ROBERSON: It kind of worries me if they're -- if they don't feel like they can bring information forward to their leadership would be a problem, right?

MR. STAKER: That's correct.

VICE CHAIRMAN ROBERSON: So why did the

team say this needs attention?

MR. STAKER: Well, the team put that in there because that's something that should be looked at, and it was brought up by some of the individuals at the site --

VICE CHAIRMAN ROBERSON: Okay.

MR. STAKER: -- that that was their belief that that organization should be moved, just like nuclear explosive safety.

VICE CHAIRMAN ROBERSON: So, I mean, it certainly was worrisome to me, and I'll offer this to either you, Mr. Podonsky, or you, Mr. Staker. We had a hearing at Hanford. We had a very similar concern, and we had a lot of debate about there's healthy conflict, but then there's a point at which it's not so healthy anymore.

And so I would kind of like to ask if the team got a sense of if this is truly problematic at Pantex and really more attention needs to be paid to addressing whatever is driving this concern?

MR. STAKER: You know, we didn't get much further into that concern. That was just something that was pointed out by some individuals, and we didn't -- we didn't get any information that there were problems from that, just that they felt that it was important, and it should be put in a different place in the organization.

VICE CHAIRMAN ROBERSON: So let me just read to you from the transcript of our Hanford hearing.

MR. STAKER: Okay.

VICE CHAIRMAN ROBERSON: Mr. Podonsky, your deputy, Mr. Eckroade noted that in the WTP project, the HSS team had found a clear conflict between the group responsible for developing the Authorization Basis and the group responsible for design and engineering of the project. And I'm going to quote him here, "This is such a fundamental issue, as we're dealing with complex technologies and very difficult issues in an environment with difficult projects -- difficult project schedules and milestones exist. Not to have the teamwork working together to optimize solutions that optimize the mission, optimize safety and budget, it was very difficult.

So this is -- and I don't know if you're seeing this in others of your assessment, but that certainly caught my attention, and I wasn't sure of the extent of concern by the team itself.

Do you guys want to comment, either one of you? Because you're not just somebody doing an -- doing an assessment, Mr. Podonsky. You're the department safety lead. Does that bother you?

MR. PODONSKY: Yeah, it's very disturbing. And going back to Bill Eckroade's statement, I don't think

that it's the same here at Pantex. At WTP, there was -- there was a lot more conflict between groups, between -- in between engineers and non-engineers. There was a much more pronounced friction, which is not healthy. So I agree with you on your concerns about that this is something that no part of the department can tolerate when you have such an important mission.

I didn't hear or read in Mr. Staker's report the same degree of conflict. And as he said, I don't know how far they looked into it, but I know from my own experience up there at WTP, on multiple trips, we saw a great deal of friction, even between federal offices.

VICE CHAIRMAN ROBERSON: Okay.

MR. PODONSKY: Not acceptable.

VICE CHAIRMAN ROBERSON: Okay. All right. Mr. Staker, B&W Pantex developed their Corrective Action Plan, based on the draft HSS team report. Has your organization seen that plan?

MR. STAKER: Yes, we have.

VICE CHAIRMAN ROBERSON: And are you confident that it addresses the concerns that were identified by the team and will be effective at sustaining a strong safety culture once established?

MR. STAKER: Well, as I indicated earlier, I'm not an expert in safety culture. I'm still learning.

But based on our look at the plan, at some of the actions that they have already implemented, some of the actions they have planned, at the level of management attention it's getting, it appears to be appropriate. And it's receiving the appropriate level of management attention; it's addressing the areas that we pointed out in the report. Will it be successful? I can't predict that. But it will take a lot of management attention over a long period of time to make sure that it is.

VICE CHAIRMAN ROBERSON: Okay. Okay, Mr. Chairman.

CHAIRMAN WINOKUR: Mr. Bader?

MR. BADER: Sorry. Mr. Podonsky, you have talked about the long-term nature of the fix. In other words, the short-term activities are necessary, but inadequate to fix the safety culture issue at Pantex. What long-term steps do you believe are necessary?

MR. PODONSKY: Well, for not just at Pantex, but across the complex, we're doing the SCWE training, (Safety-Conscious Work Environment) training for the managers and the workers.

We have to have policies and procedures clearly identified and articulated where everybody understands what the expectations are.

The leadership from the local site office,

all the way through the program office, all the way to the Secretary, the Deputy Secretary, and all the assistant secretaries have to be on the same hymnal page on this. This is going to take a concerted effort.

Ms. Roberson just asked about sustainability. The sustainability is going to be that we just don't put a corrective action plan together and move forward. It's -- put it in the corrective action plan and make it part of the fabric of what makes this site operate, as well as every other site and every other project across the complex.

So when we talk about the long term, it's an investment, it's an education. It's making sure, as Mr. Staker keeps on saying, he's not an expert, yet he's been on all the extent of condition reviews, so he probably has more information than many of us. But still he brings up a point, that we need more expertise in this area. We need to embrace the concept that while we have strong technical engineers, we also have to have equally as strong experienced people in behavioral, organizational safety culture expertise so that that long-term fix is not just going to fall off by the next crisis that we deal with.

Because this is a crisis. This is a crisis for the entire agency. Acting Administrator Miller talked

about bringing in a review on NNSA. EM (Environmental Management), we reviewed EM headquarters.

We actually just had a review on HSS, and I'm here to tell you, it was not a very pleasant experience for me to understand where HSS is failing. But it was an extremely sobering experience to understand for even us as the Health, Safety and Security Officers of the Department, to understand where our safety organizational culture is not succeeding. It makes me realize that this investment is going to be a long-term investment on many, many levels.

MR. BADER: Well, my reaction is that I've watched crisis corrective action plans and DOE get diluted and delayed and eventually abandoned. So it will be very interesting to watch the implementation of this Corrective Action Program, and I hope there will be the efforts to lay in place things that will help that not happen.

MR. PODONSKY: May I add to your statement with an answer and remind the Board --

MR. BADER: Briefly, please.

MR. PODONSKY: Very briefly. You sound like my wife.

Okay. So relative to HSS, we are retooling our oversight so that we are part of the solution to provide consistent observations on all these areas that

Mr. Staker and the extent of condition reviews have conducted so that we will continue to focus and then put that actually part of our independent oversight reviews, as well.

MR. BADER: Thank you.

CHAIRMAN WINOKUR: Mr. Sullivan?

MR. SULLIVAN: Thank you. Hopefully some simple follow-up questions.

So, Mr. Podonsky, we heard earlier that the federal employees here at the production office were not part of the earlier survey, and to paraphrase Mr. Staker, perhaps on hindsight maybe they should have been. Are you aware of any plans moving forward to do a survey that would include the federal employees here?

MR. PODONSKY: I am not aware of that --

MR. SULLIVAN: And --

MR. PODONSKY: -- but Mr. Staker might be.

MR. STAKER: If I could add to that.

MR. SULLIVAN: Certainly.

MR. STAKER: Part of the implementation plan for 2011-1 is for all of the organizations to do a -- conduct a self assessment. As part of that, we are doing oversight of those self assessments, trying to ensure that they are conducted to provide the right data, so we have that level of involvement. There's not nothing going on.

MR. SULLIVAN: All right. So there is a plan to do a self assessment that you will have oversight of; did I understand that correctly?

MR. STAKER: Yeah. As part of the implementation plan for 2011-1, all the defense nuclear organizations have to do self assessments. And another element of that is that our office oversees those self assessments. So I just didn't want to give the impression that we're just kind of not doing anything.

MR. SULLIVAN: I understand. But are you aware of anything specifically scheduled, at this point?

MR. STAKER: I don't know. One of our staff has the lead for that, and she has been in contact with the lead for the NPO organization. In fact, I think they just talked earlier this week. She gave some comments on their plan.

MR. SULLIVAN: Okay. Thank you.

And, Mr. Podonsky, I heard Acting Administrator Miller testify earlier that there was going to be a self assessment on the NNSA organization at the headquarters. Will you have oversight of that, as well?

MR. PODONSKY: No, what they have done, appropriately, they have brought in the experts that we have used as she said in her statement, and so we applaud that effort. And we will, as part of the 2011-1, take a

look at what was done.

MR. SULLIVAN: Okay. So you will look at it, but you won't have any active involvement in the survey as it's performed? Did I --

MR. STAKER: We would have -- the problem we have is we're a very small organization. There's going to be scores of these self assessments, and we can't be out there and engaged every time a self assessment is conducted. So from what we understand, NNSA headquarters has brought in the same Dr. Haber to help them with their self assessment. If they do that and use those methodologies, we wouldn't spend as much time on that as we would on another organization that we don't have as much confidence in the expertise and the methodologies, because we can't do 100 percent.

MR. SULLIVAN: I understand. I think I just asked a simple question, would you -- do you have oversight, and I think the answer was no. And that's -- that was all.

MR. STAKER: Well, our -- it will be less oversight. We plan on reviewing as a minimum all of the reports that come out of the self assessments.

MR. SULLIVAN: Okay. Thank you very much.

CHAIRMAN WINOKUR: Let me end with a few questions, perhaps, and then I'll ask other board members

if they have any. I know you're not an expert on safety culture; I've learned that, but can you define safety culture for the audience here, just what DOE's definition of safety culture is? Do you guys have that written down anywhere?

MR. STAKER: I didn't bring my --

CHAIRMAN WINOKUR: All right, so you don't. So I'll give you my shot at it, would that help?

MR. PODONSKY: I'll give you my shot.

CHAIRMAN WINOKUR: Okay. What have you got?

MR. PODONSKY: I wrote it -- I wrote it at about 2:00 this morning, but I'll paraphrase it, because I can't see it right now.

Safety culture is where you -- leadership shows the organization through their behavior the commitment to safety, and the organization internalizes it. And together they go down the path to make sure that everybody has the sense that anybody at any level can raise questions or concerns about projects, activities, and it doesn't matter what level, and they do it without fear of reprisal of any form. That's what I understand and believe safety culture is about. And the key is that, not only do they not fear reprisal, but they also know that management is welcoming the questions.

CHAIRMAN WINOKUR: Now, I'm not an expert either, but my understanding of it, and I think it's very consistent with what you said, is that it's modeled by the leaders. It's created by the leaders, and we measure it in the values and the attitudes of the workers.

So one of the key findings here that really drew my attention that Ms. Roberson talked about was this gap, the gap between the senior leaders and the workers and is that -- Does that, in your opinion, provide an incredibly strong signal that the safety culture isn't where it needs to be in an organization? Would you consider that one of the, you know, key hallmarks of a flawed safety culture, the fact that management feels everything is working pretty well, but the workers have a very different perception?

MR. STAKER: Yes. Yes, it is. If you have a serious misalignment between management and the workforce, then you probably have a bigger problem than just safety culture. So, yes, the answer is --

CHAIRMAN WINOKUR: And it isn't just that management has poor intentions, it's just that this linkage isn't being made?

MR. STAKER: Yeah. And the disconnect between senior management and the workforce through our extent of condition assessments wasn't just here at

Pantex; it was much broader than that, and that's something that really needs to be understood and addressed.

CHAIRMAN WINOKUR: If you asked me two years ago who had the best safety culture in the Department of Energy, I would have said Pantex. I would have said it because this is where this incredibly important work with this great workforce assembling, disassembling, dismantling, performing surveillance on nuclear weapons occurs, a very highly proceduralized operation. Were you surprised to see the results of the safety culture assessment of Pantex, either one of you?

MR. PODONSKY: Yeah, I will answer. I would -- I would have come up with the same answer you did in terms of this was the best in class, but I -- but I also -- and so, yes, I was very surprised by the results. But I would also say that doesn't mean that the site doesn't plan to do things safely. It doesn't mean that you don't have dedicated workers following procedures. But what it does mean for all of us is a new awareness of what the impact is on the behavior of people and what their beliefs are.

And if I might, if you'll allow me, I won't take long, Mr. Bader. The NRC has a list of nine traits that I would just like to quickly read, very quickly.

They are one -- one words for coming up with a good safety culture and promotes a healthy safety culture.

Number 1, leadership values safety; 2, problems are identified and resolved; 3, there's personal accountability; 4, there's work processes; 5, continuous learning; 6, environment for raising concerns; 7, effective safety communication; 8, respectful work environment; 9, questioning attitude.

NRC developed that after years of experience in the commercial sector, and it's something that we need to embrace.

CHAIRMAN WINOKUR: Thank you. Do the Board Members have any other questions?

All right. We want to thank you both very much for your testimony. And before you leave, I want to say, the Board Recommendation 11-1 on safety culture, I just want to acknowledge I echo everything you said about Pantex and the workers, but I want to acknowledge your organization.

I think that HSS, Health, Safety and Security, has played an obviously important role in terms of executing the implementation plan of the recommendation. You've put together a lot of tools and techniques that I think are very important to the complex, and I think it's going to make a big contribution going

forward to improving the safety culture, raising the bar throughout DOE, so thank you for that.

And with that, we'll move on to the next panel.

MR. PODONSKY: Thank you.

CHAIRMAN WINOKUR: I would like to invite the second panel of witnesses from the National Nuclear Security Administration to the witness table for further discussions on safety culture at the Pantex Plant. Would the panel members take their seats as I introduce you.

The Honorable Neile Miller, Acting Administrator and Principal Deputy Administrator of the National Nuclear Security Administration.

Dr. Don Nichols, Associate Administrator for Safety and Health and Chief of Defense Nuclear Safety of the National Nuclear Security Administration.

Mr. James McConnell, Acting Associate Administrator for Infrastructure and Operations of NNSA.

And Mr. Steve Erhart, the Manager of the NNSA Production Office.

The Board will lead the direct questions 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 Chairman to supplement the answer as necessary.

If panelists would like to take a question for the record, the answer to the question will be entered into the record of this hearing at a later time. I know that Ms. Miller, the Administrator, has already submitted testimony. Does anyone else on the panel wish to submit written testimony at this time?

MR. McCONNELL: No.

CHAIRMAN WINOKUR: Seeing none, I would like to thank you each for your testimony today. With that, we'll continue with questions from the Board Members to the full panel, and Mr. Bader will begin the questioning.

MR. BADER: Thank you.

Administrator Miller, as a core member of the NNSA management team for the last four years, you bring an informed perspective to NNSA and its programs.

The safety culture assessment completed by HSS found a number of serious deficiencies at the Pantex Plant. It's clear that you have accepted the findings and recommendations of the HSS assessment. Could you please tell us what parts of the assessment cause the greatest concern for you.

MS. MILLER: Yes. Thank you, for the question, Mr. Bader.

Is that better? No, yes? Okay.

Thank you for the question. I appreciate the attribution of four years of service to the NNSA, but I've only been there since August of 2010, but I'm more than happy to respond to your -- but I would love to take credit for more service.

What caused me the greatest concern? What caused me the greatest concern, and I hope I made a clear reference to this in my oral testimony, was as much as the specific safety issues that people may raise matter and matter deeply, the general sense that people have that they are not valued and that issues that they raise are not addressed and that people above them do not seem to -- seem ready or willing to deal with the issues at hand, I think that probably bothered me the most.

MR. BADER: One of the quotations from the report is the realization of the HRO principles has not yet been internalized by the Plant. Is that an area that concerns you as a specific?

MS. MILLER: Sure, and -- of course it does.

MR. BADER: What -- using that as an example, what specific actions do you plan to take to address the safety culture concerns at Pantex? And you started to address that; could you expand on it somewhat, please?

MS. MILLER: Again, I think in my oral testimony I gave an indication, and I tried to go on without going on too much at length on the various ways we're looking to address that here at Pantex.

I will ask my colleagues to each contribute in that regard, but I think the fullest -- the fullest explanation of everything, because it's many splendor things; it's not one area or another area. This -- these are issues that can only be adequately addressed by coming at them from a number of different directions and throughout a number of different levels and over, as my colleagues from HSS said, quite a long period of time. So the specifics, frankly, I would rather submit for the record and ask my colleagues if they have anything to add to that specifically.

MR. ERHART: Steve Erhart, the NNSA Production Office Manager.

As Acting Administrator Miller pointed out, we all received the information. It was sobering. You mentioned the HRO journey. Safety culture is a basic part of being an HRO.

So the information that we got, we took it as a learning organization. It's -- all information is just information. The news, not necessarily good, but it gave us -- it gave us something to work on to get better.

So what we've done is we've created a safety -- we've written a safety culture policy for -- that covers the NNSA's production office, the Y-12 Site, as well as the Pantex Site. So given the fact that we stood up at the NNSA's production office before the consolidated contract was complete, we embarked on this improvement plan together.

There was a question earlier about giving the survey to other folks is what -- the site office as well as the Y-12 office. All of those surveys are on a schedule, and they will be done, but we started to -- we decided that this gave us pause enough to create the plan that covered all our operations.

So we have a commitment of both general managers and myself to move forward on this improvement plan. There's several elements of that. I think we'll get to that in the course of the testimony. I think Mr. Woolery will cover a lot more detail. But I just want to reiterate Ms. Miller's point that this is about making people feel that they have a voice. And certainly part of a strong safety culture is those folks feeling comfortable bringing forward problems.

Differing professional opinions need to be celebrated. Technical disagreements need to be brought forward and voiced. Because as somebody mentioned before,

that's part of risk-informed decision making.

So that's the centerpiece of the plan, and we'll get into more details as we go along today. Thank you.

MR. McCONNELL: And if I might add to that. I'm Jim McConnell from the Office of Infrastructure and Operations.

Your question was -- at least I took part of it to be, what is the corporate assistance to the overall issue? And obviously, as Mr. Erhart said, the core of our response starts at the M&O (Management and Operation) contractor and the NPO, both at Y-12, at Pantex, and NPO at both places, to have an integrated localized plan.

At a corporate level, our efforts are, one, to support that plan. A couple of things that came out of the Sonja Haber review that resonate with me were issues of trust and issues of work environment. And so, for example -- and I'll just give you two examples. As Miller said, we'll submit the rest for the record.

The Acting Administrator is personally involved in making sure that our plans are being aggressively pursued at the appropriate resources and attention of senior leadership and everyone involved. Her personal involvement is evident on the trust side to make

sure that we walk our talk.

The other part is the infrastructure, the work environment. That as much as anything is a resource issue, and so from a corporate perspective, we are ensuring that NPO and the sites have the resources they needed and will continue to have the resources they need to arrest that problem and to establish a work environment that visibly treats our workforce with the dignity and respect that they deserve for the work that they do.

CHAIRMAN WINOKUR: Before I turn it over to Dr. Mansfield, I just wanted to ask you a question, Mr. Erhart. I mean, you've been involved in the venture here for a long time.

MR. ERHART: Yes, sir.

CHAIRMAN WINOKUR: You were the site manager. You were originally the technical lead. And now you're the head of the entire NPO. Were you surprised by the assessment?

MR. ERHART: Yes, sir, I was. It was sobering. That was a good word. Surprising. And then I reminded myself -- and, well, denial was a part of that, but it was short lived. And we got to the point of, well, we -- you know, the elements that were most surprising, the first one, as Acting Administrator Miller pointed out, is that the people felt that they couldn't bring problems

forward. And as you know, as an HRO, you actually seek out problems. You want to reward people for bringing problems forward. So those should be the ones that we should be celebrating, but to hear that people felt the opposite of that was disturbing.

And then, as Mr. McConnell pointed out, there's -- and it comes out as just not caring about the folks. You know, when people are pointing out the working conditions that we're off fixing, by the way, which Mr. Woolery will talk to you about, they weren't that hard to fix. They were things that you could just do. Put a light in, fix the ceiling tiles, do some of that stuff. So it's back to this value that we place on our employees. And that was not being -- we weren't successful in doing that.

I like to -- one thing I would like to say is, our intent -- somebody said we had good intentions. Well, they are irrelevant, essentially, if the folks don't perceive what we were trying to achieve, and that is, having the freedom to come forward, being celebrated to bring problems forward, technical debate and make -- in making the work as safe as we can make it.

So thank you for the question.

CHAIRMAN WINOKUR: Mr. Mansfield?

DR. MANSFIELD: Thank you, Mr. Chairman.

So correct -- this is for Ms. Miller.

Corrective action plans are underway. Are you -- are you -- so far, do they look like they are going to be effective in addressing all of these problems with all of the organizations?

MS. MILLER: They look like they will be effective, but looking like they will be effective... plans are plans. What matters is execution.

DR. MANSFIELD: Uh-huh, right.

MS. MILLER: And not only the execution, but frankly, the continual monitoring and oversight of the execution of the plans is what matters.

DR. MANSFIELD: Sort of like a banker's stress test.

MS. MILLER: Okay.

DR. MANSFIELD: Let me continue this a bit for -- this is more for Mr. Erhart.

The B&W Pantex investigation of explosive areas in the Nuclear Explosive Safety Program and concerns that potentially dangerous situations were being -- not being communicated and not being accepted and things like that, can you tell us a little bit about that, the B&W Pantex information -- investigation, and what gave you the greatest worries?

MR. ERHART: Yes, sir. The issue, again

comes back to not responding appropriately as a leader in information and acting on it appropriately. So in a nutshell, although the topic is nuclear explosive safety, the issue is how you treated the information.

And in this case the -- and I think it was mentioned before, what you worry about is that if that is left unaddressed, the potential for some critical information for decision making may be suppressed in the future, and that's what you don't want to have.

So as we mentioned, we have a good safety record. We're a good, safe operation at Pantex. But the need for addressing these issues before they become too big is so that you stay safe, and that that -- that that information that you may need to make a good decision is not left in the middle of the organization.

So, in a nutshell, that was -- that was what was going on. It was unfortunate, and as we will talk later, a lot of changes have occurred, including dealing with the specific individuals involved with not walking the talk, as we said before. Working hard to address that because of its significance.

DR. MANSFIELD: You think that everybody from the PT's (Production Technicians) to you realize that questions about potential insults to conventional high explosives are things that have to be dealt with

instantly; is that correct?

MR. ERHART: If there is any question regarding the safety of operations at the plant, whether it be on high explosives or any other hazard, then yes, we all have the obligation to act on it immediately, yes, sir.

DR. MANSFIELD: Do you have any comments on the eight out of ten NES personnel that felt that it was career limiting?

MR. ERHART: That was one of -- and that came out in the report, as mentioned before.

DR. MANSFIELD: Right.

MR. ERHART: That's particularly troubling, because the NES group is a group that we -- that's what we pay them for. We pay them to bring problems forward. Not always a fun job to be bringing issues forward that -- but that is something that leadership and management needs to ensure that they don't feel that way. So that was information that was acted on fairly quickly, but, yes, sir, that was -- that was alarming.

DR. MANSFIELD: And, Ms. Miller, do you think that's the root of the problem that the issues were ignored -- the issues that were brought up by PT's and people down the line were not acted on and that people felt that they were -- could be punished or being ignored

or --

MS. MILLER: You said the root of the problem, which problem?

DR. MANSFIELD: The problem of raising -- the problem that personnel thought it was career limiting to raise concerns about -- that might interfere with production.

MS. MILLER: Frankly, I think that was just indicative of probably a lot of people feeling similar things about a number of concerns of not being listened to. I would amplify what Mr. Erhart said and call it horrifying, not just --

DR. MANSFIELD: For -- all right.

MS. MILLER: Not just on nuclear explosive safety, although that's very dramatic. But overall, that's not the kind of place any of us want to be working in, and it's certainly not the kind of place any of us want to consider ourselves the leaders of.

DR. MANSFIELD: Yes. Okay.

CHAIRMAN WINOKUR: Dr. Mansfield has more questions, but could you tell the audience -- because we're going to have this discussion throughout the day -- what nuclear explosive safety is, what we're referring to here, and why that would really, really be troubling. Not everything at the plant, I know, is a concern of yours,

but what's going on with these operations? What are these people doing?

MR. ERHART: Are you directing that to me, sir?

CHAIRMAN WINOKUR: Please, Mr. Erhart, would you --

MR. ERHART: Yes. Nuclear explosive safety -- well, nuclear explosive operations is unique to Pantex, so it's unlike most sites in that we have all of the controls necessary for nuclear operations; we also add controls for high explosive operations.

The Nuclear Explosive Safety Orders and Standards were created a long time ago and have been the hallmark for ensuring the safety of operations at Pantex. They preceded the Authorization Basis and the Safety Basis, like we spoke with before.

It's an expert-based paradigm, and it essentially challenges the operation to minimize the potential for problems that could have -- could affect nuclear explosive safety.

And those that we talked earlier about, those are specific high-consequence, low-probability events. So that's what we're talking about. These professionals work and focus on -- on that aspect of the operation.

And it's in addition to all the other things that I mentioned before. So we have all the requirements and controls for nuclear operations. And on top of that, we overlay nuclear explosive safety.

So, yes, sir, it's very important and it's been around a long time.

CHAIRMAN WINOKUR: Without getting into classification, and I know we have a classifier here, where are these nuclear explosives specifically? What would be the concern if they went off? I mean, what would happen?

MR. ERHART: Well, they are nuclear explosives, as the name implies, so these are our nuclear weapons. Pantex, like I said is the -- I'm looking at Bob.

Pantex has the grave responsibility and the vital mission to completely dismantle and reassemble for the purposes of surveying our stockpile and downsizing our stockpile per Treaty requirements. So as I like to point out, we're in the middle of everything nuclear weapons related, and it has specific consequences that are unlike any other site.

CHAIRMAN WINOKUR: Okay. Dr. Mansfield?

DR. MANSFIELD: And continuing on that for a second. And disassembly in particular sometimes

involves putting forces on things that -- that could conceivably put energy into the conventional high explosive. And do you feel, therefore, that the procedures involved -- the procedures developed to do that, which could be different for every weapon, have to undergo extreme scrutiny, so that you're instantly -- I'm putting words in your mouth, I know. So you're instantly available -- instantly knowledgeable that there's a problem and they are working on it?

I gather that didn't happen this time. You didn't find out about the problem for some time. In fact, the question was raised in November, and if I remember, the operations weren't stopped until January.

Is that something you feel that you have to fix, that you in Oak Ridge have got to hear anytime that that happens, that there is -- that there is a question about a mechanical insult that might involve a high-explosive event?

MR. ERHART: Okay. Lots to that question.

DR. MANSFIELD: Yes, sir.

MR. ERHART: If I could describe what we're talking about for the -- for the audience. The question was and what came to light was a legitimate question from this hardworking, important group called the Nuclear Safety Explosive Experts on site as to whether or not a

change to a process was within the bounds of the existing study.

And that's part of their charter. So among other things, they are looking for changes that may require a more -- a higher level of study, so it's called Nuclear Explosive Change Control. Now, that's the NES part.

On the other side, which is the 10 CFR 830, nuclear safety requirements, they were all met, everything. We followed all of those rules.

And that hazard analysis actually looked at the insults that we're talking about and found them to be adequate.

The -- but like I said before, we have two modes of verification for a nuclear explosive operation. So we have the Safety Basis on the right and the Nuclear Explosive Change Control on the left.

What was news in the January time frame, was that there was some internal disagreement within that group as to whether or not this new change was within the bounds of the existing study. And that churn was what caused a lot of -- and you're hearing a lot of the discord that's associated with that -- with that turmoil there.

Whether or not it was safe, that was really not the question. It was really the process; was the

process followed correctly? And if we didn't work to reconcile that, you know, it's possible that sometime later something could be interjected to the process that wouldn't be safe. But this particular one was not.

DR. MANSFIELD: What -- what influence did production pressure have on people's behavior?

MR. ERHART: Is that to me, sir?

DR. MANSFIELD: Yes.

MR. ERHART: Well, from my perspective, the first -- well, for a strong safety culture and from my perspective, the -- our fundamental overriding priority is the safety of operations. So you don't get any credit for producing anything if you don't do it safely. In fact, the two have to go together.

So I've worked, as Mr. Sullivan, I worked at the nuclear shipyard. Nuclear reactor safety was job one, but you had to get the boat out of the yard, and there was a lot of, you know, push to do that, but we never lost sight of the fact that, you know, you cannot have a problem with the reactor.

The same thing at Pantex. You can't -- we cannot have production pressures over -- getting in the way of our priority to keep things safe.

But sometimes, as perceived, whereas we are -- we work very hard not to put people into that, even

that perception, I think we have a very strong history of pausing work when things don't appear to be going correctly or we have a question about the procedure. The folks have a very good track record of just pausing. That's one good thing about nuclear explosive work that's not -- in the Navy, the nuclear reactor, you have to keep the core covered with water, so you may be doing a dynamic process.

Most times the right answer at Pantex is if something doesn't seem right, just stop. Get some people to look at the problem.

DR. MANSFIELD: Does the production pressure come both from NNSA and from Babcock & Wilcox?

MR. ERHART: Well, sir, I don't -- I don't think -- well, my perception is there is no -- there's nothing that stands in the way of somebody stopping work at Pantex. We don't -- I have a very good working relationship with Mr. Oder and Mr. Goodrum from NA-12. We'll adjust the schedule accordingly if there's issues that need to be resolved, so production pressures should never be a part of the equation. I can't -- and that's why we're talking today; there may be a perception of pressure that we have to work on.

DR. MANSFIELD: Okay. Thank you, Mr. Erhart.

MR. ERHART: Yes, sir.

CHAIRMAN WINOKUR: Mr. Sullivan?

MR. SULLIVAN: Thank you.

Ms. Miller, just some simple questions about the survey to be done at your headquarters. The safety culture survey that you will be doing you said this spring, with that -- can I expect that that will produce a formal report?

MS. MILLER: Yes.

MR. SULLIVAN: Okay. And will the Board be able to see that formal report?

MS. MILLER: Yes.

MR. SULLIVAN: Okay. Do you have any idea of a time frame, other than spring? Spring is pretty soon.

MS. MILLER: Yes, spring is soon, which means we're doing it in the spring. It's only a three-month period. I would say certainly by the beginning of summer, end of June, you should have it.

MR. SULLIVAN: Okay. Thank you very much.

MS. MILLER: Uh-huh.

MR. SULLIVAN: Now, I made an opening statement here today in which I expressed concern that essentially the safety culture here likely doesn't get formed in a bubble. I mean, the contractor here has one

customer, and that's you. 8 And so it is likely that they are -- they are responding to signals that may be sent unintentionally, but it's what they interpret as being sent, and as a result, there -- I think there is likely a connection between signals that are being sent out of your own organization and what's happening here at Pantex.

So I'm just asking for your comment about what I had to say and whether you agree or disagree, and I'm a big boy, so feel free to fire away at me.

MS. MILLER: Yeah, but you used to be in the Navy. I happen to know that.

Look, I think it's something that bedevils all people all the time: You can control only your own actions.

You think that you are putting forward a straightforward message to people, and sometimes you are hit right between the eyes with the fact that the receiver of the message heard something very different from what you thought you were sending out. And in the end, as I think my colleagues have been saying, that's all that matters, not what your intentions were. So that requires all of us to go back, first of all, and determine where were those messages being perceived and what drove the perceptions? Because until we deal with that, we won't know if we're not sending those messages over and over and

over again but just using different language.

So I think that that's actually -- you've put your finger on one of the absolute fundamental issues that we face. And that's another reason why I hesitate a little bit to put this only under the rubric work of safety culture. This is a cultural issue overall. We are an organization with a very important, complex and urgent mission and have been and have been delivering on it for going on 60 years. And when we talk to people about what they do, the -- the -- that mission is not only what drives everybody, but as you know, will keep people going at it even under conditions that make them otherwise unhappy.

So it's not hard to understand why a sense of urgency in the mission may cause people to believe that there is a pressure to value mission above everything else. But, of course, the message we would -- we would hope to be sending is that there is no mission if it's not safe and secure. We say it. We have to be clear that's the message we're sending.

MR. SULLIVAN: Okay. My specific concern, we can all say safety is important, but one of the examples I used was the five-year periodicity --

MS. MILLER: Yes.

MR. SULLIVAN: -- if you will, for doing a

nuclear explosive safety study. And eight out of the last nine have actually exceeded five years. So, to me, that sends a message that says, you know, if we can't put -- come up with the resources to get the studies done on time, if the -- if the anniversary date goes by and nothing really happens, that would just seem to send a message that it's not necessarily that there's a pressure for production. It's simply a message that, while we say safety is important, we don't -- we don't move mountains to make safety be what it's supposed to be by its own directives. So do you understand where I'm going with that?

MS. MILLER: Yeah. Well, Mr. Sullivan, absolutely the points that you made earlier about reports or studies being done either after their due time or up against the edge of their due time, you're absolutely right.

And I have to say, I don't want to hide behind the fact that I haven't been in the acting position very long, but I haven't been in the acting position very long, and, therefore, I can't speak to -- specifically to the studies that you are referring to or the reports that you are referring to.

But I will say that we do sometimes find ourselves in a tendency to justify through all sorts of

means what can be justified. And there are lots of pressures, and people sometimes misconstrue what, in fact, fundamentally allows us to be able to carry out the work.

So, you know, again, there is a tendency of people to separate mission from the enablers of the mission, and I think the things that you refer to very specifically are what I would consider, in fact, fundamental enablers of the mission.

So if we are constantly either pushing it or going beyond where we should be, I think to your point that you made in your statement, either we should be seriously questioning what's pushing us to the edge and are we -- are we putting pressures on people that are inappropriate, or should we be rethinking the plan we signed up to in the first place? Maybe that's not appropriate anymore. And this is something we're questioning in a number of areas.

MR. SULLIVAN: Great. Well, can I ask you, then, to take something for the -- that you can -- later as a question for the record?

MS. MILLER: Uh-huh.

MR. SULLIVAN: To just look at this specific issue. And, really, the question is should something change beyond what we're doing now, whether it's a change in the directive or whatever else?

MS. MILLER: Yes, I absolutely will take that. Thank you.

MR. SULLIVAN: Okay. And similarly, this is just along the same lines, during the last several inspections, without getting too complicated here for the public, but there are certain findings that are pre-starts and others are post-starts. A pre-start is more significant, and as the name might imply, the deficiency is supposed to be corrected before operations start back up again, yet several of those have been -- when they were -- went from the experts here who said they should be pre-starts. They went to headquarters, and they came back as, no, just fix them as though they were post-starts and keep going.

Again, so, you know, if I'm a worker here, it would seem to me that we've had these experts come in and say we should fix this before we go on, yet I'm being told to go on, and it hasn't been fixed yet.

So again, that's just a long discussion. I don't expect you to have to address anything specifically to that, but if you could just look at that for the record again and tell me if anything should be changing as we move forward here.

MS. MILLER: I certainly will.

MR. SULLIVAN: Okay. Thank you.

Now, next I would like to ask you, Mr. Erhart, if you could Monday morning quarterback this whole safety culture thing, go back a couple of years. What might you or your office have been doing to have found this problem that you weren't doing?

MR. ERHART: Yes, sir, thanks for the question. Well, I think Mr. Staker spoke for everybody, all engineers, I'm included in that, in kind of understanding a little more about what -- what things actually we should be focused on that make people inspired and especially those things that create an impediment to doing what we're actually asking them to do.

So, again, like several members here have shared, it was -- it's an eye-opening experience. So in retrospect, we are looking at some ways where -- and you'll hear some of this from Mr. Woolery. It's really just being in a position to detect where there might be some of this leadership -- leadership not internalizing -- I'm sorry, leaderships not modeling the values and behaviors that they should be. And that's mostly through actions. Right?

It's the -- we all say a lot to our people, but it's really being more attuned to what is actually being done and how is -- how can that be perceived? And that's the hardest part, where you have to put yourself in

somebody else's shoes and see how that might be perceived. So being closer to that, being more tuned into that as a group, that's -- we have to focus on that.

I'll give you one learning that -- personal learning from this is that we have to be careful not to brand something too early, such as like saying something, well, that's not a safety issue or that's not a, you know, security issue, as if we -- you know, without letting the process work its way through, because one perception could be that, well, the safety or the security person who heard that from a leader may feel devalued. Well, he's already made up his mind or he...

And so it's kind of don't oversimplify too early. Don't prematurely oversimplify. Allow people to work the processes that you put them in to work. So hopefully that helps.

MR. SULLIVAN: Okay, so moving forward.

MR. ERHART: Sir.

MR. SULLIVAN: Other than being more attuned -- I know you said this was hard, so this is probably a hard question. Is there something specific that will allow the production office to be more attuned to the safety culture here at the Plant?

MR. ERHART: Well, something specific, other than going through the training that we've gone

through. We've done the safety-conscious work environment training. In fact, we're on every list to get all the training we can get for, not just our senior leaders, but our mid-level leaders, mid-level managers at both sites, and that means contractors and NPO staff and any other things that they have for the workers even, if we can get that.

And then the key is to -- is to put yourself in a position to give and to receive the feedback from the folks. I mean, that's something that we should have been doing anyway, but it's particularly important that people know that you know what they -- well, we may not ultimately agree with everything that somebody brings forward for us to act on, but we owe them the -- we owe them the service that they were heard, that they know that we heard them. And so that's one thing we -- feedback.

And then, of course then, like I said before, our intentions could be good, but they are irrelevant until we get the feedback from the people themselves, and that will take some time.

So we need to do that for both the federal staff, as well as the contractor staff, and so that will -- that forms the basis of what we'll be looking at for the future.

MR. SULLIVAN: Okay. Thank you.

Mr. Chairman, back to you.

CHAIRMAN WINOKUR: Thank you. Before I turn it over to Dr. Mansfield, I really echo your comments about the actions of leaders, and you folks are the leaders of NNSA.

And I don't have any doubt, whether you're a leader or a parent or a teacher, the things you say and do have an incredible impact on the organization. So just the example Mr. Sullivan gave is an important one, but any other thing you do, you know, clearly, will determine how the workers interpret things and what they think is serious or not serious and so on and so forth, and we'll -- as I said before, leaders create this culture, and you can create it and make it be what you want it to be.

Dr. Mansfield?

DR. MANSFIELD: Thank you, Mr. Chairman.

This is really for Mr. Erhart, because there's nobody here really to ask the question of.

The facility reps in Pantex installations and your own B&W facility reps and the DOE ones -- it's the DOE ones I'm talking about. They have daily and intimate knowledge of what's going on in operations. I expect they would have heard of concerns about the HE (High Explosive) problem we've discussed a little -- a

little bit ago. Would they -- but your site -- your site managers turned out to be surprised at the fact that the NES department concerns took so long to get solved. Is -- is -- I always thought that the facility reps were the frontline defense, sort of the eyes and ears of the fleet. Do the -- do the site managers view them that way? Would they -- are they an important tool for the site manager, the DOE site manager, to understand what's going on on the shop floor and what changes in the safety culture and dissatisfaction of PT's and first-line managers are?

MR. ERHART: Yes, sir. They are vital. Facility reps have also been around a long time. I used to actually run the facility rep program out at the operation's office.

DR. MANSFIELD: I know.

MR. ERHART: We met a long time ago, and so they do form a very valuable input to upper management.

In fact, I personally sit in on the FR calls at both sites every morning -- well, every morning that I can -- to hear firsthand what they're coming up with from their observations on the floor.

The NES event, which we'll talk more -- I think we'll talk more about the specifics later. Was -- there really wasn't any angst expressed on the PT's point, the production technicians, the folks that actually do the

work.

This issue was more of like a process issue, and a lot of angst was generated within the engineering department as a result -- and within the NES review itself, I'm understanding now, which is away from the operating areas.

So we do that, we check the operating area. We would be very interested if there's any issues being seen on the floor, and that was not the case.

DR. MANSFIELD: Do you have enough DOE Fac Reps?

MR. ERHART: Yes, sir, we do.

DR. MANSFIELD: And they are all qualified -- well, take that for the record.

MR. ERHART: I believe so.

DR. MANSFIELD: Take that for the record.

That's all I have.

MR. ERHART: Thank you.

CHAIRMAN WINOKUR: All right. I would like to talk a little bit about this HRO concept, Higher Reliability Organization. I guess I'll turn to you. Mr. Erhart, could you define for people in the audience, what was this HRO you were trying to establish, this Higher Reliability Organization? I know we'll hear from Mr. Woolery later about it, but could you give people a

sense of what HRO is?

MR. ERHART: Great. I appreciate that. High Reliability Organizational Theory or Operations, if you want to use the O for operations is, I think, a very good framework for reducing variability. A lot of times the variability is what gets you, and if you think of variability as differences between work as planned from work as actually being performed on the floor, then it puts -- if you devote yourself to minimizing that, you will not only get the work done, but you'll get it done safely to the accordance with requirements with precision, accuracy, et cetera.

So it's a basic fundamental process with basically four characteristics. The first one being, manage the system, not the parts. You want to make sure that your oversight and actually your management overall is looking across the operations for those weak signals that could indicate a problem. And that -- then you move towards that and ensure that you don't have systemic problems that can then cause further problems later.

The -- the -- one of the other pillars is also to be a -- to establish a culture of reliability which includes -- is actually centered around a safety culture. So that's why we say we were a little concerned that one of our pillars wasn't as strong as we would have

liked it to be, given the feedback from the folks on the survey.

And finally, you want to be a -- you want to be a learning organization. So that's what we are demonstrating here today. That's what we do. We learn from everything. All sources of information, the Defense Board, we take everything the Defense Board says. We take inputs from other -- other places.

HRO, for example, is used not just by nuclear operators. It's used in, for instance, hospitals. So -- and fundamental to the concept is that everybody in the operating room, from the lead surgeon to the lowest level nurse's assistant, has the opportunity to stop the proceedings in the operating room if things don't seem right. And that's saved people from getting the wrong leg amputated, for instance. It's actually -- so it's a sound concept. And safety culture is definitely a centerpiece of HRO.

CHAIRMAN WINOKUR: So you wanted -- you wanted the contractor to develop this HRO, this high reliability to organization; is that true?

MR. ERHART: Yes, we -- we were working on -- we are. We are continuing working on that as -- together, to better the reliability and the safety of operations at Pantex, yes, sir.

CHAIRMAN WINOKUR: And you incentivized it. I mean, you paid the contractor to create this High Reliability Organization, right?

MR. ERHART: Over the last few years there have been elements within the performance evaluation plan for the contractor that was focused on HRO, yes, sir.

CHAIRMAN WINOKUR: So this isn't a trick question. I'm just trying to understand if you -- if you put all of this effort into being an HRO, why was the safety culture assessment so poor?

MR. ERHART: Well, like I said, it was -- it was sobering. It was -- it's fundamental that we want to make sure that those folks feel that they can come forward. And so it -- it -- what it did is it -- another element of HRO like we shared last time you were at Pantex would be humility. So it showed us that we had some more -- more work to do. And -- but I don't want to minimize the progress that we've made in working through the HRO program, as well, so...

CHAIRMAN WINOKUR: I'm concerned, or else I just don't understand it well, that HRO was misguided in some way and that it kind of got the organization off track, and that led to a poor safety culture, but that doesn't seem to be your sense of things; is that true?

MR. ERHART: No, sir, I don't believe that

HRO pushed us off any track. I believe HRO is sound; it's fundamental. I'm happy to go through that with the Board at any time why I feel that way. I do feel that there -- that one fundamental aspect of it was not addressed appropriately, evidently, as far as the safety culture, and that gives us pause. But I don't believe HRO was misguided, and I don't believe HRO pushed us in a direction that was countered as a strong safety culture.

CHAIRMAN WINOKUR: But if I understand what you're saying, it's not -- even if you develop the perfect HRO, that wouldn't necessarily guarantee that you would have a strong safety culture; are you saying that?

MR. ERHART: I think if you actually got through becoming -- if there is such a thing as a perfect HRO. I think it's more you continue to strive for excellence, but you can't have one without the other. You can't call yourself a fully established HRO without a strong safety culture, no, sir.

CHAIRMAN WINOKUR: Okay. So going forward, I mean, what are your expectations of the contractor at Pantex? Do you want -- do you want them to continue these HRO efforts, and do you think that will lead to a good safety culture, or will safety culture efforts be somewhat distinct and disjoint from that? I mean, how is this whole thing going to work? What's kind of the message

you're going to give the contractor going forward in terms of the investments in HRO, vis-a-vis the investments in building safety culture?

MR. ERHART: That's a great question. I think what we're seeing is we're going to have a sub-focus on safety culture, and I think that's -- we're going to be, as we are in a lot of things, on the cutting edge of that at Pantex. So it's going to be a focused area within the HRO framework, half because it needs to be done.

And so it's going to be emphasized. It's going to be -- like we said, we are committed as a group. It's not the one contractor, and the feds are just going to sit along -- sit behind. We're going to go into it together to ensure that we fix these problems that have been identified.

CHAIRMAN WINOKUR: And do you have any sense of how you're going to measure success in this effort going forward?

MR. ERHART: I think we'll -- we're already thinking about that. We're -- and we will talk specifically when the B&W team comes up on some of the short-term success factors that we've seen.

I think the biggest -- and I don't want to spoil the -- take away too much of their thunder. But creating a working group of folks -- and you met the folks

last time you were at Pantex, the safety culture work -- working group consisting of basically the folks that work at Pantex representing the various work groups at Pantex coming up with the way to improve the work environment, for instance, helping us prioritize the use of funding to make -- to make that a better -- to make the work environment a better place, as well as looking and helping us to close that gap that we talked about in the previous panel that exists between the perceptions of the managers and the perceptions of the working folks.

So that'll be -- that's a fundamental part of the plan. And as I mentioned in the answer to one of my previous questions, the only way to measure success is from feedback from the people, and we'll also look at other -- going back with surveys and other forms of measurement to see what progress we've made.

CHAIRMAN WINOKUR: Okay. Would you take a question for the record for me?

MR. ERHART: Yes, sir.

CHAIRMAN WINOKUR: Give me your best thinking on this relationship between HRO and safety culture. I think it's important.

MR. ERHART: Okay.

CHAIRMAN WINOKUR: I know both concepts are important, but there's been a lot of discussion by the

Health, Safety and Security Organization about Ms. Miller, about the importance of maintaining effort in this HRO area, and I just want to make sure that I can understand and hopefully you more than me can understand how that's going to pay the dividend of giving you a strong safety culture.

MR. ERHART: Yes, sir. Okay.

CHAIRMAN WINOKUR: Thank you.

Ms. Roberson?

VICE CHAIRMAN ROBERSON: Given that there have been three HSS safety culture assessments at NNSA sites or activities and frankly a series of reviews at Pantex specifically, all finding safety culture weaknesses in every case, and I'd say although Administrator Miller has made adjustments to the different organizational functions in NNSA, I guess I want to ask you Mr. Nichols, you were a part of the leadership team before and now. Have you considered what contribution your own organizational element may have made to either creating, contributing or missing the signs of the weaknesses identified in these reviews?

DR. NICHOLS: The simple answer is yes. You know, our organization is relatively new as a single organization. We were combined together from three different organizations with different missions, all of

which, though, were related to safety. And we have been evaluating lessons learned from the approach that we took to build our organization in terms of simply grabbing the basic missions and pulling them together and not really taking advantage of the synergies that exist for us that we could have been relying on but weren't relying on to try to keep tabs on where things stand both with the contractors and our federal organizations in a broader variety of ways than we've been doing so, yes, ma'am.

VICE CHAIRMAN ROBERSON: So corporate board aside, are there specific things that you will be doing to support the Administrator in this venture, because not just one person can do this. Are there other specific things that you would be doing within your own organizational element to support the achievement of a healthy safety culture?

DR. NICHOLS: Probably the most significant is we're trying to shift our organization to enhance our ability to maintain a heightened level of operational awareness, both of how the contractor performs, as well as how our federal organizations have performed.

You may be familiar that part of our organization, which is the Chief of Defense Nuclear Safety Organization, has primarily focused on ensuring a common understanding of nuclear safety requirements among all of

the federal personnel, and we only look at the contractors to the extent that we need to validate whether or not the site offices were being effective. We're expanding that role, to take a look at the contractors as well, and we're broadening some of our focus.

We don't expect and wouldn't presume for the kind of reviews that we do to be able to be a substitute for a focused safety culture review. We're not trained for that; we're not skilled for that. That's not really what we're doing.

However, there are elements of -- there are elements that are related to safety culture that we haven't done as good of a job looking at in past as we could have, for instance, implementation of the differing professional opinion process. Are we sure that it's being implemented effectively? Are people aware of it? Our own internal sort of informal surveys indicate that it's not used, not just at the places that have been looked at directly by HSS, but other places as well. The utilization of that process is not being as effective. There's data that we could be gathering to that, in that regard, that we simply haven't been gathering.

So we are reevaluating the review criteria that we use to try to focus them better. At the same time, I've been working with my staff in Albuquerque. My

Albuquerque personnel came out of what was formerly the Safety Department, that was a piece of the safety center -- or the service center that was in Albuquerque. Their function has been primarily to support sites so that if a facility like Los Alamos, for instance, needed some additional personnel to do Safety Basis analysis, they would call upon our folks to come and provide that surge capacity.

Because of that, my folks in Albuquerque have a lot of insight into what's going on at the individual sites. However, that's been treated almost as a confidential matter in that, you know, they're -- they provide support to the site offices. And it's important that the site offices feel free to contact them and call them in and -- so that we haven't mined that data; we haven't mined that information. We haven't used it to build performance profiles of our sites. We're changing that.

VICE CHAIRMAN ROBERSON: Okay. Were you surprised when you saw the results of these reviews come in?

DR. NICHOLS: Yes and no. I was surprised on the one hand in that, just like as many others, Pantex has really set the stage for some of the best work that's been done in the complex with regard to how do you put

together an organization that will reliably and consistently implement safety requirements? I mean, Pantex has set the stage for that. Some of the work that they've done on the high reliability organization, some of their causal factor analysis work that they have pioneered to try to make sure that you could drive to the true underlying causes of issues that have safety impact has just been -- it's been groundbreaking, and to see that disconnect was surprising.

I said it -- it was partly surprising. The part that wasn't surprising is that there have been a number of things that we've observed, not just at Pantex but across the complex, that consistently resisted efforts to bring them under control. Work planning and control is one of them; and, of course, you're certainly very aware of that.

My belief has been for some time that there was an underlying, fundamental issue that we weren't quite getting at, and I suspected it was related to safety culture. I was unaware of the work that had been done to find a way to measure safety culture in a way that was reliable and reproducible and that produced -- that produced actionable results, and that's one of the really truly wonderful things that has come out of the work that HSS has done and brought into NNSA is the introduction of

this capability to actually evaluate and measure safety culture performance in a way that gives us something that we can then work with, and so that we can know where to focus our attention.

VICE CHAIRMAN ROBERSON: Thank you.

Mr. McConnell, same question. Have you had the opportunity to consider, based on your previous role; I understand there have been tweaks to your role. But you were here before; you're here now.

MR. McCONNELL: Yes, yes.

VICE CHAIRMAN ROBERSON: What is -- are there lessons you've learned?

MR. McCONNELL: Absolutely. Key attributes of safety culture, key attributes of high reliability, we all have had the same people talk to us. We -- you know, questioning attitude, sort of chronic unease, a willingness to face facts that are brutal even. Those are all of the things that we aspire to in a strong safety culture.

The problem is sustaining self awareness and objectivity, and that is a very transient thing. One can have objectivity and then very shortly thereafter lose it. And so it's not -- the evidence is pretty plain that we lost objectivity at Pantex. We didn't have a correct understanding of the situation, and it's happened at other

places. And so the thing that's been nagging at me most is what can we do to provide ourselves tools that allow us to regain objectivity, when you don't even -- when you're in the system, and you don't even know you've lost it.

Part of that is -- is -- is a larger perspective involving more people, people who weren't -- didn't grow up and weren't in the process. And so part of what the office of infrastructure and operations is is expanding what we consider to be the operational group that does self assessment so that the -- there is no replacing the substantial number of people with the deep understanding of Pantex that is currently resident in NPO. They have to be the core of any line management self assessment process.

But there's a double-edged sword there. They know a lot, but they have been in the system a lot. So we have to augment that with people who aren't ignorant but didn't grow up in the system and that can come in and ask a key question every now and then: Why are you doing that; does that really make sense, to snap people out of their mind-set into a -- to regain objectivity. And then that then allows us to really meet that aspiration of being self critical, challenging, open to information. Because you can't -- you can't react to information if you don't perceive it. And we've talked a lot today that

perception is really what we're here about.

And so, you know, between Don Nichols' organization and NA-SH with a more well-focused effort to help us assure that objectivity from an independent perspective and from our collective operations' perspective and from a broader perspective, that's -- that's the single biggest thing right now that I'm pushing towards to get to a system that will more reliably preserve objectivity, because that's -- I think that's pretty fundamental.

VICE CHAIRMAN ROBERSON: So you're leading this corporate board effort for the Administrator.

MR. McCONNELL: Yes.

VICE CHAIRMAN ROBERSON: It's going to be really important you figure that one out, right?

MR. McCONNELL: Well, that's a slightly different -- a couple of things about that; one is you've heard and we've alluded to several times, the self assessment that NNSA is going to do which is larger in scope than an extent of condition, and that was by direction of the Administrator, is a hybrid. It's the experts -- the same experts that HSS has used in various reviews, plus a group of NNSA folks. And the reason for that is twofold. One, you have to have those experts, because none of us really are, and they have those

methodologies that Tom Staker so eloquently described and that are necessary to get a valid, repeatable, actionable set of data.

But just as important is to have a cadre of people who are deeply involved in the measurement, deeply understand the data so that we have a cadre of people, once Sonja Haber and her experts leave, that can be the vanguard of the change. We have to have people that really, really deeply understand it and resonate in all the organizations, not just the safety and health organizations. As Ms. Miller said, it's an organizational culture issue.

VICE CHAIRMAN ROBERSON: Okay.

MR. McCONNELL: So we get 23 of them across the entire NNSA organization who then become the change agents so that we can sustain the change as we go forward.

VICE CHAIRMAN ROBERSON: Well, we look forward to seeing that effort.

I guess I have one last question, Mr. Chairman, to Mr. Erhart.

So my line of questions obviously is all about awareness of the organizational elements that have played a role in this. So HSS did the assessment of B&W Pantex. The field office or site office, whatever we're calling it now, chose not to participate. I'm assuming

that's your -- that was your decision. I'd just like for you to tell us why you decided that that wasn't the right thing for the field office.

MR. ERHART: Well, a couple of reasons there.

The first one was we were -- we were familiar with by talking with Mr. Staker of the plans to move out on the 2011-1 and knew that there would be a self assessment plan that would come forward.

Two, we were concerned that we wanted to move quickly. In fact, the first -- we first asked for -- the HSS assessment predated the -- the request predated some of the -- at least one of the Board letters. And at that point we were kind of lower on the cue, and so the thought was, well, if I want to get out and move on this, you know, we better keep the scope the way we originally talked with Mr. Staker, so we were going to bring them in and do that.

So there were those two reasons. I thought we were going to get to the HSS review of -- or at least the version of that review that came out of the recommendation.

And so retrospect, it could have been -- we could have made the decision and done the entire group and saw what the results were, but that was the thinking at

the time.

VICE CHAIRMAN ROBERSON: Okay.

MR. McCONNELL: Can I add a point there, though?

CHAIRMAN WINOKUR: I think we're going to have to move on here. I'm sorry. I'm looking at the time, and your guys are giving us great information, but I think Mr. Bader has some questions. And if you have something else to submit for the record, would you please do it? I really appreciate that. Thank you.

Mr. Bader?

MR. BADER: Mr. Erhart and also Administrator Miller, looking at the press releases that we've seen, a major benefit of the consolidated contract for Pantex and Y-12 is cost reduction. Could you tell us how NNSA and NPO will give this long-term corrective action plan the high priority required to protect it through the transition, particularly given this current budget environment?

MS. MILLER: Yeah, I'll speak to that. Regardless of the transition of this -- in this case or for these sites, let's be clear. This is something that's for the entire complex. We happen to have done the studies here at Pantex and had the issues come up here at Pantex, but we certainly wouldn't want to think that,

well, great, once we do that at Pantex, we must be fine, right?

So that's a fundamental aspect, and I think my colleagues have made a point to say that, that we intend to be very careful to implement and follow throughout the complex, throughout all of NNSA, headquarters and the sites, so it doesn't become -- I want to be clear. This is not a -- this is not a concern of mine in terms of the -- any transition between any given contractual situation. This is just part of what's going to have to be fundamental to what we do everywhere.

With regard to the budget pressures, it is a -- it is -- there's no question, everybody is in a mess. Right? Probably more of a mess than I've seen certainly in my 26 years of dealing with the federal budget.

But again, we can't consider that we're doing the mission, if we're not doing the mission safely and securely. If we start with the premise that to be clear that it's being done safely, we'll have to make sure that the safety culture is what we want it to be and what we need it to be, then that's not a question of being driven by the budget. We'll have to do what it takes. I don't think these are particularly big impacts on the budget. But hopefully they're not, but if they are, then, you know, that's what setting priorities are about.

MR. BADER: Let me -- let me add to that question. You mentioned earlier on that you would take for the record putting your specific actions, including long-term actions together and sending them to us. Could I ask you to focus first on the long-term actions and secondly to consider in your -- in what you put on the record the steps that you're going take in those -- as part of those actions to make them more likely to endure over time, because I think, as I stated, I'm -- I am concerned that you continue -- that there is a tendency for things to get diluted and deleted and slip as you move further and further away from the initial corrective action plan.

MS. MILLER: Yes, I'll be happy to do it that way.

MR. BADER: Thank you. That's all.

CHAIRMAN WINOKUR: Mr. Sullivan, do you have a final question?

MR. SULLIVAN: I do. I want to ask Acting Administrator Miller about accountability, and I'm not going to ask you to discuss specifically any personnel decisions or judgments that you've come to -- excuse me -- that you may have come to. But just more generally speaking, I mean, have you determined in your own mind who should be accountable for us having gotten here, and is

that specific people that you could have put your finger on, or is it more generally one of these things where it was a long time in this complex contractor assurance system, and you can't really say who's accountable?

MS. MILLER: There are always people who are accountable. I will take you up on the fact that I will not discuss individuals in this setting, but, yes, I will also admit -- tell you that I have in my mind how the accountability works on this, yes.

MR. SULLIVAN: Okay. So I can assume that just going forward you feel pretty confident that that message is being delivered, and we're not going to find any similar problems if we come back here in the future?

MS. MILLER: So yesterday morning I testified in front of the House of Representatives Energy and Congress Committee on the incident at Y-12, and I'm going to tell you what I told them about swearing for other people and what's going to happen in the future; I certainly would never do that, but I will tell you that the message has been communicated loud and clear, so no one can say they don't know what the expectations are.

MR. SULLIVAN: Okay. Thank you very much.

CHAIRMAN WINOKUR: And before we say goodbye to this panel, we have a minute, just a minute or two. Jim, you wanted to respond to the question that

Mr. Erhart was asked about why the federal workforce did not participate in the survey.

MR. McCONNELL: One thing I want to add to that is while we don't have any NPO specific data, we have absolutely no reason to believe that the motivations we have for improvement don't apply to NPO. And the plan we have going forward is a joint NPO Pantex and Y-12. And while we never looked at Y-12 at an enterprise level, we looked at it as a project as you well know, there's enough data to tell us that Y-12 and every other part of our enterprise is in need of attention and improvement.

So -- so we are, and I can speak for Steve, fully invested in the need and the action to improve, regardless of the fact that that particular study done by Dr. Haber was only focused on the contractor.

CHAIRMAN WINOKUR: With that, let me thank this panel. Thank you very much, Administrator Miller, Dr. Nichols, Mr. McConnell, Mr. Erhart.

And at this time I would like to invite the third panel of witnesses from NNSA's contractor organization, B&W Pantex, to the witness table for additional discussions on safety culture at the Pantex Plant. Would the two panel members take your seats as I introduce you. They are Mr. John Woolery, B&W Pantex General Manager and Mr. James Stevens, B&W Pantex

Environment Safety Health and Quality Manager.

The Board will direct questions to either panelist who will answer them to the best of their ability. After that initial answer, the other panelist may seek recognition by the Chairman 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 of this hearing at a later time.

You want the right nameplates, that seems appropriate.

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

Mr. Woolery?

MR. WOOLERY: No, sir.

CHAIRMAN WINOKUR: So I would like to thank each of you for your testimony today. With that, we will continue with questions from the Board Members to this panel, and I believe Ms. Roberson will begin the questioning.

VICE CHAIRMAN ROBERSON: Thank you, Mr. Chairman.

Good afternoon. Thank you both.

MR. WOOLERY: Good afternoon.

VICE CHAIRMAN ROBERSON: Mr. Woolery, I'm

assuming you have had the opportunity to review the HSS assessment, as well as your own, you know, reviews done by your own organization; is that right?

MR. WOOLERY: Yes, ma'am, I have.

VICE CHAIRMAN ROBERSON: And do you accept the findings and recommendations of the HSS team?

MR. WOOLERY: Yes, ma'am, I do. I fully accept the findings and the recommendations from the HSS safety culture survey, and I've made this my top priority to address the findings and to improve the safety culture at Pantex.

VICE CHAIRMAN ROBERSON: Thank you, sir. So can you share with us the -- some of the specific issues or weaknesses that caught you a little bit by surprise when you were able to see the totality of the report?

MR. WOOLERY: Yes, ma'am. The biggest concern that I identified immediately, and we've talked about it already in an earlier panel, would be the significant difference between management's perspective as to how things are going versus the workforce's perspective. And there was -- I mean, it was a noticeable difference where management was on one end of the spectrum and the workforce was on the other end of the spectrum. That was one of my biggest concerns.

The other one would be, and Mr. Erhart brought this up, the concerns that people identified, as far as being able to bring concerns forward for fear of potentially being retaliated against, and that's totally unacceptable. That was one of my second concerns.

And then the third concern, I would say, had to do with just the apparent lack of communication between the management team at all levels, including myself, to the workforce.

Those were my three primary concerns, and our plan identified some actions that'll address those concerns.

VICE CHAIRMAN ROBERSON: So were you -- were you surprised by the weakness -- or the concern that the realization of HRO principles has not been internalized by the Plant?

MR. WOOLERY: No, ma'am. I was not surprised by that statement in the report. And I do want to say that we're on a path to becoming an organization that can demonstrate some of the traits or characteristics of a High Reliability Organization, but we have never stated that the Pantex Plant is an HRO.

We've been working very hard to try to demonstrate some of those characteristics, and as a part of our HRO effort, about two and a half years ago we

started working with Texas Tech University in developing an Independent Safety Culture Assessment. And it was because of the work that we had done with HRO that we were asking the question, but we weren't sure what the answer would be. But given how well we're performing in regard to industrial safety metrics, I was very surprised and, quite frankly, very disappointed in the results when I saw them, but it clearly indicates that we've got a lot of work to do in order to address those issues that were identified.

VICE CHAIRMAN ROBERSON: So do you want to just take a minute to briefly describe to us how you are approaching addressing these issues?

MR. WOOLERY: Yes, ma'am. You've heard the term Institute of Nuclear Power Operators and Safety-Conscious Work Environment; those were the two primary sources of information that we looked at as we prepared our specific plan to address the issues. And that plan was developed jointly with NPO and with Y-12.

And I think Mr. Podonsky mentioned earlier that for the past 20 or 25 years, the Institute of Nuclear Power Operators had been developing and working on some of these principles. So there are ten traits for a strong nuclear safety culture that we've identified, as well as the principles of a safety-conscious work environment.

And both of the organizations have done a lot of work as far as looking at some of these cultural aspects and making sure that the management team understands the behaviors they need to exhibit on a daily basis and consistently do for the workforce in order for eventually the safety culture to be changed.

VICE CHAIRMAN ROBERSON: So what are some of the specific things that you're doing?

MR. WOOLERY: Yes, ma'am. We've made -- immediately moved out, and we've made a lot of progress. The first thing that we did was to communicate the results to the entire workforce.

And Mr. Staker mentioned earlier that, I think, we're the only site that invited Dr. Haber to brief not only the management team but also the entire workforce, and I did that intentionally so that everybody knew what the results were and everybody could understand what it was that we would need to do.

Upon receiving the results, I worked with Mr. Erhart and Y-12 in developing the plan that I referred to, the Safety Culture Plan. We've also developed jointly with NPO and Y-12 the Safety Culture Policy. The team -- and actually they are here this afternoon. There is a 15-person cross-functional safety culture team, and it's comprised of five MTC employees.

And just wave, if you wouldn't mind, back there.

Five MTC employees, and you met many of them while you were at the Pantex Plant in January, five Pantex Guard Union employees, and then five non-management staff. And they have been together since November 2nd working, number one, on identifying the general work environment improvements that we need to make, and they've identified two sets of requirements. One of them we're putting on a list called a Fix It Now list, and it's work that we're going to do under our existing budget and with our existing maintenance workforce.

And Steve referred to some -- or Mr. Erhart referred to some of those items earlier as replacing ceiling tiles and light bulbs and putting ice machines in and a lot of those types of things to improve the employees' work environment.

And then there's an additional list where I set aside $2 million in funding from FY-13 to work some of the bigger project issues. And they have identified $2 million in projects for us to work on, and in addition to that, they have identified another $14 million of what they believe are fairly urgent concerns from a general work environment perspective.

So we've already moved out promptly, and

we've made a number of improvements in the general work environment on the Fix It Now list, and we've got work authorizations that had been generated to do the project work, and the design work is in planning to make some of those improvements, and some of those things would have to do with, for example, lighting in parking lots and improvements to the guards' stations.

And what the team has done is they have identified projects that would, when we finish the project, would have the greatest impact on as many people at the plant as possible, so they can see that we are actually -- we're listening to them, and we're making progress.

Another thing that we've done in response to the information, for every salaried exempt employee and every non-bargaining non-exempt employee that receives an annual personal performance evaluation, we've established 30 percent of their personal performance objectives to tie directly to consistently demonstrating the 10 traits of a strong nuclear safety culture and the principles of a safety-conscious work environment.

So we're really trying to make sure that everybody fully understands what the expectations are, not only for the management team, which is very critical, and it was talked about before by Mr. Staker and Mr. Podonsky.

And the management team needs to understand every day they need to demonstrate those behaviors. And if they ever one time do something different, then they've -- they potentially have damaged the entire organization.

And the example that you talked about earlier in regard to nuclear explosive safety, I would say is an example where the actions of an individual undermined the entire organization.

Let's see, as far as other actions --

VICE CHAIRMAN ROBERSON: Well, we'll come back. I'm going to let others ask you questions, but I'll come back.

MR. WOOLERY: Yeah, there's probably -- we probably have completed --

VICE CHAIRMAN ROBERSON: If you have something else you want to add now, feel --

MR. WOOLERY: -- fifteen different actions.

VICE CHAIRMAN ROBERSON: Go ahead, you're good.

MR. WOOLERY: We're moving out. We're moving out very quickly.

VICE CHAIRMAN ROBERSON: Thank you.

MR. WOOLERY: Yes, ma'am.

CHAIRMAN WINOKUR: Dr. Mansfield?

DR. MANSFIELD: Thank you, Mr. Chairman.

Mr. Woolery, your NES change control investigation finding that eight out of ten of the NES personnel felt it was career limiting to raise issues. That was a surprise to you, I take it?

MR. WOOLERY: Yes, it was a surprise.

DR. MANSFIELD: Did none of your own people give you any indication beforehand that that kind of dissatisfaction was developing?

MR. WOOLERY: No, I did not have any visibility of the dissatisfaction within the NES department, but after I became aware of the situation that had occurred regarding the questions about the NES Change Control Process and whether or not the work being performed was within the boundaries of the approved NESSG (Nuclear Explosive Study Safety Group) scope, once I found out about that, it kind of ties directly to the feedback that we're getting from our employees where they tried to express a concern and identify a problem they felt was very important, and a member of my management team did not listen and demonstrate the appropriate behaviors.

DR. MANSFIELD: Could you clarify for me the chain of events, starting with the NES Department Director raising the issue that there should be or probably should be a stop work until this was satisfied. Who was that communication directed to from him?

MR. WOOLERY: Yes, Dr. Mansfield. The NES department manager not only verbally but finally in writing communicated to the engineering division manager concerns that he had --

DR. MANSFIELD: Engineer?

MR. WOOLERY: Engineering division manager, yes, sir.

-- concerns he had relative to the work being performed and questions about whether or not that work was, in fact, inside the boundaries of the approved NESSG process.

And what happened was the Engineering Division Manager created a technical debate about the safety of the work as opposed to answering the question about whether or not the work was or was not within the boundaries.

We absolutely cannot perform work outside the boundaries of the NESSG approved process, and the Engineering Division Manager upon hearing the question should have immediately suspended operations and done whatever it took to answer the question.

DR. MANSFIELD: Was -- what was the time span involved between the time that he was informed by the NES Department Director to the time that work was eventually stopped?

MR. WOOLERY: There was a formal memorandum issued from the NES Department Manager to the Engineering Manager in November of 2011, and the operations were not suspended and the procedures were not changed until January of 2012.

DR. MANSFIELD: Thank you very much. That's the first time that that's all been on the record, and that's valuable.

Was your -- Mr. Stevens, was your department involved at all, the Environmental Health, Safety and Quality Team?

MR. STEVENS: No, sir. At that particular time, I was the Division Manager for Quality, but neither of the two divisions were involved in that. That was purely within Engineering.

DR. MANSFIELD: Uh-huh. So neither of the two divisions, which two divisions do you mean now?

MR. STEVENS: I was -- at that time I was the Division Manager for Quality and Performance Assurance.

DR. MANSFIELD: Quality, right.

MR. STEVENS: Now, I am the division manager for both divisions, Environmental Safety and Health and Quality and Performance Assurance.

DR. MANSFIELD: Well, did the other

division --

MR. STEVENS: No, sir, neither one of them had --

DR. MANSFIELD: -- Environmental Safety and Health, were they involved in the communication at all?

MR. STEVENS: No, sir.

DR. MANSFIELD: Many organizations that -- finding this kind of mal-communication of actual performance to expectations have corporate chief safety officers. Mr. Erhart mentioned hospitals that make sure that there's continuing enforcement of High Reliability Organizations. NASA has an Associate Administrator, SES-6, that reports directly to the Administrator on Safety, and the Air Force has a general officer. I think he may be a Major General, I'm not quite sure that does the same thing. All -- all these organizations give their Chief Safety Officer just that one responsibility. Does your excellent Director of Environmental Safety, Health and Quality, Mr. Stevens, have too much to cover?

MR. WOOLERY: No, sir, I don't believe that Mr. Stevens has too much to cover. Although, the change that Mr. Stevens is referring to did occur fairly recently, so he still is coming up to speed as far as his responsibilities in Environmental Safety and Health but Jim, or Mr. Stevens, can do the work. I'm confident of

that.

DR. MANSFIELD: Okay. The change control investigation suggested or stated that the W76 production schedule pressures were clear and real, and the perception is the schedule must be met. And is production pressure a contributor to the safety culture issues identified by HSS in their investigation?

MR. WOOLERY: No, Dr. Mansfield, I do not believe the production pressures are a contributing factor, but I do understand the feedback that was received through the safety culture survey.

Mr. Erhart mentioned earlier that we developed an excellent relationship with NA-12 and NA-122, and we have a great deal of flexibility when it comes to the production schedule and the specific weapon deliverables that are required on an annual basis. And the thing we emphasize at Pantex is safe production, and at no time should anybody at Pantex make a sacrifice in safety in order to a -- achieve production deliverables. It's safety, security and quality for anything that we do.

DR. MANSFIELD: Okay. My last question is a bit complicated, Mr. Chairman, I'm a bit puzzled. You still have three or four programs that involve conventional sensitive high explosive.

MR. WOOLERY: (Nods head up and down.)

DR. MANSFIELD: A high explosive violent reaction in a cell would shut you down for a long, long time and rather severely impact your production schedule. It would appear to me that it would require continuous -- the danger of High Explosive Violent Reactions has to -- it has to have continual attention.

Pantex has already had -- in its history has had four explosions, three fatalities. I think of those three fatalities every time I come down here, and I hope you remind your people about those three fatalities and the importance of developing and adhering to procedures that protect them.

Is it -- that's why I'm surprised that it's rocking the boat for anybody to say we're outside of the bounds of our -- the protections that we established to prevent High Explosive Violent Reactions, we're outside the bounds, we've got to stop. The -- I'm just surprised that anybody would consider that rocking the boat and career challenging. Do you have any comments on that?

MR. WOOLERY: Yes, Dr. Mansfield. The specific comment that you reference, I was not able to make a direct tie back to our Explosive Technology Organization where they do the formulation synthesis, pressing a machine of high explosives.

And the feedback that we -- that I received

from that portion of the organization, as well as from our manufacturing organization where they do the nuclear explosive operations, they performed very well, I thought, on the survey in contrast to some of the areas in the balance of the Plant where we have not been focusing in the past on developing a High Reliability Organization or the kind of operations for those high hazard areas.

DR. MANSFIELD: True. That's right. I just want to get on the record that there was a misconception of what the PT's were doing, that when the NES people saw the kind of operation that they were doing, they immediately recognized it was outside the bounds of what was -- the bounds that had been established for safety of the operation. Do you feel that's a lack of a control some place, that the PT's could wander off -- wander off is not the right word -- could change the scope of their operation in -- outside what had been approved because of the advice of the NESS (Nuclear Explosive Safety Study).

MR. WOOLERY: The particular unit in question where more HE was removed than is typical, the production technicians did, in fact, stop work, and they contacted the production section manager.

DR. MANSFIELD: Oh, okay.

MR. WOOLERY: Yes, sir. I want to make

sure everybody is fully aware of that.

DR. MANSFIELD: Okay.

MR. WOOLERY: The production technicians stopped work. They contacted the production section manager who in turn contacted the process engineer. We consulted with the national laboratories, and we reviewed the weapons response information associated with that specific HE, and the work was determined to be safe and the procedures were revised, and the operators were told to go back to work.

DR. MANSFIELD: Okay. Thank you for putting that on record.

MR. WOOLERY: Yes, sir.

DR. MANSFIELD: Mr. Chairman, that's all I had.

CHAIRMAN WINOKUR: Let's see. Mr. Mansfield just asked you if production pressures at Pantex were a significant contributor to the safety culture deficiencies, right? And your answer was no, but the workers told you it was. I mean, isn't that what this disconnect is all about, that eight out of ten workers said their -- and I know from your position it's not. From their perspective it is, it is production pressure on the 76, and they said it would be career limiting for them to raise concerns. So I just want you to just think about

that, that this is an example of the difference from your perspective as the plant manager and senior management and what your workers are telling you. Because I think it is a fair statement to say that production pressures on the 76, is my opinion, are a problem with safety culture at this plant, once again, just because the workers told you that.

MR. WOOLERY: I understand your point, and I agree with it.

CHAIRMAN WINOKUR: Okay. And I think you have to work through those things in order to bridge this gap between senior management. Nobody has ever said that senior management here wants anything to proceed which isn't done safely. I mean, we understand who you folks are and your commitment to getting the job done here and that it's an important mission, but we all have to listen to the signals we're getting, and I think that is an important signal for you to understand, even though it wasn't your perception; it was their perception. Okay.

MR. WOOLERY: I completely understand and unfortunately did not complete my thought which would be, I for sure know that we've got the flexibility to make any kind of adjustments required to ensure safe production.

My job is to make sure that I effectively communicate with my entire staff as well as the workforce

on that flexibility and make sure that they understand anytime they have an issue or concern, it's not only their right, but it's their responsibility to raise their hand and let somebody know, including myself, so that we do the right thing.

So I appreciate you pointing that out, because that was not my intent to leave that point hanging like that.

CHAIRMAN WINOKUR: Okay. We talked about the Waste Treatment Plant. One of the problems we had there was there was just plain acrimony between the Safety Basis Organization and the Engineering Organization. That was just a war. But what we have here is we actually had an organizational construct where the folks for NES were inside the Engineering Division, and that created kind of a conflict of interest. Do you think that was true?

MR. WOOLERY: I agree. I definitely think that was true, and I think as a result of the organizational alignment of the Nuclear Explosive Safety Department, that prevented that particular issue that we're talking about from being elevated to my level where it would have immediately been addressed and resolved.

As soon as I recognized that, I changed the reporting relationship of the nuclear explosive safety department where that department manager reports directly

to me. And I have at least two weekly meetings with our NES Department. And the NES Department Manager briefs the entire senior staff at least once a month on how things are going and any kind of issues or concerns he would have within the NES organization.

So by making that organizational change, I have direct and ongoing feedback and interface with not only the NES Department Manager, but the NES Department employees. And then it's elevated. That Department Manager is standing in the organization to the point where he can challenge everybody in the organization about what they are doing, how they are doing it, and whether or not they are doing it the way that he believes it should be done. And I am fully aware of those discussions and what the response is from the remainder of my senior staff.

CHAIRMAN WINOKUR: Now, Mr. Stevens, Mr. Woolery made a statement just a little while ago that you are not an HRO. Do you agree with that?

MR. STEVENS: Absolutely, yes, sir. We are striving to become a High Reliability Organization, and as Mr. Woolery stated, he's trying to make sure that we become a High Reliability Organization across the plant. We're doing better in the manufacturing areas. They are further along. Explosive operations are right behind them, but we have more work to do to get that kind of

attitudes into maintenance, into transportation and to warehousing. And we're working really hard right now to get that kind of idea into security. So when he says we're not a high reliability operation, the overall plant, we have more divisions to take that kind of culture to.

CHAIRMAN WINOKUR: You've placed -- you've put a lot of effort in it though, right? I mean, you've devoted a lot of time, a lot of attention. You understand the basic principles; you've written a lot of literature and books on the thing, on the subject matter. You've got experts here. I mean, this has been a fairly large commitment on your part; is that true?

MR. STEVENS: Yes, sir, I think it has, but it's a relatively small staff. At the beginning of this we did a lot of research. Dr. Rick Hartley spent time doing this research.

Learning. We spent a lot of time preparing the guides, helping the Department of Energy do -- redo their investigation manual, training the entire plant. Bringing on the causal factors analysis, we've done 19 of those.

But this doesn't grow probably as quickly as I would like it to, but we have -- we have a team now that works for me that we are going to be able to expand on this faster. But HRO is enormously good concepts for

how to run a reliable operation, but we have more to do, and the safety culture aspect is going to be a very positive to this. I've done a lot of these causal factors analysis, and we have looked at issues that came up in terms of organizational weaknesses. We looked at it from the viewpoint of the worker. What did the situation look like from the worker's perspective? How did management put the worker in that position to where he was allowed to make that error?

What we need to do now is, as I'm doing these causal factors analysis, is ask that next round of questions. Did the worker see this problem? Did the worker raise it? Did he feel that he had an obligation to safety to raise this issue? Did his supervisor take that up? Did the senior manager respond correctly? Did the senior manager train his team to be responsive to these safety culture issues? That's what needs to be injected into this High Reliability Organization Concept for us to really move on down the road.

Yes, sir?

CHAIRMAN WINOKUR: So is safety culture an explicit part of an HRO?

MR. STEVENS: I think that they overlap, but I think they are very different.

CHAIRMAN WINOKUR: You think they are very

different?

MR. STEVENS: I think that the high reliability operations as we see them are applicable, as we said, to many different industries, airline industries, hospitals, and they are concerned with organizations working error free for long periods of time, using good judgment, focused on reliability and reducing variation.

Safety culture, especially nuclear safety culture is this whole idea of people understanding their obligations, their accountability to raise safety issues and have the proper responses to that safety issues, to encourage those safety issues when they see them, and then to fold those back into the proper procedures, the proper attitudes.

So they overlap. I am responsible to Mr. Woolery to implement both of the these things. I'm going to try to use HRO as my platform to build on to go do safety culture, but I'm going to -- I'm going to really put the emphasis on safety culture as its own thing.

CHAIRMAN WINOKUR: Okay. That's very interesting. So I asked a question for the record from Mr. Erhart before, maybe you could take the same question for the record, just to explain to me as you just did more formally the relationship between establishing an HRO and establishing a strong safety culture.

MR. STEVENS: Yes, sir, I'll do that.

CHAIRMAN WINOKUR: Because the next question was going to be if HRO really encompass safety culture, what were the metrics? What were the things you were measuring? But it's not clear to me -- well, is it clear to you that there are things you measure when you establish an HRO that would tell you whether you had a good safety culture?

MR. STEVENS: We need to move into that. That's an area that I -- that we really need to look at. Is there a way to measure that? Obviously, the safety culture survey is a way to do that, very professional, twenty years of experience.

We have developed our own safety culture survey through Texas Tech. It has a little bit -- we tried to develop that from the perspective of high reliability operations. We'll probably adjust that some more. But that was one that we could have a third party examine us independently, probably more often, and give us feedback, so that's going to be an indicator.

But we need other indicators that are a little bit -- a little bit more close -- a little closer to the problem, a little bit more immediate. And we're working on what those are. We examined the Institute of Nuclear Power Operations for what they're recommending,

and those are going to include hours that managers spend out observing work, how many -- what kind of complaints, what's the level of detail of the complaints we're getting from people in our Different [Differing] Professional Opinions Program.

And we have started a, what we call Procedure Adequacy Survey Program where we ask managers to go to the field with procedure in hand, watch operations for a relatively long period of time, and in so doing, see how the operators actually execute that procedure. And I think that's going to give us some indications, not just presence in the workplace but also some appreciation by the operators that we really are interested in that procedure, and what are the difficulties that they have? It might not be just the procedure. It might be some container that he has to receive or some tooling that he has to receive.

And we'll be able to see all of those things together, but we have to spend time watching that procedure in the bay.

CHAIRMAN WINOKUR: Last question. When are you going be an HRO?

MR. STEVENS: Never.

MR. WOOLERY: Never.

MR. STEVENS: We're always strivings to be

an HRO.

CHAIRMAN WINOKUR: Well, that doesn't give me much confidence. Can you give me a month and the year?

MR. STEVENS: We'll have to keep the pressure on to keep going there. We're going to get new people all the time that are constantly going to have to be trained to come up to that standard.

CHAIRMAN WINOKUR: Okay. Thank you.

Mr. Sullivan?

MR. SULLIVAN: Thank you, Mr. Chairman.

Mr. Woolery, we heard during the first panel about the Authorization Basis Group. We had a discussion during that panel about how important they were to safety and that they too had some conflicts within the Engineering Division. What's been done about that?

MR. WOOLERY: I am aware of the feedback that we receive from HSS and the recommendations to take a look at the Authorization Basis (AB) Department and whether or not we should consider realigning their reporting relationship.

In looking at the Nuclear Explosive Safety Department, we were asking the Nuclear Explosive Safety Department to perform both a line function and an oversight function, and we were really putting them kind of in conflict with themselves, as far as trying to

support the day-to-day production versus being the ones that are responsible for raising their hand and identifying any kind of issue of concern that they may have from a NES perspective.

As we evaluated the feedback that we received from an Authorization Basis standpoint, that same situation does not exist for the AB Department, and the AB Department is more closely aligned with a line organization, and today that organization, it's a department level organization within the engineering department, and I looked at that and discussed that with my staff. I also consulted with Mr. Erhart and his team, and at least right now we did not see a good reason to make the change to have that department report to me, similar to the way the NES Department is. So we did look at that very closely, and we made the determination to leave it there.

MR. SULLIVAN: All right. But the fact that some people said that they felt that they should be moved out, does that tell you anything about what the safety issues might be within that Department or within the Authorization Basis Group and has anything been done to find out what the specifics of those were and to correct them?

MR. WOOLERY: Yes. Again, there was some

feedback that required us to follow up. And to finish the point that I was making earlier in my discussion in regard to the NES Department and the discussions the NES Department Manager had with the Engineering Manager. That Engineering Manager no longer -- was immediately removed from that function and is no longer working at the Plant. And I've got a new Engineering Manager that I'm confident will model the behaviors that we're talking about from a strong nuclear safety culture.

And the leadership in that organization is going to be key to making sure that our Authorization Basis department has somebody they can talk to and identify concerns, that will listen and that will respond to those concerns.

And, let's see, it's been on the order of seven months now, I think, that individual has been in that role, and I've been watching very closely, and I have multiple positive indicators that that's exactly what's happening.

MR. SULLIVAN: Okay. Thank you.

MR. WOOLERY: Yes, sir.

CHAIRMAN WINOKUR: Mr. Bader?

MR. BADER: I have two questions. The first one, Mr. Stevens, you mentioned that you were obtaining the workers' perspective and you would be

looking at operations on the floor to help assess them. Have you spoken directly to the workers to get an appreciation of what their feelings and concerns were?

MR. STEVENS: Yes, sir.

MR. BADER: Good.

MR. STEVENS: Was that a question, or did you want some elaboration?

MR. BADER: That was what I wanted, yes.

MR. STEVENS: And I would -- if you will recall, we had a Conduct of Operations Project, and I briefed the Board on this project. And we, in fact, took those principles of HRO. I assembled a 10-person team of conduct of operations experts, and we used those ideas.

We went into an area that was weak in -- at that time we called it conduct of operations, and we stayed in the bay for three weeks all day long and lived with the employees and gained some trust between us. And then we were able to watch the procedures, watch them execute the procedures, watch how they were living, watch what they were dealing with, what kind of support things are -- and through that, as we reported, identified some deficiencies both in the procedures and response of the engineers. The engineers' response is enormously important to that production technician to come down and either explain a procedure or change a procedure. And we

did a lot of changes that I briefed on.

But I'm a believer that spending some time in the bay, living the life of that technician is good for both of us.

MR. BADER: And you'll continue to do that?

MR. STEVENS: That's -- we have that, and we have a metric for that, and we are reporting that to NPO, yes, sir.

MR. BADER: Okay. Thank you.

Mr. Woolery, I would appreciate it if you could tell us if you are seeking any assistance or have asked for any help from NNSA and DOE, including HSS, to help facilitate the cultural change at the Pantex Plant?

MR. WOOLERY: Yes, Mr. Bader. We immediately requested support from DOE HSS to provide Safety-Conscious Work Environment Training, and that training was conducted in December of 2012. We've been in direct contact with DOE HSS regarding -- and that was for 75 senior managers from NPO, B&W Pantex and B&W Y-12.

And then we've been in contact in regards to DOE HSS providing training to Pantex, the remaining managers at Pantex, NPO and Y-12, and we're currently trying to schedule that in the June or July time frame for 2013.

We're also working directly with DOE HSS on

Safety-Conscious Work Environment Training for the entire Plant population. And right now there's some discussion as to whether or not they can train the trainer and then we would have people available within NNSA that could provide that training or if DOE HSS would continue to support us in those requests.

But DOE HSS has been very responsive. Throughout my remarks so far I've talked about NPO and NNSA support. And Administrator Miller called Mr. Erhart and I up, and we sat down with the plan, the safety culture plan and discussed that with her. She was made aware of it when it was hot off the press, and she clearly stated anything that either Mr. Erhart or myself needed, she was one phone call away and she was ready to respond and support.

Mr. McConnell, who spoke earlier, he visited the plant yesterday, and he is the funding authority for the general work environment improvements. And the $2 million, that I referenced earlier, we are, you know, going through some funding discussions because of sequestration during 2013 here, and Mr. McConnell and I are on the same page as far as the $2 million that we have set aside, and it shall not be touched for anything other than general work environment improvements.

And Mr. McConnell actually has visibility

now of some of the other concerns that we have, and if he has visibility within his area of responsibility of additional funds, he stated that he would consider sending those funds to Pantex.

So NNSA has been very supportive in trying to address and resolve some of the general work environment concerns. DOE HSS has helped us out with the training, and right now we're getting all of the help that we need whenever I pick up the phone and ask for it.

MR. BADER: Good. Thank you.

MR. WOOLERY: Yes, sir.

CHAIRMAN WINOKUR: Tell me a little bit about this Texas Tech survey. When did it occur in relation to some of the initial concerns raised by the NES and then the HSS safety culture assessment?

MR. WOOLERY: Yes, sir, Dr. Winokur. We began working with Texas Tech University approximately three years ago now on developing a safety culture survey, and that was as a result of -- directly as a result of the work that Dr. Tolk, who has now retired from Pantex, and Dr. Hartley were doing with the larger community, not only within NNSA but also DOE, and then nationally and internationally in high hazard operations at commercial facilities, as well as within the Department of Energy and NNSA.

They identified safety culture as an area that really needed to be explored, so we began developing with Texas Tech a mechanism to conduct safety culture surveys at Pantex, and then we initiated the first survey. And we wanted to focus on our high hazard areas of the plant, and we initiated the first survey in our explosive technology organization where we had some indications where the culture did not appear to be where it needed to be for the type of work that they were performing and the hazards that they were dealing with.

So we did the survey. We got the feedback not only from Texas Tech who conducted the survey independently, but we also got feedback from the employees about some of the questions that we were asking them didn't make sense, and they didn't understand what we were trying to get at. So we made some adjustments to the survey, and that took approximately six months, and then we began administering the survey to the balance of the plant population on a division-by-division basis.

And we had just concluded administering the Texas Tech safety culture survey to the entire plant population when DOE HSS came in and did their survey. And we had not yet provided any feedback to the employees about the first survey they took, and when I asked them about their low level of response to the second DOE HSS

survey, they explained to me that, you know, we already did one survey and you haven't told us anything, so they didn't want to take a second survey, because they felt like they were wasting their time.

So we've spent now three years on developing that survey. We've incorporated feedback from the employees as far as whether or not they understand the questions that we're asking them.

And the information that we got from the Texas Tech safety culture survey, it very closely aligned with the information that we received from the DOE HSS safety culture survey. So there's no question about the fact that we've got some work to do in regards to improving the safety culture at Pantex and developing a strong nuclear safety culture.

And kind of the take-away for me was we were not using the same terminology during our HRO development that I've been talking about today, as far as the Institute of Nuclear Power Operators, Ten Traits of a Strong Nuclear Safety Culture and the Safety-Conscious Work Environment Principles and Methodologies. And one of the things that we clearly need to do from an HRO perspective is to start utilizing that terminology so that our employees understand what it is that we're talking about when we talk about a strong nuclear safety culture

and we talk about a safety-conscious work environment. Those were new terms to the population whenever the HSS survey was conducted.

CHAIRMAN WINOKUR: So the Texas Tech survey really had some of the same information in it that the HSS survey, so that can I assume that you weren't that surprised when you got the results of the HSS assessment? Were you pretty much expecting to get some obvious need for improvement, for improving the safety culture at the Plant?

MR. WOOLERY: Yeah. The timing was almost coincident as far as receiving the information from the Texas Tech safety culture survey and then the results from the DOE HSS.

CHAIRMAN WINOKUR: Okay.

MR. WOOLERY: I will tell you, again, and this ties back to historically we've looked at lagging indicators regarding industrial safety to try to figure out whether or not we're doing what we should be doing and doing it correctly.

What we're attempting to do here is establish leading indicators in regard to the culture and what people are thinking about whenever they make decisions and whenever they are doing their jobs. And it's a whole paradigm shift that we're trying to effect.

And just the dichotomy between the industrial safety metrics and the nuclear safety culture feedback, there was a lot of discussion from the plant about how can this be true? Having the additional data set from Texas Tech University that corresponded very closely to the DOE HSS information --

CHAIRMAN WINOKUR: Right.

MR. WOOLERY: -- it validated it. I mean, there was absolutely no question in my mind from the beginning, but by putting both of those together for the entire staff and saying, you know, you can argue all you want, but here's the facts, and this is what our employees are telling us and here is what we need to do, it made it real easy to internalize this and just dig in and identify the action items and get started.

CHAIRMAN WINOKUR: Okay. And I guess something very positive from the workers' perspective is now you have two baseline surveys that you can build on.

MR. WOOLERY: And that's one thing that is important for everybody to understand. We are now in the process of trying to establish a baseline, then we can measure whether or not we're getting better from the point we started at. And we've got a baseline, and it's not where we want it to be, and we're dedicated to making it much better.

And the other point I wanted to make on the cross-functional safety culture team, which hopefully will reinforce the fact that I understand the importance of communicating and the perspectives are everything, back to the discussion about production pressure.

The other thing that I've asked the cross-functional safety culture team to do is take the Texas Tech safety culture survey and the DOE HSS safety culture survey and completely understand the results that we're getting and then identify any specific action items that they feel like we should take. And if they're any different at all than the action plan that we've created, we're going to make an addendum to the safety culture plan, and we'll take those actions and make progress on those as well. But that'll be directly as a result of the feedback from the workforce and what they feel like we need to do, which is very, very important.

CHAIRMAN WINOKUR: Okay. Do other Board Members have any more questions?

I would close by saying two things. First of all, we spent three and a half hours here on safety culture because nothing could be more important than the safety culture at Pantex, right?

MR. WOOLERY: Yes, sir.

CHAIRMAN WINOKUR: We've made the point

very clearly that this is where the most hazardous and concerning operations in the entire department take place. And you guys have done extremely well; you have a great record.

And I want to echo comments earlier for your workforce. I mean, we understand what a dedicated, committed workforce there is. We don't want there to be any confusion about that. And I think it's good they are providing a signal to you about where they want to see improvements and where the disconnects are, and I hope you're going to build on that.

So I want to thank you for your testimony today. Thank you very much Mr. Woolery and Mr. Stevens, appreciate it.

MR. WOOLERY: Thank you, Mr. Chairman.

CHAIRMAN WINOKUR: So at this time per the Board's practice and as stated in the Federal Register Notices, we will 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 will 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 of

the 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. I think we are done with that process now, but people can raise their hands in the audience when we finish with the list. They will follow those that have already registered with us in the order which they have signed up.

To give everyone wishing to speak or to make a presentation an equal opportunity, we ask the 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 subject of this public meeting and hearing.

The Board Members may question anyone making a presentation to the extent deemed appropriate.

With that, we're going to begin. I want to thank all of the members of the public who have come here today to be a part of this discussion. And before I begin to read names off the list, I do want to acknowledge that Mr. Pool from Representative Thornberry's audience has been able to spend some time with us today, and I very much appreciate his presence here.

With that, the first person on the list is

Clarence Rashada.

MR. RASHADA: Good evening, Mr. Chairman, and Members of the Board. For the record, my name is Clarence Rashada. I am the President of the Metal Trades Council, Amarillo, Texas, and vicinity AFL-CIO.

The MTC is the sole bargaining agent for our ten local unions at Pantex. And in accordance with the National Labor Relation Board Authorization dated August 7, 1952, and amended on October 8th, 1956, in Case No. 16-RC-1101 as assumed on January 26th, 2001, by B&W Pantex, LLC, recognizing the Metal Trades Council of Amarillo, Texas and vicinity AFL-CIO as the exclusive bargaining agent for all employees and classifications at Pantex.

In my testimony I will address the Company and the Council having a common and sympathetic obligation in the progress of the Pantex Plant; therefore, a working system harmonious relationship are necessary to maintain mutuality and confidence between the Company and the Council. All will benefit by implementing continuous, peaceful operations and by adjusting any difference through rational commonsense methods.

The Metal Trades Council, the contractor, and the Department of Energy need to acquire a tripartition panel to communicate issues that affect the

Plant, as well as new challenges that we face from Washington.

The first example is the consolidation of the plant. These kinds of actions from the top affect the missions as well as the safety culture, quality and security. Well, I don't have to tell you how unique Pantex is, but we have to be careful in our cuts and not to deteriorate and suppress our drive to strengthen safety culture and promote savings.

The cost savings is in our backyard. When subcontracting work, the cost is more due to less control over safety, quality and security.

Utilizing the Pantex workforce dealing with M&O which includes safety procedures and special tooling work is a more efficient way of accomplishing work. This is crucial in order to maintain control over cost savings, safety culture, quality and security. Therefore, the Council seeks a tripartition panel for communications and resolution of issues locally.

Second, the Council needs a forum at a Washington level to remove obstacles of communications and contract issues. For example, when a site DOE contracting officer, while trying to meet objectives of subcontracting goals, issues a contract that -- that's against the Collective Bargaining Agreement by displacing bargaining

unit workers. These kind of actions are why the Council need a communication forum within Washington between DOE, NNSA and the MTD.

Thank you. This concludes my statement.

CHAIRMAN WINOKUR: Thank you for your comments. And if you have anything written, please enter it into the record.

Our next speaker is Mr. Charles Thomas.

MR. THOMAS: Good evening, Mr. Chairman, Members of the Board. For the record, my name is Charles Thomas, II. I'm the new elected vice-president of the Metal Trades Council of Amarillo and vicinity AFL-CIO. The Metal Trades Council represents the 10 affiliates along with the rank and file members, and we all fully embrace any and all safety initiatives of the NNSA, DOE, DOE contractors at the Pantex Plant.

In my testimony I would like to talk about the plant's nuclear safety culture. I've been the vice-president for approximately ten weeks, and I would like to give my testimony from a shop floor perspective.

Here at Pantex we perceive ourselves to be a family, whether we come from the Metal Trades Council, the Pantex Guard Union or from the rank and files of the exempt or the non-exempt. All of the differing groups have family members working throughout the different

entities at Pantex.

We Pantexans work far from our homes, and the Pantex Plant is fully self-sustained. The emphasis of the Pantex family is exemplified in the independent oversight assessment of the nuclear safety culture at the Pantex Plant, and I quote, "The success and the strength of the Pantex Plant lies in the employees' individual patriotic commitment to the mission of the organization. To succeed in this mission, employees want to do the best job they can do and will do whatever they can to seek approval from the customer of their efforts." This resonates throughout the Pantex family, through all the differing entities and is the biggest factor why we do so well at working together.

Many of the cultural changes that need to take place are going to be long-term goals that can only be reached from a long-term commitment between all of these groups. In the interim we need to change the climate. Realizing that, and I quote from the Amarillo independent news, "Pantex has not been successful at understanding behaviors necessary for a healthy safety culture," end of the quote. It is only working together to remove all the barriers between the entities that we can achieve the desired goals.

The Metal Trades Council believe the

general manager at the Pantex Plant is committed to a nuclear safety culture and has laid the path forward for us. Utilizing the safety-conscious work Environment, the general manager has trained senior managers, along with the Metal Trades Council officials. Once this training reaches all the Pantexans, we will be able to start a family to regain the respect and the trust of the whole plant population to remove this implied sense of cronyism, perception that retaliation exists for 'rocking the boat', and the perceived environment where raising questions or identification of a problem is not necessarily an accepted way of doing business. And I reference that out of the HSS survey.

We are in a watchful stage in our effort to achieve the nuclear safety culture. While the training stage works its way through the plant, workers are still experiencing the pitfalls. As leaders, we must push ourselves to a higher level on the ladder so we can act as models for all Pantexans to adopt. We must be in the forefront in identifying shortfalls so we can advance in a work environment that endorses trust. We need to be vigilant in our pursuit of a workplace where all workers are free to raise issues, talk openly of safety concerns, and are comfortable at having a questioning attitude.

As part of the Pantex family, the Metal

Trades Council, our affiliates, the rank and file members are committed to changing the climate. We know that our nuclear safety culture is serious responsibility. We fully understand that this change of climate may be just one step at a time. Recognizing Pantexans' strength and their deep patriotic commitment with a persistent nature, any objective can be met.

The Metal Trades Council, along with the metal trades department and leadership encourages all affiliates to draw on our strengths and to be committed to a nuclear safety culture as we Pantexans move forward.

I would like to thank the Defense Nuclear Safety Board for the opportunity to testify, and that concludes my statement.

CHAIRMAN WINOKUR: Thank you, Mr. Thomas.

Jason Harrison?

MR. MOLBERG: Sir, I believe I'm on that list also, Gary Molberg. I'm President, CEO Amarillo Chamber of Commerce, and Mr. Harrison works for the Chamber, so I'll speak on behalf of both of us.

CHAIRMAN WINOKUR: Okay.

MR. MOLBERG: First off, welcome each of you to Amarillo. I hope you enjoy your stay, and I hope you get out and enjoy our beautiful weather we have today and notice no wind.

But on behalf of the Chamber and the entire city, Pantex is such a vital part of our community. It employs over 3,000 people. But it doesn't just employ 3,000 people. They employ 3,000 people that are truly active in our community. They get involved in our United Way campaigns. They get involved with non-profits, and many of them have served on committees, and even my past Chair of my Chamber of Commerce.

They are a vital link. They are very much appreciated in our community. We think highly of them. We know their safety record is impeccable, and we're so happy they are here in Amarillo, Texas.

Enjoy your stay, and I hope you enjoy Amarillo.

CHAIRMAN WINOKUR: Thank you, sir. Are you suggesting the weather isn't as nice in Washington, DC?

MR. MOLBERG: No, sir. I've been there. It does get cold, though. I think it gets colder than it does here.

CHAIRMAN WINOKUR: Thank you.

MR. MOLBERG: Thank, you, sir.

CHAIRMAN WINOKUR: Kay Peck? Kay Peck? Alright. Or I'll come back to Ms. Peck a little bit later.

Richard David? Richard David? Okay.

We'll try again later.

Frank George, Junior? Okay.

Scott Kovac?

Oh, excuse me. Is this Mr. George?

MR. GEORGE: I'm making my way up here, sir.

CHAIRMAN WINOKUR: All right. Thank you.

MR. GEORGE: I am Frank George, Junior. I appreciate the opportunity to talk to you gentlemen today. I appreciate the Board being here and making inquiries.

I'll tell you up front that I am an employee at the Pantex Plant, but that's not the reason I'm at this microphone. I'm at the microphone because I'm a concerned member of the public, number one. And I just want to give you a very quick history, and I know we've got time of the essence here.

I've been at Pantex this year will be 31 years. When I first hired on at Pantex in 1982, I was down on the line disassembling bombs and warheads and assembling bombs and warheads. Okay?

I want to be very clear with you and to any member of our community. This is not an issue about Pantex ever being unsafe. I'll take you all the way back to the mass production days. We were safe and we were clicking units out the door as fast as we could.

We've heard a lot of talk today about the pride in our workforce. It is a national security mission. We've understood that from day one. It's very present today.

More about my career, and it's important you understand this. I started on the line. I became an MTC union safety rep. One of my biggest accomplishments in my heart was the fact that I led the Metal Trades Council Union for approximately eight years. I partnered with management at the time. My goal in life then; my goal in life today is the success of the Pantex Plant. That comes in many shapes, forms and fashions. It can be safety; it can be security; it can be quality. It can be whatever it takes to make that plant successful and to do it safely and to protect the community.

We are able to have this public hearing today and be comfortable sitting in this room because whether it's nuclear explosive safety, whether it's nuclear safety, whether it's explosive safety, whether it's security safety, or the technology that our security force uses, or whether it's plant-wide industrial safety, we put it in the hands of those workers every day, and in Frank's opinion, we're doing an outstanding job.

So I want to be clear about a couple of things. This, to me, is not an issue -- and, again,

Frank's opinion, because safety culture is hard to identify; it's hard to interpret. We've heard a lot of good comments today. I'm telling you from my heart, this is not an issue of safety culture. The Pantex workforce knows we can stop work at any given moment, and we exercise that daily.

This is not an issue of safety culture. We've always been safe. Will we continue to be safe? Yes. Will we learn from safety and continue to improve? Yes.

Here's just a few things we've done since the mass production days.

Conduct of operations. Nuclear Navy experts infiltrated our plant early 1990s. And I use the word infiltrated on purpose. Very good people. Pantex Plant is a better place today because we have nuke Navy expertise residing in that plant.

SS-21, I was the department manager over weapons training when we brought the B61 process up on SS-21. Not only was this weapon safety, this was ergonomic safety in the form of tooling so that we kept our people safe and we kept the weapons safe. We spent two years. I had a dedicated training specialist that brought the 61 program up on SS-21.

Behavior based safety. BWXT brought that

to Pantex. We're out observing our people working. We track the actions.

Human performance improvement. We have a program there.

HRO you've heard enough about.

The CFA process I don't think was given enough credit, because we take information-rich events, and we analyze them until they can't be analyzed anymore, and then we go fix things.

The DPO process, I'll talk to you in a second about that.

The ISM program, Integrated Safety Management and the Federal Rule 10 CFR 851.

Those are just a few. I'm certainly not going to list them all.

Now, here is probably the thing that I want to leave you with. I'm fairly passionate about my job at Pantex. I appreciate my job. My dad was in the Navy. Not nuke Navy, regular Navy. My dad is no longer with me. This is my chance to serve my country.

And I'm sorry when I said gentlemen earlier, I missed you. You know that I mean you, too. Okay.

What I want to leave you folks with is that I will die trying to improve safety at Pantex. And one of

my greatest accomplishments is where I sit right now as the Program Manager for 10 CFR 851, Integrated Safety Management and the Differing Professional Opinions Process at Pantex. I will die making sure Pantex is safe. Thank you for being here.

CHAIRMAN WINOKUR: Thank you, Mr. George.

Mr. Kovac, Scott Kovac?

MR. KOVAC: Good morning, Chairman -- or good afternoon, Chairman, and Members of the Board. My name is Scott Kovac with Nuclear Watch New Mexico. We have long been following the interactions between the NNSA and contractors of the nuclear weapons complex.

I have a suggestion to help send a safety message culture to -- I have a message to help send the safety culture message to the nuclear weapons contractors. That's the FY-2013 Pantex Performance Evaluation Plan signed August 20 -- August 2012.

This plan evaluates how they -- how much of the potential 40 million plus in awards fee that Pantex will receive for 2013. If we look at that -- if we look at the FY-13 Pantex Performance Evaluation Plan for -- first off, it's only nine pages, very subjective. You know, it lists five performance objectives -- five performance objectives: Nuclear weapons mission, national security mission, science technology and engineering

mission, security infrastructure, environment stewardship, institutional management and, number 5, contractor leadership. Nowhere in there is safety culture mentioned. If, in fact, safety culture is a priority, it should be mentioned somewhere in here.

In this nine-page subjective measure on -- you know, on how -- on how Pantex is -- you know, on what Pantex is supposed to do for 2013, safety culture is not mentioned. I would suggest that more metrics and more objective measures be put into future performance evaluation plans.

Then I ask how many times has NNSA or a contractor proposed a plan as a solution to a problem? A corrective action plan is not a fix. We need exact measures. We need to stick to these plans. It just happens so many times to where the plans start, and they do not get followed through on.

I also want to know -- I would like to know what happens if new operations -- you know, all of this safety culture is important, because Pantex is approaching the 20,000 pit limit and new operations may be added to Pantex. And also I would like to know what happens if the MOX fuel program is canceled or scaled back, which is the program to also eliminate some of the plutonium at Pantex.

Thank you.

CHAIRMAN WINOKUR: Thank you, Mr. Novac [Kovac].

Allen Finegold?

MR. FINEGOLD: Hi. I thought I was just going to have a nice quiet day listening to you folks, and believe me I'm glad you're here. Your presentation was the most thorough that I have ever heard from a group concerned with the Pantex Plant.

I believe that it is the first time in about 22 1/2 years where we have had an airing of the idea of the safety culture at Pantex and the necessity of improving it.

I heard Mr. George say that the plant has always been safe or words to that effect. Perhaps because he didn't begin working there until 1981, he is unaware that the plant was at various times very unsafe.

Particularly in 1977 in the incident that one of you referred to, there was an accident with a high explosive that resulted in three deaths. There was a court case examining that, and at the time the federal government essentially refused to take responsibility for the results of that accident.

Now, I will say, since that time there have been vast improvements in the plant. However, as late as 1989, the federal government sent in a team of experts to

evaluate plant safety. This was under the general supervision of, I believe, the Secretary of the Energy or a deputy of his at the time, Mr. James Watkins. The team was designated the Tiger Team, and they found 105 significant violations, OSHA violations, not minor ones, ones that should have been sufficient to have shut down the plant, collectively, but these were ignored by the staff at the time.

Now, of course you recall that era. It was the tail-end of the cold war and production was maximized for five or six years previous to that, so it is not surprising that so many problems developed.

In response to this, Pantex management promised to improve safety at the plant, which they did. But I think we should take note that the mission afterwards changed primarily from one of production of assembly of weapons to disassembly of weapons. And that change in the mission is of great significance and should not be ignored.

I'm glad to say that the plant did excellent work in the next ten years, in terms of assembly and primarily disassembly. But we are now at kind of a plateau where the work has slowed down because of certain understandings that have yet to be reached between the United States and Russia concerning how much disassembly

will be done. So at the present time I believe most of the work simply concerns assembly and disassembly to check the reliability of the stockpile.

We are, therefore, at a pause where we could consider significant changes in the facility, and I would recommend the following: That you pay very close attention to the relationship between the actual physical site where the work is done and the work that has to be done. Presently we have a situation somewhat similar to the following. You have a large number of well-trained mechanics being supervised by engineers to work on the equivalent of a 60-year-old vehicle. That essentially is your present physical plant. You need to create a new physical plant. You need to build one specifically for assembly and disassembly and not simply try to modify a plant that was originally designed primarily to facilitate the production of weaponry.

This is not to say you should not make whatever use you can of the present plant. It is to say you need to build a new one, at least a new facility for assembly and disassembly.

I recommend that you build it on the grounds of the old Air Force Base which is closer to the city, closer to most of your employees, and certainly closer to the critical transportation that is required to

facilitate the movement of the weapons to and from the facility where they are assembled and disassembled. I can hardly emphasize to you too much the importance of proximity in terms of the transport of those weapons.

I will leave you simply with that recommendation, but if any of you are interested as to the particulars of why I advocate a creation of a new assembly and at that particular location, I'd be glad to enter into a conversation with you.

Thank you.

CHAIRMAN WINOKUR: Thank you, Mr. Finegold.

I want to check again whether Kay Peck is present. And I want to check whether Richard David is present. Not seeing them, is there anybody else in the audience who would like to make remarks to the Board at this time? If not, thank you.

At this time the Chair calls a recess of this public meeting and hearing. We will reconvene here at 6:30 p.m.

(Recess.)

CHAIRMAN WINOKUR: Good evening. Please take your seats. We will now resume this public meeting and hearing.

My name is Peter Winokur, and I am the Chairman of the Defense Nuclear Facilities Safety Board.

I'll 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 her right is Mr. Sean Sullivan. To my immediate left is Dr. John Mansfield. Next to him is Mr. Joseph Bader. We five constitute the Board.

The Board's General Counsel, Mr. David Jonas, is seated to my far left. The Board's Acting Technical Director, Mr. Steven Stokes, is seated to my far right.

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

Today's meeting and hearing was publicly noticed in the Federal Register on January 22nd and February 19th, 2013. The meeting and hearing are held open to the public per the provisions of the Government and 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 web site for at least 60 days.

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

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 contacted us or, if possible, when they wish to speak. I will call the speakers in this order and ask that the 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

Chairman 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.

The record of this proceeding will remain open until April 15, 2013.

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.

I would now like to discuss why the Board chose to hold a public meeting and hearing concerning safety at the Pantex Plant. The Board's statutory charter is to advise the Secretary of Energy regarding actions that may be necessary to ensure adequate protection of the public health and safety, including safety of the workers.

Pantex is a unique site where workers perform nuclear explosive operations to assemble, disassemble, dismantle, and conduct surveillances on nuclear weapons. These activities must be performed with

the utmost regard for safety because the consequences of failure could include release of radiological material to the environment or inadvertent nuclear detonation.

The Board identified three topics for today's meeting and hearing that are crucial to maintaining the highest levels of safety at Pantex. The first topic discussed in this afternoon's session was the safety culture at Pantex. Two additional topics will be considered in this session: Site emergency preparedness and response and the state of key safety programs and aging infrastructure of defense nuclear facilities of Pantex.

Following the events at the Fukushima Daiichi reactor complex, the Secretary of Energy directed several initiatives to analyze and assess preparedness for severe events in the nuclear weapons complex. Pantex managers responded to these Secretarial initiatives and have plans to make improvements to their capability to respond to severe events. These events include natural phenomenon such as tornadoes, earthquakes, wildland fires and flooding.

Of continued interest to the Board are the preparations for response to both natural events and operational accidents whose impacts cascade in consequence, affect multiple facilities, or are beyond the

design basis of the facilities.

In the past year, the Board has reviewed emergency preparedness and response at the Pantex Plant, observed drills and exercises and assessed programmatic activities. This evening's panel discussion will serve as an opportunity to inform the community about the capabilities at the Pantex Plant to respond to these emergency events.

During today's final topic, we will discuss the safety of nuclear explosive operations at the Pantex Plant. The safety of nuclear explosive operations is the most important responsibility in support of the nuclear weapon stockpile.

The mission of the nuclear explosive safety program is to prevent a main charge high explosive detonation or an unintended nuclear detonation. As might be expected, any degradation of the rigor associated with the nuclear explosive safety program would be of great concern to the Board. Twice in the past 18 months the Board communicated to DOE specific concerns about the program, once regarding the handling of nuclear explosive safety findings and once regarding operations exceeding the boundaries of the approved Safety Basis.

Recently the Board has noted troubling trends with nuclear explosive safety studies not being

renewed within the specified five-year periodicity and the lack of certified nuclear explosive safety experts to conduct studies as required.

The Board believes it is vital that the National Nuclear Security Administration manages this program carefully and conservatively while taking full advantage of technical experts that provide an independent and knowledgeable perspective.

The Board is also concerned about safety systems at Pantex that are aging or require upgrades to meet modern safety requirements. The fire protection systems, including the fire water supply and fire detection systems require continuous maintenance and will ultimately need replacement.

While NNSA has taken steps to replace portions of aging fire protection systems at Pantex, replacements of other fire protection systems and components is yet to be done. In the last few years, there have been more than 20 failures in water lines leading to nuclear facilities. Additionally, there have been occasions when the fire suppression system has been inoperable during the conduct of nuclear explosive operations. National Nuclear Security Administration managers face the added challenge that the fire protection systems are being upgraded on a schedule that extends at

least ten years.

Finally, we will discuss other important safety systems at Pantex that must be repaired or upgraded in the near future to permit nuclear explosive operations to be conducted safely. For example, seismic upgrades to the Pantex nuclear explosive bays and cells have been ongoing for several years and have a scheduled completion date of 2021. The Board will explore how detailed scheduling of these important systems impact safety.

This concludes my opening remarks. I will now turn to the Board Members for their opening remarks.

Ms. Roberson?

VICE CHAIRMAN ROBERSON: No, thank you, Mr. Chairman.

CHAIRMAN WINOKUR: Dr. Mansfield?

DR. MANSFIELD: No comment.

CHAIRMAN WINOKUR: Mr. Bader?

MR. BADER: Nothing at this time, thank you.

CHAIRMAN WINOKUR: Mr. Sullivan?

MR. SULLIVAN: Nothing at this time.

CHAIRMAN WINOKUR: This concludes the Board's opening remarks for this session. At this time, I would like to invite the first panel of witnesses for this session this evening from the NNSA and B&W Pantex to take

their seats as I introduce them for the topic of this panel, Emergency Preparedness and Response at Pantex.

They are Mr. Steven Erhart, Manager of the NNSA Production Office; Mr. John Woolery, B&W Pantex General Manager; and Mr. Alonzo Campbell, B&W Pantex Emergency Management Department Manager.

The Board will either direct questions 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 Chairman 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 of this hearing at a later time. Does anyone on the panel wish to submit written testimony at this time?

MR. WOOLERY: No, Mr. Chairman.

MR. ERHART: No, sir.

MR. CAMPBELL: No, sir.

CHAIRMAN WINOKUR: Seeing none, I would like to thank each of you for your testimonies today. With that, we will continue with questions from the Board Members to the full panel. Mr. Sullivan will begin the questioning.

MR. SULLIVAN: Thank you, Mr. Chairman. Mr. Woolery, last July here at the Pantex Plant, there was

a site-wide drill simulating a response to an earthquake, and I've seen two after action reports, one that was dated last August and another one that was dated here in January of 2013. The first one said that the event was highly successful, and the second one said the response was marginal. Would you please explain what happened there, why there are two after action reports?

MR. WOOLERY: Yes, Mr. Sullivan. The exercise that you are referring to in preparation for the exercise the Pantex -- at B&W Pantex, the contractor at the plant prepared some specific objectives that we were measuring our performance against during the exercise, and we did not do a good job of coordinating with our counterparts at the site office to make sure that we walked through those objectives, and there was a clear understanding between both parties as to everything that we were going to look at and evaluate.

We ended up evaluating a limited set of objectives as a contractor, and as we prepared that and submitted it to our counterparts at the site office, they identified some additional objectives that we should have been looking at and, in fact, did not do quite as well in, and as a result, our overall performance was assessed as being marginal as opposed to excellent.

And that's something that I've worked with

Mr. Campbell on and I've discussed with Mr. Erhart. And our responsibility is to make sure we do a better job of communicating and collaborating with our counterparts in preparation for the drills so it's very clear what it is that we're going to look at and how we are going to assess our performance.

MR. SULLIVAN: Okay. Well, marginal sounds like there's plenty of room for improvement, just by nature of the term. So if that's correct, what are some of the areas that need improvement?

MR. WOOLERY: Do you have examples?

MR. CAMPBELL: Yes. Yes, sir. I was responsible for submitting that report. The thing that Mr. Woolery just spoke of was one of the issues that I didn't get the proper coordination with the site office before officially submitting the report, and after they read the report, we incorporated those comments.

In addition to that, the grading scheme that we initially had was somewhat subjective, so we looked at that scheme. We adopted a more -- a better way of grading our exercises, a better way to quantify the results. We looked at the Y-12 Plant and the way that they did it. We adopted their grading scheme, and so when we added those objectives, plus we adopted the new grading scheme, it brought the score way down.

In particular, some of the things that we did not take a look at that site office wanted us to go back and review were having the emergency action levels to cover such things as floods. When we initially submitted that and we initially went through that exercise, that was not in place, so that was one of the things that they wanted us to do.

MR. SULLIVAN: So was there a simulated flooding in this drill? I'm confused.

MR. CAMPBELL: No, sir. There were two; there were floods and earthquakes, so -- I meant to say. So that was the concern, that we didn't have the action levels for earthquakes in there, and we also needed to add floods, so it was adding some action levels for a spectrum of severe events.

MR. SULLIVAN: All right. But on the actual exercise, people ran around and responded to the simulated casualty. Was your performance, in fact, marginal? Were there things that needed to be done better by the people who were responding to the simulated casualty? That's what I'm trying to get to.

MR. CAMPBELL: Yes, sir. Yes, sir. Most of the additional actions or needs that we identified was in the area of communication, making sure that the communication between the event scene and the folks back

at the emergency op center, making sure that we had the correct communication.

We did have some gaps in communication when we were trying to assess the number of casualties that we were simulating, the status of those folks, whether they were on site or whether they had actually been transported to the medical facilities. We had a couple of times where those numbers didn't match. So there were various areas of communication that were the primary reasons -- well, constituted most of the things that we needed to go back and look at.

MR. SULLIVAN: Okay. That sounds to me like command and control. Is that what you're talking about?

MR. CAMPBELL: Yes, sir. Yes, sir, that was exactly it.

MR. SULLIVAN: All right. Now, since the second report was just dated in January, relatively recently for an exercise that happened last July, have we fixed the things that were wrong? Have we upgraded yet?

MR. CAMPBELL: Yes, sir. There were several corrective actions that were identified. All of those corrective actions were completed. There were additional corrective actions that had come from other limited scope drills that we had done that were related to

that, and some of those corrective actions are still in process.

MR. SULLIVAN: All right. And when is the next exercise going to be run?

MR. CAMPBELL: I believe it's June, sir.

MR. SULLIVAN: All right. Thank you.

Thank you, Mr. Chairman.

CHAIRMAN WINOKUR: Let me just add before I turn it over to Mr. Bader. Can you be a little more specific about the exercise itself? What were the -- what was the scenario you were dealing with?

MR. CAMPBELL: It was an earthquake that resulted in a chemical release.

CHAIRMAN WINOKUR: How would you rate that in terms of some of the more challenging events that the site might actually face?

MR. CAMPBELL: That was one of our more challenging exercises. We were attempting to address some of the severe event scenarios, so when we had the simulation of an earthquake that resulted in the actual collapse of a building and dealing with that and the added release of chemicals and dealing with that issue, we were trying to also address the issue of cascading events, so it made it one of our more complicated exercises.

CHAIRMAN WINOKUR: Did the release -- did

the collapse lead to the release of radiological materials?

MR. CAMPBELL: No, sir. I think it was just chemical.

CHAIRMAN WINOKUR: Now, that would have been a little more challenging, do you think?

MR. CAMPBELL: Yes, sir. Yes, sir.

CHAIRMAN WINOKUR: Okay. Mr. Bader?

MR. BADER: Mr. Erhart, what was the NNSA production office's involvement in the 2012 full participation exercises assessment?

MR. ERHART: So as Mr. Woolery pointed out, the exercises are run by the B&W, the exercise plan -- schedule and plans approved by the NPO, and then the conduct and performance of the exercise monitored by my staff. That's how that works.

And then as he also said, we then received the self assessment. And as he pointed out, we had a difference of opinion in the overall rating of the performance of the exercise. And so that's our input documented. They responded to our input, and I think the response more accurately reflects what -- what we would say would be the correct grade for that exercise.

MR. BADER: Do you get involved in the early discussions setting what is the scope of the

accident that's being studied, the length of it, its term, things like that?

MR. ERHART: Well, we interface with the contractor on the schedule and the type of exercises that will be done annually, and in part of that, we talk about the types of scenarios to use to push the envelope of our responses, and that's the purpose of the exercise, to ensure that we find the places of weakness and shore them up in the event of a real accident, that we're ready to respond.

In this case, this particular event was very challenging. It was in response to Secretary Chu's and through HSS pushing for more exercises and understanding your capabilities for beyond design basis events, having a cascading event and one that involves multiple facilities designed to stress the command and control, the communications and the ability to respond, and I think it was a very challenging exercise.

MR. BADER: What do you believe led to the initial differing contractor evaluation from yours?

MR. ERHART: I think it says, as B&W pointed out, there was a difference of opinion on what the objectives were for the exercise. I think they highlighted some objectives to review, but there's basic objectives that we feel should always be looked at during

the course of the exercise. That was the area of disagreement. And when you went back and looked at some of those issues, they did have some problems in those areas which were reflected in their report back to us.

MR. BADER: To me, the results of assessments are an important source of feedback for the sites' responders, and part of this is the critique, after action critique, and that can lead -- if that is not correct, it can lead to incomplete corrective actions and insufficient training.

Do you place significant -- do you have a significant concern on the type of weakness shown within this Safety Management Program?

MR. ERHART: Are you asking about my concerns on the performance of this particular exercise?

MR. BADER: Yeah, exactly. Yeah.

MR. ERHART: One concern that we continue to express is the repeat -- anything that's a repeat finding. So if there are issues with command and control or how information is relayed from the incident commander, for instance, that is repeat, we will point that out. That's an area of frustration.

In this case, I think the issues were -- were more communication within the EOC itself, the Emergency Op Center, making full utilization of the assets

that they had available, reaching out and activating those, some of command and control like we talked about. So those are my main issues with the exercise.

MR. BADER: That's now twice, two exercises in a row there have been issues with command and control.

MR. ERHART: I'm not -- well, that's not what I meant say. I said if -- you asked what would be of concern. I think we see -- I'm not sure there were two in a row, but I have seen issues with command and control on exercises in the past. That's...

MR. BADER: I'm taking that from having read the two reports.

MR. ERHART: Okay. That's fair.

MR. BADER: What actions -- are you comfortable with the actions that are being taken and presumably will be taken in the next scenario to demonstrate that this is now being adequately addressed and the training is appropriate?

MR. ERHART: Well, I think as Mr. Campbell pointed out, I think what's necessary and is being pursued here is looking at other things to be learned from other sites. It just so happens I happen to have another site that performs pretty well in emergency management, has actually some tools, I think Mr. Campbell will tell you is already being adopted. So using Y-12 as a benchmark is a

good idea, is being encouraged by the NPO that they look at that.

So I think if we do those things and learn from our -- learn from the deficiencies that we find in doing the exercises, I think we will improve the program.

MR. BADER: Mr. Campbell?

MR. CAMPBELL: Yes, sir.

MR. BADER: What was the termination point of the last two exercises?

MR. CAMPBELL: It was at the point where we would have made the decision to evacuate the plant. Once we did an accountability and then the decision was made that we needed to get non-essential personnel offsite, that's where we stopped the exercise.

MR. BADER: Mr. Erhart and Mr. Campbell, Mr. Woolery, the whole panel?

MR. CAMPBELL: Yes, sir.

MR. BADER: Are you considering another exercise where you look at triage after the event has terminated and then recovery?

MR. CAMPBELL: Yes, sir. Our current plans are for one of the scenarios that we want to run for the rest of the year is to pick up exactly where the previous exercise left off. That was something that we had not done routinely previously, but when we picked that

scenario and we laid out that plan, it was with the intent to do the first exercise up to that point and then for a later exercise to pick up at that point and go all the way to recovery.

MR. BADER: Thank you.

MR. CAMPBELL: Yes, sir.

CHAIRMAN WINOKUR: Dr. Mansfield?

DR. MANSFIELD: Thank you, Mr. Chairman.

Mr. Campbell, was the July exercise, July 2012 exercise, a full deployment field exercise? I mean, did you actually put fire trucks out? Did you actually put people in uniform out there and move them around?

MR. CAMPBELL: Yes, sir. Yes, sir, we did.

DR. MANSFIELD: So it was truly an exercise of all your people and all your equipment that you used to --

MR. CAMPBELL: Yes, sir. Yes, sir.

DR. MANSFIELD: Is it your conclusion that B&W is appropriately staffed for the range of emergency response and recovery operations you'll have to do?

MR. CAMPBELL: Yes, sir, we are. In addition to the primary emergency management personnel, we do have the Emergency Response Organization that are staffed to primary, secondary and tertiary levels, so at

any point in time that we have a full group, a full complement of ERO volunteers ready to come in, there's two more sets that are on standby.

DR. MANSFIELD: And some questions about your staff. I'm sure that you ensure that they have adequate levels of knowledge and experience and expertise, but what about retention? Can you keep people with your emergency response organization for considerable parts of their career?

MR. CAMPBELL: Yes, sir, we believe we can. We have several folks which comprise the core of the Emergency Management Team that are emergency management professionals that we brought in, and that's what they do. We also complemented that team with other folks from across the site. So there are some positions where we on purpose bring people in, teach them the emergency management philosophies and protocols and groom them, if you will, in emergency management and intentionally deploy them to other places in the site that they will be responsible for operations and those type things.

DR. MANSFIELD: And these would be the management people?

MR. CAMPBELL: Yes, sir. Yes, sir.

DR. MANSFIELD: Okay. And are they -- do you get them fully qualified?

MR. CAMPBELL: Yes, sir.

MR. MANSFIELD: And how long does it take to get emergency management --

MR. CAMPBELL: I would say approximately six months or so. Many of the courses are dependent on availability. Some of them are self-study type courses for the Incident Command System. The National Incident Management System, we have a series of courses in each one of those that we send each person to, and that's in addition to any of their position-specific training, such as if they were going to be a RAD responder, they need some level of radiation safety training. If they are going to be an incident commander, they need that specific training. So approximately six months, sir.

DR. MANSFIELD: And you don't have any concerns about stability of your management organization below you? I don't mean the actual responders, but the team leaders and that sort of thing? They stay with you long enough that you don't have to worry about the workforce losing confidence in the team leaders and things like that?

MR. CAMPBELL: No, sir, I don't have any issues.

MR. MANSFIELD: Okay. Is this a career path for anybody but the people that you mentioned at

first that were -- that are permanent emergency management personnel? Do you expect people to move away? Is this part -- is this part of an executive development program for --

MR. CAMPBELL: We do expect people to move on. We just had recently one of our Section Managers in Emergency Management who was just promoted to go to the next level of management, which is Department Manager, and he will be running the Radiation Safety Department. So having him being in Emergency Management for a couple of years and learning that process and now going on to another part of the business which we heavily rely on those responders is extremely helpful for us.

DR. MANSFIELD: Okay. If you had any concerns about the adequacy of the people that you get and the amount of time you have to retain them and how qualified you can manage to get them, is there any issue about making that very visible to management?

MR. CAMPBELL: No issue at all, sir.

MR. WOOLERY: I'm personally involved in staffing analysis reviews with Mr. Campbell and Mr. Baumgardner, who is the division manager, and although we've attritted approximately 300 people since October 1st of 2011, we're focused on safety and security as far as approval of backfills and the critical skills that are

necessary there. But I would have a personal involvement in reviewing Alonza's Staffing Analysis, his requests for resources, and I'm confident that safety and security are our first priorities, and I'll ask some hard questions, but we're going to adequately resource those areas of the plant.

DR. MANSFIELD: Okay. That's all I have, Mr. Chairman.

CHAIRMAN WINOKUR: Well, I mentioned in my testimony that there was obviously a terrible accident in Japan, and as a result of that, the Secretary of Energy wrote a safety bulletin in March, and he asked each site to look at whether they could respond to severe events or what we call beyond design basis events, meaning events that you haven't initially planned for; they are beyond the sets of controls you put in place to handle the hazards in facilities.

And the Secretary, I think, was looking for a gap analysis to understand, you know, how those severe events might impact the plant and where you were, and what your ability was to respond to those. And you had to respond as a site to that -- I'll ask you, Mr. Woolery -- and you considered two events. What were those two events you considered when you looked at severe events?

MR. WOOLERY: I believe it was an F5

tornado followed by a wildland fire.

MR. CAMPBELL: That was the top two.

CHAIRMAN WINOKUR: Well, I may not understand, but I'm looking at the response, and it looks to me like it was a seismic event and tornado high winds. Did I misunderstand that?

MR. CAMPBELL: That's included, as well, sir. What we did is we looked at what we considered was at least a spectrum of events. We updated our hazard analysis, our hazard assessment. We included a chapter on severe events. We looked at the spectrum of severe events, and we paired them by those that were -- that we believed that we would have to deal with from a cascading perspective where we had one that initiated the other or ones that were liable to happen simultaneously.

We made a list of those. The tornado and wildland fire was the one that made the top of the list, but we also had earthquake, flood and several other things that were paired together that we recognized we need to start developing drills and exercises on for those specific events.

CHAIRMAN WINOKUR: So I just looked at the documentation and didn't understand. So when you responded to the Secretary, those were all the beyond design basis of severe events you looked at?

MR. CAMPBELL: Yes, sir. We looked at more than I just mentioned.

CHAIRMAN WINOKUR: Okay. Okay. I didn't realize that. Okay.

MR. CAMPBELL: Yes, sir.

CHAIRMAN WINOKUR: Because I was concerned you might not have looked at flooding, even though you had had a flooding event. But you did look at flooding?

MR. CAMPBELL: Yes, sir. We did.

CHAIRMAN WINOKUR: Okay. Now, one of the things that makes Pantex, in my opinion, very unique is that, let's face it, you've got operational accidents here that really outweigh almost any natural phenomenon event, right? We talked about it quite a bit today, high explosive violent reactions and inadvertent nuclear detonation. Were those considered as part of the beyond design basis events in the response to the Secretary?

MR. CAMPBELL: For the HEVR (High Explosive Violent Reaction) piece, yes, sir, we did. We -- previous to that direction, we had included in previous drills how we would respond to HEVR events, high explosive violent reaction events.

CHAIRMAN WINOKUR: Oh, I didn't know that. So you have, you've done some planning for high -- can you give me a sense of how you -- what you learned from that

event? I mean, are we talking about an explosion and a spread of radiological material?

MR. CAMPBELL: Yes, sir. Yes, sir. We've done several scenarios where we did just that. One of the things in one of the previous drills that was pretty recent that we did is we had a chemical release that prompted the emergency response organization to activate, and we were responding to that, and while that response was ongoing in the simulation, we also had an explosion that we had to respond to.

And the lessons that we got out of that was that we need to be able to respond to simultaneous events, and in that scenario we had the explosion in the simulation take out some of the first responders that we sent in, so we took them out.

CHAIRMAN WINOKUR: So you've actually considered scenarios here with high explosive violent reactions, right?

MR. CAMPBELL: Yes, sir.

CHAIRMAN WINOKUR: And how challenging was the radiological portion of that? Your radiological folks that come in control the situation, I mean, did you think they did well on that?

MR. CAMPBELL: I think we did well. I think we learned a lot of lessons from that. We also

learned, not just for ourselves, the coordination that we would have to make with offsite entities so that if we had those situations where -- and in a couple of the scenarios, the situation took us to where we were beyond the fence line with some of the PU modeling, and not only did we have to do some of the radiological assessment, but we had to rely on the State to come in and assist us on that.

CHAIRMAN WINOKUR: Do you feel confident that the offsite responders -- I mean, are they trained to handle the situation of the release of this radiological material? Are you confident they know what they are up against and they can deal with it?

MR. CAMPBELL: Yes, sir.

CHAIRMAN WINOKUR: Okay. So what is the -- what is the worst case operational event you plan for? Do you stop at HEVR, or do you consider anything else?

MR. CAMPBELL: We're looking at -- we have not exercised a drill just yet, but we're also looking at the inadvertent nuclear detonation.

CHAIRMAN WINOKUR: And what keeps you up at night?

MR. CAMPBELL: That, sir.

CHAIRMAN WINOKUR: All right. I mean, you've really got some operational events here that would

cause people to pause, right?

MR. CAMPBELL: Yes, sir.

CHAIRMAN WINOKUR: And I just wanted to make the point that although many sites worry about the natural phenomena hazards, the earthquakes, the tornadoes, the floods, you've got one or two what you call pinnacle events here, you call them, that really are sobering and really require your attention.

MR. CAMPBELL: Yes, sir.

CHAIRMAN WINOKUR: And you're confident?

MR. CAMPBELL: Yes, sir, I am.

CHAIRMAN WINOKUR: Do you need other exercises to get more proficient in this, or do you like where you are right now? I mean, is there room for improvement?

MR. CAMPBELL: There's plenty of room for improvement. We'll use our -- we'll use additional exercises and drills to get better. We know that we have some improvements to make, based on the drills and exercises that we've had. I'm confident that we could respond, but I'm also confident there's still more lessons to be learned as we do more drills and exercises.

CHAIRMAN WINOKUR: Okay. Thank you.

Mr. Bader?

MR. BADER: I'd like to follow up and spend

a little bit of time on the period after the event has happened, the triage or prioritization and the recovery. Could you tell me, either Mr. Woolery or Mr. Campbell --

MR. CAMPBELL: Yes, sir.

MR. BADER: -- how you are training and preparing people to respond to some of these events, in terms of what -- how they should prioritize and in determining how they need to prepare for recovery and execute recovery, particularly with response -- particularly with regard to the support you may need or the notifications you may need to make off the site.

MR. CAMPBELL: Yes, sir. Our prioritization, of course we follow the protocol of first protect human life, then -- which for us is also securing our unique assets, making sure that those assets are secure, stabilizing the event and then protecting the environment.

We've had one sort of a recent exercise where we held recovery discussions with some of our offsite entities, as well as some of the businesses in the local area, and we talked through -- it was a facilitated discussion about what some of the concerns would be that we would need to address.

We also have a recovery team that we train on developing recovery plans and how to execute those

plans and making sure that those things take that priority in perspective.

MR. BADER: Do those recovery teams then work with their counterparts in the state or in the city or county?

MR. CAMPBELL: Yes, sir. Yes, sir.

MR. BADER: And work as an entity to develop their own broader plan?

MR. CAMPBELL: Yes, sir, that's exactly how that would work. That is something that we need to exercise, though.

MR. BADER: And the exercises you talked about before that are going to be held that go into that period of time, that will be held on a broad basis with the state and county and city people?

MR. CAMPBELL: Yes, sir. Yes, sir.

MR. BADER: What are -- are you codifying this training for people like your Incident Commanders and Emergency Directors?

MR. CAMPBELL: Yes, sir. Each person in Emergency Management, as well as our Emergency Response Organization, they have a training curriculum that's assigned to them that's maintained in our plant training process. That's monitored on a monthly basis. We have all of the courses listed that they need, the periodicity

of those courses, and any time a person does not take a course when they are supposed to, if they drop off the list, that will show up on what we call the unqualified list, and that person has to come out of that position until they complete the training.

MR. BADER: Have you already proceeded to the point where you prioritized your facility responses for various situations?

MR. CAMPBELL: Somewhat, sir. Yes, sir, we have. We've looked at and what we plan for is ensuring that our nuclear explosive facilities are stabilized, making sure that our explosive facilities are not affected, and then looking at the other high hazard facilities where we have bulk chemicals and those type situations.

MR. BADER: I'm done. Thank you.

CHAIRMAN WINOKUR: I have one additional question, and I think we may be done with the panel. We started out the questioning talking about an accident which was an earthquake followed by a chemical release, and I think the final scoring on that was marginal, right?

MR. CAMPBELL: Yes, sir.

CHAIRMAN WINOKUR: How did you score on the one with the high explosive violent reaction?

MR. CAMPBELL: I don't recall. I think

that one was good.

CHAIRMAN WINOKUR: Okay. If it had been looked at a little more critically with the same standards and the same kinds of metrics that we later used to rate the one we talked about earlier, do you think it would have been good, or do you think it would have moved into the marginal category?

MR. CAMPBELL: It may have been something different. I know that if we take the grading criteria that we use today and we apply that to any of our past exercises, we will get a more conservative result.

MR. WOOLERY: Okay. Dr. Winokur, we will take that question for an action, and we will reevaluate our performance against the criteria that we're referring to --

CHAIRMAN WINOKUR: Right.

MR. WOOLERY: -- and we'll give you the feedback as far as what our overall --

CHAIRMAN WINOKUR: Right.

MR. WOOLERY: -- rating would be. That's a good question.

CHAIRMAN WINOKUR: Okay. I mean, this is a very challenging accident, right?

MR. CAMPBELL: Yes, sir.

MR. WOOLERY: Yes.

CHAIRMAN WINOKUR: To say the very least. So I think you'll be doing a lot of work on that --

MR. CAMPBELL: Yes, sir.

CHAIRMAN WINOKUR: -- before you can convince yourself you were really in great shape, but okay.

MR. BADER: I have one more question I'd like to have you answer.

CHAIRMAN WINOKUR: All right, Mr. Bader.

MR. BADER: Have you looked at your portable equipment that's required for these cases, including the so-called beyond design basis event and come to -- what conclusion have you come to as to whether you have enough portable generators and stockpiles of fuel?

MR. CAMPBELL: Yes, sir, we have. We have looked at portable equipment. We're not done analyzing that. One of the first things that we tackled was portable communications equipment. We do employ a self-sufficient communication system, that was one of the first things that we made sure that we had, that could operate independent of any other communication system at the plant, and that's a mobile capability, and the intent is to look at other areas like that.

MR. BADER: Thank you.

CHAIRMAN WINOKUR: I'd like to thank this

panel. Thank you, Mr. Erhart, Mr. Woolery, Mr. Campbell.

Now the Board would like to recognize Mr. Ben Laake who is the Board's Headquarter's Engineer responsible for health and safety oversight of defense nuclear facilities at the Pantex Plant. He's going to briefly review the status of safety at Pantex defense nuclear facilities, including nuclear explosive safety, fire suppression systems and facility structures to set the stage for the panel discussion to follow.

Mr. Laake, when you're ready, please proceed with your statement.

MR. LAAKE: Good evening, Mr. Chairman, Members of the Board.

CHAIRMAN WINOKUR: Move that microphone to be --

MR. LAAKE: Yes, sir.

CHAIRMAN WINOKUR: -- a little bit more direct. Thank you.

MR. LAAKE: Is that better? Okay.

CHAIRMAN WINOKUR: Yes.

MR. LAAKE: Good evening, Mr. Chairman, and Members of the Board. For the record, my name is Ben Laake. I'm a member of the Board's technical staff.

In my testimony I will address several issues regarding the nuclear explosive safety program, the

fire protection system and upgrades for the safety class systems at Pantex.

In each of these three areas, the National Nuclear Security Administration, NNSA, has made some initial progress in addressing longstanding safety concerns. The Board's staff believes that NNSA management must be committed to improving the Nuclear Explosive Safety Program and maintaining and upgrading the facilities and structures at Pantex to ensure the continued safety of the nuclear explosive operations.

Pantex workers are responsible for performing nuclear explosive operations to assemble and disassemble nuclear weapons. If an accident were to occur, two of the possible, yet extremely remote, outcomes are an inadvertent nuclear detonation or a high explosive violent reaction. NNSA safety strategy is to prevent either of these severe consequences.

To accomplish this goal, NNSA relies on its Nuclear Explosive Safety Program. This program evaluates every aspect of nuclear explosive operations. For example, before a nuclear explosive safety -- a nuclear explosive operation is conducted, NNSA convenes a Nuclear Explosive Safety Study Group to ensure that every possible accident initiator is properly evaluated and that there is absolute confidence in the established set of controls.

The Nuclear Explosive Safety Study Group carefully reviews every proposed nuclear operation, identifies deficiencies and reports their findings to NNSA management so action can be taken. The study group labels the most serious deficiencies as pre-start findings, meaning they are conditions that, in their opinion, require corrective or mitigative action before operations begin or continue.

The Board has previously issued letters expressing concern with the manner in which NNSA management evaluates and corrects nuclear explosive safety deficiencies. In response to a Board letter dated November 7th, 2011, a report from the Deputy Administrator for Defense Programs stated that, "NNSA continues to emphasize management's commitment to and recognition of the Nuclear Explosive Safety Evaluation Process and the vital role that it plays in ensuring the safety of nuclear explosive operations." An essential part of the nuclear explosive safety evaluation process is NNSA management's actions to correct deficiencies before authorizing operations. However, on numerous studies, NNSA management has disagreed with a study group's judgment and authorized continuation of nuclear explosive operations before deficiencies were addressed.

For example, in 2012, NNSA management

overturned all five pre-start findings identified by a Nuclear Explosive Safety Study. While this action is allowed by NNSA's directives, the Board's staff believes that NNSA management's decision to overturn pre-start findings without providing an adequate technical justification is inconsistent with the Deputy Administrator for Defense Programs' response to the Board's November 7th, 2011 letter. It is contrary to NNSA's longstanding recognition of the vital role that nuclear explosive safety studies play in ensuring the safety of nuclear explosive operations. Further, overturning pre-start findings may well leave Pantex technicians to conclude that the findings and the risks they describe are not really important.

Recently NNSA has taken some positive actions to improve management's role in the Nuclear Explosive Safety Process. For example, on January 30th, of 2013, the Acting Administrator issued a letter that requires NNSA's Associate Administrator for Safety and Health to be informed before pre-start findings are overturned.

The Board's staff believes this is a positive step that must be properly institutionalized within the existing Nuclear Explosive Safety Directives.

NNSA requires ongoing nuclear explosive

operations to be reviewed by a nuclear explosive safety study group at least every five years. This is a prudent requirement because, over time, even with continuous oversight, an accumulation of process deviations and modifications in production techniques can occur. By performing a periodic comprehensive study of the operations, potential nuclear explosive safety deficiencies can be identified and corrected.

During the past six years, eight of nine nuclear explosive safety studies were allowed to go beyond the five-year period before being renewed. To illustrate the safety significance of allowing this to occur, when these eight studies were revalidated through new studies or Operational Safety Reviews, more than 40 deficiencies were identified, including two that required immediate correction.

In January of 2013, NNSA management failed to either conduct a new study or issue an extension for the Pantex Bays and Cells Master Study before it reached its five-year anniversary. This study ensures that all nuclear explosive facilities at Pantex can safely support nuclear explosive operations. In response, B&W Pantex managers made the correct decision and paused all nuclear explosive operations until NNSA acted to correct the situation.

The Board's staff believes that maintaining the currency of Nuclear Explosive Safety Studies is a vital part of nuclear explosives safety. Evidence shows that the process does uncover multiple new deficiencies. Allowing operations to continue for extended periods of time without a comprehensive review is inconsistent with NNSA's existing requirements and a strong nuclear safety culture.

Other potential problems also exist. For example, the Nuclear Explosive Safety Process requires an adequate pool of experienced and qualified personnel. In a January 14th, 2013 letter, the Nuclear Explosive Safety Division Director stated, "The nuclear explosive safety community lacks sufficient certified experts to accomplish the impending surge of studies without compromising the quality of the studies." The Board's staff strongly agrees with this finding and believes that NNSA must complete and implement a comprehensive staffing plan to ensure the continued viability of the Nuclear Explosive Safety Program.

In addition to assurance that nuclear explosive operations are safe, Pantex requires an adequate and well-maintained physical plant that includes reliable engineered safety systems such as the fire protection system. The Pantex fire protection system is an important

safety system that includes the high-pressure fire loop, lead-in piping from the fire loop to each facility, deluge sprinkler systems and fire detection and control panels.

This year B&W Pantex will complete replacement of approximately one-third of the high-pressure fire loop. This is an important start; however, B&W Pantex has yet to finalize their plans to replace other aging components in the fire protection system. Depending upon funding, the completion of replacement and/or upgrades to the fire protection system is expected to take greater than ten years.

The Board's staff is concerned that failing to replace or upgrade the fire protection system in a timely manner will result in widespread inoperability of the system, thereby eroding the safety posture at Pantex. More importantly, the fire suppression system may not be available on demand in the case of an actual fire.

There are also other Pantex safety systems that must be maintained and updated to meet modern requirements. B&W Pantex has begun replacing old hoists with seismically qualified hoists and ceiling mounted equipment in nuclear explosive facilities. However, completion of all seismic upgrades is currently unfunded, so the scheduled 2021 completion date is highly uncertain. Similarly, blast door interlocks for nuclear explosive

facilities are becoming obsolete. Many are no longer supported by the manufacturer and funding has not been identified to support the replacement. NNSA must maintain and update these systems to ensure they will perform their safety function.

To summarize, in Nuclear Explosive Safety, the Fire Protection System and in other safety systems, NNSA has made some progress in addressing longstanding safety concerns. However, the Board's staff believes that NNSA management must take further action to institutionalize the noted improvements in the nuclear explosive safety program. They must maintain and update the safety systems, structures and components at Pantex in order to ensure the continued safety of nuclear explosive operations.

Thank you. Pending questions from the Board, this concludes my testimony.

CHAIRMAN WINOKUR: Do the Board Members have any questions for Mr. Laake?

MR. SULLIVAN: Yes, Mr. Chairman.

Mr. Laake, I heard you testify that -- about NNSA overturning pre-start findings without adequate technical justification. Would you explain what you mean by adequate technical justification.

MR. LAAKE: Thank you, Mr. Sullivan. The

Board's staff believes that an adequate technical justification is one that is developed using the pertinent nuclear explosive information and any additional information that management acquires that is then analyzed using the same criteria used by the Nuclear Explosive Safety Study Groups when they first formulated the safety deficiency. And of course, this justification must be documented to allow an independent review of the information before overturning the finding.

MR. SULLIVAN: So you're just saying that -- you're looking at the same criteria as the experts were looking at when they made the finding; is that correct?

MR. LAAKE: Yes, sir.

MR. SULLIVAN: Okay. Thank you.

CHAIRMAN WINOKUR: Thank you, Mr. Laake.

At this time I would like to invite the next and final panel of witnesses from the National Nuclear Security Administration and B&W Pantex to take their seats as I introduce them for the topic of this panel, Safety at Pantex Defense Nuclear Facilities.

They are Dr. Donald Cook, Deputy Administrator for Defense Programs of the National Nuclear Security Administration. Dr. Don Nichols, the Associate Administrator for Safety and Health and Chief of Defense Nuclear Facilities of the National Nuclear Security

Administration. Mr. Steven Erhart, Manager of the National Nuclear Security Administration Production Office. Mr. John Woolery, General Manager of B&W Pantex. And Mr. Dennis Huddleston, B&W Pantex Projects Division Manager.

The Board will either direct questions 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 Chairman to supplement the answer as necessary. If the panelists would like to take a question for the record, the answer to that question will be entered into the record of this hearing at a later time.

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

Thank you. Seeing none, I would like to thank each of you for your testimonies today. With that, we will continue with questions from the Board Members to the full panel. Ms. Roberson will begin the questioning.

VICE CHAIRMAN ROBERSON: Good evening, gentlemen, and thank you. My first question is for Dr. Cook. The -- Dr. Cook, you are assigned the responsibility for implementing the Nuclear Explosive Safety Program by directive; is that correct?

DR. COOK: That is correct.

VICE CHAIRMAN ROBERSON: Would you describe for us all why this program is important, what the objectives are and, briefly, what are the key elements or attributes of your Nuclear Safety Program?

DR. COOK: I'll attempt a short answer so you can follow up.

VICE CHAIRMAN ROBERSON: Right, okay.

DR. COOK: The core objective of the program is to prevent or drive down to the lowest level possible the probability of the explosive going off or causing any nuclear yield in an assembled or disassembled weapon during operations at Pantex.

VICE CHAIRMAN ROBERSON: Okay. And if you can at a summary level describe the elements of the program, what are the key parts that help you do that?

DR. COOK: Sure. The elements of the program structurally are that the core accountability within defense programs for operating the Nuclear Explosive Studies rest with the Assistant Deputy Administrator for Stockpile Management.

The form of what we do are Nuclear Explosive Safety Studies for operations that have not been done before; in that case, we consider in a formal way by -- with a group that's done, group of experts with a Federal Chair, will review every aspect of those

operations and provide a report.

VICE CHAIRMAN ROBERSON: Okay.

DR. COOK: The report then goes to the ADA for stockpile management and a decision is made after hearing the report, based on the findings of the experts that have come forward on actions that should be taken.

VICE CHAIRMAN ROBERSON: Okay.

DR. COOK: I could go on, but I think I'll let you ask other questions.

VICE CHAIRMAN ROBERSON: Okay. That's good. So the -- yes?

DR. NICHOLS: Just for completeness, can I just add that what Dr. Cook said is exactly right, and those are what people normally think of when we think of the Nuclear Explosive Safety Program. There are also a series of other requirements associated with the program about testers and pieces of equipment and that sort of thing that normally you don't hear people talking about when they talk about NES, but those are also a piece of the program.

VICE CHAIRMAN ROBERSON: Okay. Thank you, sir. Thank you, Mr. Nichols.

So the decision-maker in the process in your organization is delegated to the ADA for stockpile stewardship; is that right?

DR. COOK: That is correct.

VICE CHAIRMAN ROBERSON: So how are you kept informed of the decisions made by your ADA concerning NES reports?

DR. COOK: I'm kept informed in a number of ways. I am told what the findings are and what the conclusions are after a NES study. That happens as well after operational safety reviews.

Just for clarification on the difference, NES study, and the work is done with a group of people, and they look exhaustively at operations and use all data available to them. And in the case of the actual device, it's a trainer.

Operational Safety Reviews are different. They are scheduled when we have ongoing operations, and those operations are observed using actual nuclear weapons during assembly or disassembly.

In addition to hearing the conclusion -- and I have an opportunity to weigh in, so to date, I have provided oversight for the ADA who reports to me. We have agreed to change that within NNSA, and that oversight will now rest with the Associate Administrator for Safety and Health, Dr. Nichols. Again, if you have more questions we can answer that.

Additionally, I meet annually with the

STAs, the Senior Technical Advisors, who participate in our NES studies, and annually I go through and listen to them describe their findings and their recommendations and, additionally, other observations that they may have not written down. But I give them that opportunity annually, and I will take typically an hour or two in doing this.

VICE CHAIRMAN ROBERSON: Okay. Thank you, sir.

Mr. Erhart, what is your role in ensuring that deficiencies identified by the nuclear explosive safety experts are corrected?

MR. ERHART: As Dr. Cook explained, the NES is managed and run out of a different part of the NNSA, so it is separate from the NPO, and it's designed that way. So I am in charge of authorizing operations through the 10 CFR 830 process. I approve the Authorization Basis for the operation, but we cannot operate until such time as we have the NES study completed.

So there's essentially two independent ways of assuring the safety of operation; that's this extra -- this extra layer that we talked about previously that is provided by the nuclear explosive safety study. My role is twofold in the event of an issue that was found that the NES group believes is an urgent -- of urgent concern

on an ongoing program, as Dr. Cook said, they will bring that immediately to me for a decision on whether -- on what to do with that finding.

And then after the NES report is approved, then my staff would ensure through oversight of the contractor that post-start findings -- well, pre-start findings that have to be closed to support a startup and post-start findings that were issued by NA-10 that we would follow up with the contractor to make sure those are closed in a timely manner.

VICE CHAIRMAN ROBERSON: Okay. And has your role changed in taking on your assignment as the manager for NPO versus your role in this relationship at Pantex? Is your role the same, or have you delegated some of those responsibilities?

MR. ERHART: My role is the same --

VICE CHAIRMAN ROBERSON: Your role is the same?

MR. ERHART: -- and I have not delegated those responsibilities.

VICE CHAIRMAN ROBERSON: Okay. Mr. Woolery, how do you become aware of or involved when nuclear explosive safety deficiencies are identified?

MR. WOOLERY: I'm actively involved in the ongoing reviews and pretty much get daily updates, as far

as the status and progress. And as issues are identified, I'm made aware of the issues, and then there's typically deliberation as to the significance of the issue, and then I am notified as to how it's -- how the final disposition goes.

And Steve referenced, for example, an urgent nuclear safety concern. And just earlier this year, we addressed and resolved an issue with the PT4183, for example, RF tester, and I was personally responsible for suspending operations until we could implement the appropriate comp measures regarding those concerns with the Cat 1 equipment and potential lightning strike.

So I'm actively involved. I understand all of the technical details. It's my job to work with my staff on corrective actions and to propose those corrective actions to Mr. Erhart and to the NES team, and then it's my responsibility to make sure that we go do everything that we said we were going to do. And in this example, there were three different sets of corrective actions, and we moved smartly through the first two of those. And I stay on top of that on a consistent basis.

VICE CHAIRMAN ROBERSON: Okay. Okay. And I just want to ask you, because I know there are always pressures. Do you feel like you have to be more conservative than maybe NNSA requires when it comes to

corrective actions in response to deficiencies?

MR. WOOLERY: No, I don't think -- I'm not sure I understand the question, but let me --

VICE CHAIRMAN ROBERSON: Okay.

MR. WOOLERY: So if you wouldn't mind, go ahead and rephrase it again.

VICE CHAIRMAN ROBERSON: So there are issues as a result of the study.

MR. WOOLERY: Right.

VICE CHAIRMAN ROBERSON: Clearly you just described you're on it. Your staff understands you want to know right away, and you are making sure that actions are taken. When you're taking those actions, obviously, you're not always waiting until the, you know, the paperwork process catches up. And my question is very simple. Do you feel like you have to be more conservative in your response than maybe NNSA actually requires, ends up requiring you to be?

MR. WOOLERY: Oh, yes, definitely. In some cases, for example, there might be a deliberation topic where they are looking at something that might be a best -- a good idea but not necessarily a requirement. We pay special attention to that.

We would address all the firm requirements first, but we note the other recommendations, for example,

or even deliberation topics and follow up on those that we deem would increase the margin of safety at Pantex. So yes, in some cases we are more conservative.

VICE CHAIRMAN ROBERSON: Okay. Yes, sir?

MR. ERHART: If you don't mind, to clarify what Mr. Woolery was talking about. We talked before about pre-start and post-start findings. A deliberation topic is a topic that was found worthy of quite a bit of discussion on the part of the NESSG, the Nuclear Explosive Safety Study Group, and those are of particular interest to those consumers of their reports in that it shows that they spent time discussing this.

And if it stays as a deliberation topic, it was the collective judgment of that team that it didn't rise to the level that it challenged one of their standards.

However, as Mr. Woolery has pointed out, it has happened multiple times where either Mr. Woolery will take it for action or, if it comes to me, I will. And it looks like a compelling thing to work on. We'll actually work on the deliberation topic as if it were a finding.

VICE CHAIRMAN ROBERSON: A real complaint?

MR. ERHART: Yes.

VICE CHAIRMAN ROBERSON: Okay.

Mr. Woolery, do you feel like you usually have enough time

to take the appropriate corrective actions?

MR. WOOLERY: Yes, yes. As a matter of fact, we would always take the appropriate amount of time. And I gave you an example on the PT4183 RF tester where we paused operations. We implemented the immediate compensatory measures, and now we're into the second phase, and we've just gone through a review of that successfully. But we would have been down as long as it took in order for us to implement those compensatory actions and get them submitted and approved by the proper design authority. And it's -- that's just part of the process. And depending on the significance of the technical issue, in some cases we can resolve it within a matter of hours or days, and in other cases it may take weeks or months.

VICE CHAIRMAN ROBERSON: Okay. And then one last question to Dr. Cook. I'll just ask you, Dr. Cook, does the need for additional resources, money or production requirements, impact your response to nuclear explosive safety findings?

DR. COOK: No.

VICE CHAIRMAN ROBERSON: Okay.

DR. COOK: If I can follow up. Quite simply --

VICE CHAIRMAN ROBERSON: Absolutely.

DR. COOK: -- safety in operations is paramount, and so we will always ensure that we have safe operations. We don't balance safety against other parts of the work that we do.

VICE CHAIRMAN ROBERSON: Thank you.

CHAIRMAN WINOKUR: So just to follow up before I turn it over, because I think what you are saying is important, when you make this decision about nuclear explosive safety finding, cost production, schedule, none of that has anything to do except looking at that finding for its safety significance?

DR. COOK: That is correct.

CHAIRMAN WINOKUR: Okay. Dr. Mansfield?

DR. MANSFIELD: Thank you, Mr. Chairman. Mr. Cook -- Dr. Cook, I want to make sure that we've -- who approves what. When a NES study is completed, the NES Directors require a senior manager to approve all the studies and findings before telling B&W Pantex to do anything. That's correct?

DR. COOK: Yes.

DR. MANSFIELD: And that person is Dr. Nichols, correct?

DR. NICHOLS: No.

DR. MANSFIELD: It's you?

DR. COOK: No. Let me describe the way it

was and the way it is.

DR. MANSFIELD: Okay. Fine.

DR. COOK: So the way it was, the decision authority for approval of a NES report rests with the person who is the Assistant Deputy Administrator for Stockpile Management. That person is within Defense Programs.

DR. MANSFIELD: Okay.

DR. COOK: I am briefed by that person.

DR. MANSFIELD: Thank you. That's --

DR. COOK: And if there's a concern -- any time there is immediate action to be taken, we take it. We don't wait for a report to be done. That's already been emphasized by my colleagues. That's the way it was.

Now the way it is is that if there is any decision that is pending, getting ready to be made to change from a more severe finding to a less severe finding, generically we might call that pre-start to post-start, but at another point I'll say some of that technology -- some of that terminology is a bit confusing, because things like Operational Safety Review (OSR's) and activities for which we have ongoing operations to use a pre-start terminology or post-start terminology is a bit confusing. I think we need to clean that up.

The way it is now is if there is that kind of a pending decision to go from a pre-start finding to a post-start finding to be made by the ADA for Stockpile Management, that will be taken to the Associate Administrator for Safety and Health, Dr. Nichols.

DR. MANSFIELD: Thank you for clarifying that.

DR. NICHOLS: May I add a clarification?

DR. MANSFIELD: Sure.

DR. NICHOLS: The reports that go to the Assistant Deputy Administrator for Stockpile Operations are those that have a pre-start finding in them or a minority opinion. Reports that have no pre-start findings and no minority opinions can be approved at a lower level.

DR. MANSFIELD: Do you -- at your stage of the game, a proposed pre-start finding could be changed to a post-start finding, correct?

DR. NICHOLS: I'm sorry?

DR. MANSFIELD: When it comes to you for approval, a proposed pre-start finding could be changed to a post-start finding?

DR. NICHOLS: If there is a pre-start finding or a minority opinion in the report and if the -- if the approval authority wants to change the pre-start to the post-start or he wants to accept a minority opinion

over a majority opinion, then the central technical authority, which currently is me, has to be notified before that -- that is done.

DR. MANSFIELD: Okay. But --

DR. NICHOLS: -- and that allows us to inject and provide some additional perspective.

DR. MANSFIELD: Okay. So it's not -- it's an injection of a perspective; it's not an approval actually?

DR. NICHOLS: It's not concurrence. However, a central technical authority function is a line management function and, therefore, I can exert line management authority, if -- if need be. It's not anticipated that it would be necessary.

DR. MANSFIELD: Dr. Cook, it seems to me a delicate balance when you've got in the case of -- case of a potential high explosive event or something like that where your entire production capability could be destroyed, it seems to me it's a difficult balance to balance the need for execution of the mission against potential risks of delayed action before overturning a pre-start finding. Do you find that's difficult? Do you find that it's -- it takes a great deal of balancing of both the -- of both the safety requirements, mission requirements and costs?

DR. COOK: I will say that, as I have said before, cost is not an issue here.

DR. MANSFIELD: Okay. Uh-huh.

DR. COOK: What is at issue is judgment, and so the judgments -- and I'll introduce some more complexity into this as well. But the judgments are whether there is agreement that we should, on the advice of experts, agree that something is in the category of the highest concern about finding or whether there is a different view that it would be lower.

The policy for the NES process has been moved to NA-SH; that's important to recognize. The oversight for the NES process has been moved to NA-SH. Administrator Miller signed out the letter in January, which you know and we all sitting at the table here agreed to that, so we're going to be more diligent, more careful on this.

I said I would introduce another thing, and that is perceptions. I'm going back to what Mr. Sullivan said earlier in the day in his testimony. I'll phrase how I understand the concern. Perceptions are reality to those people who hold the perceptions. And so, you know, where different people hold different perceptions, if we say, well, their perception is wrong, it's really not very effective or very useful to do that.

DR. MANSFIELD: True. But that involves the balance that I was talking about, because when one view comes from nuclear explosive experts deeply experienced for a long, long time and precisely in the safety issues of nuclear weapon operations, they must certainly balance, carry a great deal of weight. It's hard for you to balance if you want to change them?

DR. COOK: Let's see. Sometimes it is a difficult decision, and I will say that I think we are in a more robust position with the oversight for the process residing in NA-SH today.

DR. MANSFIELD: Okay.

DR. COOK: In some cases, a recommendation is made and there is -- it is made as a pre-start finding, and the problem can be resolved even before a report is issued. In that case, you might say it's immaterial whether it's pre-start or not pre-start.

We have many ongoing operations, and I have said already I think we need to improve our terminology; that's our accountability. I would prefer to go to a category of higher consequence findings and lower consequence findings or something that would differentiate for ongoing operations, whether something is pre or post-start. And as we go there, we ought to determine whether there are findings for which we should suspend

operations immediately as well.

DR. MANSFIELD: And this is an ongoing effort to try to modify that system?

DR. COOK: I'm just giving you a realization that we can and should make some improvement in this regard.

DR. MANSFIELD: Do you have a time scale, do you think, when ---

DR. COOK: I don't yet.

DR. NICHOLS: If I may? The NES community had initiated what we referred to as a top-down review. It's the second one that's been done in NNSA since I've been here. I was very heavily involved in the first one. I wasn't involved in the second one up until this point.

But the purpose of that review is to evaluate what changes are appropriate that should be made to the NES directives. I have not yet been briefed on the outcome of that review. They are still pulling together their conclusions.

My intent is to move forward with a revision to these directives as quickly as I can. There are a number of issues that need to be addressed, such as the terminology and such as the ambiguities that Mr. Sullivan referred to.

DR. MANSFIELD: Okay.

Finally, I want to thank you, Dr. Cook, for sitting so patiently this morning. I hope you found the sessions worthwhile.

DR. COOK: Let's see. Thank you for the comment. If I were to repeat what Mr. Erhart said, we aspire to being a learning organization and a learning people. If our heart and mind is not in it, we don't achieve that. So I think you've seen us here all day today. We appreciate your time as well.

CHAIRMAN WINOKUR: Okay. Mr. Sullivan, I believe, has a follow-up question.

MR. SULLIVAN: Yes. Thank you. Excuse me. I wanted to jump in either for Dr. Cook or -- well, really anybody here.

But thank you for talking about the terminology being a little bit confusing, because it's confused me, especially in the case of ongoing operations. Because if I understand the timing correctly here, we have these experts. They are watching ongoing operations when they make a finding. And then if they are like any other deliberative body, this -- this one included, it takes some time then to decide amongst themselves what the recommendation would be, and then that has to go up to headquarters. I imagine that doesn't happen immediately. Meanwhile, the operations are still ongoing, correct?

DR. COOK: For the most serious issues, we resolve them immediately. For less serious ones that do not require a suspension of operations or an immediate change, then we generally believe we have time to go through due process.

MR. ERHART: May I?

MR. SULLIVAN: Certainly.

DR. NICHOLS: There is a provision in the NES process, what's called an urgent NES concern, so that if there's something that the NES team believes needs to be addressed immediately, they can raise that without waiting for the report.

Another clarification I would like to add is that although Mr. Laake was right when he explained what a pre-start finding was as described in the directives, we -- the teams developed a series of criteria for deciding what should a pre-start finding be and what should be a post-start finding. And the idea was that criteria would be used both in the field and in headquarters so that we would have a common, consistent set of definitions.

There are ambiguities in the orders, and so to try to avoid the ambiguities, rather than using the language that was in the directives, we defaulted to the set of definitions. The definition for a pre-start

finding is basically -- and I'm just going to shorten it -- but in -- the gist of it is that it's a situation where one of the two main NES standards either may not be met or a situation exists where if it continues, it may lead to a situation where one of those NES standards may not be met. And that's the definition of a pre-start finding.

If the situation is that latter case where you don't necessarily have -- a NES standard isn't met just yet, but however, if things go on, we may get ourselves into that situation, then there is some time. You don't have a time-urgent situation in that kind of a situation in that something needs to be done promptly, which is why that is a category of a pre-start, but it wouldn't necessarily necessitate stopping operation today because of where we are.

MR. SULLIVAN: Mr. Erhart?

MR. ERHART: I'll add one more, hopefully, bit of clarity, hopefully not confusion. But also the -- as the NES group, the nuclear explosive safety group, whichever type of study they're performing, when they're at the point of out-briefing their results, they will go to the NPO for that.

So I don't want to leave the impression that there's not local knowledge of what the NES group is

concluding while it makes its way through the approval process and headquarters.

So I get an out-brief. We go through -- and it's called a coordination copy of the report -- and so that I will be familiar with what their findings will eventually say, and that gives an opportunity to ask a lot of questions before it goes through the approval process.

MR. SULLIVAN: Okay. So if I could just summarize, just to see if I understand this. I think in the case of ongoing operations, we're really talking about three levels of findings. One would be, okay, stop everything right now and address this. Then there would be, well, you don't have to stop, but we need to put some urgency on the fix. And then the last would one would be fix, perhaps, in the ordinary course of events. Would that be fair?

DR. COOK: Fair enough, yes, sir.

MR. SULLIVAN: Okay. Thank you.

CHAIRMAN WINOKUR: Mr. Bader?

MR. BADER: Dr. Cook, the NES process is expert based. In January, two of the five certified NES Chairs retired from NNSA. Also in January, the NES Division Director wrote to the Assistant Deputy Administrator for Stockpile Management that the NES community lacks sufficient certified experts to accomplish

the impending surge of studies without compromising the quality of the studies. Is this a serious concern to you?

DR. COOK: Absolutely it is.

MR. BADER: What are you doing to ensure that you've got a qualified pipeline of people coming in?

DR. COOK: The immediate actions are to requalify two persons who had served in this capacity in the past. I won't go into the details. That will bring us back to four. We intend to -- let's see. And those two may not stay in this activity, but they will stay in the activity while we seek to either hire or redeploy two people as NES Chairs.

NES Chairs are civil servants. They are federal employees. And for a period of time while we're doing that transition, we might have a high of six NES chairs, but we absolutely recognize that two are too few.

We had a -- did have a Voluntary Separation Program. It occurred in the past few months, and two of the people chose to retire.

MR. BADER: An expert based review process such as the NES Program can succeed only if the NES Chairpersons and members are highly respected technical experts who have the stature needed to take independent stance for their opinions on safety. Do you have the ability to fill the empty NES Chairman positions today?

DR. COOK: I'm sorry. Could I ask for a repeat of the last part?

MR. BADER: Do you have people, adequate people, today to fill the empty chairs?

DR. COOK: We don't have people who are qualified right now. Do I believe we have a set of federal employees who can fill the positions? I would say yes. I don't know that we need to hire additional federal employees, but I do know that we need to put them in this area.

I will work resources effectively with Dr. Nichols. STA's will report to Dr. Nichols in general. We're going to want a set of NES Chairs who can be with this effort for a number of years, not for a number of months because of the level of activity.

So the short answer is I don't know yet. I speculate that we have the capability within the federal workforce, but we also have to have, you know, a very strong desire to do the work in addition to the qualifications. It will take both of those things.

MR. BADER: Do you have people at headquarters that could fill this position?

DR. COOK: Again, I don't know. I don't know that we don't, and I don't know that we do. When we consider the feds across the enterprise, not just at

headquarters but in all of our sites as well, we open up the aperture for qualified candidates, and we will be doing that.

MR. BADER: Mr. Erhart, do you employ personnel at the NNSA production office who are qualified to address the staffing demands in the NES process?

MR. ERHART: Sir, we have -- we don't have NES, Nuclear Explosive Safety, Chairs that reside at the NPO. We do have interface points for the Nuclear Explosive Safety Study Group, as well as any oversight activities that's performed on nuclear explosive safety that would go through my Assistant Manager for Nuclear Engineering, as well as my Senior Scientific and Technical Advisor. But no, sir, we do not have staff to fulfill the role of NES Chairs, if that was your question.

MR. BADER: Yeah, I mean, what it sounds like is you really have no surge capability located in other places that you could reach into?

DR. COOK: I think that statement is generally correct. It's -- you know, I'd say that something that helps a great deal is that at our laboratories, we have quite a few qualified people that are not federal employees but they certainly are experts in nuclear explosive safety. We generally involve some of these people in the work that we do. We will continue to

do that. But I don't make that comment to say that we won't aggressively look for NES Chairs. We will.

MR. BADER: Yeah. I think if you go laboratory by laboratory, my understanding is that Los Alamos believes they have an adequate number of people, but Livermore and Sandia feel that they're short; is that correct, Dr. Nichols?

DR. NICHOLS: Yeah, you just need to make a distinction between NES Team Members and NES Chairs.

MR. BADER: NES Team Members.

DR. NICHOLS: The Chair position takes -- generally it's a federal position, and it requires a greater degree of qualification than for the team members themselves.

MR. BADER: Thank you.

CHAIRMAN WINOKUR: Let's see. I want to discuss the January 30th letter from the NNSA Administrator Miller where she issued guidance requiring your office, Dr. Nichols, to be informed whenever NA-12 decides not to address a pre-start finding from a Nuclear Explosive Safety Study. I think we've talked a little bit about this.

So why were you inserted into the NES process? What was the motivation behind this change? What was the Administrator, do you think, trying to

address here?

DR. NICHOLS: Yeah, there wasn't one reason. There were a number of different reasons that came together that made it timely to make this change. We had seen a number of situations that had happened where, even though my office wasn't responsible for NES oversight and didn't really have a role, a formal role in the NES process, the process had benefited from us being able to inject and to try to help make sure the right decisions were made.

We had seen the situation at the Pantex Plant with respect to safety culture and the impact on the NES community, and we had seen the decision that was made at the Pantex Plant to move the NES Division from support -- reporting directly to the Engineering Department and instead moving it up to the Deputy General Manager. While in NNSA, the Assistant Deputy Administrator for Stockpile Operations was responsible both for implementing the NES requirements and then for conducting the evaluations to ensure that the NES requirements were met.

There was -- that put him in an awkward position in many cases. Even if -- even in a situation where the right thing to do might be to accept -- take a pre-start and turn it into a post-start, if there was some

legitimate reason for doing so. The fact that the person that was responsible for production was making that decision, sent a bad message. Even if it was the right decision, it would still send a bad -- the wrong message.

So the thought was that it was timely to go ahead and make some changes. We met and discussed in great detail the different options that may be available to us to try to ensure that we had a program that the integrity of it wasn't as subject to question as it currently was in the current configuration. And after considering a variety of options, we came up with a list of changes that we thought were appropriate that would provide additional -- additional visibility to the comments of the Senior Technical Advisors would provide a robust oversight process to help ensure that the process was being effective as designed and would provide visibility to any such decision where the majority -- the opinion of the majority of NES members was not being upheld.

CHAIRMAN WINOKUR: So you're saying, in a sense, you've kind of eliminated a conflict of interest, that you think you provide a better balance there?

DR. NICHOLS: Yes, sir.

CHAIRMAN WINOKUR: Do you bring any -- and I'll go to you in one second, Dr. Cook. Thank you.

Do you -- do you bring any -- think you bring any particular focus or expertise to this change? Does your office have some unique skills that can weigh on these decisions and provide some guidance here?

DR. NICHOLS: In a general sense, of course, yes, the answer is yes. Specifically, though, if I could rephrase your question, and if I could rephrase your question as, why is your office competent to oversee NES?

CHAIRMAN WINOKUR: I like it.

DR. NICHOLS: Thank you.

CHAIRMAN WINOKUR: Do you want to come up here? All right.

DR. NICHOLS: We're not. If the decision had been made to shift NES oversight to my office and, there you go, thank you very much, have a nice day, if that had been all that had gone with the decision, I would have argued very strongly against that -- that step. I lack the personnel on my staff, although I have personnel on my staff with NES experience and I myself have some experience with NES, as does my Deputy, Ike White. He was the Board's site representative at the Pantex Plant when he was working for the Safety Board and has been involved with the NES process for a long, long time. I have other staff members that work for me who have some involvement,

none of whom, however, are qualified as NES Team Members or NES Chairman, none of whom I felt had the full level of qualification to provide a rigorous oversight program.

So what we did was we included as a part of the change the creation of a position in my office that we will subsequently fill with someone who has the appropriate qualifications to lead the oversight of this activity. We will -- in the meantime, we have a person who has been detailed from NA-10 who has a NES background, a NES expertise, to help bring up our program and help get it running.

Those two moves alone I also didn't think were sufficient. The final thing that actually gives me comfort that we can do this effectively is what we're doing with the Senior Technical Advisors.

We're maintaining the Senior Technical Advisors. We're transferring their contract to my office. We're transferring control of the funding to my office for them. We are aligning their function, which was always designed to ensure the effectiveness of the process, we are aligning that function with the oversight function so that I am responsible for their comments.

I am responsible for ensuring that their comments are addressed and following up on how they are addressed. I am responsible for using the information

that they provide to help ensure that the NES process is functioning effectively.

With that suite of changes, I believe that we have sufficient capacity to provide a robust oversight process.

CHAIRMAN WINOKUR: All right. I have some other questions. But Dr. Cook?

DR. COOK: I wanted to follow up with a simple set of words saying my understanding and support of what Administrator Miller is doing, is to link up policy and oversight in the same place and outside of the line that does the execution of the function.

In that regard, it makes sense, because oversight will frequently look at something and say, gee, if the policy were written more clearly, more succinctly, it would be a lot easier to follow. Well, this is a strategy, and I said I support it, where Dr. Nichols in NA-SH has accountability not only for the oversight but the policy. So he needs to make both of those work together. We will retain the execution function within defense programs.

CHAIRMAN WINOKUR: So you'll be looking at policy, you will be looking at directives you mentioned, right? You'll be playing a role there, trying to make this -- you know, improve this overall process, correct?

DR. NICHOLS: Right.

CHAIRMAN WINOKUR: But you don't concur on NES decisions? You don't have that authority; is that true?

DR. NICHOLS: If there was an exemption -- if they wanted to pursue an exemption to the NES requirements, I would have to concur on that as the central technical authority. But as far as doing something that's within the NES requirement, such as overturning a pre-start and calling it post-start, the requirement is they notify me before they do that. There is not a requirement that I concur on that; however, as a Central Technical Authority, that is a line management position, and I have the ability to inject myself into that decision, if I need to.

CHAIRMAN WINOKUR: Well, you keep saying that. What does that mean, just so I know? I mean, you guys have to have a process and a set of rules. You inject yourself into the process. Do you change -- do you change the decision? Can you change the decision? I don't under -- I just don't understand it, what you are saying.

DR. NICHOLS: The Central Technical Authority has the ability to issue expectations and guidance for use by NNSA and its contractors. If there's

a question on what a nuclear safety requirement means, the decision of the Central Technical Authority settles that within NNSA.

So generally where there is some question about whether something should be a pre-start or a post-start finding, what we're talking about is whether or not a NES requirement is or is not met. And so as the Central Technical Authority, I can issue a letter that definitively answers that question.

CHAIRMAN WINOKUR: You're setting yourself up for what I think is a challenging job but, nonetheless, let me ask you about policy, because you will be involved with policy.

The letter on January 30th states that the purpose of NES is to provide an additional level of assurance that unintended nuclear yields do not occur. Does this imply to you that you're moving NES away from the need to prevent high explosive violent reactions to focus on inadvertent nuclear detonations? Have you changed the bar of the standard at all --

DR. NICHOLS: No.

CHAIRMAN WINOKUR: -- in what you're looking at?

DR. NICHOLS: In fact, to some extent, I don't believe we're actually changing the bar of the

standard. I think what we're doing is clarifying what it was intended to mean all along and what some have held that it meant all along, although there have been difference of opinion over that amongst the community because of lack of clarity in the statement of why we do NES.

If I may elaborate. We currently have in place 10 CFR 830, our Safety Basis Approval Authority that Mr. Erhart exerts for the Pantex Plant. That process involves an evaluation of all hazards associated with the plant, including risks of inadvertent nuclear detonation, plutonium dispersal, high explosive violent reaction and any other hazard that may happen or may occur and require -- we are required to put in place controls to either prevent or mitigate those accidents so that the public and the workers are adequately protected. That's already in place, and that applies at all of our facilities, including the plutonium facility at PF4 or at Livermore, variety of other facilities where there are high hazards associated with those activities.

What we've done at Pantex is we've left in place a second process that existed before 10 CFR 830 ever was written, which is this NES Process. And we've left it in place only for those pinnacle events, those events that could -- for which you can't rule out that they might lead

to a high -- an inadvertent nuclear yield. That would include high explosive violent reaction in those situations where there is some remote possibility that that could still result in an inadvertent nuclear yield.

If the only result of a high explosive violent reaction, the only possible result is the high explosive violent reaction itself, there is no possibility, even remotely, that there could be some yield associated with that. Then that's a very hazardous situation, but it's no different than a high explosive violent reaction at Los Alamos for which we don't have a NES process invoked.

The NES process is left in place at Pantex or anyplace where we do a nuclear explosive operation to ensure that for those most severe events, those that can lead to a nuclear yield, that we have this additional check over the top of what we ordinarily do, because of the significance of the event. And that's what that comment is meant to -- is meant to establish.

In the past, some of the ambiguity associated with the language has led teams to pursue matters that couldn't result in a nuclear yield and water down the focus of the effort. And what we want to do is ensure that this particular effort remains focused on those most significant of events.

CHAIRMAN WINOKUR: All right. Those are a lot of words. Are you changing the focus or not? I mean, are you saying to me that HEVR -- I don't -- you know, this is not actually funny -- that HEVR is going to be handled by the 10 CFR 830 process and is not going to be handled under the formal NES process as it has been in the past?

DR. NICHOLS: If the high explosive violent reaction to which you are referring to is of a piece of main charge high explosive that's off in a room by itself that has no possibility of resulting in any kind of nuclear yield, then yes, 10 CFR 830 regular process of analyzing hazards would apply to that, just as if -- as it does at Los Alamos. If you're talking about a high explosive violent reaction in a nuclear explosive where you have the potential, some possibility of a yield --

CHAIRMAN WINOKUR: I understand the difference.

DR. NICHOLS: -- then in that situation, the NES concerns apply.

CHAIRMAN WINOKUR: Do you believe this is a change in the NES focus?

DR. NICHOLS: I think it is a clarification of the NES focus. I think --

CHAIRMAN WINOKUR: So it is a change in the

NES focus?

DR. NICHOLS: No, I believe it is a clarification of the NES focus. I believe that is what the focus --

CHAIRMAN WINOKUR: Do you think that previous NES committees have always understood this distinction and operated under these -- with this understanding?

DR. NICHOLS: My belief is that, and my experience has been, that in the NES community there has been a divided perspective on whether that was always the NES focus.

CHAIRMAN WINOKUR: Well, I think this is certainly an area we may have a question for the record for you on, just to provide a little more clarity about how you're going to proceed on that. I appreciate it very much.

DR. MANSFIELD: Question for clarification. By HEVR, do you mean high explosive alone or high explosive in conjunction with some metal?

DR. NICHOLS: And I apologize. That was the reason why I had to add so many words. If it's a piece of high explosive alone, then it's clearly not a NES concern, if that's all that we're talking about, yes, sir.

DR. MANSFIELD: But then I can't understand

why you say that the operations that you're worried -- you would be worried about at Pantex are already being done at Los Alamos. Aren't the metals different?

DR. NICHOLS: If my concern is purely radiological dispersal, then purely radiological dispersal gets covered by -- and even if it's explosively driven radiological dispersal, that gets covered by 10 CFR 830. If my -- if I'm worried that there's a possibility that I might have a yield, then that falls under NES.

CHAIRMAN WINOKUR: Okay. Let's move on to Mr. Sullivan.

MR. SULLIVAN: Thank you, Mr. Chairman.

Mr. Woolery, this past January work was paused for several days when one of these studies which was referred to as a Master Study for Bays and Cells passed its anniversary, can you explain what happened there?

MR. WOOLERY: Yes, sir. In preparation for the expiration of the Bays and Cell Master Study, we began coordination with NNSA on trying to schedule a review so they could come and take a look at the operations at Pantex with the intent that we would conduct the review and complete it prior to January 13th, which was the expiration date.

And as we approached the date, we were in

constant communication with NA-121 regarding the formation of a team and the resources that we were asking to come to Pantex to do the work. And we had scheduled a date and had planned on conducting the review and, unfortunately, we weren't able to successfully conduct the review when we had planned and, as a result, the date where the expiration for the Bays and Cell Master Study was came, so I contacted Nick Taylor, my Department Manager for NES, and we talked about the requirements that were in place. He communicated with Dan Bruns about the situation, and I believed it was appropriate at that time because of some confusion about whether or not they actually expired. I believed it was appropriate to suspend operations at Pantex and to request a formal letter from NNSA Headquarters regarding my ability to go back to work. So that kind of summarizes from August of 2012 until January 2013.

MR. SULLIVAN: Okay. And I think that work was paused for about six days or so until we got the formal extension.

MR. WOOLERY: That is correct.

MR. SULLIVAN: The obvious question is, why didn't we ask for the extension, like, a week earlier or, say, a month earlier?

MR. WOOLERY: Up until the point where I

decided to pause operations and request the extension, there was a general agreement among all the parties that were discussing it that there really wasn't a firm expiration and, therefore, an extension, formal extension, wasn't required. So there were two different requirements that were in conflict, and because of the ambiguity, I felt it was the most conservative decision to pause operations and request something in writing before I proceeded.

MR. SULLIVAN: Okay. Thank you. Mr. Erhart, where were you on this whole sequence of events?

MR. ERHART: Well, sir, I'm of the opinion that the -- not of the opinion. It's our perspective that you either get the extension or you conduct the review, and if you don't have, like we mentioned before, the Master -- in this case, a Master Study is a type of NES approval that's required to support operations. So if you haven't reconciled that by the time that the study itself expires, then you don't have license to operate. So in that regard, I concurred with Mr. Woolery's conclusion that we pause operations until we have either of the two.

MR. SULLIVAN: Okay. But again, I'm looking for a firmer answer. I mean, the five-year anniversary date doesn't sneak up on anybody; it's a date

on the calendar. So why did this become -- it sounds like it became a last-minute crisis, and I don't understand why it did.

MR. ERHART: And it shouldn't have. It should have been planned. I think there were several factors in there. I'll defer back to Mr. Woolery for some of the details.

But I believe there was an issue with getting the Chairperson and the members pulled together. There was that issue with understanding the intent of the order. Had they come to me immediately, I would have clarified that, you know, you need to have the study to operate, so there was -- I could have clarified that ambiguity fairly quickly.

But I'll turn it over to Mr. Woolery for more -- more details on what went into that.

MR. WOOLERY: That is correct, Mr. Erhart. The ambiguity associated with the expiration was the primary reason why we approached the 13th of January not having the issue resolved. There were still a number of people that felt like there was not an expiration and that we didn't need to request any kind of formal extension.

And as Steve said, lessons learned, and it's something that collectively we need to do a better job of identifying when those studies are required and

making sure that we start that work in plenty of time to complete the study before the expiration date, and I've discussed that with Dr. Cook, and we're in agreement that targeting on a four-year basis, as opposed to even approaching the five-year basis would be a more appropriate way to conduct business.

MR. SULLIVAN: Okay. So, Dr. Cook, I'm hearing that there was what sounds like a difference of opinion over what they saw as an ambiguity in the requirement here. So have you pulled the string on this and come to a resolution?

DR. COOK: Let's see. I'll try to answer the question both directly and then add something else.

I've taken a look at the data on the schedules, along with the ADA for Stockpile Management accountable for the NES process. I recognize that the assertion made that many are not completed by the five-year or ten-year time, whether OSR in the midpoint or a NES study that's accurate.

We recognize that we have directives that say that when we get to that point that we will begin the work. We will at least have begun the work and, at this point, I also tend to believe that that gives an impression to others that we're not as clear and as serious as we should be about nuclear explosive safety.

So I've said that directly.

We're going to pay more attention to perceptions because, to the people who hold those perceptions, perceptions are reality. And not recognizing that means that we take a conscious choice to go down that path. Instead, we're taking a conscious choice for that realization in looking at the bulk of the work that we have to do, particularly in '13, because it was concluded in '8. So I look at '13 as a transitional year, but I'll be setting the expectation that for '14 and beyond, to the extent we can, we will complete the work by the five-year anniversary or ten-year anniversary for OSR's and for NES studies directly. That may mean that we start at a four-year point, or it may mean we start at a 4 1/2-year point so that we don't wind up with a, you know, sort of a four and a six instead of two fives to split the difference between ten.

But paying attention to perceptions is the only way I think that we're going to indoctrinate a large number of the workforce, which is changing, that we take this seriously as a leadership team, and that means it's important to everybody.

MR. SULLIVAN: Okay. Thank you. And Dr. Nichols, so in your new policy role -- I'm sorry, your new role with oversight, will you be involved in anything to

do with the issue of timing of these perspectives?

DR. NICHOLS: Absolutely. Absolutely. I would expect to be consulted as a part of this process of extensions, particularly when there's some question of what is the requirement. I might add, you know, I agree with everything Dr. Cook said.

The -- when I talk to the folks -- and I've been involved and in touch with the NES community for many years. The folks who are involved in this decision-making, I don't believe that any of the folks that were involved changed their interpretation of what the requirement was in order to meet a schedule. There are folks who have interpreted these requirements the way they are written and who were involved in writing them, who always believed that what this meant was that the NES had to be initiated within the window. And there's reasons why there's that -- there's some logic behind why that might be, but that's the way they always believed it was. So it wasn't that people changed their perspective.

On the other hand, there have been folks who have from the very outset, and it's also reflected in the language, always felt that NES should be completed and done, the report signed by the time the five year window was up.

But I don't think -- and I think that the

mismatch in the language has to do with folks trying to compromise by writing something up that everybody agreed says what they thought it meant but different parties just felt it meant different things.

MR. SULLIVAN: Okay. So as we sit here today, what does it mean?

DR. NICHOLS: Earlier today we said we would sort of give you a discussion of that for the record, and I'm going to ask you to let me do it that way. There's some logic as to why one might wish to interpret it one way or the other, and I would prefer to put that in writing, rather than try to explain it right here.

MR. SULLIVAN: Okay. Fair enough.

DR. NICHOLS: Thank you.

MR. SULLIVAN: So this study that was due in January, has it been done yet?

MR. WOOLERY: No, sir.

MR. SULLIVAN: Okay. So we're still waiting. When is it scheduled for now?

MR. WOOLERY: I don't know the answer of exactly when it's scheduled.

MR. SULLIVAN: Okay. Do you feel comfortable, though, continuing without having this study done?

MR. WOOLERY: Yes, I'm comfortable.

MR. SULLIVAN: Okay. All right. Thank you.

CHAIRMAN WINOKUR: So we're going to switch gears a little bit now. We're going to talk about Fire Protection Systems at Pantex. I think people have heard enough about NES for a moment.

And I know that you're working on a lot of things with Fire Protection Systems. You're working on the high pressure fire loop; about a third of it is done. This is a loop that goes around the facility that needs to be operational so that water can be fed into the bays and cells of the facility.

So I guess one question to you, Mr. Erhart, is when do you plan to complete the high pressure fire loop upgrade, and what resources will be required to do that?

MR. ERHART: Okay. I'm going to defer the answer to that to Mr. Huddleston who will give you the details of the scope of the completion of that project.

But suffice it to say, before I pass the microphone, that the High Pressure Fire Loop Project is a very successful project, and I thank the Board for being interested in the high pressure fire loop in the past interactions in helping to get that project started. It's making very good progress as a project. It's very

successful, as I said.

And I think Mr. Huddleston will tell you a little more about the scope. We'll talk a little bit about the lead-in lines which, you know, are of concern and how we have attacked that problem and then how we'll complete the overall project in the future so.

CHAIRMAN WINOKUR: Yeah. Maybe when we turn it over to you, Mr. Huddleston, you can give us the big picture of all of the challenges you have in the fire suppression area.

MR. HUDDLESTON: Okay. So to start with -- and then we'll talk a little bit about the high pressure fire loop current project that we're working today. And we are nearing completion on that. It is scheduled to complete middle of June with our critical decision for package going into NNSA no later than the end of this year.

So it has been a successful project. It is working ahead of schedule currently, and because of favorable subcontracting costs that we got early on, on the project, as well as the management of the overall system, we had the ability to come back in and not only complete what we had committed to under the original project scope but we've added the two new pumps and tanks at about $6 million on to that project, which will give us

a lot of flexibility, and we'll talk about some of those in the challenges in a minute.

So with the two new pumps and tanks currently coming online, we are going through startup on those now, it'll give us some more flexibility. And then additionally, we add the ability because of additional underruns, we've added about another 2,000 linear feet of main line pipe onto that to secure some more of our main line system in some more of our facilities.

So while we're doing that and we're excavating all of this dirt, and we're looking at all of our piping, this lead-in -- and I know lead-ins is one of our issues. We're looking at the piping in our tie-in points going into the lead-ins, and we're trying to identify those that may be more vulnerable than others of the lead-ins going into that.

So as we're doing that, we've identified four of them right now. Currently under the project, we've replaced three of them with the project funding. We have another one that we're actually starting on Monday, which will bring us up to number four. So all of the other lead-in areas that we have tied into, we actually have found sufficient pipe and good pipe to tie into those, so we're confident that we do have good lines currently that we're tying into, and they will sustain for

some time into the future. So with that, that's part of the project.

The tanks we're very excited about because, as you know, we've had some issues with our current tanks. They are a redundant system. That being said, with just the two of them, we do have periodic times where one of those is down for maintenance sometimes longer than we would like. And with these two new tanks coming in-line, that will give us the capability of adding the two new tanks. We'll keep one of the old tanks as a backup and move one of them over into a training mode where we can actually train our operators and our mechanics and maintenance folks on the systems and stuff so that we can actually keep those moving.

CHAIRMAN WINOKUR: How do you assess the risk with this system? And this is a system that you may not get your repairs completed for another ten years or more, and yet you have to, absolutely have to, have water systems available for fire, if there's fire on demand, right?

MR. HUDDLESTON: Yes, sir.

CHAIRMAN WINOKUR: And what is your sense of the risk associated with operations at Pantex right now with the present state of the system and where you hope to be in the future?

MR. HUDDLESTON: With the work that we're currently doing -- and as you've pointed out, the current package that we're working on right now with the upgrades is about a third of the overall system, so we have a lot of the system that is left, mainly around our balance of the plant operations, as well as some of our explosive operations. And the reason for that is because that's part of the pressure barrier that we use for the overall safety system. So almost all of the safety system is being upgraded as part of this main line renewal that we're going through right now around our operating facilities.

The rest of the system -- and what we've had to do -- and as you've pointed out, it is an aging system; we understand that; and that, as such, like any aging system, we're increasing our maintenance; we're increasing our inspection; we're increasing our field work on those systems and, you know, unfortunately we are increasing the amount of repairs we're also doing to those systems.

And I would point out that we have had in those areas in some of our balance of the plant in the outlying areas, that some of the lead-ins have broken, and we've gone and isolated those lead-ins. We've taken facilities out of service. We've had some main lines that

we've had broken in the last several months. Part of it is because of weather conditions and the change in some of the weather conditions with the wet and dry, and it's caused some strain on some of the piping, and we're actively going out and replacing those areas currently, and those are just replacement parts.

So as part of the strategic longer term plan and what we've put forth is, starting later this year, we actually have a plan to start replacing some more of the lead-ins. So in June of this year, we'll start with three of the lead-ins around some of our critical facilities. We have asked for funding over the next several years for the operational facilities. There are about 45 lead-ins that we would like to replace over the next four years as it comes to that portion of the Plant, and that will complete the primary areas of our nuclear operating facilities, and then we'll start from there and go out to the balance of the Plant.

CHAIRMAN WINOKUR: All right. I guess what I'm asking you -- and I understand what you're saying. I think it's good to be heading down that path. How do you assess the risk of operations? How are you confident that you can supply water in those bays and cells on demand?

MR. HUDDLESTON: And that's our daily inspections. We look at those daily. We monitor them

constantly. They are -- most of them are alarmed, so we do know if we have water leaks. We have low flow alarms in most of our areas, and by that we do understand the systems' operability. We know it's going to work when we need it to at this point in time. If a condition happens that we don't believe that's still the case, then we will stop the operations until such a time we can remedy it.

CHAIRMAN WINOKUR: Okay. But it's not just stopping operations. If there's a fire, there needs to be a water supply on demand, right?

MR. HUDDLESTON: Right, yes, sir. And that's part of -- today, our daily operations are daily inspections of those systems, and our alarming systems would tell us if those are operational, and they will supply that water on demand.

CHAIRMAN WINOKUR: One of the challenges you have is you do have single-point failures in the system; is that true?

MR. HUDDLESTON: Yes, sir.

CHAIRMAN WINOKUR: And so, of course, that's another vulnerability you need to deal with when you assess risk to this system, right?

MR. HUDDLESTON: Yes, sir.

CHAIRMAN WINOKUR: And could you explain very briefly to people here what it means to have a

single-point failure in a system like this.

MR. HUDDLESTON: So and if you look at it -- and we'll look at the solenoid valves, for instance, was a single-point failure in our system where we actually had a solenoid valve that we found that wasn't working that would not have worked if we needed the system operable. Fortunately, that system was down in maintenance mode, and when it was bringing it back up, we identified that. So soon thereafter, we did find another one, and we increased our preventative maintenance at that time. We went from a semiannual to a quarterly preventive maintenance protocol on those to ensure that those would work and that they were sufficient to operate. We did find another one that was questionable at that point in time that then we did suspend operations, replaced all 46 of them.

But at the same time, that is still vulnerable, because it is a single-point failure, and that is part of our strategic long-term upgrade is to add the dual capability on all of those also. So we do have a number of those points.

CHAIRMAN WINOKUR: So you're comfortable with operations today?

MR. HUDDLESTON: I am today.

CHAIRMAN WINOKUR: And, Mr. Woolery, do you

want to make a comment about that?

MR. WOOLERY: Yes, sir, I am comfortable. And the question you had about the adequate water supply, a single tank and pump would provide us with an adequate amount of water to -- to suppress a fire.

So, I mean, the situation that we're talking about where we had to enter the LCO and we were not only down for a period of 14 days but an additional six days, we proceeded with a sense of urgency to try to effect repairs, and we weren't able to get it done within the first 14 days, so we had to develop a detailed recovery plan. But it's something that I have visibility of. Whenever those systems are down, I'm aware of the fact that they're down, and we pursue bringing those systems back online.

But I'm also aware of the fact that if for no other reason than to perform periodic maintenance, we will take those systems down and, at that point in time, we'll just have the single pump and tank that we would be relying on. It was the time the system was down which I was most concerned about, and we were actively pursuing getting those repairs made and that system back online.

CHAIRMAN WINOKUR: But you understand my concern. Isn't the fact that you're going to do maintenance or you're going to have a problem and you're

going to fix it; it's that there's going to be a fire and the system is going to fail, and it can do that, because it's an old system; it's an aging system, and it's not as reliable as it probably needs to be?

MR. WOOLERY: Right.

CHAIRMAN WINOKUR: I mean, that's -- so you keep using the word on demand, and that's kind of the issue, and I want to try to wrap this thing up and try to tell you where I'm going with it.

But you have a comment first?

MR. ERHART: Yes, sir, I appreciate that.

I think one of the members of the public had a great analogy, so I'll use it. It's an old car, but it's a good car, and it's well cared for, and that's the Pantex Plant. The fire suppression system is well understood, monitored. The aggregate risk of operations is low because of all -- the combination of the controls that we have to -- at the Pantex Plant. I could say that across the board about the Pantex Plant. What we're talking about here is reliability of the system. If the system is not available, then we won't operate. And so that's -- that's one point.

I think the -- so I guess that's the main point I wanted to make, that although we're talking about the safety of operations, really what this is an issue is

about monitoring your systems, ensuring that you're talking corrective actions to make sure they continue to be operable.

The one thing about fire at Pantex, if you look at it over the last ten years -- and I know you have been at the plant and seen the different control schemes that we've put in place for fire events, such as combustible loading, we've drastically reduced combustible loading ignition sources at this site. So as the aggregate I would say that risk of operations is pretty low at Pantex.

So thank you.

CHAIRMAN WINOKUR: And I guess the last question for Dr. Cook. Are you comfortable with the resources you're able to supply to Pantex at this time to address these problems?

DR. COOK: The answer is qualified. You know, I'm comfortable to an extent. I'm concerned about where we are in the ability to get resources. I believe that we need always to look at the appropriate balance of what we do in infrastructure, what we do in other aspects of the program. So I don't have an immediate concern now, but I am concerned for the future.

CHAIRMAN WINOKUR: Okay. Thank you.

Mr. Sullivan?

MR. SULLIVAN: Thank you, Mr. Chairman.

Mr. Huddleston, our staff did a review of your fire safety systems a few months back.

MR. HUDDLESTON: Yes, sir.

MR. SULLIVAN: And one of the things that they took issue with was this concept of limiting conditions for operations. The specific example was, you have redundant fire pumps, and you have a known problem with one. And so just a few minutes ago you talked about having the increased risk of a single-point failure. Well, when you have redundancy and you lose one, the other one now becomes a single-point failure. So the limiting condition for operation allow you to go 14 days without just -- gives you 14 days to make the fix and --

MR. HUDDLESTON: Yes, sir.

MR. SULLIVAN: -- the staff felt that, well, you were just taking 14 days when perhaps there were things that could have been done more urgently. Do -- do you agree with the staff's assessment?

MR. HUDDLESTON: That particular case -- and that happened I believe the summer of last year, sometime in the July time frame, it -- we did, under our document of safety analysis or our requirements or rules that we follow, it does give us the ability to go 14 days under initiating the LCO for repairs to a specific tank.

It also goes on to say that if it's going to take longer than the 14 days, we have the authority to provide NPO with a corrective action plan and extend that out for another 14 days, so in that particular case it's exactly what we had to do, because the repairs and the extent of the repairs after we got into it were more extensive than we thought they were, and the parts weren't readily available.

And that's the one that Mr. Woolery was talking about that we do have visibility of those things and we do track them, so we do have a sense of real urgency when we're trying to get those back online.

But I do have a -- I do share the concern, because it does bring us down to a single-point of failure when we have two tanks; however, I will tell you that the one tank, as long as we maintain the operability, does meet the requirements under the National Fire Protection Code and will provide the two-hour sustained water flow for the facilities, but then our job is to make sure that we're out there, we're constantly vigilant on the remaining tank to make sure it will operate when we do need it, or on the demand.

MR. SULLIVAN: Do you do any extra things during that time to make sure that the remaining system is -- is functional?

MR. HUDDLESTON: Actually, our routine patrols are looking at that with our maintenance folks and everybody else, but on those particular instances, I've got a staff of fire protection engineers we actually do put out in the field to look at those things on a periodic basis several times a day to make sure that we understand that there isn't anything going on with those tanks.

MR. SULLIVAN: Okay. So my next -- this follow-up question is merely speaking in the hypothetical so -- but would you agree that if you have 14 days but you could fix it in two, it should be fixed in two?

MR. HUDDLESTON: Absolutely.

MR. SULLIVAN: Okay. Mr. Erhart, where does your office fit in on this process with having a limiting condition for operation?

MR. ERHART: That's part of the Safety Basis that we talked about, and it is in the event that the system becomes inoperable or a portion of the system becomes inoperable. You go into what's called a limiting condition of operation. In this case, that gave the 14 days to go from a redundant system into a not redundant system. So you want to put a limit on that. You accept the risk of operations there, provided that there are checks on the remaining system.

And as Mr. Huddleston pointed out, in this

case, they actually went to the next part of the LCO, which required an approved plan by my office. And the point there is to ask -- basically get a formality in the question that you asked, that you have a straight shot and a legitimate plan to get the work done so -- in a timely manner so you can go back to that fully redundant system.

MR. SULLIVAN: So your office would assure that the contractor is making the repair in the minimum amount of time?

MR. ERHART: Yes, sir.

MR. SULLIVAN: Okay. Thank you.

CHAIRMAN WINOKUR: All right. Our -- I promise our final question is Dr. Mansfield.

DR. MANSFIELD: Thanks, Mr. Chairman.

Fire Protection isn't your only safety system, of course. You've got many other aging systems like the blast door interlocks and the hoists which have to be replaced with seismically qualified waste and other seismic upgrades. How are you going to be sure that they'll -- these are going to be funded and completed before they create unsafe working conditions?

MR. HUDDLESTON: The -- currently, and it is a funding limitation, so we are currently doing what work we can on the seismic upgrades for our operating facilities. We're finishing up the ceiling pieces of that

this year.

The hoists have been funded. We do have all the hoists on order. I believe during our briefings in January when I was with you, we had a discussion about an issue with the functionality of the hoist chain, and it's not a safety issue; it's just a matter of some of the hoist chain is flaking off. So our contractor is still actually evaluating that and trying to figure out what the right fix is.

So those hoists are ordered. The majority of them are in. We are lacking about 16 of those. We do have -- and it is a longer term plan, granted, that going over the next several years, we'll start next year on the wall parts of the -- the tethering and the seismic upgrades with the walls in our operating facilities, and then we'll have to follow on with some additional work in some of our nuclear material facilities. And -- and I think as was pointed out, that is well past or into the 2021 timeframe before that's finished up.

DR. MANSFIELD: But the blast door interlocks are -- you're going to get them replaced before they are obsolete?

MR. HUDDLESTON: Yeah. So the blast door interlocks, the majority of those are very reliable. We don't want to see -- we see some issues with them, on the

mechanical alignment on some of the mechanical ones.

The ones that are a programmable logic control, we do have a number of facilities that use that today. Those are obsolete. They are reliable. We don't have a major issue with them. We are in the middle of a design -- I've got actually two engineers working on a design for the replacement of those, the logic controlled ones to an electromagnetic type BDI for those facilities on the first eight, and that's the ones where the controls are gone.

DR. MANSFIELD: So you're going to have to have a lot of work replacing a lot of systems in the bays and cells which you can only do when they're available?

MR. HUDDLESTON: Yes, sir.

DR. MANSFIELD: And the last time we were here, Mr. Woolery, you made it clear to us that you have to get 95 percent average facility availability for programs. So these are conflicting requirements, and it's going to be interesting to see how they work out. And you're going to be stuck with obsolescing systems, if you want to satisfy your production requirements.

Okay. That's the last question I had, sir.

CHAIRMAN WINOKUR: All right. I want to thank this panel really very much. Dr. Cook, Dr. Nichols, Mr. Erhart, Mr. Woolery and Mr. Huddleston, thanks so much

for your testimony today. We appreciate it.

MR. WOOLERY: Thank you.

CHAIRMAN WINOKUR: At this time, for the Board's practice and as stated in the Federal Registry Notices, we will 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 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 speak or to make presentations an equal opportunity, we ask that speakers limit their original presentations to five minutes. The Chairman 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 are going to begin. We want to thank all the members of the public who have come here to be part of this discussion today and provide public comment.

The first speaker is Judge Lewis Powers.

JUDGE POWERS: I thought I was going to be second, but nevertheless.

Gentlemen, Mr. Chairman, ma'am, I appreciate the opportunity to make public comments concerning our relationship in Carson County with Pantex. I am the County Judge, and I've been a County Judge for 14 years.

Just to give you kind of an overview of the relationship that we have developed with Carson County and with Pantex, it has been a good working relationship. All of the committees, the Emergency Management Facilities, the Emergency Management Director have been more than cooperative, and we have been involved in all of the drills that have come about as a result of the 14 years that I have currently been in -- in office.

All of the employees of Pantex, many of them live in Carson County. Of course, Pantex is entirely in the confines of Carson County. And there are members of our communities that serve on the school boards. They

serve on church boards. They're active in our community. And we appreciate all of the active involvement that they can provide.

We have been invited and have made several tours of the Pantex EOC and observed that operation and found it quite informative. We have learned a lot and garnered a lot out of that whole process, and it has given a level of confidence to Carson County, particularly for my office and for my Emergency Operation Officer.

So with that being said, the Pantex Fire Department and their ambulance services have been a great asset to the citizens of Carson County. I don't know how many times that they have responded to emergency fires. Several years ago, we had multiple fires, and we had multiple incidences with wrecks on Interstate 40 and Highway 60, and they have always been very willing and participants and provided a great resource for Carson County.

I'd like to summarize my comments. Like I said, I've been a County Judge for 14 years, and I take a great responsibility for the safety and welfare of the citizens of Carson County, and I have full faith and confidence in that leadership team that is currently in place, that they will provide the best possible directive in directing assets not only from their assets but what

assets we can provide and what levels that we can play within the drills that we are involved in. And again, I have full faith and confidence in that team that is currently in place.

That finishes my comments.

CHAIRMAN WINOKUR: Thank you, Judge Powers.

Kevin Starbuck?

MR. STARBUCK: My name is Kevin Starbuck. I'm the Emergency Management Coordinator for the City of Amarillo, Potter County and Randall County. I would like to second Judge Powers' comments in that we've had a very longstanding relationship with the Pantex Plant. Through our agreement and principal program with the State of Texas, local jurisdictions through the Department of Energy have received funding to assist us in ensuring that we have adequate emergency plans in place to address the unlikely event of a major incident at Pantex. A lot of those plans and procedures that are in place augment our abilities to respond to all hazards. So while we use those opportunities to enhance our capabilities to respond to a potential Pantex incident, it also affords us that opportunity to better prepare our community as a whole, and that's a very important aspect of the entire Pantex Program and the partnership we have with them.

As Judge Powers mentioned, we have

extensive mutual aide agreements with the Plant. They are readily available to come and assist local jurisdictions. During 2011 when we had the major wildfires in the Amarillo area, Pantex firefighters, Pantex emergency responders were right on the front lines working hand in hand with local first responders, and that gave all of us a higher sense of reliability that the Plant brings to the table, based on the experience and the expertise that they brought to the table and helped us respond effectively to those fires, ensuring no loss of life and the protection of as much property as possible. So that speaks volumes to the capabilities that Pantex has built into the plant internally and have made readily available to the local jurisdictions when catastrophic incidents do present themselves they could potentially impact us.

I would leave it to say that -- I know you asked Mr. Campbell if he's up at -- stays up at night worrying about various scenarios of Pantex. As the Emergency Manager of the population, the largest population center in the Panhandle, I'll tell you that Pantex is not one of the things that keeps me up at night. I have every confidence in the Plant Leadership, the Plant Emergency Responders, the various people that we work with on a daily basis from the Plant, that they do the right things. They ensure a safety envelope at the Plant, and

they ensure that they are ready to respond if an incident were to occur, and will work very diligently with us to ensure that we respond effectively to that in order to protect the public and protect the Plant employees who are residents of our community.

That's where I'll leave my comments. Thank you.

CHAIRMAN WINOKUR: Okay. Thank you, Mr. Starbuck.

Mr. Campbell, you can take the night off from worrying.

Rick Easter?

MR. EASTER: Good evening. My name is Rick Easter. I am the president of the Chamber of Commerce of the City of Panhandle and Carson County located 10 miles due east of the Pantex Plant. And as you can already tell, I'm sure you can tell I am not from here. I'm -- I was raised -- I grew up next to -- about 30 miles away from the Y-12 facility, so I have the Tennessee accent and even owned a business in Oak Ridge.

But I can't step up to the microphone and address you guys -- I had a short -- my -- my comments will be short, I promise, and I shortened them because I found that actually what I had to say wasn't directed towards this meeting. So I shortened that, and then Mr.

Judge Powers shortened it even further, and so I won't -- because I -- some of the comments I was going to make, he made.

But I can't step up to this microphone without thanking Pantex for the civic contributions they have made to our community. And I know that years ago when Pantex came to this community, from what I understand, they brought some highly, highly educated people into this area. And as their children came to our schools and people started buying our commodities and our town started growing and the money started flowing and the post-war expansion of education, the more money came along, we were able to build bigger and better schools. And we now have state-of-the-art facilities.

The -- Pantex has been a great contribution to the Chamber, to our library who just celebrated 75 years, to our county, to our city management. Let me make sure I'm hitting all of that. Especially our Carson County Square House Museum. They have helped with the educational department, our community outreach, art instructions and things of that nature.

And I'll finish with saying pretty much what everyone has said. The general consensus of everyone I've ever talked to in our city feels safe at night when we go to bed living close to your facility, and I'm even

more convinced of that after I listened to you tonight. I didn't understand all of it, but for the greatest part, I did, and I have even more appreciation now for what you're doing.

The Fire Department, I have had -- I was part of the erection of the windmills across the street from Pantex, and I have seen the way that the Pantex Fire Department and our Volunteer Department work together, because we had two or three wildfires while we were putting those up, and we were very grateful for that.

And also, I am not in the loop, but I do understand that our city and county law enforcement agencies have a great working relationship with the security team at Pantex and, believe me, everyone respects the security team at Pantex.

And as Chamber of Commerce President, there would be many times I would like to have thanked Pantex for all their contributions. And thank you for the opportunity to allow me right now to say thank you for your contributions. Thank you.

CHAIRMAN WINOKUR: Thank you, Mr. Easter.

April Dunbar?

MS. DUNBAR: Well, thank you, Mr. Chairman, and Board, for coming to visit us. I hope you had a rewarding time here.

I want to tell you that I'm a plant employee, and I have been there for almost 34 years, so I came two years after we lost a building from a high explosive machining accident. I've been there as we built the stockpile that sit now in the DoD's (Department of Defense) hands today. I tested weapons, and then I left from that part of the plant -- oh, and I did serve in numerous NESes when NES was the only rigor that we had and the only measurement of safety approval that we had.

Very familiar with the old 5610 Orders, very familiar with the 452 Orders. In the integration of safety that came along in the 90's, I was serving up in engineering, and I brought up a pretty difficult dismantlement process, so I got to feel all the -- all the push and shove of the order migration up this hill.

So I want to tell you, I've seen a lot in my 34 years, and it's been a really pleasing and rewarding experience. I'm serving right now on that 15-member SCWE panel that John empowered as a result of the culture survey, and I want to tell you that in my 34 -- almost 34 years there, I've only ever seen this happen where a cross-functional group of people have been tasked at a low level of the organization to go investigate and offer solutions to upper management, and it's been even more rewarding when we've seen the NNSA and the NPO is

interested in what we are finding and discovering.

Last but not least, I'd like to send some commendations to NNSA from what I heard just this evening and that I understand that I think that you are demonstrating your own safety culture core values by allowing Dr. Nichols to have a questioning attitude when NES findings and minority opinions are being evaluated for change.

So good job to all of you. Thank you.

CHAIRMAN WINOKUR: Thank you, Ms. Dunbar.

Susan Gordon?

MS. GORDON: I'm sorry, I didn't mean to -- I'm not going to speak.

CHAIRMAN WINOKUR: Okay. Ms. Gordon won't be speaking.

Rusty Tomlinson? Rusty Tomlinson?

Okay. Kay Peck?

MS. PECK: Well, I appreciate having the opportunity to speak on behalf of B&W Pantex. And I apologize for missing my 4:30 time, because I was in the doctor's office.

My name is Kay Peck. I'm the CEO of Kindred Hospital here in Amarillo, Texas. I have a doctorate in public health. And I've -- when I came to the community and I learned about Pantex, I obviously was

concerned. And I can truthfully say that I've been impressed with everything that I have seen.

B&W Pantex has certainly been a successful operator of nuclear devices in this community for many, many years. Everything that I have seen, everything that I have heard since joining the community, the safety record is excellent. B&W is a fantastic community partner. Everyone in the community has an excellent working relationship with them. They have been a tremendous asset to the community.

And I've sat on the Boards with John Woolery and several other representatives of B&W Pantex; they are a community player, and they represent the safety and security of the Pantex Plant in this community in a way that doesn't keep me up at night, and I think that we are very comfortable with B&W Pantex as an operator.

I think they are exceedingly safety conscious. I know they have a very strong culture of safety in the way that they go about doing their business. They take everything they do very, very seriously, and I know that they have excellent quality improvement processes in place.

So I just wanted to say thank you for listening to us, and thank you for letting B&W Pantex continue to be in our community.

CHAIRMAN WINOKUR: Thank you, Ms. Peck.

Let me call Rusty Tomlinson again.

Are there any other members of the public who wish to make a statement at this time?

Seeing none, I'm going to turn to the Board Members for their closing comments, and then I will end with my comments.

Ms. Roberson?

VICE-CHAIRMAN ROBERSON: No comment, Mr. Chairman.

CHAIRMAN WINOKUR: Dr. Mansfield?

DR. MANSFIELD: I just want to thank the contractors and DOE for some helpful presentations.

CHAIRMAN WINOKUR: Mr. Bader?

MR. BADER: I have no closing comments. Thank you.

CHAIRMAN WINOKUR: Mr. Sullivan?

MR. SULLIVAN: Yes, Mr. Chairman. First of all, I would like to thank everybody who came here. I'd like to thank all of the folks who came from Washington, DC.

Acting Administrator Miller, I know you said you testified yesterday to Congress. So today you were here all day. I hope at some point we leave you alone so you can actually do the work to run this very

large and important department.

But for everybody who was here and the public who is here, I think it's a very important facility, absolutely crucial workforce and a very important topic, so I appreciate you all coming out.

In the very beginning I expressed a particular concern about the message that NNSA might inadvertently be sending to the workforce here on safety and that it might not be a good one. I heard a lot of things today addressed exactly to that, and I found that very encouraging, and I will look forward to the followthrough.

CHAIRMAN WINOKUR: Thank you, Mr. Sullivan.

Let me provide my closing comments. First, I want to acknowledge the hospitality of the Pantex Plant and the local community. Thank you all for being here today. I want to thank our witnesses and all the members of the public who participated in this meeting and hearing. I particularly want to thank any Congressional staffers, elected officials, members of state and local organizations and union representatives that participated here today. An active community with engaged leaders is a vital part of any successful program of this nature.

The Pantex Plant is relied upon by our nation to ensure the vitality of the nuclear deterrent by

safely performing nuclear explosive operations to assemble, disassemble, dismantle and conduct surveillances on nuclear weapons. It's committed and dedicated workforce has successfully performed this important patriotic role in the defense of the United States for more than six decades and must continue to do so well into the future.

Managers of DOE, NNSA and the B&W Pantex must jointly ensure that Pantex has the staff, processes, tools and facilities required to fulfill this mission safely.

The Board explored three topics of interest today, safety culture at the Pantex Plant, emergency preparedness and safety of the defense nuclear facilities at the Plant.

The Board will review the record of this hearing which will serve as the basis for its oversight of the key issues addressed here today.

Once again, I want to thank everyone for their participation at this hearing.

The record of this proceeding will remain open until April 15th, 2013. I would like to reiterate that the Board reserves its right to further schedule and regulate the course of this public meeting and hearing and to recess, 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 the public meeting and hearing of the Defense Nuclear Facilities Safety Board. The meeting and hearing is adjourned. Thank you all for attending.

(Hearing adjourned.)

REPORTER'S CERTIFICATION

I, Dana Foster Moreland, Certified Shorthand Reporter in and for the State of Texas, do hereby certify that the above and foregoing contains a true and correct transcription of the Defense Nuclear Facilities Safety Board Public Hearing and Meeting held on March 14, 2013.

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