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DEFENSE NUCLEAR FACILITIES SAFETY BOARD
Public Hearing and Meeting on Y-12 National
Security Complex
Knoxville, Tennessee
Tuesday, December 10, 2013
Session II
2:00 p.m.
Knoxville Convention Center
701 Henley Street
Knoxville, TN 37902

BOARD:

- Dr. Peter S. Winokur, Chairman
- Ms. Jessie H. Roberson, Vice Chairman
- Mr. Sean Sullivan, Board Member
- Dr. Kenneth Mossman, Board Member
- Mr. Steven Stokes, Technical Director
- Mr. David S. Jonas, General Counsel
- Mr. Dan Ogg, Group Lead Nuclear Weapons Programs
- Mr. David Campbell, DNFSB Technical Staff
- Mr. Rory Rauch, DNFSB Y-12 National Security
Complex Site Representative
- Mr. John G. Batherson, Associate General Counsel

ALSO PRESENT:

- Mr. Steven Erhart, NNSA Production Office
Manager
- Mr. Arnold Guevara, NNSA Production Office
Assistant Manager for Safeguards and Security

1 Mr. Charles Spencer, B&W Y-12 President and
General Manager
2 Mr. Jason Hatfield, B&W Y-12 Director, Emergency
Services Organization
3 Mr. Robert Gee, B&W Y-12 Department Manager,
Emergency Management Program Organization
4 Mr. David Richardson, B&W Y-12 Deputy General
Manager, Operations
5 Mr. Scott Hawks, Classification Officer Y-12
Representative
6 Mr. William Linzau, DNFSB Y-12
National Security Complex Representative
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1 CHAIRMAN WINOKUR: Good afternoon. We
2 will now resume this public meeting and hearing.
3 My name is Peter Winokur and I am the Chairman of
4 the Defense Nuclear Facilities Safety Board. I
5 will preside over this public meeting and hearing.

6 I would like to introduce my colleagues on
7 the Safety Board. To my immediate right is Ms.
8 Jessie Roberson, the Board's Vice Chairman. To my
9 immediate left is Mr. Sean Sullivan. To his left
10 is Dr. Kenneth Mossman. Mr. Joseph Bader will not
11 be attending today. We five constitute the Board.

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

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

20 Today's meeting and hearing was publicly
21 noticed in the Federal Register on August 13, 2013
22 and November 12, 2013. The meeting and hearing are
23 held open to the public per the provisions of the
24 Government in the Sunshine Act. In order to
25 provide timely and accurate information concerning

1 the Board's public and worker health and safety
2 mission throughout the Department of Energy's
3 defense nuclear complex, the Board is recording
4 this proceeding through a verbatim transcript,
5 video recording, and live video streaming.

6 The transcript, associated documents,
7 public notice, and video recording will be
8 available for viewing in our public reading room in
9 Washington, DC. In addition, an archived copy of
10 the video recording will be available through our
11 web site for at least 60 days.

12 Per the Board's practice and as stated in
13 the Federal Register notices, we will welcome
14 comments from interested members of the public at
15 the conclusion of testimony at approximately 5:30
16 p.m. for this session.

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

25 There is also a table at the entrance to

1 this room with a sign-up sheet for members of the
2 public who wish to make a presentation, but did not
3 have an opportunity to notify us ahead of time.
4 They will follow those who have already registered
5 with us in the order in which they have signed up.

6 To give everyone wishing to make a
7 presentation an equal opportunity, we ask speakers
8 to limit their original presentations to five
9 minutes. The Chair will then give consideration
10 for additional comments should time provide.

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

16 The record of this proceeding will remain
17 open until January 10 of 2014.

18 I would like to reiterate that the Board
19 reserves its right to further schedule and regulate
20 the course of this meeting and hearing, to recess,
21 reconvene, postpone, or adjourn this meeting and
22 hearing, and to otherwise exercise its authority
23 under the Atomic Energy Act of 1954, as amended.

24 Let me proceed to explain why the Board
25 chose to hold this public hearing concerning safety

1 at the Y-12 National Security Complex. The Board's
2 enabling statute, now in effect for more than
3 twenty years, is found in the Atomic Energy Act
4 beginning at Section 2286 of Section -- of Title
5 42. This statute defines the Board's role to
6 advise the Secretary of Energy regarding actions
7 that may be necessary to ensure adequate protection
8 of public health and safety, including safety of
9 the workers, at DOE's (Department of Energy's)
10 exist -- new and existing defense nuclear
11 facilities. Y-12 is a nuclear weapon production
12 site managed by the National Nuclear Security
13 Administration, or NNSA, that falls under the
14 Board's jurisdiction. As part of Y-12's primary
15 mission, workers recover and purify highly enriched
16 uranium, produce and machine uranium components,
17 and store, assemble, disassemble, and conduct
18 surveillances on nuclear weapon components.
19 Failure to conduct these operations according to
20 the highest standards of safety could result in a
21 release of radiological or toxic material to the
22 public or severe consequences to the workers
23 themselves.

24 During the session this morning, the Board
25 received testimony regarding the safety risks

1 associated with aging infrastructure at Y-12 as
2 well as NNSA's efforts to address the Board's
3 concerns regarding the design of the Uranium
4 Processing Facility. In this afternoon's session,
5 we will receive testimony concerning emergency
6 preparedness at Y-12, including plans and
7 capabilities to prepare and respond to operational
8 emergencies and severe natural phenomena events
9 such as earthquakes and tornados. We will also
10 examine safety of nuclear operations at Y-12,
11 including conduct of operations, work planning and
12 control, and federal and contractor oversight. Let
13 me discuss each of these topics briefly.

14 Following the events at the Fukushima
15 Dai-ichi reactor complex, the Secretary of Energy
16 directed several initiatives to analyze and assess
17 preparedness for severe and beyond design basis
18 events in DOE's defense nuclear facilities. Y-12
19 managers responded to these Secretarial initiatives
20 and plan to make improvements to their capability
21 to respond to these events. Of continued interest
22 to the Board are the preparations for response to
23 both operational accidents and natural phenomena
24 events whose impacts cascade in consequence, affect
25 multiple facilities, or are beyond the design basis

1 of the facilities.

2 As discussed at length this morning,
3 Y-12's aging nuclear facilities are particularly
4 vulnerable to natural phenomena hazards that
5 include high winds and seismic events. This added
6 vulnerability underscores the necessity for
7 detailed emergency response planning and the need
8 to exercise site plans on a regular basis. It is
9 important to note that emergency response
10 facilities at the site are also susceptible to
11 failure from natural phenomena hazards.

12 In the past year, the Board has reviewed
13 emergency preparedness and response at Y-12,
14 observed drills and exercises, and assessed
15 programmatic activities. This afternoon's panel
16 discussion will serve as an opportunity to inform
17 the community about the capabilities at Y-12 to
18 respond to these emergency events, as well as
19 opportunities to improve the emergency response
20 infrastructure.

21 The last topic to be discussed at this
22 hearing is the safe execution of nuclear operations
23 at Y-12. Ensuring the safety of these modern
24 defense nuclear facilities preferentially relies on
25 engineered safety features to reduce the risk of

1 operations to an acceptable level. However, Y-12's
2 aging facilities did not have the benefit of this
3 design approach, and are therefore generally more
4 reliant on administrative, administrative controls
5 and safety programs. As such, the necessity of
6 rigorous adherence to the principles of Integrated
7 Safety Management and Conduct of Operations are
8 paramount to protecting the public and workers.
9 The Board has reviewed Y-12's programs in detail
10 over the past two years. These reviews included a
11 significant number of field observations and
12 identified a number of weaknesses in both work
13 planning and control and conduct of operations.

14 At this point, I feel it is important to
15 define what I mean by work planning and control and
16 conduct of operations. Work planning and control
17 refers to the implementation of Integrated Safety
18 Management principles at the activity level that
19 result in a set of steps and procedures that need
20 to be rigorously followed for the safe execution of
21 work. This covers all aspects of nuclear work,
22 from defining the scope of a job, analyzing the
23 hazards and developing controls, and ensuring that
24 procedures can be followed as written, and a
25 feedback mechanism that allows continuous

1 improvement. On the other hand, Conduct of
2 Operations is a formal program that properly
3 executes these procedures in a disciplined and
4 structured manner.

5 In this panel, the Board will review the
6 actions taken by NNSA's Production Office, or NPO,
7 and Babcock and Wilcox to improve the safe
8 execution of nuclear work. Many of these actions
9 have resulted in significant performance gains.
10 Some additional effort, particularly in the area of
11 work planning and control, is still needed. The
12 Board is primarily focused on ensuring these
13 improvements are sustained and institutionalized in
14 the long term. In particular, the importance of
15 training in sustaining Y-12's efforts cannot be
16 overstated. A rigorous training program must be
17 responsive to emerging needs and engage workers in
18 a manner that supports continuous improvement.

19 Additionally, we will take the opportunity
20 to discuss the role of oversight in ensuring safe
21 nuclear operations. Robust oversight on the part
22 of NNSA Headquarters and the NPO field office, as
23 well as the contractor's self-assessment processes,
24 or Contractor Assurance System, are crucial to
25 accomplishing the goal of sustained safe nuclear

1 operations. As NNSA works to redefine roles and
2 responsibilities of the various line management
3 organizations, clearly articulating expectations
4 for focused reviews of work planning and control
5 will help to address the concern outlined in the
6 Board's recent Technical Report entitled Integrated
7 Safety Management at the Activity Level: Work
8 Planning and Control. The Board is committing to
9 work -- committed to working with DOE and NNSA to
10 improve the overall safety and nuclear operations
11 across the complex, and in particular at the Y-12
12 National Security Complex.

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

16 VICE CHAIRMAN ROBERSON: No, Mr. Chairman.

17 CHAIRMAN WINOKUR: Mr. Sullivan.

18 MR. SULLIVAN: I have, I have none.

19 CHAIRMAN WINOKUR: Dr. Mossman.

20 DR. MOSSMAN: I have none.

21 CHAIRMAN WINOKUR: This concludes the
22 Board's opening remarks for this session.

23 At this time, I would like to introduce
24 Mr. David Campbell, a DNFSB Technical Staff member
25 responsible for oversight of the defense nuclear

1 facilities at the Y-12 National Security Complex
2 who will provide testimony from the Board's staff.
3 And, Mr. Campbell, I will take your full written
4 statement for the record. Please summarize your
5 written statement in ten minutes or less.

6 MR. CAMPBELL: Good afternoon, Mr.
7 Chairman, and, Members of the Board. For the
8 record, my name is David Campbell. I'm a member of
9 the Board's technical staff responsible for
10 oversight of defense nuclear facilities at the Y-12
11 National Security Complex.

12 In this session of the public hearing, the
13 Board is considering the state of emergency
14 preparedness and response capabilities at Y-12, as
15 well as the safety of nuclear operations, including
16 the National Nuclear Security Administration, or
17 NNSA, and contractor oversight of high-hazard
18 enriched uranium operations. In my testimony, I
19 will provide an overview of Y-12's emergency
20 response program, including a discussion of areas
21 where current capabilities, in the Board's staff's
22 opinion could be enhanced. I will also discuss
23 concerns with the execution of nuclear operations,
24 and in particular, weaknesses related to conduct
25 operations and activity-level work planning and

1 control, and the actions taken by NNSA and B&W to
2 address these weaknesses.

3 The Department of Energy, or DOE,
4 established specific programmatic requirements for
5 all DOE and NNSA elements related to emergency
6 planning, preparedness, response, recovery, and
7 readiness assurance. DOE Order 151.1C entitled
8 Comprehensive Emergency Management System details
9 these requirements to help ensure that DOE and NNSA
10 can effectively and efficiently respond to
11 emergencies, and thus protect workers, the public,
12 and the environment. The Board's staff reviewed
13 Y-12's Emergency Management program and found that
14 it generally meets DOE requirements and is
15 implemented according to DOE guidance documents.
16 When compared to a number of other sites across the
17 defense nuclear complex, Y-12 has a fairly mature
18 program.

19 In 2011, following an earthquake and
20 tsunami in Japan and the subsequent reactor
21 accident at the Fukushima Dai-ichi plant, the
22 Secretary of Energy issued a Safety Bulletin that
23 directed DOE elements to evaluate facility
24 vulnerabilities with respect to events that fall
25 outside the design basis for the facility. The

1 design basis refers to the complete set of bounding
2 accidents, including the operational and natural
3 phenomena events that are analyzed when developing
4 the set of safety controls for a facility. B&W's
5 response discussed its analysis of Beyond Design
6 Basis Events; the site's ability to manage to
7 manage a total loss of power; the maintenance and
8 operability of safety systems; and the state of
9 emergency plans, procedures, and equipment. Most
10 significantly, B&W reported that the primary
11 command and control facilities used at Y-12 to
12 manage emergency response are not seismically
13 qualified and would not be habitable or accessible
14 following many events involving hazardous
15 materials.

16 Subsequently, in February, 2012, the DOE
17 Office of Health, Safety and Security, or HSS,
18 issued a report documenting their independent
19 review of Y-12's preparedness for severe natural
20 phenomena events. This review identified
21 opportunities for improvement related to site
22 response and short-term recovery planning for
23 severe events. The Board's staff notes that, in
24 general, the identification of emergency response
25 resources at Y-12 is based on the analysis of

1 events that affect only one facility at a time;
2 multiple, multiple-facility events and events that
3 cascade in consequence have not been analyzed. For
4 certain severe events, this lack of comprehensive
5 analysis may complicate triage activities and may
6 fail to provide emergency response coordinators
7 with information needed to prioritize and allocate
8 limited resources.

9 Addressing the infrastructure
10 vulnerabilities of emergency response facilities
11 and analyzing multiple-facility events would
12 improve the overall capability of Y-12 personnel to
13 respond to severe events. Likewise, the site would
14 benefit from expanding the exercise program to test
15 capabilities for responding to and recovering from
16 such severe events. Although Y-12 personnel have
17 begun to strengthen their program in these areas,
18 these capabilities have not yet been fully
19 incorporated into Y-12's planning efforts.

20 I'll turn now to the safe performance of
21 nuclear operations. Generally speaking, nuclear
22 operations must be conducted according to a number
23 of fundamental principles. Work planning must
24 include a comprehensive analysis that clearly
25 identifies the hazards posed by the work activity

1 or work environment and must derive the appropriate
2 controls for these hazards. Successful work
3 planning is an iterative process and requires input
4 and coordination from many personnel such as work
5 planners, craft workers, field work supervisors,
6 subject matter experts, system engineers, et
7 cetera. The resulting procedures or work packages
8 must provide clear direction, be executable, and
9 incorporate controls into work steps in a logical
10 manner. The required system conditions must be
11 properly established prior to, during, and
12 following the work. In order to ensure that work
13 is performed in the manner planned, the workers, in
14 turn, must strictly adhere to the procedures and
15 work packages. These are a few elements central to
16 the principles of Integrated Safety Management and
17 Conduct of Operations. Weaknesses in the
18 implementation of these principles can contribute
19 to operational accidents that could jeopardize the
20 safety of workers, and possibly the public and the
21 environment.

22 At Y-12, the necessity of strictly
23 implementing the principles of Integrated Safety
24 Management and Conduct of Operations is further
25 amplified due to the challenges presented by aging

1 nuclear facilities. Fewer engineered controls are
2 available, which results in heavier reliance on
3 administrative controls and personal protective
4 equipment to reduce the safety risk to the workers
5 and the public. Workers' strict adherence to
6 procedures and work packages is essential to ensure
7 reliable implementation of these administrative
8 controls.

9 In 2010, several events occurred that
10 pointed to weaknesses in B&W's work control
11 processes. Subsequently, the Board conducted a
12 series of focused reviews on technical procedures,
13 conduct of operations, work planning and control,
14 and training and qualification. The Board found
15 that technical procedures were generally deficient,
16 using unclear language and imprecisely coordinating
17 actions between multiple procedures. On a number
18 of occasions, workers performed steps out of
19 sequence or skipped steps altogether. Work
20 packages routinely incorporated vague steps that
21 were not broken down into appropriate task-specific
22 levels. Job hazards analyses failed to identify
23 significant task-specific hazards and controls.
24 NNSA and contractor oversight efforts had not been
25 effective at identifying these issues with the --

1 without the help of outside organizations. As a
2 result of these weaknesses, there was a heavy
3 reliance on the first-line supervisors and workers
4 to make up for the deficiencies in work packages
5 and procedures. The Board communicated these
6 issues in letters to NNSA in August and December,
7 2011.

8 In response, B&W developed performance
9 improvement plans to address the Board's concerns.
10 The Conduct of Operations Performance Improvement
11 Plan specifically targeted weaknesses within the
12 Production Organization and in technical
13 procedures. B&W implemented a more rigorous
14 hands-on, situational training course and
15 formalized management's expectations for procedural
16 compliance. B&W instituted a Senior Supervisory
17 Watch program to better integrate senior managers
18 into field-based observations of nuclear operations
19 and B&W's Procedure Improvement Plan drove a
20 comprehensive review and re-write of many
21 production procedures, beginning with higher-hazard
22 operations that demonstrated the most significant
23 weaknesses. Additionally, B&W's Work Planning and
24 Control Performance Improvement Plan instituted a
25 series of corrective actions to improve the

1 Maintenance organization's implementation of
2 Integrated Safety Management at the activity level.
3 B&W focused on improving subject matter expert
4 engagement during the development of work packages
5 and revising the process for analyzing job hazards.

6 Overall, B&W's corrective actions resulted
7 in noticeable improvements in the implementation of
8 conduct of operations within the Production
9 organization. Instances of procedure
10 non-compliances have been reduced and technical
11 procedure quality has improved. During a recent
12 independent contractor assessment, B&W's Nuclear
13 Safety Operations organization concluded that the
14 desired results had been achieved by the Conduct of
15 Operations Performance Improvement Plan. The
16 Board's staff observed this B&W assessment and
17 agrees with the conclusions.

18 In the area of work planning and control,
19 however, performance gains have not been as
20 evident. Work package quality continues to be an
21 area of concern. Several recent worker exposure
22 events reinforce the need for continued effort in
23 this area. The B&W Nuclear Safety Operations
24 assessment highlighted the lack of progress in the
25 Maintenance organization toward addressing known

1 work planning and control deficiencies. Again, the
2 staff observed and agrees with the conclusions of
3 the B&W assessment team.

4 B&W senior management has been a driving
5 force behind initial efforts to improve the
6 performance of nuclear operations. The Board's
7 staff believes that it is important for NNSA and
8 B&W to now focus on sustaining the performance
9 gains achieved in conduct of operations, while
10 continuing to address known weak areas in work
11 planning and control. This can be accomplished
12 through a number of mechanisms, many of which are
13 already underway. The Board's staff believes that
14 training, in particular, is essential to sustain
15 improvements. The Board discussed the importance
16 of a coordinated and responsive continuing training
17 program in a June, 2012 letter to NNSA. Through a
18 new Continuing Training Pilot Program, B&W is
19 implementing a a number of mechanisms that should
20 enhance the quality of training for operators in
21 the Production organization.

22 Another key mechanism to sustain safety
23 improvements is robust contractor and federal
24 oversight. In August, 2012, B&W conducted a
25 Contractor Assurance System Effectiveness Review

1 and identified a number of weaknesses. The
2 Contractor Assurance System is the program by which
3 the Y-12 contractor assesses its own performance
4 and ensures that it can meet mission objectives.
5 Of note, the review team identified that management
6 assessments did not consistently support critical
7 self-assessment or continuous improvement.
8 Improving the effectiveness of self-assessments is
9 a critical component to sustaining improvements in
10 conduct of operations and further enhancing work
11 planning performance.

12 The NNSA Production Office recently
13 formalized its process for conducting targeted
14 reviews of work planning and control. The
15 development of specific review criteria and the
16 implementation of an assessment schedule with a
17 specific focus on field-based assessments will help
18 identify negative performance trends and evaluate
19 the effectiveness of contractor corrective actions.

20 Y-12 management has placed a considerable
21 emphasis on improving the safety of nuclear
22 operations during the past several years. While
23 improvements have been realized in certain areas,
24 continued effort is still needed in others.

25 This concludes my prepared testimony. I

1 would be happy to answer any questions from the
2 Board.

3 CHAIRMAN WINOKUR: Do the Board Members
4 have any questions for Mr. Campbell? Hearing none,
5 thank you, Mr. Campbell.

6 At this time, I would like to invite the
7 panel of witnesses from DOE and its contractor
8 organization to discuss the topic of Y-12 Emergency
9 Preparedness and Response. Would the panel members
10 please take your seats as I introduce you? Mr.
11 Steven Erhart is the NNSA Production Office
12 Manager. Mr. Arnold Guevara is the NPO Assistant
13 Manager for Safeguards and Security. Mr. Charles
14 Spencer is the B&W Y-12 President and General
15 Manager. Mr. Jason Hatfield is the B&W Y-12
16 Director of the Emergency Services Organization.
17 Mr. Robert Gee is the B&W Y-12 Department Manager
18 for the Emergency Management Program Organization.

19 Does any member of the panel wish to
20 submit written testimony at this time? Seeing
21 none, the Board will either direct questions to the
22 panel or individual panelists, who will answer them
23 to the best of their ability. After that initial
24 answer, other panelists may seek recognition by the
25 Chair to supplement the answer as necessary. If

1 the panelists would like to take a question for the
2 record, their answer to that question will be
3 entered into the record of this hearing at a later
4 time. After that, we will continue the questions
5 from Board members to the full panel. Ms.
6 Roberson will begin the questioning.

7 VICE CHAIRMAN ROBERSON: Thank you, Mr.
8 Chairman. Good afternoon to the Panel.

9 MR. ERHART: Good afternoon.

10 MR. HATFIELD: Good afternoon.

11 VICE CHAIRMAN ROBERSON: First of all, I
12 think it's important to set the context. So,
13 Mr. Spencer, I'm going to ask you the first
14 question. In order to provide context for the
15 public, can you summarize your emergency
16 preparedness and emergency response capabilities at
17 Y-12?

18 MR. SPENCER: I'll certainly try.

19 VICE CHAIRMAN ROBERSON: Okay.

20 MR. SPENCER: I look at the emergency
21 preparedness akin to the ISMS (Integrated Safety
22 Management) wheel, if you will. What we do is we
23 take a look and see what the hazards are, what the
24 potential hazards are. We assess how we can best
25 mitigate those hazards, how we're going to control

1 them with our procedures, with our facilities.
2 Right? And then the way we implement that, if you
3 will, on our wheel would be we would conduct
4 drills. I've been at Y-12 a little over a year. I
5 think that our program is very good. I really do.
6 I think our drill program and our emergency
7 response program is, is good. We have a number of
8 facilities that need work. Our Emergency Operating
9 Center is in good shape. It's off site. It's a
10 robust facility. It's located at ETTP. It used to
11 be called K-25. And that's a good facility. But
12 we need some additional work in a couple of our
13 other facilities. And we have one CD-0 in place
14 now for the Emergency Management Facility, which
15 will take the place of our Tech Support Center and
16 our PSS, the Shift Supervisor's Office, that we
17 use. And we're going to submit one this year for a
18 new Fire Station. Okay? So, it's kind of like our
19 on-site facilities are old and a bit ragged, if you
20 will, but we're replacing them.

21 From a vulnerability standpoint, as the
22 testimony cleared, we're in the process of, of
23 doing a better job of implementing multi,
24 multi-facility events, if you will. Right? And
25 you'll hear more about that if you ask some

1 questions about that. So, I'm not going to go into
2 a whole lot of detail. But we really have embraced
3 that. And we'll be in good shape, culminating in
4 our Emergency Action Levels, things that we use to
5 kick off the, the various events by the end of
6 2014, doing a technical basis of that. So, we have
7 a good story to tell you on that. Does that, does
8 that meet your needs?

9 VICE CHAIRMAN ROBERSON: I think, I think
10 it does.

11 MR. SPENCER: Okay.

12 VICE CHAIRMAN ROBERSON: Can you just
13 target in on the, the infrastructure? So, you're
14 replacing the Fire Station?

15 MR. SPENCER: We are.

16 VICE CHAIRMAN ROBERSON: Your Technical
17 Support Center --

18 MR. SPENCER: The Technical Support Center
19 will be replaced, also, in that -- the Fire Station
20 will be separate.

21 VICE CHAIRMAN ROBERSON: Uh-huh.

22 MR. SPENCER: The Tech Support Center will
23 be with our, our Plant Shift Superintendent's
24 office. Okay? That's another -- That will all be
25 called the Emergency Management Facility.

1 VICE CHAIRMAN ROBERSON: Uh-huh.

2 MR. SPENCER: The Emergency Operations
3 Center, the real hub of the thing, will remain
4 where it is off site.

5 VICE CHAIRMAN ROBERSON: Okay.

6 MR. SPENCER: Okay. Thank you.

7 VICE CHAIRMAN ROBERSON: So, you do
8 exercises and drills, whether it's tabletop or
9 field exercises? What do you --

10 MR. SPENCER: Yeah.

11 VICE CHAIRMAN ROBERSON: What do you view
12 as the most important challenges to the emergency
13 preparedness at Y-12?

14 MR. SPENCER: I listed the -- major
15 vulnerabilities. I think it's probably the age of
16 the facility and the -- and their proximity to each
17 other. I think the fact that we're going to these
18 multiple site look is important because Y-12 is a
19 relatively small site compared to a lot of the
20 other sites, you know, like Hanford and, and
21 Savannah River. It's a pretty close in site. So,
22 that's certainly a vulnerability. And, then, of
23 course, there's the infrastructure itself. As you
24 heard in the previous discussion, an aging
25 infrastructure, a severe event would do a lot more

1 damage at Y-12 to our existing facility, 9212, and
2 the others than it would to HEUMF or in the
3 proposed UPF.

4 VICE CHAIRMAN ROBERSON: Okay. Thank you.
5 So, the most challenging types -- At least in my
6 opinion, the most challenging types of events to
7 prepare for a typically severe event. And I know
8 there are some definitions. We need to make sure
9 that we're communicating what we mean by severe
10 events. But by severe, I mean events like tornados
11 or earthquakes that rarely occur, but have the
12 potential to affect multiple facilities. And you
13 alluded to this in your comments. They could -- It
14 could potentially overwhelm your ability to mount
15 an adequate emergency response and have the
16 potential for extremely high consequences to
17 workers and to the public. So, as you said, you
18 guys are very serious about this multi-event
19 scenario. So, what types of severe events using my
20 definition or, or giving yours if it's different,
21 that could impact Y-12?

22 MR. SPENCER: Well, it'd be similar to
23 what you said. It would be anything from a plane
24 crash to a tornado to a major earthquake. Those
25 are the three major categories --

1 VICE CHAIRMAN: And are there --

2 MR. SPENCER: -- that I think --

3 VICE CHAIRMAN ROBERSON: Are there any --
4 Are these included in your hazards analysis for
5 emergency preparedness?

6 MR. SPENCER: They are.

7 VICE CHAIRMAN ROBERSON: They are. They
8 all are?

9 MR. SPENCER: Yes.

10 VICE CHAIRMAN ROBERSON: Okay. And, Mr.
11 Erhart, what's your assessment of the state of
12 emergency planning and preparedness at Y-12?

13 MR. ERHART: The, the event that we spoke
14 of earlier, the Fukushima Dai-ichi Power Plant
15 disaster we'll call it, pointed out that, you know,
16 you -- In that case, that was an earthquake
17 analyzed, tsunami -- followed by a tsunami, also
18 analyzed. The height of the wave of the tsunami
19 was about a little over two times the wave that was
20 postulated in the analysis; therefore, causing
21 problems that were not anticipated and led to
22 the -- this discussion today essentially. We've
23 had -- I think DOE has done a good job of embracing
24 that and the lessons learned from that. And, and
25 that's where we get into the severe events. The --

1 Back to -- And I want to get back to severe events
2 in a moment. The -- Operationally, Y-12 has
3 traditionally been very good at -- I would concur
4 with that -- in its responding to site events. In
5 oftentimes in coordination with surrounding
6 community, as well as Oak Ridge National Labs.
7 They, they, they, they do well in their periodic
8 drills and exercises that, that -- And that -- And
9 the reason we do that is to be prepared for the --
10 for those events in the, in the case that they
11 occur. Every time we do a drill and exercise, we
12 learn something from it -- that's the idea -- and
13 make improvements to the process. The, the
14 Fukushima event challenged the world essentially to
15 relook at these, these events, that it can cascade,
16 it can be worse than you've anticipated first,
17 affect a wider range of facilities and
18 infrastructures than you originally anticipated,
19 challenge, challenge your ability to get help from
20 off site, see, see what you're able to do with,
21 with only things within your, your control. Loss
22 of power was mentioned. That was certainly a part
23 of -- a big part of the, of the events in Japan.
24 So, while we remain very, very good at the
25 operational event response, we, we have been

1 doing -- and we'll talk some, some about this -- we
2 have been doing some other events, like the tornado
3 event, earthquake type events that take out
4 multiple facilities. There's still more to do on
5 that. But those are the type of things that it's
6 good. It challenges your, your thinking and gets
7 you prepared for something that -- Again, we're,
8 we're talking about these low probability, but high
9 consequence events. And, so, we're, we're making
10 some good progress there. And we're happy to talk
11 you through what the site has done as, as a result.

12 VICE CHAIRMAN ROBERSON: Okay. So, so,
13 let me just restate. I mean, what I heard you say
14 is they're doing some, some pretty good planning,
15 they've done some exercises, but you are very clear
16 that you're going to continue to improve. The site
17 is going to continue to improve. So, you think B&W
18 is doing pretty good in this area? I'm, I'm
19 just -- I'm not asking for a grade. I'm just
20 saying you think the site is doing pretty good in
21 this area?

22 MR. ERHART: Yeah, I think we're, we're
23 where we should be. The things that we'll talk
24 about in the course of the discussion here is that
25 more, more of the analysis part that Mr. Campbell

1 referred to where you're actually doing a more
2 formal analysis and -- of the -- excuse me -- of
3 these multiple events, these wider spread where
4 you're now -- you're -- It's more of a
5 concurrent --

6 VICE CHAIRMAN ROBERSON: Okay.

7 MR. ERHART: -- analysis. We have more
8 work to do there.

9 VICE CHAIRMAN ROBERSON: So, Mr. Erhart,
10 where I, where I really -- where I want you to, to
11 describe to the public and to the Board is how do
12 you independent of B&W assess the state of your
13 emergency preparedness? What are the assets you
14 use?

15 MR. ERHART: Okay.

16 VICE CHAIRMAN ROBERSON: You know, how do
17 you from an oversight perspective establish
18 confidence in a site's ability to respond?

19 MR. ERHART: Okay. I base that on --
20 Again, we talked about personal observations. So,
21 we -- We're -- It's very important to me that
22 emergency management has very good planning, a very
23 good scheduling of, of events. They meet their
24 schedules. They do them when they -- you know,
25 they say they're going to do them. That the plans

1 are readily approvable by my office because we
2 approve the event before it occurs. We don't want
3 to have events that, you know, adversely affect
4 operations at the plant. So, that's one thing that
5 we look at. And my, my observation through my,
6 through my staff has been that the planning for,
7 for events is pretty thorough, well -- easy to
8 understand. The criteria are pretty clear in the
9 plans for what is the objective of the exercise.
10 As well as the follow-up reports are pretty clear
11 and have a pretty sound basis for whether, whether
12 they met or did not meet those objectives. So,
13 that's pretty good. The, the frequency seems
14 pretty good. We have a five-year plan. Pretty
15 comprehensive. All elements of the emergency
16 planning, all the objectives that we talked about
17 will be exercised over a course of five years.
18 They have a combination of the small, small kind of
19 drill events all the way up to site-wide exercises.
20 And some include the community at large. We have
21 one coming up here next year. It will be a big --
22 And we'll talk about that more later. But it will
23 be a response to a pretty significant seismic
24 event. And that then you're using your emergency
25 management structure and expanding it and combining

1 it with the National Incident Management Response
2 structure. So, we'll be doing that. So, I think
3 it's a pretty, a pretty robust program. And, then
4 like I said, we'll talk more about some of the
5 things that came out of that gap analysis that you
6 talked about that followed the Fukushima event and
7 talk about some infrastructure improvements and
8 some other, other things.

9 VICE CHAIRMAN ROBERSON: Okay. So, so,
10 one last question for now to Mr. Guevara. How are
11 you doing?

12 MR. GUEVARA: Fine. Thank you.

13 VICE CHAIRMAN ROBERSON: Good. So, you
14 have the direct responsibility for Mr. Erhart to
15 drive improvements in this area; is that right?

16 MR. GUEVARA: Yes, I do.

17 VICE CHAIRMAN ROBERSON: So, how do you do
18 that?

19 MR. GUEVARA: We, we have a, a
20 multi-pronged approach. We -- All the drills and
21 exercises that B&W as our contractor conducts, we,
22 we shadow them to see the, the rigor of the
23 assessment and the analysis of the results. We
24 also conduct our own assessments looking at the
25 various components of the Emergency Management

1 program. And as we look, look at that, we identify
2 what we call findings, areas that need improvements
3 and that need to be tracked until they are
4 corrected. And then we look for enhancements,
5 opportunities for improvement and, and provide them
6 to the contractor. We roll up those quarterly
7 assessments into a more comprehensive annual
8 assessment to make sure that we cover all the
9 various areas and don't leave any gaps. But then
10 we also rely on external assessments. They give us
11 an independent look. And those often come from --
12 Like most recently, we had a NNSA Headquarters No
13 Notice exercise. It proved valuable. And coming
14 up in the summer, we have an independent assessment
15 from the Office of Enforcement and Oversight,
16 Office of Health, Safety and Security. Those prove
17 valuable. And at times, we've asked them to come
18 down and also assess our program.

19 VICE CHAIRMAN ROBERSON: Okay. Thank you.

20 MR. GUEVARA: Thank you.

21 CHAIRMAN WINOKUR: Let me, let me work on
22 terminology some more so at least I'm clear so --
23 because we have a lot to discuss and I don't want,
24 I don't want to get confused as we go along. And I
25 could even address this question to you, Mr.

1 Spencer. Severe events are things you've always
2 considered. In other words, every time you have a
3 Documented Safety Analysis for a facility, no
4 matter what the facility is, you look at severe
5 events. You look at tornados and high winds and
6 earthquakes and everything of that nature. Is that
7 accurate?

8 MR. SPENCER: It is. That's the basis of
9 most of the things we do, yes.

10 CHAIRMAN WINOKUR: And what happened in
11 terms of Fukushima -- after Fukushima was the
12 Secretary was interested in beyond design basis
13 events. These are things that don't have to
14 formally be included in a Documented Safety
15 Analysis for a specific facility, but the Nuclear
16 Safety Management Rule tells you to at least think
17 about them. Is that correct? Is that your
18 understanding?

19 MR. SPENCER: Basically, yeah.

20 CHAIRMAN WINOKUR: Okay. I want to make
21 sure I use those terms correctly. So, let me start
22 with you, Mr. Hatfield. We had the event at
23 Fukushima. And, obviously, the Secretary was very,
24 very quick to respond to it. He sent a Safety
25 Bulletin out to all the sites saying, hey, take a

1 look at how you can respond to this what we call
2 beyond design basis events, things you haven't
3 normally planned for when you look at your
4 facilities. And then the Secretary had --
5 initially had somewhat of a workshop where he
6 called everybody from DOE together. So, DOE was
7 very, very focused on this problem right away. So,
8 that gets us into the summer. But in December and
9 January -- well, December of '11 and January of
10 '12, DOE's Health, Safety and Security organization
11 conducted an independent review down here of
12 Y-12's emergency preparedness. How did that go?
13 What did they find? It's like -- You know, you
14 were working on the issue at that, at that time,
15 right?

16 MR. HATFIELD: That's correct.
17 Immediately after the Fukushima Dai-ichi event,
18 there was a, a letter sent out from the Department
19 of Energy that asked us to look at the condition in
20 our, our programs with respect to severe events.
21 From that initial look, we identified immediately
22 that our emergency response facilities continued to
23 be a concern for us in terms of our ability to
24 respond to these significant events. Fast forward
25 through the workshops that you just discussed and

1 the assessment that came down from the Office of
2 Health, Safety and Security, the conclusion of that
3 assessment was that there were no findings in our
4 program. However, there were fourteen
5 opportunities for improvement that were identified
6 where we're currently meeting requirements,
7 however, with this new information, areas that we
8 might want to focus on to continue to drive
9 improvement in our program.

10 CHAIRMAN WINOKUR: Were the HHS folks in
11 their view, were they looking at severe events or
12 were they looking at beyond design basis events?
13 Were they looking -- What gap were they looking at
14 when they did that?

15 MR. HATFIELD: Sir, I believe they were
16 looking at both. They came in and assessed our
17 program to the current requirements of a severe
18 event. However, they were also here looking at
19 beyond design basis events, looking to where we
20 have exceeded the current requirements, looking at
21 the maturity of our program, and then our ability
22 to respond to those new types of events that we're
23 just now trying to, to get our hands around. As
24 Mr. Spencer identified, tornados, earthquakes and
25 other large scale events are already a part of our

1 existing design basis. They're part of our
2 procedures. They were a part of our Emergency
3 Action Levels, those actions that we take in order
4 to protect the safety of our on-site workers and
5 our public safety -- public community. So, we were
6 already doing those things. However, I believe the
7 world did truly change after the Fukushima Dai-ichi
8 event and it caused us to step back and look a
9 little bit broader, to look a little bit bigger at
10 do we have the controls in place in order to
11 address one of those types of events.

12 CHAIRMAN WINOKUR: Were there any gaps
13 there in terms of their ability to respond to the
14 beyond design basis events?

15 MR. HATFIELD: Well, in terms of gaps, as
16 I said, there were no findings from the report,
17 meaning there was no areas of requirements that
18 were not being met. However, in terms of looking
19 forward at this new condition of these events that
20 were beyond what we had previously analyzed, there
21 were fourteen opportunities where we continue to
22 mature the program. Some examples, some examples
23 of those would be that we need to further define
24 what a severe or beyond design basis event is, we
25 needed to have better plans and a stronger

1 technical basis in order to mature and enhance our
2 current program to now cover these larger, broader,
3 low probability events, but, but, nonetheless, high
4 consequence events. It identified our emergency
5 response facilities. As we had previously
6 highlighted in our initial response to the letter
7 sent out from DOE, they concurred that our
8 emergency response facilities were of concern and
9 needed to be upgraded or replaced.

10 CHAIRMAN WINOKUR: Well, let me jump
11 ahead -- I don't want to jump ahead to my next
12 question, but in this time frame, late
13 December/January, 2012, had you carefully looked at
14 events that impacted multiple facilities at that
15 time? Had you, had you carefully done that
16 analysis?

17 MR. HATFIELD: We had not done that
18 detailed analysis, no. In fact, we were just
19 starting to continue to get our arms around the
20 serious --

21 CHAIRMAN WINOKUR: So, you're saying that
22 HSS came in and found no gaps, but you hadn't
23 really ever looked at multiple facilities at that
24 point?

25 MR. HATFIELD: What we'd done is we had

1 looked at the materials that were subject to a
2 event, which is something that we look at --

3 CHAIRMAN WINOKUR: Yes.

4 MR. HATFIELD: -- as part of our current
5 technical basis, and then we looked at how multiple
6 facilities would be impacted in order to do a
7 overarching high level analysis. From that, what
8 we determined is that our control set or actions
9 that we would take in response to one of these
10 events was bounding using the most conservative set
11 of controls that we have. So, in this time, what
12 we have done is we have applied guidance to our
13 Plant Shift Superintendent's office and to our
14 responders to go ahead and step all the way towards
15 those most conservative action sets when we have
16 one of these very large scale severe events in
17 order to protect the site, the public, protect
18 safety while we continued to do that detailed
19 analysis of the, the different combinations and the
20 different types of events that we may exactly see.

21 CHAIRMAN WINOKUR: What were some of the
22 scenarios you looked at when you looked at beyond
23 design basis events?

24 MR. HATFIELD: Well, as has been discussed
25 previously, we were already looking at tornados and

1 earthquakes and similar types of events. So,
2 really, what we were doing is we were looking at
3 how a tornado or an earthquake would impact
4 multiple facilities and then how that combination
5 of impacting multiple facilities would impact our
6 response. With that, we looked at what training
7 was necessary in order to prepare our -- both our
8 on-scene first responders as well as our management
9 team that stands up in the event of an emergency to
10 ensure that everyone is aware of priorities. The
11 other thing that we did is we looked at how this
12 event would impact our ability to either utilize or
13 provide mutual aid. In terms of defining a severe
14 event or a beyond design basis event, one of the
15 aspects that some people use in that definition is
16 that it would be a regional-wide event that might
17 impact ability to either provide or receive mutual
18 aid from -- for example, in our case, the City of
19 Oak Ridge, the Oak Ridge National Laboratory, or
20 the Knoxville Fire Department.

21 CHAIRMAN WINOKUR: Yeah, I'm just trying
22 to understand. So, when you're asked to look at
23 beyond design basis events, you don't say, well,
24 this is a Category 4 tornado and I'm going to look
25 at a Category 5 tornado, or I've looked at winds at

1 eighty miles an hour, I'm going to look at winds at
2 a hundred and twenty miles -- You don't escalate
3 the hazard when you do that, that analysis, when
4 you do that beyond design basis analysis?

5 MR. HATFIELD: With the detailed analysis
6 that we're working on today, we will look at those
7 exact -- a dispersion modeling of hazardous
8 materials with certain wind factors applied. Yes,
9 we will do that. However, as I said, for this
10 initial first cut, the interim action that we
11 wanted to take is to go ahead and jump, jump
12 forward, look at the most conservative control set
13 we have possible and ensure that all of our people
14 and our equipment is prepared to respond at those
15 escalated bounding levels.

16 CHAIRMAN WINOKUR: All right. And my
17 understanding is that you did develop a Severe
18 Event Response Plan.

19 MR. HATFIELD: That is correct.

20 CHAIRMAN WINOKUR: Can you talk a little
21 bit about that?

22 MR. HATFIELD: Absolutely. As Mr. Spencer
23 indicated earlier, the principles of Emergency
24 Management are very similar to those of ISMS where
25 the first steps are to identify your hazards, to

1 identify the work scope that is going on, to
2 provide controls to mitigate those hazards, and
3 then to train personnel, ensure that they have all
4 the tools necessary to, to actually respond in
5 those types of events. In similar fashion, our
6 Emergency Management program is built upon those
7 same principles of identifying those hazards, doing
8 the analysis to ensure that we have the controls in
9 place. So, the Emergency Response Plan, the intent
10 of that document was to provide an overarching
11 umbrella description of what a severe event is and
12 to go ahead and establish the framework that we
13 would use in order to do the, the further technical
14 analysis that we needed to conduct for each of
15 these very specific scenarios, such as an F4
16 tornado versus an F5 tornado. So, that Emergency
17 Response Plan provides the framework or the
18 umbrella that we use at Y-12 for responding to
19 these events.

20 CHAIRMAN WINOKUR: So, Mr. Erhart, are you
21 comfortable with the approach that the contractor
22 is taking in this regard?

23 MR. ERHART: Yeah, I think it's important
24 to note that there's still, still some work to do
25 on -- We're not even in the timeline for getting

1 all the work done. We're not, we're not to the
2 point of declaring a complete -- completion of
3 those actions. But I do think that the Y-12 site
4 had taken some actions, you know, prior to
5 Fukushima that was starting to stretch the envelope
6 a little further than was technically required.
7 So, where that falls between the threshold of
8 severe to beyond design basis, we leave that to, to
9 the imagination. But the -- Several of the
10 exercises I noted when I got here that actually
11 preceded the event, one was the simulated heavy
12 snowfall. And this was highly -- I would say it is
13 a probable event. It could happen, which actually
14 could cause building roof collapse, would involve
15 many injuries, fatality with all the snow that,
16 that had caused problems with response. So, they
17 were already starting to think about that. I think
18 they did a tabletop exercise, as well, with our
19 friends at the Oak Ridge National Labs where
20 they're really starting to -- It is -- It's not a
21 full scale exercise, but it is a tabletop
22 discussion on how, how are we going to do deal with
23 it if a lot of roads are out, communications are
24 down. So, they were, they were on the right track.
25 And then as we discussed, the impetus that was

1 provided by the, by the Secretary of Energy really
2 got us, got us thinking harder about some of these,
3 and then putting more -- Again, back to the
4 planning, making sure that the, the analysis is
5 done. And that's, that's still being worked.
6 Thinking that -- And this is where I -- You know,
7 analysis is great. But continue to conduct drills
8 and exercises and push the envelope, learn from
9 the -- from those exercises and make improvements
10 as you go. And the, the plans that we see and we
11 review, Mr. Guevara and I look at look pretty good
12 as far as going out into the future and coming up
13 with some ideas on conducting these exercises that
14 will help build more assurance that if, if we did
15 have something like that, we would be more self --
16 we'd be able to support ourselves more without
17 reliance on external help and, and we would be
18 exercising that to see where, where we can make
19 improvement. So, we're -- I think we're on the
20 right, the right track. There's some more work to
21 do. And, like I said, we did learn from our
22 friends in External Oversight. I had them in
23 pretty early. They had some good comments that
24 helped, helped us prepare the case for some of
25 these facilities that need to be looked at. And

1 that's primarily because one of these, these events
2 could take out the local facilities, either take
3 them out as far as making them, you know, fall
4 over, but, also, we have some concerns with having
5 people in there with certain toxilological hazards,
6 not the correct ventilation systems, and the like.
7 But we're still in pretty good shape for that, as
8 well, because of where the -- It just so happens
9 the EOC (Emergency Operations Center) is nine miles
10 away in a pretty hardened structure that we can, we
11 can utilize that. So, I think we're -- we are in
12 pretty good shape for, for most -- managing most,
13 most events, but we can definitely improve.

14 CHAIRMAN WINOKUR: So, the Department of
15 Energy, they've been very, very, very concerned
16 about this issue beginning after the Fukushima
17 Dai-ichi event. As I said, they had a Safety
18 Bulletin. They had two workshops. And then in
19 April of 2013, the Acting Deputy Secretary of
20 Energy, which would be Daniel Poneman at the time,
21 you know, redirected the site offices to look at
22 their emergency preparedness programs and make
23 enhancements by the end of calendar year 2014. And
24 one of the things he was very focused on were the
25 multiple facilities, Mr. Hatfield. Right? Can you

1 explain for the people in the room what this
2 multiple facility, you know, thing means? Why, why
3 do we have to be concerned? Why can't you just do
4 one facility and then the next facility and the
5 next facility? How with your kinds of hazards
6 would the multiple facilities play together? How
7 does that work?

8 MR. HATFIELD: Yes, sir. In fact,
9 currently, the way our technical analysis is
10 structured is each one of our facilities or
11 facility and its support buildings are analyzed
12 independently with the thought process that if we
13 have a fire, for example, in a building, that that,
14 that that fire will likely stay contained within
15 that building and, therefore, the material at risk
16 or the material that could be subject to that fire
17 would be limited. With regard to material at risk,
18 if I can just point out for a moment that the
19 changes that were made over the last two years at
20 Y-12 with taking our hazardous materials and
21 relocating those in large part to the new Highly
22 Enriched Uranium Materials Facility has paid
23 tremendous dividends in the Emergency Management
24 program. The, the levels and types of materials
25 that we now have to be concerned with are far

1 reduced as the HEUMF facility is built to those
2 higher standards for natural phenomena events, the
3 earthquakes and the tornados. And, therefore, as a
4 site, we are much safer having those materials in
5 that new seismic facility that would likely not get
6 caught up into a, a fire resulting from an
7 earthquake. But, but back to your question, what
8 the Fukushima event taught us in terms of looking
9 at these emergency events is that, that we do not
10 have the luxury of looking at each facility
11 independently, but, instead, a tornado that comes
12 down our valley could and possibly would likely
13 impact multiple facilities. Therefore, we would
14 have to respond and deal with the challenges of
15 multiple buildings at the same time being involved
16 in an event or, in the case where we have adjoining
17 buildings, that a fire starting in one facility
18 could propagate and move into another facility,
19 thereby subjecting the materials in that second
20 facility to the fire, as well. So, it, it
21 increases the, the consequences of an event and it
22 increases the complexity of a response from our
23 Fire Department to actually be able to address and
24 deal with those hazards.

25 CHAIRMAN WINOKUR: And, Mr. Gee, how, how

1 do you think you're doing in terms of your analysis
2 of multiple facility events?

3 MR. GEE: Yes. First I'd like to point
4 out that we do have a, a comprehensive technical
5 basis program. We had mentioned it earlier. Each
6 of our hazardous material facilities at Y-12 are
7 covered by an Emergency Planning Hazard Assessment.
8 And those do include analysis of releases caused by
9 earthquakes, tornados, high winds, snow loading,
10 flooding. We look at all those natural phenomena
11 events right now in our current analyses. We did
12 realize after looking at severe events that we do
13 have the potential to be impacted by a severe event
14 that causes the release from multiple buildings at
15 the same time. So, we're, we're, we're going down
16 the path now. And we're well down the path of
17 creating a new Technical Basis Document in which we
18 look at each of our facilities and determine the
19 materials in the facility. And this is -- And
20 where we are right now is we've determined
21 groupings of buildings that could be impacted by
22 severe events. And we've used several different
23 processes to do that. A couple of examples are,
24 as, as Mr. Hatfield mentioned, we've looked at
25 buildings that are close enough together in

1 proximity that if we had a severe event, a fire in
2 one facility could propagate into the other
3 facilities. And we have several groups now of
4 buildings that could result in a large
5 multi-building fire. We've also looked at
6 tornados, realizing that tornados is, is one of the
7 severe events that we could be impacted by. We
8 have done some research. Looking at some of the
9 literature indicates that a typical tornado is
10 about a hundred and twenty-five yards wide as far
11 as the path of damage. And, so, we've looked at
12 the, the typical direction of travel of a tornado
13 and the typical path. We've basically sliced our
14 site, site up into, into slices and looked at the
15 groups of buildings that could be impacted by a
16 single tornado strike. That's given us another set
17 of building groupings. We've done several other
18 groupings of buildings to give us a
19 comprehensive -- reasonably comprehensive set of
20 building groupings to analyze. Then we've
21 identified from those building groupings and, and
22 the emergency scenarios that could occur, whether
23 it's a loss of containment or a fire, all the
24 materials that would be involved and could be
25 released, the, the quantity of material that could

1 be released. We've worked out all the details
2 associated with calculating the consequences using
3 the, the models that we typically run. And we're,
4 we're at the stage right now of calculating all the
5 consequences for those scenarios. We have a goal
6 of finishing this document, this new Technical
7 Basis Document by the end of June of 2014. We're
8 ahead of schedule and we expect to finish that well
9 before June of 2014. The, the ultimate product
10 that we will get from this is a new set of
11 Emergency Action Levels that our PSS, or Plant
12 Shift Superintendent, will be able to use if we
13 have a severe event that impacts multiple
14 facilities to do the initial -- all the initial
15 actions that they normally do; the, the
16 categorization and classification, activation of
17 resources, initiation of protective actions, both
18 on-site and off-site protective action
19 recommendation -- recommendations. And we realize
20 that there's a, there's a gap there. So, what
21 we've done to bridge the gap between now and when
22 the new set of EALs will be in place is we, we have
23 created for our PSS office a, a multi-building
24 event matrix that they can use. If we have a
25 severe event that impacts multiple facilities, they

1 can use that matrix along with their currently
2 existing guidance and current EALs to make the
3 appropriate decisions should a -- in the event of a
4 severe, severe event.

5 CHAIRMAN WINOKUR: How would you respond
6 to a multi-facility event if it happened tomorrow?
7 Would the, would the workers know what, know what
8 to do?

9 MR. GEE: Well, from the PSS standpoint,
10 from the management standpoint, we would, we would
11 have the matrix that we have created to allow them
12 to make the appropriate categorization and
13 classification, issue the appropriate protective
14 actions. All of our workers at Y-12 are trained.
15 We have Building Emergency Plans for every occupied
16 building at Y-12. Each of those is, is written by
17 the Emergency Management Organization so we make
18 sure we have consistency from building to building.
19 And in each one of those Building Emergency Plans,
20 we have instructions for our employees on what to
21 do in the event of an earthquake, tornado, high
22 winds, winter storm. So, they -- And they receive
23 training on that annually.

24 CHAIRMAN WINOKUR: How would they know
25 whether to shelter in place or evacuate the

1 building, for example? How would they know?

2 MR. GEE: Right now, they'd know by --
3 They are given instructions by the Plant Shift
4 Superintendent's office via the Emergency
5 Notification System and the public address system.

6 CHAIRMAN WINOKUR: Yeah. You have a quick
7 answer?

8 MR. SPENCER: Yes, I was just going to add
9 that what, what he was describing is when we get
10 done with this technical evaluation in the June
11 time frame, the new EALs will be much clearer.
12 It's, it's just like our current process. Pick up
13 the EALs, this is what I do, this is what I do, who
14 do I call. In the meantime, we have a comp measure
15 in place that's a matrix that will -- that requires
16 in the meantime some more thought and analysis by
17 the Plant Shift Superintendent -- right -- to
18 declare a larger event. But we have something in
19 place. It'll be better when we finish the final
20 EALs with the, with the technical determinations on
21 it.

22 CHAIRMAN WINOKUR: Let me ask you a
23 question, Mr. Guevara. I mean, this is -- these
24 are all tough things to deal with and I know that.
25 But you actually have facilities on this site where

1 the -- where, where an adjacent facility impacts
2 the Documented Safety Analysis of the other
3 facility, right?

4 MR. GUEVARA: Correct.

5 CHAIRMAN WINOKUR: So, you -- I would have
6 thought that multiple events at multiple facilities
7 would have been something that Y-12 really would
8 have done some thinking about because you've got a
9 lot of toxicological hazards in these buildings.
10 And you've got HF (Hydrogen Fluoride) and other
11 kinds of chemicals that once they start to get
12 released and moving are going to impact not only
13 the facility they're coming from, but other
14 facilities, right?

15 MR. GUEVARA: Yes.

16 CHAIRMAN WINOKUR: So, is there, is there
17 any sense of -- You know, you're making progress on
18 this now. Do you think you, you might have made
19 progress earlier or was there any reason why maybe
20 Y-12 wasn't the leader in this area in the past?

21 MR. GUEVARA: I think we have a sense of
22 urgency and we know we are working on it. And we
23 are, we are making progress. You know, we have put
24 a lot more emphasis in our exercises to -- with --
25 so that we can work the plans that we do have in

1 place and -- as, as we're building on the Technical
2 Basis. And now we have a Severe Event Response
3 Plan. So, that, that is a big area that we'll be
4 active on in 2014 and have Emergency Response
5 Organization planning already scheduled for next
6 month and a large exercise to measure our progress
7 here coming in June.

8 CHAIRMAN WINOKUR: But there's no question
9 that at this site, you really do have to look very
10 carefully at this multiple facility response,
11 right? I mean, to you guys --

12 MR. GUEVARA: Absolutely, yes, sir.

13 CHAIRMAN WINOKUR: -- it's very important.

14 MR. GUEVARA: Yes.

15 CHAIRMAN WINOKUR: I would think so. Dr.
16 Mossman.

17 DR. MOSSMAN: Thank you, Mr. Chairman.
18 I'd, I'd like to follow up on your line of inquiry
19 and specifically go back and re-examine Mr.
20 Hatfield's comment about how we look at multi-site
21 events, multi -- multiple facility events. The
22 sense I have from your comment is that the modeling
23 is primarily a linear scale. In other words, one
24 plus one is equal to two. And I'm not sure that
25 that is completely appropriate; that a more

1 synergistic type of approach where you look at
2 multiple facility events as one and -- one and one
3 is more than two. And we alluded in the previous
4 discussion a little bit about how that might
5 happen. I harken back to Fukushima Dai-ichi, one
6 of the lessons learned there that where you had
7 multiple reactor involvement, the totality of the
8 event is far greater than the sum of the -- If you
9 could partition the individual events that occurred
10 there at least in terms of the reactors, it was far
11 greater than just summing up those things. And I
12 wondered if you could, if you could comment on
13 that, the notion that maybe your modeling should
14 be, should be directed to a certain extent to this
15 idea of synergy of, of multiplicity of effects when
16 multiple facilities are involved.

17 MR. HATFIELD: Yes, I'd be glad to. I
18 tend to agree with your comments. And if there was
19 an indication that, that it is simply linear in
20 effect, I do not think that's correct. As I stated
21 earlier, in terms of responding to these events,
22 it, it is not linear. In fact, the degree of
23 complexity to respond to these types of events
24 grows significantly because now you may not simply
25 be dealing with a single hazard, but with multiple

1 hazards as a result of these types of cascading
2 events now impacting multiple facilities which each
3 had unique hazards. And, therefore, to, to your
4 point, there's a multiplicative effect in terms of
5 challenge and responding to those and what needs to
6 be done. What I did intend to suggest, though, is
7 that we have taken a -- tried to step back and
8 apply a immediate compensatory measure to identify
9 can we take the most conservative action that we're
10 aware of as we go through the process of doing this
11 detailed analysis. Now, in terms of the exact
12 modeling, Mr. Gee I'm sure could speak more
13 definitively to, to how that is being done. But as
14 we do finish up this modeling effort in June of
15 2014, we will see exactly what are the consequences
16 of these multiple facility events as we have
17 grouped them and it will validate if there are any
18 additional actions that need to be taken. But in
19 terms of our planning, in terms of our philosophy
20 of looking at these types of events, yes, we have
21 looked at the significant increase in complexity
22 and challenge with both the people, the facilities,
23 and the equipment in terms of responding to
24 multiple facility events.

25 DR. MOSSMAN: Thank you, Mr. Hatfield.

1 In, in that regard, how do you go about allocating
2 limited resources to dealing with a multi-facility
3 event scenario that might be a different approach
4 from just a single facility scenario? Have you
5 begun to factor that in in terms of where resources
6 go, how you prioritize them, that type of thing?

7 MR. HATFIELD: Absolutely. We have given
8 that a significant degree of consideration because
9 there's really two aspects of that that we're faced
10 with. Number one, in these severe events by most
11 peoples' definition, it would be a regional event
12 such that regional assets and mutual aid would not
13 be available to support you. In most of our single
14 facility scenarios, we rely, we rely or at least we
15 routinely exercise the use of mutual aid to provide
16 additional resources necessary to respond. The
17 other aspect of it is that with those mutual aid
18 assets not available to us, we now have to work in
19 a stand alone mechanism and manner knowing that it
20 would be a period of time before additional
21 resources, either call-in resources or people
22 outside of the, the region, would become available
23 to us. So, that has been one of the, the areas of
24 focus that we've given to this event in terms of
25 how we respond to it. As Mr. Gee mentioned earlier

1 in terms of the way that we're grouping these
2 facilities, there's really an infinite number of
3 possible scenarios that we would have to respond to
4 in these severe events; different buildings,
5 different risks, different amounts of materials,
6 different areas within buildings. Again, it's
7 really an infinite number of scenarios. So, what
8 we've done is we focused on building the framework
9 that focuses on prioritization of how we manage an
10 event. This prioritization follows the national
11 response framework in terms of identifying the need
12 to protect life of people and life of the public,
13 to protect the special nuclear materials that we
14 have on our site, and to protect the environment.
15 So, what we've done is we've trained our Incident
16 Commanders, our, our first responders that will
17 actually be in the field responding to this to
18 those priority schemes. We've developed a Incident
19 Command procedure that not only focuses on those,
20 but we've also drilled and exercised to the point
21 of how Incident Commanders would deal with some of
22 these challenges of being on their own, not having
23 mutual aid, and dealing with these multiple
24 facility, multiplicative type consequences that
25 they would have to deal with that we had not

1 previously drilled on prior to 2011, but we have
2 since today. And then, lastly, our management
3 team, we've taken the opportunity to train our
4 Management Response Organization, our Emergency
5 Response Organization on this same priority scheme.
6 And while the Incident Commanders are responding in
7 the field, the Emergency Management Management Team
8 is validating those decisions being made in the
9 field, validating that it meets this prioritization
10 scheme that we're using, and that the right
11 decisions are being made, not just locally, but for
12 the entire region in terms of how we are to respond
13 to these events.

14 DR. MOSSMAN: Thank you, Mr. Hatfield.
15 Mr. Gee, in, in regard to the, to the response of
16 Incident Commanders in the field, what are their
17 guiding principles in terms of decision-making?

18 MR. GEE: Their, their guiding principles,
19 in the Incident Commander training, they have --
20 their guiding principles are -- Well, let me, let
21 me back up. We mentioned earlier the Severe Event
22 Response Plan that we have created. The Severe
23 Event Response Plan, we realized in a severe event,
24 that we could sometimes have more problems than we
25 have resources to deal with. So, we've provided in

1 there -- And this is a follow-on to what
2 Mr. Hatfield, Hatfield was saying. We've
3 identified five critical response objectives that
4 our Incident Commanders and our Emergency Directors
5 are to use as guiding principles in making
6 prioritization and event triage decisions in the
7 field. And those, those five critical response
8 objectives are the saving of lives, safeguarding
9 and, and securing special nuclear material,
10 protecting the public health and safety, restoring
11 critical infrastructure and critical services, and
12 mitigating future property and environmental
13 damages. And those, those are the guiding
14 principles or the critical response objectives that
15 we have, that we have set for our Incident
16 Commanders and for our Emergency Directors in
17 responding to a severe event.

18 DR. MOSSMAN: Have those principles been
19 put into practice?

20 MR. GEE: They, they have been put into
21 practice so far in a couple of, of tabletop drills
22 that we've conducted. We did a tabletop drill in
23 June of this year with our -- well, a couple of
24 tabletop drills with our Emergency Response
25 Organization in which we, we did training on, on

1 the Severe Event Response Plan on each critical
2 response objective. And then we put these into
3 practice in the drill. We've also -- Our Plant
4 Shift Superintendent conducts quarterly shift
5 drills that involve the Shift Superintendent and
6 the on-duty Battalion Chief from the Fire
7 Department and the on-duty Security Commander. And
8 they have done a series of tabletop drills in the
9 fourth quarter of this past fiscal year where they
10 looked at a seismic event with multi-facility
11 damage and put these principles into place in
12 helping to get some -- guide the decisions that
13 they were making.

14 DR. MOSSMAN: You know, it's interesting.
15 Our discussions here of multi-facility events has
16 yet to address the coordination of response with,
17 with other entities that might be involved. And,
18 again, it raises the experiences that we are all
19 familiar with at Katrina in New Orleans in 2005
20 when that multi-facility event, if I could use that
21 expression, left a region in total disarray and
22 confusion because nobody knew who should take the
23 lead, who should do what, and when they should do
24 it. And I've been involved in a number of these
25 emergency exercises in nuclear power plants. And

1 there are a number of jurisdictions that get
2 involved depending on how broadly scoped the event
3 is; the Governor, county government, various state
4 agencies, and whatnot. Could you give -- For
5 anyone on the panel, can, can you just discuss how
6 you go about the problem of coordinating an event
7 that originates at Y-12 and its potential impact to
8 areas outside the reservation?

9 MR. ERHART: Sure. I'll start and you
10 guys add color. Okay. So, the -- So, obviously,
11 the emphasis after Fukushima is, well, how, how
12 long can you wait for that mutual aid to get to
13 you, similar to Katrina, you know. If we had a do
14 over, it'd be, wait a minute, pre-staging more
15 materials, you know, because that response into the
16 damaged area was unacceptable. Right? So, the --
17 But in all -- So, I want to clarify one thing to be
18 kind of sure the record is clear that the five
19 priorities for Emergency Management, they're the
20 same five priorities regarding -- regardless of
21 what type of event you're looking at, starting with
22 saving lives and ending with mitigating effects to
23 the environment and to the facilities. So, those
24 are done all the time. I didn't want to -- I mean,
25 it's not a new thing for us to be exercising

1 through our Incident Command those priorities all
2 the time. So, I wanted to clarify that.

3 So, back to the overall framework, so, in
4 an emergency, right, your first -- your Incident
5 Command has taken charge of the immediate scene.
6 He has immediate support that, that he gets from,
7 from the -- either the Emergency Ops Center or the
8 Technical Support Center. That's for -- to provide
9 things that he will need to deal with the
10 emergency. And, also, fairly shortly after that,
11 you're reaching outward, making connections that
12 you need to, making notifications to the State. We
13 talked about the state and the local governments.
14 And then you also, depending on the significance of
15 the event, you'll initiate through the national,
16 the national program, the Incident Management
17 System, to where you now have -- through the
18 Homeland Security Department, you would have now
19 have a framework for, for everything from, from
20 small, localized events up to, to events that could
21 involve multiple states, for instance. So, that's,
22 that's part of emergency planning almost right as
23 you get started is looking outward and, and trying
24 to make those connections. That's to bring
25 information, that's to bring materials and support

1 in to the, to the hot zone, if you will. Also,
2 making communications outward because of the things
3 that have happened at your site. We have the
4 obligation to make those notifications to the, to
5 the people that -- in the jurisdictions that will
6 give information to the people that they are --
7 that they need to notify. So, that would be the
8 local governments. I'll leave it there and you can
9 comment further.

10 MR. HATFIELD: Just a few additional
11 comments. One of the strengths of our program at
12 Y-12 is the relationships that we have, not just
13 within the City of Oak Ridge, but within the
14 region, the State, and the Department of Energy.
15 We routinely meet within the City of Oak Ridge
16 area. We have an Emergency Management Council
17 that's made up of local emergency management
18 leaders from the region. They routinely get
19 together and they routinely discuss these types of
20 events, such as what would happen in a region-wide
21 event such that resources were needed across the
22 board throughout the region, talking about
23 prioritization. We routinely talk with facilities
24 such as the Oak Ridge National Lab, understanding
25 some of their high consequence facilities and where

1 their high consequence facility may outweigh a need
2 at one of our low consequence facilities in terms
3 of responding to that, that building and supporting
4 their needs over ours. Part of the way that we go
5 through that decision-making in terms of where
6 assets go -- And I actually forgot to say that the
7 Tennessee Emergency Management Agency, we have a
8 phenomenal relationship with TEMA. TEMA has its
9 headquarters here in the Knoxville area. And we
10 routinely meet with them. And every time that
11 we've had an exercise, they actually had a TEMA
12 person that's in our Emergency Operations Center
13 working with us in terms of coordinating those
14 assets from across the State of Tennessee, such
15 that if we did have an East Tennessee region type
16 event, assets from West Tennessee could easily be
17 deployed from the person that's embedded with us in
18 our Operations Center making those priority
19 decisions and getting the, the needs moving. The
20 other thing I wanted to mention is that we do have
21 a -- Our structure within our Emergency Management
22 program is that we have Incident Commanders that
23 manage the on-scene response. We have a Technical
24 Support Center that manages the site and all the
25 issues at the site. But then we have our Emergency

1 Operations Center, which is outwardly focused. And
2 one of the purposes of that Emergency Operations
3 Center is to make communications with DOE
4 Headquarters that also has an Emergency Operations
5 Center and to start discussing the needs that we
6 have, as well as understanding the other needs that
7 the DOE Operations Center is receiving from other
8 sites within the region, understanding if they have
9 assets that they can deploy to us, as well. So,
10 from a federal level, from a state level, and a
11 local level, the relationships that we have in our
12 program give me a high sense of confidence that
13 should we be subjected to one of these events, that
14 we know the right people, that we routinely
15 exercise those phone numbers and those
16 relationships to ensure that we can get the assets
17 needed or such that we can provide assets to other
18 people where it's needed.

19 DR. MOSSMAN: Very good. Mr. Chairman, I
20 have one further question.

21 CHAIRMAN WINOKUR: Okay.

22 DR. MOSSMAN: Finally, to Mr. Guevara,
23 what's your assessment of the contractor's current
24 strategy for prioritization for responding to
25 severe accidents?

1 MR. GUEVARA: I think that we are on the
2 right course with putting together in, in the
3 interim period a matrix that, that is a
4 compensatory measure that gives us direction. You
5 know, we, we need to do that technical planning,
6 upgrade our Technical Basis Document that will give
7 us a greater understanding of these multi --
8 potential multi-facility consequences. And, you
9 know, we've already taken steps to have the Severe
10 Event Response Plan. And now we're in that phase
11 of doing the training and the exercise -- the
12 drills and exercises to reinforce it. So, my
13 assessment is we're, we're in that phase of, of
14 learning and trying to achieve a level of
15 proficiency that we need.

16 DR. MOSSMAN: Thank you. That's, that's
17 all, Mr. Chairman.

18 CHAIRMAN WINOKUR: Mr. Sullivan.

19 MR. SULLIVAN: Thank you. Good afternoon,
20 everyone. Mr. Erhart, just talking -- Mr. Hatfield
21 was just talking about the area-wide potential
22 incident. So, a storm, earthquake that impacts
23 Y-12 is likely to impact the Technology Park and
24 the National Lab, as well. So, how -- On the
25 federal side, how, how would you coordinate with

1 the federal managers who are responsible for, for
2 those portions of the reservation?

3 MR. ERHART: Okay. Good question. The --
4 A few years ago, there was a lead federal person
5 who kind of controlled the entire valley, if you
6 will, in an emergency response. Since some
7 organizational changes have occurred, that -- where
8 NNSA, Y-12 is an NNSA site, Office of Science runs
9 Oak Ridge National Labs. That we still have that
10 capability, but it is through that system that I
11 talked about before. It's through the National
12 System for Incident Management. However, we
13 continue to have a good working relationship with
14 all the, the local entities. So, we still have a
15 Memorandum of Understanding. We, we meet as
16 periodically in a -- as a reservation meeting where
17 the feds are, are talking about mutual needs and
18 coordinating support. So, it's a -- Although the
19 lead federal person concept has been replaced by
20 the National Incident Management System, we still
21 that capability. And we do have -- Like I said, we
22 provide help to them. We have mutual aid
23 agreements and they to us. And then they -- With
24 the event that you talked about where we would have
25 kind of widespread damage, we do, we do talk quite

1 a bit and we would reach out and make those
2 connections through our, through our Plant Shift
3 Superintendent to compare kind of what the damage
4 diameter would be probably pretty soon -- pretty
5 quickly within an event like, like you speak of.

6 MR. SULLIVAN: So, if -- All right.
7 Imagine, for example, that we had some sort of
8 scenario with significant disaster throughout the
9 region. And, so, where would you be? Would you be
10 at the Emergency Operations Center?

11 MR. ERHART: Not necessarily. We have a,
12 we have a watchbill where we have continuous
13 coverage for people that -- who respond to certain
14 positions within either the Technical Support
15 Center or the Emergency Operations Center. So,
16 there's membership from both the, the B&W side and
17 the federal side, so that in the event of, of an,
18 of an emergency of that nature, those folks those
19 would be recalled through, through communication
20 methods to get them to the site. Again, it depends
21 on where the, the -- how much damage there is. It
22 may be, you know, we have to have specific
23 direction on which -- where to go. So, what we
24 didn't mention before is we have alternative
25 facilities, as well. So, if we have -- If the

1 initial assessment is we have damage to one of the
2 facilities, we, we would reroute folks to the
3 alternate facility. We're also interested in, you
4 know, making sure that they have safe access to
5 that facility and that facility is actually safe
6 for them to occupy. So, those are decisions that
7 get made in the early events -- early moments of
8 the event. But I will have federal staff on the
9 watchbill as a part of the emergency response. And
10 then most likely, I will be in a position to make
11 communications with them and keep -- be where I
12 need to be. But I generally will not take a
13 position within the Emergency Ops Center, but will
14 be in contact, of course.

15 MR. SULLIVAN: All right. So, how about
16 your counterparts? I mean, are you, are you -- The
17 person in charge from the Office of Science over
18 the National Laboratory, say, are you, are you
19 talking to that person by, by phone? I mean, I'm
20 looking at how does a decision get made? We have
21 problems at Y-12. We've got problems at the
22 National Lab. We've got problems at the Technology
23 Park. We only have so many assets in the area, how
24 does a decision get made? Anybody. If --
25 Mr. Spencer, you look like you want to chime in.

1 MR. SPENCER: It would just depend upon
2 what the incident was. And it would be handled
3 really from the Emergency Operations Center. And
4 we'd assess what the overall damage was. Part of
5 the Emergency Operations Center is to contact the
6 Tech Support Center. If the Tech Support Center
7 says this is what the situation looks like, we need
8 this kind of help, could you call somebody, could
9 you talk to ORNL, see if they can send this. Talk
10 to ORNL. ORNL has the same sort of problem. Let's
11 go to the State. So, that's all handled out of the
12 Emergency Operations Center essentially. Right?
13 And then the Tech Support Center does the work. If
14 there's a problem there, you just -- There is a
15 whole series of things you go through. But it
16 depends on the event. Right? But it all happens.
17 We would go to the Emergency Operations Center at
18 ETPP. And then we would lay out the plan and
19 assess the damage and you go through it.
20 There's -- We could do drills like that all the
21 time. And you evaluate what happened. You do
22 different scenarios. You have -- When you get to
23 your seat and there's a procedure you pull out and
24 you go through it and you know who to call. And
25 I'm kind of there to help coordinate with the

1 communications. I don't have name and a position,
2 but I would be there, as well. And we would figure
3 out what to do. It just depends on the situation.

4 MR. SULLIVAN: And if there's any
5 difference of opinion, is there a protocol for how
6 that gets decided or -- I mean, I could almost
7 imagine that there could be some strong willed
8 personalities in the middle of this --

9 MR. SPENCER: No.

10 MR. SULLIVAN: -- potentially in conflict
11 as to what to do. Is there a protocol for how
12 this -- how that -- how the conflict --

13 MR. GEE: Let me add to that.

14 MR. SPENCER: I can give you the
15 specifics --

16 MR. GEE: Yeah, and let me add -- And this
17 ties in with what Mr. Erhart was saying before.
18 Under, under the requirements of the National
19 Incident Management System, if you have a large
20 event that involves multiple jurisdictions -- In
21 this case, we have ORNL, Y-12, ETP, the City of
22 Oak Ridge, Anderson County. You know, the State of
23 Tennessee would be involved. The guidance of the,
24 of the National Incident Management System says to
25 establish a unified command. The unified command

1 would have senior members of each of those
2 jurisdictions who would work together to work out
3 those differences as part of a unified command. We
4 have had discussions with the State of Tennessee
5 here about if we had this large regional event in
6 the Oak Ridge area, where would we establish
7 unified command, which members of each of the
8 organizations would be a part of the unified
9 command. So, that's where those decisions would be
10 made at the unified command level.

11 MR. SULLIVAN: So, would they be deciding
12 based on the incident and based on who showed up
13 who was the unified commander?

14 MR. GEE: Well, in the unified command,
15 the unified -- Each, each member of their
16 jurisdiction functions together as the, as the
17 unified command.

18 MR. SULLIVAN: Okay. So, it's a group of
19 people who are going to be the unified command?

20 MR. GEE: Yes.

21 MR. SPENCER: That's your question. I
22 mean, the answer is you have to work it out there.
23 It could be what you described.

24 MR. SULLIVAN: Okay.

25 MR. SPENCER: That's certainly a

1 possibility.

2 MR. SULLIVAN: All right. Have we, have
3 we tested this? Have we run an exercise of some
4 sort in the last couple of years where we had all
5 these different activities and these different
6 jurisdictions actually show up somewhere to --

7 MR. GEE: We, we have not tested that
8 through a unified command exercise at this point.

9 MR. SPENCER: What we've done is we've had
10 a number of drills where we used those people to
11 respond to an event at Y-12. All we've got to do
12 is plan an event where we can coordinate the
13 catastrophe at the various other sites. Right?
14 And that just needs more coordination. And that
15 goes to the council that we're talking about now to
16 try to get that better plan to prioritize
17 resources. It's difficult for several reasons.
18 One is, you just increased by order of magnitude
19 the number of possibilities of things that could
20 happen. And you've got the, the various people who
21 want their facilities addressed first. And then it
22 becomes difficult because it's not all under one
23 structure, either. So, we're working on it.
24 That's why we have this council that Mr. Hatfield
25 was describing to try to work through those

1 details, including the prioritization of resources
2 and the like based on the 40 CFR criteria we've
3 just described. Right? So, we would try to work,
4 work through that with them.

5 MR. SULLIVAN: All right.

6 MR. ERHART: Most likely -- sorry to
7 interrupt you, sir. If -- With the event that you
8 postulate being all energy facilities we'll say for
9 the -- that would -- you know, that would go
10 immediately up to Headquarters. Headquarters would
11 then have -- They'd be tied in. And most likely,
12 there would be -- a senior Energy official at that
13 level would be named and would be placed in the
14 appropriate location to take, to take control of a
15 multi-facility event and where that would be, where
16 that control point is. And those are the things
17 that have to remain flexible because of the, the
18 variable nature of the event itself. So, it could
19 be -- I'm just sort of -- We're just kind of
20 postulating here. But it could be that the, that
21 the best place for that may be in an Oak Ridge
22 facility, a Y-12 facility. It may be in the Joint
23 Information Center. I don't know. But the -- But
24 that, that structure is pretty well understood and
25 it is pretty -- it's, it's pretty flexible to

1 either -- to expand and contract depending on the
2 size and complexity of the, of the event.

3 MR. SULLIVAN: All right. Thank you.
4 Yes, Mr. Hatfield.

5 MR. HATFIELD: If I may add to that,
6 coming up this June, June of 2014, we do have an
7 exercise that is part of our plan and schedule that
8 we will be participating in. And this exercise,
9 exercise is called the Capstone 14 Exercise. This
10 is a region-wide, multi-state earthquake scenario
11 where issues such as, such as what you were
12 discussing where more multiple jurisdictions are
13 involved, potential conflicts between those
14 jurisdictions, the need for resources to be moved
15 from one area that's impacted to another area
16 that's impacted will be exercised or at least is
17 likely to be exercised as a part of this event.
18 Again, this is a multi-state severe event type
19 scenario where we will be participating and likely
20 to see some of these things.

21 MR. SULLLIVAN: All right. Thank you.

22 CHAIRMAN WINOKUR: Mr. Guevara, I've heard
23 the terms drills and exercises. Is there a
24 substantive difference between the two?

25 MR. GUEVARA: We usually refer to a drill

1 when it's, it's smaller in scope. It's looking at
2 assessing and exercise -- or assessing and giving
3 practice. I'll use those words not using exercise
4 in multiple ways. A specific function within the
5 Emergency Management program. So, it has a limited
6 scope to it to reaffirm a capability that, that we
7 have planned on and, and need to be proficient at.
8 An, an exercise is much broader in scope. It
9 takes -- involves multiple components of the
10 Emergency Management program. It also would
11 involve external organizations, as we've talked
12 about, locally, as well as say state and
13 regionally. It has multiple objectives and it's
14 more exhaustive in nature.

15 MR. SULLIVAN: Okay. In, in the last two
16 years, how many exercises have been done here at
17 Y-12?

18 MR. GUEVARA: We do nominally four to six
19 drills and exercises per year. We, we do a a full
20 scale exercise annually and, and we have an overall
21 framework that we have in our five-year exercise
22 plan that, that sort of organizes and structures
23 our drills and exercises.

24 MR. SULLIVAN: And do you track the
25 findings from one -- say, one year to the next to

1 see if we're actually making progress?

2 MR. GUEVARA: Oh, absolutely. We, we look
3 at those. We assess all of our drills and
4 exercises. We, we look for lessons and areas for
5 improvement. Those get fed back into our plans and
6 our training. And then we focus those areas that
7 we need to work on in our, in our exercise -- drill
8 and exercise schedule.

9 MR. SULLIVAN: Okay. Mr. Hatfield, did
10 you have something you wanted to add?

11 MR. HATFIELD: Just one comment to add to
12 Mr. Guevara's statement. The requirement is is
13 that we do one exercise a year. And, as he stated,
14 we do do -- we do conduct between four and five
15 exercises every year. We have a five-year exercise
16 plan, which NPO does review and approve, approve
17 annually. And I would like to say that
18 complex-wide, we do seem to have a program that
19 many other sites frequently come and benchmark in
20 order to find ways to improve their drill and
21 exercise programs. That's, that's really due to
22 the management and our customer support that we're
23 able to exceed those minimum requirements and
24 really give an opportunity for each of our first
25 responders and our Emergency Management Team to

1 actually practice those skills so that when we do
2 have one of these events that we're subjected to,
3 that, that we'll be proficient and ready to
4 respond.

5 MR. SULLIVAN: Okay. Mr. Gee, would -- Do
6 we ever do any of these drills or exercises after
7 hours?

8 MR. GEE: We have occasionally done drills
9 after hours. In particular, over the last couple
10 of years, we've done drills after hours with our
11 Fire Department, response drills. We quite
12 frequently do those. We haven't done any evaluated
13 exercises after hours in the last, in the last few
14 years. But drills, we have done after hours
15 drills.

16 MR. SULLIVAN: I imagine the response
17 would be significantly different for a major event
18 if we had an event right now. It's, what,
19 three-thirty in the afternoon on a workday. So, I
20 mean, how many people are over on the site?
21 Anybody know?

22 MR. SPENCER: Right now?

23 MR. SULLIVAN: Yeah, right now.

24 MR. SPENCER: Four thousand.

25 MR. GEE: Probably --

1 MR. SPENCER: Well, there's, if you
2 include subcontractors, seven thousand people. And
3 because some of them work shifts, it's probably
4 four thousand people, thirty-five hundred or
5 something like that.

6 MR. SULLIVAN: All right. And, and twelve
7 hours from now, at three-thirty in the morning, the
8 number is going to be quite a bit --

9 MR. SPENCER: Yeah, a lot.

10 MR. SULLIVAN: Okay. So, I mean, that is
11 a -- That makes a big difference not only in who's
12 available at the moment, but also what is everybody
13 else doing. What, what happens at three-thirty in
14 the morning with everybody else? Do, do they have
15 a plan if there's a major event? Are they, are
16 they told what to do? Mr. Gee.

17 MR. GEE: Who are you referring to?

18 MR. SULLIVAN: Well, the, the work -- The
19 people who may have the skills necessary to, to do
20 anything. I mean, if you have a major problem at
21 your facility, you, you need people to --

22 MR. GEE: Right. I understand now.

23 MR. SULLIVAN: -- take care of whatever.

24 MR. GEE: We --

25 MR. SULLIVAN: And -- But those, those

1 people, if they're not on your site because they're
2 home --

3 MR. GEE: Right. We, we -- As far as our
4 Emergency Response Organization goes, the people
5 who staff our Technical Support Center and our
6 Emergency Operations Center, we have an automated
7 notification system that we use that, that sends
8 notifications to them to pagers, cell phones, both
9 their home cell phone, work cell phones, their home
10 phone number. We, we do tests of that system
11 monthly. And we do include periodically throughout
12 the year after hours tests of that system. That --
13 That's the way that we determine at any given time
14 during the day how well would we be able to staff
15 our Emergency Response Organization positions. So,
16 we, we do the after hours tests periodically of
17 that system.

18 MR. SULLIVAN: Okay.

19 MR. SPENCER: And to add to that, the --
20 things would go very similar, if you ended up, you
21 know, manning the various Emergency Operations
22 Center and the like. Right? You would -- One of
23 the elements of our program that I like here better
24 than some of the other places that I've seen is our
25 Incident Commander is really manned by the Fire

1 Department. So, you'd have those people there to
2 man the incident scene; whereas, in many places --
3 You know, you've seen this, those of you who have
4 been in facilities and the like. You know, not
5 everybody can control an incident scene. It's a
6 difficult thing to do. Right? So, now, the way we
7 work it at Y-12 is the Fire Department kind of
8 takes over the scene. So, they would be there to
9 help, you know. And in some cases, it might be
10 better to have everybody at home. It just depends.
11 But it would -- But as far as manning the system,
12 it'd be the same.

13 MR. GEE: Let me, let me add, add to that
14 just a -- The position at Y-12 that is initially
15 responsible for all the initial actions that are
16 necessary to take place is our Plant Shift
17 Superintendent. The Plant Shift
18 Superintendent's office is staffed twenty-four
19 hours a day seven days a week. They -- When an
20 emergency occurs, they initially become the
21 Emergency Director and make all the initial
22 decisions using a combination of the EALs and
23 procedures. They activate the Emergency Response
24 Organization, make the notifications to the State,
25 DOE Headquarters, to local jurisdictions of the

1 event that's occurred, activate the resources that
2 are necessary, implement the initial protective
3 actions, both on-site protective actions and make
4 the off-site protective action recommendations.
5 The people that they deal with as far as making the
6 off-site recommendations to are also twenty-four/
7 seven staffed facilities. So, they're there all
8 the time. Likewise, our Fire Department is -- We
9 staff -- The minimum staffing to respond to an
10 event at Y-12 is there twenty-four hours a day
11 seven days a week, also. So, we do have the
12 capabilities on site for the initial response and
13 we do have the ability then to activate our
14 Emergency Response Organization, to staff the EOC,
15 and the Technical Support Center.

16 MR. SULLIVAN: All right. Let me just ask
17 you -- I just have a few more questions on those,
18 on those facilities. I heard earlier -- I think it
19 was Mr. Spencer testifying -- that we needed, we
20 needed to upgrade the facilities. So, the
21 Emergency -- It's the Emergency Management
22 Facility?

23 MR. SPENCER: Yeah.

24 MR. SULLIVAN: I mean, I've heard
25 Emergency Management Facility and Technical Support

1 Center. Those are different places?

2 MR. GEE: Yeah, we have, we have two
3 primary facilities on site that we could use. One
4 of those facilities, Building 9706-2, houses our
5 Plant Shift Superintendent's office and the
6 Technical Support Center. The PSS office is
7 staffed twenty-four hours a day. The Technical
8 Support Center is staffed as needed if an emergency
9 occurs. That building was built in 1948 and has a
10 lot of the problems that you would expect from a
11 building built in 1948. The other on-site facility
12 is our, is our Fire Hall. And the Fire Hall was
13 also built in 1948. Both of those facilities have
14 similar issues regarding their ability to withstand
15 severe events. The third facility of our -- The
16 third key facility for us as far as emergency
17 response facilities is our EOC, Emergency
18 Operations Center. And that's the facility that's
19 located off site. It's a robust, well built
20 facility expected to survive many of the severe
21 events. It's located nine miles away at the East
22 Tennessee Technology Park.

23 MR. SULLIVAN: Right. So, I, I assume
24 that we're hoping to have someday a nice, robust
25 facility --

1 MR. GEE: Yes.

2 MR. SULLIVAN: -- right there --

3 MR. GEE: We -- The CD-0 approval was
4 received last year for, for an Emergency Management
5 Facility. That would be a replacement for the, the
6 building that currently houses the PSS and the
7 Technical Support Center on site, habitable, built
8 to be habitable, survivable. The Fire Hall
9 replacement facility, we expect to pursue CD-0
10 approval this year for that. The schedule right
11 now is the Emergency Management Facility would
12 be -- would begin construction in 2015 with a three
13 to four year construction duration. The Fire Hall,
14 if the CE-0 is approved this year, would begin
15 construction in 2016.

16 MR. SULLIVAN: Okay. And you already have
17 locations where you would have these --

18 MR. GEE: We have --

19 MR. SULLIVAN: -- facilities built?

20 MR. GEE: We have locations identified,
21 yes.

22 MR. SULLIVAN: All right. And, so, how
23 far are they from, say, 9212, you know, in terms of
24 miles?

25 MR. GEE: The proposed location for the

1 Fire Hall is on the far west end of Y-12 several
2 hundred meters west -- southwest of 9212. The, the
3 new Emergency Management Facility location is
4 closer to 9212. It's probably three or four
5 hundred meters away down to the south of where 9212
6 is located. It's located close -- in close
7 proximity to the current building that we, that we
8 use as the PSS and the Technical Support Center.

9 MR. SULLIVAN: Okay. Are there, are there
10 concerns with having the, the building be so close?

11 MR. GEE: Well, if we build the building
12 as, as expected, it will be built as a survivable,
13 habitable structure that if the PSS is there, they
14 can remain in there. They wouldn't be impacted by
15 hazardous material releases because we, we would
16 have an atmospheric habitability system that would
17 allow them to stay in place.

18 MR. SULLIVAN: All right. Thank you very
19 much. Mr. Chairman.

20 CHAIRMAN WINOKUR: Ms. Roberson.

21 VICE CHAIRMAN ROBERSON: I guess I want to
22 talk a little bit about the -- I guess probably to
23 you.

24 THE COURT REPORTER: Excuse me. Can you
25 turn your mic on? I didn't hear it.

1 VICE CHAIRMAN ROBERSON: Sorry about that.
2 I'd like to talk about recovery. And my first
3 question is to you, Mr. Hatfield. So, the
4 Department of Energy ordered that Emergency
5 Management Systems requires that contractor
6 planning processes address recovery from an event;
7 is that correct?

8 MR. HATFIELD: That is correct.

9 VICE CHAIRMAN ROBERSON: Okay. And in the
10 aftermath of any event, I think you'll agree that
11 there is significant hazards associated with
12 reentry. We've talked about Fukushima and others.
13 And reentry and restoration has also proven to be
14 very challenging activities. In the case of a
15 severe event, the damage sustained by the site and
16 the facility infrastructure including safety
17 systems could be extensive, complicating follow on
18 activities. So, what infrastructure have you
19 determined is essential to support reentry and
20 recovery after a severe event?

21 MR. HATFIELD: As you stated, both reentry
22 and recovery are both required elements of the
23 Emergency Management Program within DOE. And both
24 are elements that we routinely practice in our
25 drill and exercise program. As we continue to

1 mature and develop our exercise program to, to
2 include more sophisticated severe events, we will
3 likely be exercising those elements of reentry and
4 recovery of those, those types of events. One of
5 the things that we have recognized is the need for
6 a shoring of structures and facilities that would
7 likely be required as a result of a large scale,
8 region-wide earthquake, for example, the need to
9 deal with debris removal, like -- likewise due to
10 structural issues. So, we are working through what
11 those needs are that are unique to a severe event
12 type scenario. And we're continuing to exercise
13 those as, as our exercise program continues to
14 mature.

15 VICE CHAIRMAN ROBERSON: So, have, have
16 you -- And I know you said in the future, you're
17 going to have drills and exercises that, that
18 addresses it, but have you thought through -- Like,
19 if you have communication vulnerabilities or
20 damaged roads, widespread power outages, have you
21 thought through what infrastructure you might need
22 in the event of a severe event? Have you had the
23 opportunity to do that yet?

24 MR. HATFIELD: We've started down that
25 process by doing things such as inventorying the

1 materials and the equipment that we have on the
2 site in order to readily know what's available to
3 us to respond to these types of events. We've
4 worked with the Tennessee Emergency Management
5 Agency identifying how we can acquire additional
6 assets that we do not currently have at the Y-12
7 site, such as some large heavy excavating equipment
8 that could be needed to support recovery operations
9 and how we would bring those, those large pieces of
10 equipment on the site and how they could provide
11 those assets available to us. We have exercised
12 three severe exercises up to this point. So, we
13 have started to incorporate those elements of
14 reentry and recovery to these types of events. My,
15 my previous statement was just to indicate that we
16 fully recognize that we will continue to learn from
17 additional exercises the types of equipment that's
18 needed, the types of skills that are needed, and
19 provide those as, as we identify them.

20 VICE CHAIRMAN ROBERSON: So, so, you have
21 a five-year plan. When will we see recovery
22 showing up as, as a part of the drills and
23 exercises in that plan? Have you incorporated it
24 into your five-year plan?

25 MR. HATFIELD: We don't -- We do not

1 incorporate it as a unique element; rather, it's
2 just simply a part of our program. And as we are
3 specifically drilling on the different types of
4 severe event scenarios, we would include that as
5 one of the final elements to reinstating the,
6 the -- reconstituting the site and its ability to
7 stand back up, turn it over to the owning
8 organization, and standing down the emergency
9 situation.

10 VICE CHAIRMAN ROBERSON: So, will you be
11 including it is my question?

12 MR. HATFIELD: We will continue to include
13 it, yes.

14 VICE CHAIRMAN ROBERSON: Okay.

15 MR. HATFIELD: We will continue to include
16 that as an element. I don't know that we will
17 specifically call out or have an exercise specific
18 to recovery of a severe or emergency event. We'll,
19 we'll just continue to involve it as an element of
20 drilling and exercising to severe events.

21 MR. ERHART: Can we --

22 VICE CHAIRMAN ROBERSON: And maybe my
23 information is wrong. I mean, my understanding is
24 we, we actually don't really get to that point. Am
25 I wrong? Do you want to comment?

1 MR. ERHART: I sure do.

2 VICE CHAIRMAN ROBERSON: Okay.

3 MR. ERHART: Thank you. No, we don't --
4 It is an objective within every exercise to get --
5 to, you know, assign a recovery manager and then
6 work kind of a notional plan and exercise over it
7 most of the time. And, so, you know, I've been
8 doing this for twenty-six years in various forms.
9 So, I, I was, I was a member of the recovery team
10 that went up the day after the Sierra Grande fire
11 burned over the top of the EOC at Los Alamos twice.
12 It actually burned the top of the trees and then it
13 came back again. And the -- A lot of, a lot of --
14 I mean, the recovery of that event took weeks and
15 involved lots of realtime decisions. We, we did
16 some realtime planning. A lot of the facilities,
17 the ventilation systems were left running. So, it
18 clogged up all the HEPA, the filtration. A lot of
19 the processes were left in place because that fire
20 burned hot and fast into, into the area. So,
21 recovery is an important thing. I'd, I'd like to
22 see more because -- You know, we're not going to
23 commit to anything, but I am telling you what my
24 expectations would be is to look at, you know,
25 maybe start an exercise -- you know, run a

1 two-phase exercise or something and then pick it up
2 after, you know, you, you have verified all the
3 initial objectives about making good notifications,
4 recovery -- you know, doing the first incident
5 response, and then maybe start that exercise in
6 progress and work more of a -- kind of let's get
7 further into that recovery phase so that we can see
8 that we can do that better. So, I will just give
9 you my personal opinion. I don't think we, we go
10 too deep into that in our program.

11 MR. SPENCER: Yeah.

12 VICE CHAIRMAN ROBERSON: Did you want to
13 comment?

14 MR. SPENCER: No, I was just going to
15 agree with him. We make the -- All the drills, you
16 can go through the drills and you do all this stuff
17 and you think you did well and you want to get to
18 the hot wash, okay, kill it, and you don't really
19 go through the recovery because, in many ways, it's
20 not seen as being all that pertinent. What you're
21 worried about is the drill that you respond. And,
22 so -- I'm just being honest.

23 VICE CHAIRMAN ROBERSON: Yeah.

24 MR. SPENCER: Often, often you kill it
25 right at the end of the drill. You do -- All

1 right. Begin recovery. Get a recovery manager,
2 what are we going to need. Okay. Stop the drill.
3 So, we've got to take a harder look at that,
4 especially for the bigger ones as we go through
5 them.

6 VICE CHAIRMAN ROBERSON: Right.

7 MR. SPENCER: Okay.

8 VICE CHAIRMAN ROBERSON: Thank you. Mr.
9 Chairman.

10 CHAIRMAN WINOKUR: Just a couple to end
11 with. Before when you responded to a question, Mr.
12 Hatfield, you said there were an infinite number of
13 scenarios to consider with a multiple facility
14 drills, right?

15 MR. HATFIELD: Yes.

16 CHAIRMAN WINOKUR: I, I would hope you
17 could concentrate on a few very few special ones.
18 I mean, you do have some facilities here which have
19 more hazards than others. And I would hope your
20 tabletops could refine that thinking down to a
21 few -- a select few. Do you think that's possible?

22 MR. HATFIELD: Absolutely. Consistent
23 with Mr. Gee's description of how he's grouping
24 facilities together to do his technical analysis,
25 we will be drilling and exercises those exact

1 scenarios -- some of those exact scenarios such as
2 we will practice those most probable or highest
3 consequence events --

4 CHAIRMAN WINOKUR: Great.

5 MR. HATFIELD: -- to make sure we're
6 prepared.

7 CHAIRMAN WINOKUR: And as a final question
8 to you, Mr. Erhart, let me do Fukushima one more
9 time. So, the Secretary sent out a Safety
10 Bulletin. He told the sites to look up beyond
11 design basis accidents and identify any gaps. And
12 what I heard before was, there really weren't any
13 gaps as the first order for you -- for your site.
14 Did I misunderstand that?

15 MR. ERHART: The -- So, the, the Bulletin
16 required looking at all your nuclear facilities,
17 reassessing your --

18 CHAIRMAN WINOKUR: Right.

19 MR. ERHART: -- your emergency planning,
20 hazard analysis, all of that, and re -- That all
21 came out pretty good. Then we looked at beyond
22 design basis events and looked at those with an eye
23 towards minimizing the need for off-site support.
24 So, if we took that out of the equation, we could
25 still meet, meet our --

1 MR. SPENCER: I was just going to
2 suggest -- You know, we haven't done this yet. We
3 have to take one for the record. Right? Can we,
4 can we get that back to you in more detail, I mean,
5 because I understand your, your dilemma with that
6 is that -- and what we talked about was, is there
7 technically any gaps, is there not, if you were to
8 call them gaps, what is -- You know, we didn't look
9 at the multiple site facilities. Can we just do a
10 better job and give you something in writing on
11 that?

12 CHAIRMAN WINOKUR: I would --

13 MR. SPENCER: Would that be okay?

14 CHAIRMAN WINOKUR: -- appreciate that.
15 Yeah.

16 MR. SPENCER: Okay.

17 CHAIRMAN WINOKUR: Yeah, I mean, I want to
18 applaud the Department and the Secretary for being
19 so aggressive in that area.

20 MR. SPENCER: Yeah.

21 CHAIRMAN WINOKUR: He really challenged
22 the sites. And it was surprising how many sites
23 responded they had no gaps. And I think what the
24 Secretary was looking for -- I can't -- I don't
25 really know exactly, but I sense he was really

1 challenging you guys to look at --

2 MR. SPENCER: Right. Oh, yeah.

3 CHAIRMAN WINOKUR: -- some very, very
4 serious, difficult things and just to see if there
5 were any -- anything that could enter into your
6 thinking that could help you kind --

7 MR. SPENCER: He was -- Oh, yeah.

8 CHAIRMAN WINOKUR: -- of with dealing with
9 beyond design and also severe events.

10 MR. SPENCER: Oh, yeah, I remember that.
11 I was at Hanford at the time and I remember going
12 through the same thing there. Right.

13 CHAIRMAN WINOKUR: Okay. I appreciate it.
14 And we want to thank the members of this panel.
15 Mr. Erhart, Mr. Guevara, Mr. Spencer, and, Mr. Gee,
16 Mr. Hatfield, thank you very much. And we're going
17 to move to our final panel of today.

18 MR. ERHART: Mr. Chairman, can I take a
19 very short break? I'll be right back.

20 CHAIRMAN WINOKUR: Okay. We're going
21 to take -- Let's take a five-minute break and then
22 we'll begin the -- reconvene the hearing. Okay.
23 Five minutes.

24 (A break was had.)

25 CHAIRMAN WINOKUR: We'd like to reconvene

1 if possible. We're ready to reconvene. And I'm
2 going to call the next panel of witnesses. Could
3 we reconvene, please? The next panel of witnesses
4 from DOE and its contractor organization for the
5 topic of Y-12 Nuclear Operations, I'd like to
6 introduce them and ask them to take their seats.
7 Could we -- You can't hear me?

8 UNIDENTIFIED SPEAKERS: No.

9 CHAIRMAN WINOKUR: Now you can. Okay.
10 I'm sorry. We're going to reconvene. Are we
11 ready? Is the, is the court reporter ready? Thank
12 you very much. We're going to call the final panel
13 of witnesses from DOE and its contractor
14 organization; in this case for the topic of Y-12
15 Nuclear Operations. I'd like them to take their
16 seats as I introduce them. One of our favorites,
17 Mr. Steven Erhart is the NNSA Production Office
18 Manager. If you don't know that by now, that's
19 problematic. You should also know Mr. Charles
20 Spencer, who is the B&W Y-12 President and General
21 Manager. Mr. David Richardson is the B&W Y-12
22 Deputy General Manager for Operations. And, once
23 again, I'll ask if any members of the panel wishes
24 to submit written testimony. Seeing none, I will
25 once again tell you that I will direct questions to

1 you. If other panelists seek recognition from the
2 Chair, that's, that's okay. If you'd like to take
3 a question for the record, the answer to that
4 question will be entered into the record of this
5 hearing at a later time.

6 So, let's begin the questioning with
7 Mr. Sullivan, please.

8 MR. SULLIVAN: Thank you, Mr. Chairman.
9 Mr. Spencer, I want to ask you about Conduct of
10 Operations and Work Planning and Control. First,
11 I'd like to go back to what, what Chairman Winokur
12 said in his testimony just in defining it because I
13 want to, I want to review the definition. He said,
14 "Work Planning and Control refers to the
15 implementation of Integrated Safety Management
16 Principles at the activity level that result in a
17 set of steps and procedures that need to be
18 rigorously followed for the safe execution of work.
19 This covers all aspects of nuclear work, from
20 defining the scope of a job, analyzing the hazards
21 and developing controls and ensuring that the
22 procedures can be followed as written. Conduct of
23 operations is a formal program that properly
24 executes these procedures in a disciplined and
25 structured manner." That, that sounds to me a lot

1 like figure out what you need to do, go write it
2 down, and then go do it. But in the last two
3 years, the Board has written a couple of letters to
4 NNSA saying that here at Y-12, we, we seem to have
5 problems in this area. Can you explain further why
6 is this -- I mean, for the, for the average person,
7 why is this difficult to do?

8 MR. SPENCER: Well, those are good
9 definitions. I mean, we manage hazardous things,
10 hazardous facilities, hazardous materials. Right?
11 And that's been my line of work for a long time.
12 Most of your line of work, as well. So, how you do
13 it has got to be disciplined. And we were just
14 having a a discussion, Mr. Ogg and I, over there.
15 It includes security, as well. And it's, it's all
16 about understanding what it is you want to do,
17 understanding the hazards, putting together a
18 system to address those hazards, making sure that
19 as you do it, you're very careful, you're
20 methodical, you're disciplined, the expectations
21 are clear. And it goes to work control, as well.
22 It goes to defining the work scope. It goes to
23 defining the activities that you want to perform,
24 making sure they're clear in the procedures, that
25 you do placekeeping along the way. So, it's all

1 those things that you do them correctly. Now, your
2 question is why is it so hard? Well, it's about,
3 again, good -- setting good expectations.
4 They're -- Let me kind of separate the two things.
5 One is, you look at operations, for example.
6 Operations tend to be repetitive, whether you're
7 processing a reservoir at a tritium facility,
8 whether you're processing -- you're casting in a --
9 at 9212, if you're in Beta 2-E, you're doing
10 something else, you're, you're finishing a weapon
11 component. Right? You can -- Over time, you get
12 really good steps, you have a good process, a good
13 procedure for it. You go through it. You're
14 disciplined. The Senior Supervisory Watch watches
15 to make sure they're following their procedures.
16 You get feedback. Right? Maintenance is a little
17 bit harder. You need a good program to do it. The
18 difference is every evolution is likely to be
19 somewhat different than the last one. So, there's
20 always this, this question about how much of it --
21 how much specificity is there going to be in a work
22 plan or a work package. Right? And there's always
23 a debate. If you talk to the -- If you were to, if
24 you were to talk to craft, they would say -- just
25 say go replace the pump, just write it down, and

1 I'll go do it. No, that's not what I want. You
2 know, your work package -- Since this is a hazard,
3 you've got to have a hazard assessment. We've got
4 to go in and define how they're going to do the
5 work. And, so, it's, it's more of a -- It's not an
6 excuse. It is more of a challenge to do
7 maintenance work than it is to do normal production
8 work because it's not so repetitive. Just -- I can
9 address where you think we are, but we can wait for
10 that. But that is a general understanding. It's,
11 it's making sure that you're disciplined, making
12 sure that you have the, the requisite level -- the
13 right level of detail in your work package, in your
14 work instructions, and that you are following it.

15 MR. SULLIVAN: Well, specifically in terms
16 of -- in the area of operations, many of these
17 operations, as you said, have been going on for a
18 very long time. In fact, this morning, we started
19 by talking about how old the buildings were. But
20 many of these processes have been going on for, for
21 a long time in, in these buildings. But was this,
22 was this a problem? Do we have the same -- When I
23 say it's a problem, I mean, it's what you said;
24 it's really a challenge. It's a challenge to keep
25 up a level of excellence. Was this the same

1 challenge, say, in the '70's and '80's or is it any
2 different now than it was then?

3 MR. SPENCER: I actually asked that
4 question. And I think Y-12 has gone through a
5 series of, of process changes; the process being
6 how they do work -- right -- the level of detail.
7 And I think there's been a couple of, you know,
8 improvements, slide backs, improvements. If you
9 look -- Just as kind of a side bar, if you look at
10 the, the way the mission was back in the '70's and
11 '80's, there was a real demand to get the product
12 out. And there was a lot of it, whether you were
13 building tritium reservoirs or whether you were
14 doing secondaries or you were at Pantex. There was
15 a, a lot of push to get the product out. Right?
16 In that same timeframe, especially in the '90's, we
17 went to a more disciplined operations approach.
18 And since that time -- And, again, I hate to speak
19 for Y-12. I've only been here fourteen months.
20 And, so, I think, though, there's been an evolution
21 of kind of back and forth. But I think the
22 processes are good there. I will leave it to
23 the -- your reps that are here. But I think
24 they're good. They've gotten better. We've really
25 focused especially in development, which is more

1 the R & D element of, of how we do business because
2 that could be a little bit more challenging than
3 production. But I think production has gotten
4 better. We've, we've implemented timekeeping -- I
5 mean placekeeping in our, in our procedures. And,
6 so, it's --

7 MR. SULLIVAN: Okay. Thank you.

8 MR. SPENCER: Okay.

9 MR. SULLIVAN: Mr. Erhart, anything to add
10 there? And, again, I'm just trying to get at
11 the -- whether or not the challenge today is the
12 same challenge that, that has been experienced here
13 for, for decades or, or has it changed in any way?

14 MR. ERHART: Well, see, I think -- I like
15 the word you used, the challenge is to continue at
16 the state of excellence. So, that's -- Formality
17 of Operations, Conduct of Operations is something
18 that has to -- because of the importance of the
19 mission to national security and because of the
20 consequences of doing it wrong has to be maintained
21 at a level of excellence all the time. And if
22 you're not -- And the thing with CONOPS, if you're
23 not working hard to improve it, you're actually in
24 decline. Right? So, and Formality of Ops takes on
25 many, many aspects. We'll talk about a few here in

1 adherence to procedures, conservative
2 decision-making, placekeeping, making sure you, you
3 have the right, you have the right procedure in the
4 first place. The -- It's interesting these terms
5 because I know your background and my background is
6 in the nuclear -- raised in the nuclear shipyards,
7 which there was no program called Formality of
8 Operations. It was how you did things on the
9 nuclear submarine and in the shipyard. So -- But
10 the concepts that we're talking about can be
11 applied to Security, Work Planning and Control.
12 The basic came from the Defense Board's Integrated
13 Safety Management prayer wheel that we like to call
14 it. Those, those, those fundamental aspects have,
15 have pretty much -- You know, to, to do work in an
16 excellent fashion, you need to do all of those
17 things. As far as -- I can't really speak for the
18 history. I have a little -- maybe a few days
19 longer history at Y-12 than Mr. Spencer. But
20 the -- It is something that in my experience does,
21 you know, tend to oscillate somewhat. I think
22 the -- If you go to the way past, you might -- It's
23 probably a little late in the day to be saying
24 this. I probably should have said it earlier while
25 we had more, more folks in the room. But the

1 workforce has always been dedicated to doing work
2 safely. There -- There's no intent to cut corners.
3 Their safety, the safety of their friends and
4 families are always -- And, so -- But what's
5 happened in the evolution is more removing some of
6 the variability by, by creating more repeatable
7 processes. So, moving more from a -- in the past,
8 it would be an expert based paradigm to more of a
9 process, more, more analysis, more defensibility,
10 more rigor in operations. So, so, as we, as we see
11 those oscillations, if you go far back in history,
12 there's a lot, a lot less documentation, perhaps.
13 But I think still the basic elements of knowing
14 what you're doing, making sure you do it correctly,
15 that that has always been dependent on people doing
16 the right thing. And a lot of the aspects of
17 Formality of Operations comes down to that;
18 training qualified humans, good procedures, good --
19 a good support system to, to have those repeatable
20 good, excellent outcomes.

21 MR. SULLIVAN: All right. And, and I
22 heard Mr. Spencer talk about Work Planning and
23 Control with respect to maintenance being, being
24 more difficult because it's less frequent. The --
25 Do you, do you have any -- Do you agree with that

1 then essentially, that, that by nature, it's more
2 difficult?

3 MR. ERHART: Well, there's -- You can
4 always -- If you look hard enough, you can always
5 find things that you can remove some of that
6 variability. So, some of the things I've seen --
7 And I think we'll get to that here in, in the
8 course of this discussion. But in Work Planning,
9 if we look at, at the prayer wheel, there's a --
10 you have to have a really good emphasis on the
11 planning part, make sure that you have walked the
12 spaces, you understand the conditions. What the
13 difference between the two types of, you know,
14 continuing processing operations and one-off work,
15 work that we're discussing is that if, if you have
16 a lag time between the time you did the, did the
17 condition check of the work area, those conditions
18 might change. So, what you end up finding is that
19 you've got to time that right, too. So, it has to
20 be a real thorough plan. It has to take into
21 consideration the conditions on the work floor. It
22 has to be an adequate -- have, have evaluation of
23 hazards. Those controls oftentimes are very
24 specific to that one-off work item. So -- But, but
25 to get better performance, you look for, for things

1 that you can, can do to minimize the variability.
2 I've seen some success in that -- some actually
3 really good success in that in the -- They had a
4 lockout/tagout trend that was not, not favorable.
5 And, really, where they started to make good
6 traction on that is where they, they addressed that
7 variability issue. So, in that case, they had
8 more, more people that they had to keep trained to
9 certain standards. That, that became harder. So,
10 they minimized the set, increased the training.
11 And, so, you look for things like that that you can
12 do. But I do agree that, that it is, it is a
13 harder problem to, to fix initially and then keep
14 at a, at a high state of excellence. And then,
15 then when you are doing the same process every day,
16 and you have the ability to improve that process
17 over time, which is the last part of the prayer
18 wheel, feedback and improvement. And oftentimes,
19 work, work items, once they're done, they're done,
20 and so you don't have that chance to improve the
21 process. So, those are some of the differences.

22 MR. SULLIVAN: And, so, I think up to now,
23 we've been primarily talking about the performance
24 of, of B&W Y-12 in both of these areas. What's the
25 role of your office in, in, in both of these areas?

1 MR. ERHART: So, we, we oversee the, the
2 work at the site. And it is a separate from the
3 contractor. The contractor -- And we'll get to
4 this later in this discussion, hopefully. That we,
5 we expect the contractor to have a very thorough
6 and transparent contractor assessment on their own
7 so that they should be looking for and finding
8 problems. And, and we should have access to that.
9 And that's, that's part of a good oversight
10 program. But we also look independently of that.
11 And we, and we, we do a -- With my facility
12 representatives, I mentioned before, this is a big
13 part. Formality of Operations and Work Control --
14 Work Planning and Control is a major part of their
15 oversight. So, they have a -- They do what they
16 call quick checks on both of those items. And
17 those are spot checks of plans that are -- are the
18 plans complete, are the controls in place. Really
19 just looking at all the aspects of it to ensure the
20 safety of that work from a Formality of Operations
21 perspective. So, we do that. We have some focused
22 assessments that we do where we look at all, all
23 aspects of Formality of Ops. And these quick
24 checks, we'll, we'll pick parts of that. And we do
25 that pretty much constantly. So, that's, that's

1 our involvement in overseeing the work at Y-12.

2 MR. SULLIVAN: All right. Thank you.

3 Mr. Chairman.

4 CHAIRMAN WINOKUR: All right. Ms.

5 Roberson.

6 VICE CHAIRMAN ROBERSON: Thank you,
7 Mr. Chairman. So, let's, let's talk about Conduct
8 of Ops specifically. And we'll talk about Work
9 Planning and Control separately. The, the
10 staff's testimony highlighted some specific
11 weaknesses identified by the Board in the areas of
12 technical procedure adequacy and procedural
13 compliance. But an important part of developing
14 and implementing corrective actions is to first
15 honestly identify the underlying causes. So,
16 Mr. Spencer, I would ask you, in, in your view,
17 what are the primary weaknesses in this area that
18 B&W identified and describe the underlying causes
19 for those weaknesses?

20 MR. SPENCER: Well, I think there were two
21 underlying causes. One was the adequacy of the
22 procedures themselves. And the other -- You're
23 talking about the procedure now, right, and the
24 review of that? The -- It was -- Or CONOPS in
25 general?

1 VICE CHAIRMAN ROBERSON: CONOPS in
2 general.

3 MR. SPENCER: Okay. Well, I think that --
4 I think most of the focus was on, was on procedures
5 and procedure compliance. And, so, there was --
6 There were problems with the procedures, which
7 included things like placekeeping --

8 VICE CHAIRMAN ROBERSON: Right.

9 MR. SPENCER: -- and the rigor of the
10 procedures themselves. So, we went through a
11 campaign to fix them. Then there was compliance
12 with the procedures. Right?

13 VICE CHAIRMAN ROBERSON: Uh-huh.

14 MR. SPENCER: And if I had to say, the
15 root cause was expectations there; that you will
16 comply with, you will follow the procedures step by
17 step, you will keep checkmarks on the steps you've
18 completed, and all that. So, those are -- I think
19 those are the two big things. And there were also
20 other things after we clarified that, put in the
21 placekeeping. And that was to make sure the
22 expectations would continue to be followed which we
23 had more, more management oversight on the floor --
24 right -- to help support that and to give feedback
25 to the employees, like going through the training.

1 Maybe we'll do that later. But a whole new
2 training program where we do scenario-based
3 training, hands-on training with continuous
4 feedback. Right? That's all part of CONOPS. And
5 let's see. What am I missing? Oh, the Senior
6 Supervisory Watch and, again, the training piece.
7 Those are the, the major elements I think of how
8 we've improved discipline in Operations.

9 VICE CHAIRMAN ROBERSON: So, so, let me
10 just walk through it really quick. So, the
11 underlying causes were the, were the adequacy of
12 the procedures --

13 MR. SPENCER: First of all, yeah.

14 VICE CHAIRMAN ROBERSON: -- and unclear
15 expectations?

16 MR. SPENCER: Yes, ma'am.

17 VICE CHAIRMAN ROBERSON: Unclear
18 expectations in procedure development, procedure
19 compliance, all of the above?

20 MR. SPENCER: Well, the procedure -- The
21 procedures themselves needed to be improved. The
22 expectation I was talking about is how you execute
23 the procedures in the field --

24 VICE CHAIRMAN ROBERSON: Okay.

25 MR. SPENCER: -- to make sure that you do

1 follow them step by step --

2 VICE CHAIRMAN ROBERSON: Okay.

3 MR. SPENCER: -- that you do, do place-
4 keeping and you do check them off. And that has to
5 do more with expectations.

6 VICE CHAIRMAN ROBERSON: So, I'm assuming
7 those were elements of your Performance Improvement
8 Plan --

9 MR. SPENCER: Correct.

10 VICE CHAIRMAN ROBERSON: -- that you
11 developed in 2011? Were there other key aspects of
12 your Procedure Improvement Plan for Operations
13 Performance Improvement Plan and Procedure
14 Improvement Plan --

15 MR. SPENCER: Those were the two main
16 ones.

17 VICE CHAIRMAN ROBERSON: -- those two
18 elements?

19 MR. SPENCER: Can I, can I move this over
20 to Dave --

21 VICE CHAIRMAN ROBERSON: Absolutely.

22 MR. SPENCER: -- to ask for additional
23 input on that?

24 MR. RICHARDSON: Sure. This happened back
25 in -- starting in '11 when we got the letter. We

1 looked at fundamentally how do we train our
2 operators, what are the expectations, and resetting
3 the culture of what we wanted our operators to do,
4 which was follow the procedures, identify to us if
5 the procedures don't work, and we'll go fix them,
6 get them engaged in procedure development, and step
7 back and go through the procedures, redevelop them,
8 make sure that they can be executed as written
9 without variability and without them having to
10 improvise if something wasn't right, getting senior
11 managers out in the field to reinforce those
12 expectations, taking on our training program from
13 just initial training to a continuous training
14 program to where we've evolved it now where we're
15 actually putting the operators in scenario-based
16 training and interjecting faults in and seeing how
17 the watch team responds to that fault. Those were
18 the things that we started in that Improvement
19 Plan.

20 VICE CHAIRMAN ROBERSON: Okay.

21 MR. RICHARDSON: And that has given us
22 great benefit to improving the Conduct of
23 Operations in the facility and in instilling a, a
24 maturing nuclear safety culture in our folks that
25 have a questioning attitude, that aren't afraid to

1 stop when they have a question or something doesn't
2 seem right, and a management expectation that
3 that's exactly what we want them to do so that we
4 can address that concern and, and reward them for
5 having a questioning attitude, and putting the
6 emphasis that we want to do it correctly in
7 Operations, and the production will come if we do
8 our operations correctly, and the value of the
9 operator who is doing his job correctly, not trying
10 to meet a production goal.

11 VICE CHAIRMAN ROBERSON: Okay. So, Mr.
12 Richardson, that, that -- You've been doing those
13 things. And then earlier this year, you had an
14 Effectiveness Review done; is that correct?

15 MR. RICHARDSON: That's correct.

16 VICE CHAIRMAN ROBERSON: So, what did you
17 find in the, in the, in the results of the
18 Effectiveness Review?

19 MR. RICHARDSON: The Effectiveness Review,
20 as stated in the statement here at the beginning,
21 was effective. Our, our Improvement Plan had, had
22 a noticeable effect on improving Conduct of
23 Operations. Procedures were better. Procedures
24 adherence were much better. The willingness in the
25 operators and the maintenance folks to stop work

1 when they had a question was observed. And that's
2 exactly what we wanted. There was a couple of
3 areas in Conduct of Operations where we still had
4 some work to do. One was in placekeeping. And
5 placekeeping is a regimen that we've asked our
6 operators to do when they're in a continuous use
7 procedure, which the expectation is that procedure
8 is done step by step. You don't move on to the
9 next step until the previous step is done. They're
10 done in the exact sequence. And, so, it's a manner
11 of just checking and, and marking off the steps as
12 you go. That's important so that they don't get
13 confused. Also, a lot of our operations stop mid
14 procedure because it's the end of shift. They have
15 to pick it back up the next day. So, placekeeping
16 is one of the ways that has really improved our
17 procedure adherence. We did notice during that
18 assessment, there were circumstances where we'd
19 have two groups of operators separated by a
20 physical boundary, either a floor -- on one floor
21 and another floor or across the wall in, in a clean
22 or dry room where that wasn't real clear who was
23 doing the placekeeping, how we were marking it back
24 and forth. So, we took that on board. We put
25 specific expectations to our operators in each of

1 those circumstances so they now understand what we
2 want them to do in those circumstances to address
3 that placekeeping weakness that we saw. Other
4 areas in the assessment was the pace in which we've
5 been able to go through and improve our procedures
6 is lacking from our original schedule, which was
7 pretty ambitious. And we're working that. And,
8 quite frankly, I'm okay that it's a little bit
9 behind because we're doing those procedure reviews
10 as an integrated team where the operators are
11 there, the engineers are there, the process
12 engineers, the supervisors, and we're field
13 verifying those procedures and doing it once and
14 doing it right. And I would rather not hurry that
15 activity, but take the time that it takes to, to do
16 that procedure review correctly.

17 VICE CHAIRMAN ROBERSON: Okay. And, Mr.
18 Erhart, do you, do you believe they've established
19 the appropriate corrective actions and identified
20 the right underlying causes?

21 MR. ERHART: Yes, I think the, the, the
22 concept of bringing -- A couple of key things. I
23 think that a lot of, a lot of good corrective
24 actions. But a couple of keys things. Getting
25 the, the operator, the worker, involved in the

1 writing of the procedure and, and also getting the
2 systems engineer or process engineer, whoever is
3 the owner -- usually an engineer owns a technical
4 procedure -- to the work site to try to get at that
5 issue that, that, that you have where you put a
6 worker in a position of not being able to perform a
7 procedure as written.

8 VICE CHAIRMAN ROBERSON: Uh-huh.

9 MR. ERHART: But a good safety culture
10 would, would say that that -- that highly trained
11 operator would stop when the procedure didn't work
12 and then go get, go get the procedure changed by,
13 by contacting the right folks. But as a precursor
14 event or as a more HPI, Human Performance
15 Improvement, that procedure should be right when
16 you pick it up off the shelf and can be performed
17 as written. So, some other things in procedure
18 changes that I think were positive. You also want
19 to -- You want to put the notes and cautions at
20 things at the right point. I've seen -- Not
21 necessarily here. I saw it big time at Pantex many
22 years ago where you have, you know, three pages of
23 general precautions that nobody was really reading,
24 which then clutters the, the procedures so you're
25 not focused on, you know, the note where you need

1 it, caution where you need it so you can execute
2 the procedure. I think the -- More in -- More
3 management attention through different means has
4 been a positive thing because -- That Senior
5 Supervisory Watch, for instance, that was stolen
6 from the Nuclear Navy, as well. And that gets
7 management eyes on there because management needs
8 to be concerned about that -- the ability for that
9 procedure to be used right the first time and not
10 put workers in that, that awkward position of
11 trying to make it work versus having it work for
12 them.

13 VICE CHAIRMAN ROBERSON: Can I ask you
14 briefly, did you implement any actions in -- on
15 your oversight approach to assure you that these
16 corrective actions were being effective?

17 MR. ERHART: Right. So, we, we comment a
18 lot with the contractor performance. So, the first
19 the plans. Does the plan seem reasonable? Does
20 that seem to address the root causes? That's kind
21 of the first order. And then we will add comments
22 to make sure they're on the right track. And then,
23 then we're mostly interested in, you know, does
24 performance improve and -- Because that's the
25 ultimate goal. And, so, we have, we have increased

1 our, our, our oversight in that specific area.
2 We've done a number of things with the startup of
3 the, of the NPO office to kind of change the past
4 paradigm of more compliance-based oversight to a
5 better balance of -- You know, compliance is
6 important. But to me, that's an entry condition to
7 be doing the work that we're doing. And then more
8 focus on the, on the performance and freeing up my
9 Assistant Managers to comment on, on performance
10 issues. Whether you can tie it to an actual DOE
11 requirement wasn't on that. This, this doesn't
12 seem right because it could -- you know, it could
13 lead to something worse, that kind of thing. So,
14 we've done a, a number of changes in, in the NPO to
15 I think focus in on the more important things.
16 Like I mentioned before, the facility reps are all
17 important because they're there all the time. And
18 my Assistant Manager for Operations has done a good
19 job of increasing the, the focus. And giving my,
20 my folks tools to, to do that oversight so that we
21 have data to support the assertion, which I'll give
22 you that you we are seeing improvements. Recently,
23 I've seen some very good examples of conservative
24 decision-making. And what we want to do is, again,
25 is to, to build and maintain a strong safety

1 culture is to appreciate those folks that, that
2 actually do that. This doesn't seem right; I'm
3 going to stop it and see. Or bring up a problem
4 instead of trying to work through it. And we'll
5 take the -- Like we talked about -- And Mr. Held
6 did a good job of that. We'll take the impact to
7 production and we -- But we really have to -- and
8 this is a concerted effort on the part of both
9 management teams here -- to thank those folks for
10 bringing up the problem so that we can fix it and
11 making it a safe environment to do so.

12 VICE CHAIRMAN ROBERSON: Okay. Thank you.

13 CHAIRMAN WINOKUR: Well, these discussions
14 of Work Planning and Control and CONOPS are very
15 intertwined. And, so, I'm going to try to separate
16 them out a little bit because we have testified
17 that we think you're making more progress -- You're
18 making progress in both areas, but more progress in
19 CONOPS than you are in Work Planning and Control.
20 So, let me start out -- And I resonated with a lot
21 the things that Mr. Erhart said, but maybe I'll ask
22 you a question, Mr. Richardson. Why is Work
23 Planning and Control inherently more difficult than
24 CONOPS? And, and you don't have to agree with that
25 statement.

1 MR. RICHARDSON: No. Let me qualify it a
2 little bit. I believe you're talking about Work
3 Planning and Control as it revolves around
4 maintenance activities.

5 CHAIRMAN WINOKUR: Well, I, I wouldn't be
6 personally, but even, even my staff won't
7 necessarily agree with me on this. But, but let's,
8 let's focus it on maintenance. Okay. I'm happy --

9 MR. RICHARDSON: Maintenance --

10 CHAIRMAN WINOKUR: I'm happy to live in
11 the maintenance world with you.

12 MR. RICHARDSON: The maintenance world is,
13 is where we have probably the biggest effort going
14 on now trying to improve Work Planning and Control
15 because, again, every Work Order that comes down
16 has a certain amount of planning and work control
17 that needs to go with that to ensure that when it
18 goes out to the field, that it can be safely
19 accomplished and get the desired end results.
20 Initially, the initial Work Planning and Control
21 Improvement Plan was directed towards maintenance.
22 And this Improvement Plan really looked at the
23 process and trying to get in place a very solid
24 integrated safety management driven work planning
25 and control process for maintenance work. And that

1 was fairly successful in getting a good process
2 together. The, the issues that I see now that we
3 have is one of how well are we executing that
4 process. And a large part of that goes into what
5 is the skill set that our planners have. They have
6 a very difficult job because they have to go out
7 there from everything from planning to replace
8 light bulbs to doing a rebricking of the Holden gas
9 furnace, which is a very large and very hazardous
10 maintenance activity, and plan that flawlessly each
11 time; otherwise, we're going to have problems. And
12 what we're looking at now is concentrating a lot on
13 the skill set of those planners, giving them the
14 time to do planning correctly, which means bringing
15 in integrated scheduling, which we'd never had,
16 where we're looking out eight weeks into advance
17 and we're planning on a schedule so that at the
18 two-week point, we lock in all the work that we're
19 going to do. And if the work's not fully planned
20 and ready to work, it doesn't go on the schedule to
21 go to work. Lastly, we're looking at just how do
22 we take and get the feedback mechanism that worked
23 so well in our lockout/tagout improvement, in our
24 SSWs. And we put in the field maintenance monitor
25 watches doing the same thing to mentor and field

1 our work activities. So, those are going on. In
2 the planning arena, some of the things that we're
3 doing is the time. We're also setting the
4 expectations for how do you plan a package and how
5 do you do team planning. Similar to procedure
6 development, work packages need to be developed in
7 a team effort where you have the engineers there,
8 you have the safety professionals there, you have
9 RadCon there, you have the facility there, and you
10 have the workers who are going to conduct the work
11 and do the walk down to help the planner put
12 together how is he going to go construct the Work
13 Order and the Work Plan. And we're now giving that
14 time up front and setting that expectation that
15 those walkdowns need to happen and, and that effort
16 has to be put into the planning effort. So,
17 that's, that's the larger problem that you have to
18 go work. It's -- And it's always changing. I
19 mean, we get three thousand Work Orders a month.
20 So, that's, that's the level that you're trying to
21 work your way through every month to keep the
22 facilities up and running and do the most important
23 work in a safe way.

24 CHAIRMAN WINOKUR: So, that was very good.
25 Work Planning and Control, it's a, it's a

1 complicated process. It's been referred to as the,
2 the prayer wheel for Integrated Safety Management.
3 And you've got to define the scope of work, right?
4 And then you've got to identify your hazards and
5 then your controls and then perform the work and
6 then feedback and improvement. And there's a lot
7 of opportunities inside that process, if you don't
8 have the right subject matter experts, if you don't
9 define the scope of work right or whatever, to not
10 quite get it right. And then when you put it in
11 front of a bunch of workers and say, do it, they,
12 they can figure out pretty quickly it's either
13 confusing, it doesn't work, they don't want to do
14 it, and so on and so forth. So, that's what I was
15 trying to get at by saying that Work Planning and
16 Control really takes a lot of, a lot of capability,
17 a lot, a lot of expertise and, and effort, and
18 especially in the maintenance area where each job
19 could be different. I mean, this is -- This can be
20 potentially tough stuff.

21 MR. RICHARDSON: It is.

22 CHAIRMAN WINOKUR: And is, is that the
23 reason why it's been difficult for you to get this
24 to be where you want it to be?

25 MR. RICHARDSON: I don't think we'll ever

1 get it to where I want it to be, but we're making
2 progress. But you have to set the, the building
3 blocks first, which is get a good process, get the
4 right expectations. And then you have to just
5 start working it. And I think one of the areas
6 that we're going into is, is going into maintenance
7 scheduled work windows and, and giving the time to
8 really put work packages together. I come from a
9 reactor background and, and outage maintenance is,
10 is one that I'm very comfortable with. And it
11 allows you to do good quality work and take some of
12 that pressure off the planner to put out a package
13 because something is broken.

14 MR. WINOKUR: Yeah.

15 MR. SPENCER: Yeah.

16 CHAIRMAN WINOKUR: Do you have a comment?
17 Please.

18 MR. SPENCER: Yeah, talking about this,
19 that reminded me of the planners. And we've made a
20 lot of improvements in planners. Dave touched on
21 it, as well. You know, we had -- It was akin to
22 lock and tagout where we had too many people that
23 could initiate a lock and tag, people that did it
24 once a year, so, they'd make a mistake. So, one of
25 the things we did is to get it from eight a year

1 down to -- I don't think we got the one and the
2 zero -- is to remove a lot of peoples' credentials
3 from that. Same thing in planning. We, we had to
4 look for the right planners because the planner is
5 important. He or she's got to understand the work
6 that they're planning. Right? And they've got to
7 talk to the subject matter experts. Right?
8 They've got to get all this together. It's not
9 just, you know, writing a bunch of stuff on a piece
10 of paper. It's really understanding what the work
11 scope is. So, they have to walk it down. We've
12 put a lot of effort on the planners themselves.
13 We've produced a number, a special training. We've
14 created a special functional classification for
15 them. We've tried to move engineers into that
16 classification and then move them back out so it's
17 a -- you know, to get more talent into the plant.
18 This is a very important function within our
19 facilities. And the last piece of what Dave talked
20 about is making sure they have the requisite time
21 to do the job right. So, we have this eight-week
22 window where we look at the planning window.
23 Right? And then it rolls. After you finish the
24 work, you add another week on to the back end. And
25 you try to lock in the last two weeks. So, these

1 planners have eight weeks to prepare. The last two
2 weeks are just locked in to really refine and make
3 sure that their work plans are accurate. So, all
4 that stuff happened to improve Work Planning and
5 Control.

6 CHAIRMAN WINOKUR: So, you've done these
7 Improvement Plans, Mr. Richardson. You've done
8 causal analysis, Corrective Active Plans. Is there
9 anything in particular that's tripping you up in
10 this Work Planning and Control? Is there any one
11 particular area where you feel you have identified
12 that you think you need to do better and that will
13 help you quite a bit?

14 MR. RICHARDSON: We currently have a, a
15 Work Planning Improvement Plan underway right now.
16 And it's concentrating on the execution phase,
17 principally planning, the planners, their skill
18 set, the scheduling aspect. It will go into the
19 feedback and improvement with the Maintenance
20 Monitor Watches and strengthening that. And the
21 last piece is -- really once we start getting that
22 down is to go into reliability centered maintenance
23 and start and trying to move the wheel a little bit
24 from corrective maintenance and preventive
25 maintenance to some predictive and reliability set

1 of maintenance. That's the last part of that
2 Improvement Plan. The biggest issue now is just
3 working it, keeping the attention and, and the
4 effort it takes to do good schedule management and
5 work window planning, getting the skill set of the
6 planners up, giving them the resources that they
7 need. And we're still working it. It is a work in
8 progress. Currently, one of my major issues is
9 resources of SMEs, subject matter experts, health
10 and safety professionals. And I'm very close to
11 detailing some to the maintenance full time to do
12 nothing but support the maintenance planner. And,
13 and we'll keep working this. Right now, I think
14 the process works. I think the pieces, the
15 expectations are there. My biggest drive right now
16 is to try to improve the efficiencies so we can get
17 more packages out that are of a high quality so we
18 can keep up with the workload.

19 CHAIRMAN WINOKUR: Do you have any metrics
20 you are using so that you can convince Mr. Erhart
21 that you're really making progress and that --

22 MR. RICHARDSON: Certainly.

23 CHAIRMAN WINOKUR: -- and that you've
24 got -- now you've got a much larger percentage of
25 procedures that are really executable and, and so

1 on and so forth? I mean --

2 MR. RICHARDSON: Certainly. We're, we're
3 looking at that. Right now, we've rolled out a
4 outage schedule where we're taking the facilities
5 down. E Wing is down. We're doing an outage on
6 that now. We did an outage in Beta 2-E. And, and
7 I certainly have the data that shows we went into
8 that outage with I think ninety-seven planned jobs.
9 And we performed ninety-six percent of those that
10 we wanted to do and did some pickup jobs. So,
11 we're really trying to concentrate on performance
12 to schedule, schedule accomplishment. And I've
13 also challenged my folks to go get better metrics
14 on the quality of the work package. When we give
15 the planner the right resources, the right time,
16 and a good scope of what needs to be done, I want,
17 I want a measure of how that package is performing
18 better than how it was done a year ago.

19 CHAIRMAN WINOKUR: Okay. And, Mr. Erhart,
20 you're comfortable with the progress being made?

21 MR. ERHART: Yeah. I -- So, we talked
22 about -- So, I have insight into those metrics.
23 We're seeing the -- you know, still a lot of -- And
24 this is -- If you're going to -- If you have a
25 problem, you'd see it in the work package not being

1 appropriate for work on the site. So, it would be
2 delivered back to the planner. So, we see a lot of
3 that, which is actually kind of some good
4 indications there they're not, they're not trying
5 to perform, perform a job with a substandard -- you
6 know, a substandard product. So, I do think the --
7 You know, the emphasis on planning and
8 qualifications, I -- My, my input to B&W was to, to
9 look at what -- When, when you've got the traction
10 you got on the, on the lockout/tagout trend issue
11 and look at the aspects that, that helped you get
12 through that and try to do a lessons learned to
13 apply those to, to the, to the issue with the work
14 packages. And I think they're doing that. I
15 think the -- The other thing I mentioned is that
16 they, they talk about this stuff at least in -- And
17 I, I have insight into that once a month. But they
18 talk about it every week. It's a key initiative
19 for them. They have a working -- you know, a
20 working group where they talk about these issues.
21 And I've, I've, I've sat there with them as they
22 worked through this. But I think they're on the
23 right track. And I think we will see that -- the
24 variability come down and then the performance go
25 up.

1 CHAIRMAN WINOKUR: Thank you. Dr.
2 Mossman.

3 DR. MOSSMAN: Thank you, Mr. Chairman.
4 Going back to the Work Planning and Control, in a,
5 in a radiological environment, where does ALARA (As
6 Low as Reasonably Achievable) fit in? And as part
7 of that, in situations where there might be a very
8 high radiological exposure potential where you
9 would want to have a group of workers share the
10 risk, how does that -- how is that incorporated,
11 that goal of sharing the risks fit into a work
12 planning? Yes, I'm sorry. Mr. Richardson.
13 Excuse me.

14 MR. RICHARDSON: Okay. ALARA comes in in
15 the planning process. And that's where we bring
16 that in. That's where we bring in the radiological
17 engineers, radiological controls, technicians who
18 will be overseeing the job to get their input in
19 that. When you look at radiological risks at Y-12,
20 it's mainly a uptake risk due to what we deal with.
21 It is not an exposure due to a radiation risk.
22 So -- But we have significant concerns with the
23 materials that we're dealing with. So, it's
24 primarily a respiratory and, and control scheme
25 that way. So, we, we don't really look to share it

1 amongst a large population. We really look at who
2 is the best equipped, fully trained, and what's the
3 right PPE to protect that worker, and what's the
4 right engineered controls to put that in because we
5 aren't typically facing exposure, a whole body
6 exposure dose. But that, that ALARA piece is a
7 important part in a lot of our work. I'll give you
8 one example. Currently what we're doing is the
9 rebricking of the Holden gas furnace, a very high
10 radiological risk job. The furnace has been in
11 service for quite a few years. The contamination
12 levels inside the furnace are in the ten to the
13 sixth level and where they have to put workers down
14 inside the furnace to essentially remove all the
15 bricking, bag it out, take it out, then refurbish
16 and then rebrick the furnace. That particular job
17 was very extensively done with the ALARA review
18 involving all the way up to the Director of the
19 Health and Safety, the RadCon Director. And the
20 final plan was approved by myself after they went
21 through that. We will be putting the furnace in a
22 full containment. We will have extensive
23 radiological controls personnel down inside the
24 furnace. They will be in an extensive PPE with
25 lots of monitoring. Now, that's a one, one

1 extreme. But we've, we've put the same sort of
2 look at all of our jobs because there's very few
3 things, particularly in 9212, that we can get into
4 where we don't see the potential for high
5 contamination levels.

6 DR. MOSSMAN: Thank you, Mr. Chairman.

7 CHAIRMAN WINOKUR: Mr. Sullivan.

8 Mr. SULLIVAN: Thank you. Mr. Richardson,
9 I've heard you use some training terms here,
10 continuing training, scenario-based training.
11 Those are -- They're music to my ears. I've also
12 heard that I think this is a pilot program. Is
13 that, is that correct? Is there --

14 MR. RICHARDSON: The scenario-based
15 training, it started out as a pilot, but we are
16 moving into a normal training regime now.

17 MR. SULLIVAN: Okay. So, we are moving.
18 So, we're in the process of it being expanded to,
19 to all of the workforce here that work those
20 Nuclear Operations and Maintenance?

21 MR. RICHARDSON: That's, that's, that's
22 correct.

23 MR. SULLIVAN: All right. And, so, who
24 did, who did we start with?

25 MR. RICHARDSON: We started with the

1 operators in the production facilities. So,
2 principally I think 9212 and Beta 2-E and 9215.
3 And the way that we structured that scenario-based
4 training is we have a facility that we use for
5 training essentially and the global threat
6 reduction. And it mimics a manufacturing facility.
7 It's, it's not contaminated. It's, it's away from
8 the production facilities. And in there, you have
9 vaults, you have machine tools, you have work
10 benches. And we essentially have started using
11 that facility to bring a group of operators,
12 supervisors, a watch team in there and have them go
13 through a scenario with procedures that may not
14 work, with material that may not be where it's
15 supposed to be, and view how the watch team reacts
16 and then critique and, and instruct following that
17 scenario-based training. And we're very pleased
18 with the value of that training tool.

19 MR. SULLIVAN: All right. So, do you have
20 specific ways of assessing it then? Any metrics
21 that come out of the, the assessments?

22 MR. RICHARDSON: We have training plans
23 and assessors that are in with the group. And then
24 we compile the results group to group.

25 MR. SULLIVAN: All right. And before --

1 We've talked a lot about planners. And I heard you
2 before talk about the skill set needed for a
3 planner. And then I think Mr. Spencer basically
4 said what, what I understood that skill set to be.
5 Is planners something that can be -- their
6 performance be improved through some sort of
7 scenario-based training?

8 MR. RICHARDSON: Potentially. The, the
9 way that we're addressing the planners and
10 improvement is on one-on-one training where we go
11 with an experienced maintenance person, a planner
12 or a manager, to go along with a walk down and look
13 at what he addresses in the walk down with the
14 group and do on-the-spot mentoring and improvement.
15 The other thing that we've instituted on complex
16 work is the same thing that we put in place on
17 lockout/tagouts with a senior management review of
18 the planning package where essentially senior
19 management, other planners, the right subject
20 matter experts go in, and before we say that that
21 package is ready to work, have the planner present
22 the package, ensure he can answer all the hard
23 questions. If he can't, he, he goes back and
24 reworks it at that stage. And we're using that
25 technique because that was very effective on

1 improving our authorized employees in their ability
2 to write good lockout/tagouts and ask all the right
3 questions before they said that this lockout/tagout
4 was ready to go. They worked in the field. So,
5 that activity is also going on. But that's
6 somewhat scenario-based training, but that's how
7 we're trying to improve the performance of the
8 planners that we have. The other thing that we're
9 are doing is changing the skill mix, trying to
10 bring more degreed engineers into the planning
11 ranks vice having a lot of craft who graduate to be
12 planners or foremen who become planners up through
13 the ranks. They make good planners, but you've got
14 to have a mix. You've got to have some of the
15 skilled engineering skills in there, too.

16 MR. SULLIVAN: Right. Mr. Spencer,
17 what's, what's your expectation for when the --
18 this new, improved training program will be mature
19 for all nuclear, nuclear operators and nuclear
20 maintenance personnel?

21 MR. SPENCER: Oh, very soon. I mean,
22 we've -- I think we've touched over ninety percent
23 of all the production people already. And it's
24 part of their continuous training. We've just
25 started working the, the Maintenance folks through

1 it. So, soon. I mean, it's in progress right now.

2 MR. SULLIVAN: All right. Thank you.

3 Mr. Erhart, have you formed any initial assessments
4 yourself as to how well this, this improved
5 training is working out?

6 MR. ERHART: I think it's a little early
7 to see the performance impact of the training, but
8 I am a big fan of, of scenario-based training. And
9 it sounds like you are, too. And, you know, CONOPS
10 is something better than self taught on
11 computer-based training, for instance. And really
12 seeing and putting people through those paces, it
13 does a number of things. It, it assesses their --
14 that one important thing, to be able to verify that
15 conditions aren't as expected and then to take the
16 appropriate actions in a conservative manner. So,
17 I think it's, it's great. The more the better.
18 But the -- You know, we'll, we'll just kind of keep
19 watching and keep checking and, and engage
20 performance as we go forward. But I am very high,
21 high on the concept. And then expanding that to
22 other areas outside of Production is, is great.

23 MR. SULLIVAN: All right. And, and you,
24 you run the office down at Pantex, as well.
25 Fundamentally, how does, how does their training

1 program compare to, to this one?

2 MR. ERHART: Well, any comparison -- I am
3 in a unique position so I can, I can see both sites
4 simultaneously. And they're, they're very
5 different sites, first of all. They have -- They
6 do very different things. Well, both production
7 sites. But the, the neat thing about the situation
8 we're in with NPO at covering two sites is to share
9 best practices with, with each. And we
10 mentioned -- I would add Pantex to one of the sites
11 on the last panel when we were talking about
12 emergency planning and preparedness and execution.
13 And we are exporting some of those best practices
14 from Y-12 to Pantex. I think there's some things
15 that Pantex does in, in procedure, procedure
16 control and in training that can be exportable and,
17 and lessons learned can be applied here at, at
18 Y-12. But if you all have children -- I have
19 two -- and they're both my favorites. So,
20 they're -- So, we just -- We, we look at -- We have
21 strengths and weaknesses in both. And you hope
22 they share experiences and then they, they can
23 learn from each other.

24 MR. SULLIVAN: All right. Thank you.

25 CHAIRMAN WINOKUR: Ms. Roberson.

1 VICE CHAIRMAN ROBERSON: Thank you, Mr.
2 Chairman. Mr. Spencer, despite your best
3 efforts -- And I know that you're applying your
4 best efforts -- to maintain focus on both CONOPS
5 and Work Planning and Control and improvements to
6 these programs, you and I both know it's often very
7 challenging to sustain achieved improvement. So,
8 what do you see as some of the obstacles to
9 long-term sustained improvement in Nuclear
10 Operations' performance?

11 MR. SPENCER: Thank you. As I think
12 you'll agree, certainly Operations and maybe life
13 is a sine wave it seems like. And you'll, you'll
14 have events, ORPS Reportables, and then you won't
15 have so many. So, way back in the Tritium days, we
16 set about to reduce the amplitude and increase the
17 wavelength of events and things that happen.
18 Right? So, we've set up our metrics to try to look
19 at it that way. When was the last time that we had
20 a more significant event? How do we look at our
21 ORPS Reports? How do you we look at -- So, a
22 bigger picture of how do we look at that. As part
23 of our Contractor Assurance System -- right -- we,
24 we meet at least three Fridays a month, sometimes
25 four Fridays a month, and we go over all of our

1 metrics. We go over what we, what we call key
2 initiatives. We look at what we think are our
3 biggest problems in our facilities and we focus on
4 them. We send out a Corrective Action Plan. We
5 report back each month. We go over the
6 indicators -- The key indicators we go over, as
7 well, as a part of that effort. Right? Then we
8 look at when we get the functions. We look the
9 next week at the line organizations. And, so, it's
10 about organizing that and being introspective and,
11 more importantly, focusing on it as a management
12 team. When you have the quiet time for three or
13 four hours on Friday morning to really sit down and
14 go over the data. In the past, we had these things
15 called Collective Significance Reviews. I went
16 through a whole series of white elephants. You
17 just -- It creates and even more -- It didn't work.
18 And, so, what I've come to is this, this plan that
19 we -- If you take this -- There's a lot of data in
20 one of these facilities. You have ORPS reports,
21 you have letters to the Defense Board, you have,
22 you know, fac reps. You know, it's all good input.
23 Good people, you know, give us input from the, the
24 reps. And we have this thing called a FIWG. It's
25 an Improvement Working Group, Functional

1 Improvement Working Group. And what they --
2 Feedback Improvement Working Group. But it's what
3 I always call the Collective Significance Review.
4 And they take the data and they look at it. They
5 trend it. They say we've got a trend here. You
6 know, lock and tag, we've got a trend here in
7 whatever it is. And they put out a substantial
8 report each month that your folks did and read.
9 And we share it. We look at it. We, we dice it
10 up. And that group reports directly to me and my
11 staff at this, at this weekly meeting. Right? And
12 we go over it. We really take it up once a month.
13 And it goes into our Contractor Assurance System
14 Reporting. And, so, it's a long answer. And I
15 apologize. But it's, it's all about analyzing the
16 data, being introspective about your problems,
17 working them as a team, picking out what's most
18 important and just focusing on it. And then if
19 you're not -- As Steve pointed out earlier, if
20 you're not continuing to improve, you'll back
21 slide. And that's just the way it seems to work.
22 So, the idea is to get the amplitude down the
23 wavelength to make that thing go so you don't have
24 very many events. But it's looking at all those
25 factors.

1 VICE CHAIRMAN ROBERSON: So, this -- And
2 I'm not even going to try to repeat this acronym.
3 But this improvement working group, is that a
4 long-term --

5 MR. SPENCER: Yes.

6 VICE CHAIRMAN ROBERSON: -- function now
7 in your organization?

8 MR. SPENCER: It is. Let me -- When I,
9 when I first got to Y-12 a little over a year ago,
10 I was just looking through the drawers and
11 whatever. So, I get a Contractor Assurance System
12 Effectiveness Review. And what I found from that
13 review was that the Y-12 has a very good Contractor
14 Assurance System. The tool itself is very good.
15 They had this FIWG, which I've come to love. It's
16 a Collective Significance Review. Right? It's a
17 good indicator, a, a good -- a huge suite of
18 indicators, a good -- But they had lost focus in
19 how they addressed those. It's one thing to have
20 data, but what are you going to do with it? Are
21 you really spending the time to analyze it? Are
22 you really spending the time to focus on it, to, to
23 work as a team to figure out what your problems are
24 and to fix it. So, that's what we set about to do.
25 That's what, what these key initiatives together

1 with these key performance indicators. The FIWG
2 now reports directly -- It comes and sees me
3 routinely and I meet with them or their, their
4 leadership. And they report out to the -- to my
5 team on a monthly basis or so and when they've got
6 a concern. And, so, that's, that's how the process
7 works.

8 VICE CHAIRMAN ROBERSON: So,
9 Mr. Richardson, does the FIWG, is that facilities?
10 What is, what is FIWG?

11 MR. SPENCER: Feedback Improvement Working
12 Group.

13 VICE CHAIRMAN ROBERSON: Feedback
14 Improvement Working Group, do they rely on the same
15 metrics and indicators that you've developed to --

16 MR. RICHARDSON: They have --

17 VICE CHAIRMAN ROBERSON: -- assure
18 improvement, to -- Do they rely on the same metrics
19 and indicators to determine if improvement achieved
20 is sustained or are they different metrics?

21 MR. RICHARDSON: They use the same
22 indicators and the same raw data that, for example,
23 I have that I look at. This group, though, is
24 chartered to go off and look at trends across the
25 site. So, it's not just limited to Operations. It

1 could be in Security. It could be in our Research
2 and Development facilities. It can be in
3 engineering issues. And they're really just a good
4 feedback mechanism with Chuck and myself, okay, we
5 see something here. On, on most things, what they
6 come up with is right in alignment with where my
7 concerns are. But there are times when they, they
8 see something and, and say that there's a trend
9 starting here. And then we go off and address
10 that. We, we take their input. You know, it's
11 very valuable because these, these are senior guys,
12 senior people in the organizations. They've been
13 at Y-12 a, a long time and they'd, they'd have a
14 very cross functional ability to look. So, that's,
15 that's an asset to us. You know, the other things
16 that we look at is we do have good performance
17 measures that we look at, key performance measures.
18 The other thing that we strive to do is really
19 drive down the level of event that we look at. We
20 have put in place a work team investigation
21 activity that whenever we have an abnormality, we
22 go do a look at that with the work team to then
23 figure out the timeline of event, what the issues
24 are. And from that, we make a decision whether or
25 not to critique it and, and go forward. So, you

1 know, by driving down the threshold by which we
2 take and examine events, we start seeing other
3 things earlier, well before we get into the
4 reportable range or have an ORPS or something like
5 that. We spend as much time on the lower impact
6 events than we do on, on the ones that, that would
7 traditionally be critiqued. And I think that
8 process has paid benefits because we can see the
9 trends as they're developing and then interject
10 Corrective Action Plans before we have a
11 significant event.

12 VICE CHAIRMAN ROBERSON: Okay. You also
13 have your Senior Management Watches. What are they
14 telling you about performance in Conduct of Ops and
15 Work Planning and Control?

16 MR. RICHARDSON: Senior Supervisory
17 Watches are out every day. We do roll up all their
18 comments. They are formally documented. And then
19 on a recurring basis, monthly and quarterly, we
20 assimilate those things and, and try to draw
21 conclusions from the trends. Generally, what we're
22 seeing now on the Senior Supervisory Watches is
23 approximately about eighty percent of their
24 comments are positive, that operators are doing
25 things right, very little mentoring has to be done

1 in the field. Of the twenty percent that we're
2 seeing, I would put those kind a in a catch-all
3 category, the crispness of operations.
4 Housekeeping is an issue that we're seeing more and
5 more. So, having those senior folks out as a
6 Senior Supervisory Watch is giving us another
7 insight into, you know, what is really going on in
8 the facilities. My experience has always been to
9 go look at the routine operations because those are
10 the ones that you'll probably get the most
11 surprises in.

12 VICE CHAIRMAN ROBERSON: Okay. And, and
13 then my last question for now is to you, Mr.
14 Spencer. The last, but not -- but certainly not
15 the least most important. The buy-in of the
16 workers is obviously critical in this. So, how are
17 you integrating feedback from the workers into your
18 improvement processes and sustainment?

19 MR. SPENCER: Well, a number of ways.
20 You've heard several of them here. We -- When we
21 take them through the training, we get their
22 immediate feedback. Right? And we get their
23 feedback. They are part of the walk downs that we
24 do with our work control. And we develop
25 procedures or we develop work packages and the

1 like. Right? We get feedback from them in a whole
2 series of ways. They -- I do all managers meetings
3 once a month. Right? So, it's a whole cadre of
4 things that we get feedback from the workforce. We
5 just did a -- recently did a Safety Conscience Work
6 Environment Survey. It had a good -- a very good
7 outcome. And I was concerned. To be honest with
8 you, I was concerned about it because it's a
9 tumultuous time with the contract change and with
10 the sequestration on that. And I was really
11 pleasantly surprised. We'll have the final report
12 here in a couple of weeks. But it came out very
13 good. And, so, the workforce there is very good.
14 I'll tell you, I was -- I won't say surprised. I
15 just -- It's very good. The union support, I meet
16 with them, the union leadership each month. I meet
17 with the shop stewards each month. And it's very
18 positive. They want to talk about safety issues
19 and things that they see and their -- what their
20 union representatives or their, their folks are
21 seeing in the field. And we, you know, trust their
22 concerns. And the folks there want to do it. And
23 I'd say the same thing is true for the Security.
24 And that's not what we're talking about here. But
25 the same thing with them. We're looking for to

1 make sure that it's clear what the expectations
2 are. And they want to do -- They want to perform
3 well.

4 VICE CHAIRMAN ROBERSON: Thank you.

5 CHAIRMAN WINOKUR: Let me ask you, has it,
6 has it been difficult to get the buy in of the
7 workers, Mr. Spencer? I mean, is the -- Has the
8 culture here just been very expert based over the
9 years? Sometimes we hear people say, well, it's
10 only uranium; it's not plutonium. It's -- Of
11 course, you're dealing at Pantex with nuclear
12 weapons. That's a little different, too. But
13 do you think that's a part of the issue?

14 MR. SPENCER: Uhm, in my time here, I
15 would say there is a couple of things. One is,
16 the, the workers are, are very safe. They want to
17 be safe. Right? There's not a cowboy mentality.
18 This is not a D&D project where, you know, I mean,
19 you get some of that. I shouldn't say that. But,
20 I mean, this is a rigorous operation and the folks
21 want to be safe. I think, as I mentioned before,
22 that in the past, because of the pressure
23 associated with meeting the deliverables for this
24 stockpile in the past -- And I saw this in tritium,
25 as well. It was more about production than

1 anything else. I, I think that the workers want to
2 do the job. And they want to produce. I'm telling
3 you, the workers really want to produce and they
4 want to do it well. So, if there was one thing
5 that sticks in my mind, it's that. It's the
6 production mentality. But they're willing to stop.
7 We've seen that over and over again. They're
8 willing to stop. They're willing to take a
9 time-out and they, they embrace the processes.

10 CHAIRMAN WINOKUR: All right. The other
11 thing, the other thing before I ask my question on
12 Contractor Assurance Systems, which you've already
13 partially answered, you talked about the fact that
14 when it comes to improvement, there's always this
15 sine wave. And you've talked about increasing the
16 wavelength and reducing its amplitude. But you
17 also want the average value to go up, right? I
18 mean, you want this oscillation to be about a
19 better value, right?

20 MR. SPENCER: A positive, yes.

21 CHAIRMAN WINOKUR: You know what I'm
22 saying? I'm saying it's -- you're always going to
23 have oscillations.

24 MR. SPENCER: Right.

25 CHAIRMAN WINOKUR: And you'd like them to

1 be less frequent and you'd like the amplitude of
2 the oscillations to be less. But that, you know, Y
3 equals sine X plus b, that b term, you want that
4 average term to be higher and higher and higher,
5 right?

6 MR. SPENCER: Yes.

7 CHAIRMAN WINOKUR: Okay. I mean, so,
8 that's -- To me, that's the third part of that
9 analogy is --

10 MR. SPENCER: Yeah, I hadn't thought about
11 that.

12 CHAIRMAN WINOKUR: -- is to make sure that
13 we get it because we know we're always going to
14 have -- I mean, there are always cyclical things
15 going on.

16 MR. SPENCER: Right

17 CHAIRMAN WINOKUR: But, anyway, that to me
18 would be --

19 MR. SPENCER: Good point.

20 CHAIRMAN WINOKUR: -- what you're shooting
21 for in the end. Let me chat about Contractor
22 Assurance Systems. You did -- You already
23 mentioned your Contractor Assurance Effectiveness
24 Review. What were some of the things -- Well,
25 first of all, let me back up and say, where does

1 the Contractor Assurance System fit into this whole
2 DOE scheme? I mean, how important is the
3 Contractor Assurance System to getting the job done
4 right?

5 MR. SPENCER: To me?

6 CHAIRMAN WINOKUR: For everybody here.

7 MR. SPENCER: Right. No, I mean, are you
8 asking the question to me?

9 CHAIRMAN WINOKUR: I am, sir. You --
10 You're the contractor.

11 MR. SPENCER: It is extremely important.
12 I think it's important to the -- to NNSA, as well,
13 though.

14 CHAIRMAN WINOKUR: I know.

15 MR. SPENCER: But it's extremely important
16 to me. I, I really, I really believe in that. I
17 really believe that it's not just something that we
18 do to fulfill a contract requirement.

19 CHAIRMAN WINOKUR: Absolutely.

20 MR. SPENCER: It's what we use to manage
21 our business. Indicators -- If you're not going to
22 use an indicator, don't do it. Do something else.
23 Read a book, anything. But don't -- You know,
24 unless you're going to use the information you
25 get -- right -- why collect it? And, so, this

1 Contractor Assurance System being introspective,
2 being open to comments, let the FIWG come in and
3 say, hey, you guys really didn't address this
4 issue; we see no improvement. Okay. Well, what
5 should we address? Let's talk about that. It is
6 critical to me. Our key initiatives, we've been
7 able to focus on a couple of examples the lock and
8 tag you've heard about, Crit Safety. We've seen
9 substantial improvement in Crit Safety and looking
10 at that. We've looked at -- Obviously, Security
11 was a big piece of it. Our, our NARA and FARA
12 misses and, and other alarms, driving them down
13 through the process. I could go on and on with
14 the -- The, the work control is a key initiative.
15 Right? So, we, we use our Contractor Assurance
16 System to get better at whatever it is. And we
17 look at it from what's wrong, what can we improve
18 on, and we manage it as a team -- right -- to, to
19 improve.

20 CHAIRMAN WINOKUR: What do you think is
21 the key to a good Contractor Assurance System?
22 What's the, what's the most fundamental thing
23 you're trying to do?

24 MR. SPENCER: Honestly, it's being
25 introspective. It's really --

1 CHAIRMAN WINOKUR: How?

2 MR. SPENCER: It's tearing down some of
3 the -- There's a natural propensity in an
4 organization that build stove pipes, it's not my
5 problem. No, you've got to get the team working
6 together. You've got to be open and disclosive
7 about your problems. Let's not -- Let's start with
8 the truth. What is the problem here? Let's get
9 down to the root cause of what the problem is and
10 let's just fix it as a team. That's what I tell
11 them, this, this is our company. Let's just see
12 how we can get better. Let's figure out what the
13 problems are and what the issues are and address
14 them.

15 CHAIRMAN WINOKUR: I agree with you. And
16 I think as part of the discussions earlier today,
17 from my perspective, it's important -- The
18 Contractor Assurance System is important in that
19 you identify the problems. It's not that you're
20 perfect, but that you're introspective and you find
21 the problems. And, so, when the Board looks at
22 things throughout the complex and we go on site and
23 people tell us things are very, very good and we
24 look at it and we say, wait a minute, they have a
25 lot of issues here, that's when the Contractor

1 Assurance System isn't working as well as it needs
2 to. So, you know, I certainly encourage that. I
3 have -- In my opinion, it's incredibly important in
4 the whole scheme of DOE's oversight from
5 Headquarters to the site office. But in the final
6 analysis, where the rubber meets the road is where
7 you guys are doing the work. And that's where the
8 biggest payoff can be in terms of the performance
9 and the accomplishment of the mission. And I would
10 assume you would agree with that.

11 MR. SPENCER: Absolutely.

12 CHAIRMAN WINOKUR: Okay. So that you had
13 this Contractor Assurance System Effectiveness
14 Review. And what were the, what were the
15 shortcomings -- I mean, why was that review done
16 and what were the shortcomings of it? What did,
17 what did you find when you did it?

18 MR. SPENCER: Well, the first thing I did
19 was I had them print out all of the, all of the
20 indicators. And it was a book this thick. I think
21 it was four hundred and something. As you go
22 through them, you could see that most of them were
23 green, green, blue, green, blue, green blue,
24 yellow, green, blue, green, blue. So, I think
25 there was a tendency to -- You know, if you've got

1 a camera, you pan it up to the upper right-hand
2 corner and say that, you know, anything, anything
3 less than six TSRs is good. Well, no, you need to
4 have none. And, so, I, I think the goals perhaps
5 needed to be rearranged, the focus. But the tool
6 itself was very good. So, I think it was the
7 focus. I think it was the lack of being
8 introspective and addressing them across those
9 boundaries that I was talking about, the stove
10 pipes. It was, it was really the application of
11 the data and how they were using the data, I think.
12 But, again, the tool was very good.

13 CHAIRMAN WINOKUR: How strong do you think
14 your Contractor Assurance System is today?

15 MR. SPENCER: I think it's strong. I do.
16 You know, I wouldn't -- It's the, it's the one that
17 I've kind of worked on my career. And it's got all
18 the elements of it. It's, it's good. But it's
19 only as good as the people who are willing to bring
20 forth the information and look at it. We could
21 have a problem tomorrow. I don't know. I mean,
22 but we, we sure give it a heck of a shot. We look
23 at it each, each week -- right -- and go over the,
24 the things that we're most concerned about. And we
25 keep getting more data in. So, I'm, I'm happy with

1 our system.

2 CHAIRMAN WINOKUR: So, you've been here
3 for a year. Do you think there have been
4 improvements in the Contractor Assurance System in
5 the last year?

6 MR. SPENCER: Well, at the risk of
7 sounding -- Yes. I'll just say yes --

8 CHAIRMAN WINOKUR: All right -- there you
9 go.

10 MR. SPENCER: -- I am. Yes.

11 CHAIRMAN WINOKUR: And what was the number
12 one improvement? What was the main thing that you,
13 you think you were able to -- or you working with
14 your team were able to identify to make that
15 improvement?

16 MR. SPENCER: Well, there was a number of
17 things. I mean, I think it's -- It's the focus.
18 And I give Steve credit here, too, because, you
19 know, I've been in other places where you have an
20 event and you track that event and you track this
21 event and you track that event and you've got all
22 these things going on. And what we did was we
23 binned where we thought we had problems in these
24 key initiatives, like in the lock and tagout issue.
25 Right? And we just focused on that. We had a good

1 plan and we fixed it. Get something and we'd put it
2 back in that same bin until we got it fixed. The
3 same thing with Security and the NARA, the alarms,
4 and all that. The Crit Safety, we have a long-term
5 plan. So, if somebody finds something with Crit
6 Safety, like there's a bolt missing or something on
7 an array, it goes into that system, well, why
8 didn't we find it. We would have. We didn't get
9 there yet. Right? So, we -- It's really focusing
10 on the things that we wanted to fix.

11 CHAIRMAN WINOKUR: Now, Mr. Erhart, how
12 would you assess the Contractor Assurance System
13 today?

14 MR. ERHART: Definitely improved. The --
15 One of the drivers obviously was the Security
16 event. And, so, what, what was the status of
17 Security and how was it measured by that
18 contractor. And, and, so, that, you know -- Pretty
19 much right when Mr. Spencer took over, that was,
20 that was the question that came from the fed side.
21 You know, the Contractor Assurance System is a key
22 component to a, a good oversight program. And, and
23 it needs to be, you know, a hard hitting,
24 self-effacing sort of program. And, as Mr. Spencer
25 pointed out, there was a lot of data being

1 gathered. And no question about that. But it's,
2 it's more of the analysis. I, I like the term the
3 collective significance. Right? So, if you are,
4 if you are identifying deficiencies and working off
5 individual deficiencies without working the
6 collective significance, what's that telling you
7 about the system health, if will you, of where we
8 actually are? You, you would not know where you
9 are. And, so, they've done a lot in overhauling
10 that in tune -- in tuning the, the system that they
11 had in and overlaying this, this rollup of, of
12 events and tying it together and attacking the
13 systemic problem, which if you do that
14 consistently, you will drive performance. And
15 that's a partial answer to your question about
16 sustaining better performance. So, those --
17 Attacking that, that systemic issue and then making
18 sure that you keep it, keep it fixed. So, the, the
19 CAS has come a long way since, since Mr. Spencer's
20 Significance Review. And it is in the -- It's --
21 You know, we rate it as managed. It's, it's a in a
22 position where it, it forms a, a part of our
23 oversight that we can -- that it is self-effacing,
24 it is, it is subject to change now so they're not
25 locked into, into indicators, specific indicators.

1 If they need to be changed, they'll change them.
2 And, so, I do, I do see a lot of positive
3 improvements. And then we utilize that as a part
4 of our oversight now. And, you know, that doesn't
5 mean we, we don't do our own independent check. We
6 have to verify that the, the data that they're
7 getting with our own independent checks can
8 validate the reliability of their -- of, of the
9 data that they're collecting. But I think the
10 biggest, the biggest change is, you know, bringing
11 everybody together and talking about what does this
12 mean as a total to the site. And it mirrors the
13 process we use in NPO. So, we meet as a management
14 team and we talk about on our side and look for
15 trends and significant -- you know, cross cutting
16 systemic issues. Ideally, in a, a very, in a very
17 mature oversight regime, they would find problems
18 that we would have also seen. And, so, we'd be
19 agreeing with their key initiatives without having
20 to say you didn't think about this. There is some
21 of that. There's always going to be some of that
22 because we're two different entities. But that's,
23 that's the ideal situation. And then from my
24 perspective and what I have to do to maintain that
25 questioning attitude and free exchange of

1 information is not beat them to death when they
2 identify problems because the first thing if you
3 tell me you don't have any problems, you're either
4 unqualified or you're lying. You know, and either
5 one is bad because you'll always have problems.
6 It's, it's, you know, how significant and what are
7 you -- Specifically, once you've identified that
8 problem and locked into a systemic issue, what is
9 your progress of understanding the extended
10 condition and working the problem. So, we've seen
11 a lot of improvement over the last year.

12 CHAIRMAN WINOKUR: So, my final question,
13 I guess the role of the contractor is pretty -- is
14 very, very clear and your role is clear as NPO.
15 What do you hope to -- What do you hope
16 Headquarters will contribute in this model, in this
17 oversight model? What would their role be?

18 MR. ERHART: Well, I think we're, we're
19 making some progress in, in, in connecting -- You
20 said -- Again, it goes back to the Y-12 event.
21 Everybody has, you know, a secretary that -- The
22 head of NNSA, they are the ultimate responsible
23 parties for operations under their purview. So,
24 we're, we're working --

25 THE COURT REPORTER: I'm sorry.

1 MR. ERHART: -- to connect --

2 THE COURT REPORTER: I didn't -- For the
3 operation of what? I'm sorry.

4 MR. ERHART: I'm sorry?

5 MR. SULCHAIRMAN WINOKUR: She's asking you
6 about something you just said.

7 MR. ERHART: I'm sorry. Go ahead.

8 MR. SULLIVAN: I think she was asking -- I
9 think you said operations under their purview and I
10 don't think she heard the term, heard the phrase.

11 MR. SPENCER: Under their purview.

12 MR. ERHART: Oh, okay. Yeah. Since
13 the -- they are ultimately responsible for, for the
14 safety of operations, then they need to be in the
15 line and more informed of site, site operational
16 status. And I, I like to look at it as health of
17 the systems that, that we, we rely on to always be,
18 be there to, to promote that safety. So, I think
19 we are making some progress. I think the -- We, we
20 do have some more work to do to come up with a
21 framework. But in, in whatever framework we
22 ultimately decide on, the Contractor Assurance
23 System and, and good independent and hard hitting
24 verification at the site level will always be
25 a part of that.

1 CHAIRMAN WINOKUR: Thank you. Mr.
2 Sullivan.

3 MR. SULLIVAN: Thank you. I think this
4 will be my last set of questions for the day. So,
5 Mr. Erhart, specifically on oversight with respect
6 to Work Planning and Control, the Board wrote a
7 Technical Report Number 37. And then the Deputy
8 Secretary sent out a letter that said -- that asked
9 or basically telling the site offices to increase
10 their oversight of Work Planning and Control. So,
11 specifically in response to the Deputy Secretary's
12 letter, what's happened?

13 MR. ERHART: Well, I think we were, we
14 were doing a lot of that. But we, of course, took
15 that and, and ensured that we're, we're applying
16 that, that second piece. Not just relying on what
17 the contractor is saying, but actually doing our
18 own hands-on, eyes-on reviews. I think that's
19 manifested itself more, more formally now in NPO's
20 implementation of that with, with check sheets so
21 that we have -- we're collecting the data, good and
22 bad. And then I have that at my, my, my disposal.
23 And then we, we have the advantage of comparing
24 what we're, what we're seeing to what -- with what
25 Mr. Spencer's group is seeing and again seeing if

1 we're, we're on the same page. If there's
2 differences or if we're seeing things that, that
3 they're not, then the other thing we've, we've done
4 is again making it -- My Assistant Managers can
5 always issue letters. If we do identify one of
6 those systemic issues and it was identified in my,
7 in my process, as those deficiencies roll up and we
8 see like issues. We, we create at the, at the top
9 under my signature goes out an issue. And we do
10 that at a quarterly meeting. That's that group
11 discussion amongst all of my AMs where we're
12 comparing all the data my, my folks have produced
13 and what we're seeing and comparing notes. And
14 then we will -- I will issue a letter to the, to
15 the contractor. In this case, I think it was
16 largely agreed upon that Work Planning and Control
17 needs, you know, continued some efforts. And we
18 pointed out some areas where they need to look at.
19 But that was all built from observations on the
20 floor that was done by the staff that's in line
21 with the, the Dep. Sec.'s direction.

22 MR. SULLIVAN: All right. Thank you. If
23 Mr. Held were still here and I would ask him about
24 Contractor Assurance Systems, I think he would give
25 me the triangle. I've seen him do that a couple of

1 times. Do you understand the triangle? What, what
2 does that mean? Has, has he changed anything since
3 he's come in in terms of where, where your role
4 fits in in terms of oversight?

5 MR. ERHART: As Mr. Held pointed out, he
6 is elevating I guess you'd call it the reporting
7 relationship between the Administrator's Office and
8 his Field Office Managers. In other words, there's
9 a direct line. So, the pointy end of the
10 triangle -- one point of the triangle is, is the
11 Administrator. And he, he wants to have access to,
12 to both the General Manager or the Lab Director, as
13 well as the Field Office Manager in kind of an
14 uncluttered, uninhibited manner. So, he's --
15 That's, that's his -- And I think that's a great, a
16 great model. And he's followed through with that
17 with direct feedback and engagement in just the
18 short time that I've worked with him with both.
19 So, we, we had meetings just this week where, where
20 we're talking directly to the Administrator on, you
21 know, factual important site, site operational
22 things. So, I think that's a good, good change.

23 MR. SULLIVAN: All right. Thank you.
24 Now, you actually have two sites that you
25 personally are responsible for. And you spoke

1 earlier about the advantage being that you can
2 share -- you can see best practices and have them
3 shared between the two sites. Are there any
4 disadvantages from this model?

5 MR. ERHART: Other than being tired a lot
6 or is there -- There --

7 MR. SULLIVAN: Well, you have to testify
8 at both of our public hearings.

9 MR. ERHART: I did. I know.

10 MR. SULLIVAN: So, this isn't, this isn't
11 enough torture for you, this week?

12 MR. ERHART: No, it's a good, it's a good,
13 it's a good model. The -- I think the -- What,
14 what I've learned in that, in that time is that to
15 not underestimate the importance of culture and
16 understand -- I mean, even though we have the
17 same -- You know, we, we both are production sites
18 and we're both under DOE requirements. The -- Just
19 everything is different about how that's --
20 sometimes how that's interpreted, how sometimes
21 that's communicated. The vernacular sometimes is
22 different. And then because the, the Manhattan
23 Project kind of set up the enterprise and it grew
24 up as separate entities, you know, you have to
25 understand and be appreciative of the history and

1 the, and the culture that evolved at both of the
2 sites. Both are -- You know, what I can tell you,
3 like we talked about earlier, both sites are
4 dedicated to the mission. They believe in it. The
5 workforce is dedicated to, to that mission. And,
6 as Mr. Spencer said, they want to produce a product
7 that's, that's important for national security and
8 they all care about safety. So, that's good raw
9 materials to work with. But it has been, it has
10 been interesting. And I'd say, you know, to
11 somebody that's going to do it again is to not
12 underestimate that cultural thing. And, and that's
13 something that has to be managed. We are making
14 some gains like we talked about and -- especially
15 at NPO, finding -- We had the opportunity to build
16 a new system which took the best of, of things that
17 were being done at both of the field offices. And
18 then we've had some opportunities to share across
19 the -- since I'm in a position to share best
20 practices between the sites at the contractor
21 level.

22 MR. SULLIVAN: Right. Now, your, your
23 Assistant Managers who are responsible for certain
24 things in the, in the, in the area of oversight.
25 Are they required to spend a certain amount of time

1 at, at each place?

2 MR. ERHART: In order to be effective,
3 they need to be at the opposite site. There has
4 been -- And we, we are, you know, now experts in
5 video teleconferencing and, and the like. But
6 there's -- There is no substitute for being at the
7 opposite site to put eyes on as a manager. That
8 has -- There has been some challenges in the last
9 year with travel budgets and things. But that is a
10 priority. I don't have a mandated you have to have
11 this many days at the opposite site because they
12 also have -- We built into our structure Deputy
13 Assistant Managers at each of the sites. So, they
14 have, they have that. But a lot of it is to get
15 out to talk to their folks at the opposite site and
16 on the federal side and then to spend enough time
17 at the opposite site to understand these things
18 that I was just talking about, the culture things,
19 the different implementation of -- Even things like
20 Formality of Ops and CONOPS is done differently at
21 the sites. You need -- You have one Assistant
22 Manager that covers the responsibility of both
23 sites, they do need to be periodically at the
24 opposite site to be -- to understand that better.
25 We've made a lot of progress in a year. And we

1 think the -- We've had a little bit of down time
2 with, with travel, but we're back on the road and I
3 think we're doing pretty good.

4 MR. SULLIVAN: How about from a, a
5 training perspective? I mean, if you have
6 somebody, say, who, who grew up at, at Pantex, came
7 up through the federal organization there, and now
8 suddenly they're in charge of oversight of a, of a
9 program both at Pantex and here, how do they get
10 trained at what, what happens at Y-12?

11 MR. ERHART: Well, the -- A lot of that
12 is, you know, you, you have to get a lot of that
13 hands-on experience in the job. But the initial
14 selection of the Assistant Managers is to, is to
15 choose folks that have multiple -- They have
16 experience in multiple sites for the most, for the
17 most part. And, and then there are, there are
18 things that -- A lot of the contractor training is
19 good, good training for my folks to go that's --
20 that they do on site. So, they, they do some of
21 that. But there -- A lot of the training occurs
22 with spending time at the site with both the
23 contractor and the -- and their staff. Remember,
24 they have a lot of staff that have been at that
25 site for quite awhile. And, so, a lot -- So, all

1 of that is occurring. And I think it's, it's, it's
2 actually going pretty well.

3 MR. SULLIVAN: All right. So, my last
4 question, you know, we talked at length about how
5 emergency preparedness is going and how you respond
6 and, and be the decision-maker. So, how do you,
7 how do you handle that? You also have to worry
8 about that in, in Texas, correct?

9 MR. ERHART: That's right.

10 MR. SULLIVAN: But you may be up -- You
11 may be here --

12 MR. ERHART: That's right.

13 MR. SULLIVAN: -- in Tennessee.

14 MR. ERHART: So, that's -- I can clarify
15 an answer I gave you earlier is that you -- I think
16 the question was, well, do you go to the EOC.
17 Well, when I was a single Site Manager, I would --
18 I wrote myself as the, the Oversight Manager for
19 all emergencies at Pantex. Obviously, with being
20 the, the Manager of both sites, I need to have
21 somebody else act as the Emergency Oversight
22 Manager at that site who works for me. So, that
23 is, that is a change. But I will tell you we've
24 had -- You know, like I said, this is a world where
25 things happen. So, it so happens that we had a, a

1 pretty significant blizzard at, at Amarillo. It
2 wasn't technically an emergency, but had a lot of
3 the same aspects that I had to make some decisions.
4 So, we did what we do. We had a -- had one of my
5 representatives in, in the EOC. I was on the phone
6 and we were -- we're managing the, managing the
7 event. But that is a change that, you know, we
8 have to have one of the AMs that are, that are a
9 resident at the site to go to the EOC. And we'll
10 have a watchbill that'll have defenses in depth
11 there, too, so that -- because I -- We just talked
12 about we had them on travel status a lot, too. So,
13 we've had to increase our cadre and -- to ensure
14 that we have representation on the Emergency
15 Response Organization that is local to respond to
16 directly to the casualty.

17 MR. SULLIVAN: Okay. Thank you.

18 CHAIRMAN WINOKUR: The last question to
19 you, Mr. Erhart. The last question of the hearing,
20 actually. So, there's a pending contract
21 transition that may take place. We don't really
22 know what it's going to be or who the eventual
23 contractor would be. Do you have any concerns that
24 you may lose some momentum in all the areas we've
25 discussed today, especially Work Planning and

1 Control and Conduct of Operations? Do you have
2 concerns that with new the organizational
3 structure, that you're going to have to be
4 especially vigilant to make sure that you don't
5 take any steps backward?

6 MR. ERHART: Well, the expectation will be
7 not to, to lose momentum. The transition of the
8 contract is very complicated and has to be done
9 very carefully. The transition time is relatively
10 short. And, so, you get a lot done in a short
11 amount of time. But the expectation -- That's
12 where I come in. The expectation stays at the same
13 level. And the other, the other advantage that the
14 feds have is we, we are not subject to contract
15 change and we provide the continuity and then -- to
16 ensure that transition not only goes smoothly, but
17 that we can continue to put that emphasis on
18 wanting the -- to not back slide in any of these
19 improvement areas. And that'll be -- You know,
20 it'll be very clear once all that contract stuff
21 clears up what those expectations are and, and,
22 again, dialoguing with the General Manager and the
23 head of the contract on, on, on that expected
24 outcome.

25 CHAIRMAN WINOKUR: Have you developed a

1 formal plan to be able to, to manage this
2 transition? I assume you have with all the
3 different checks and balances and what you need to
4 be certain that things go smoothly, right?

5 MR. ERHART: That's right. So, that we
6 have done some planning on the fed side. We have
7 that. We did that actually awhile back. We'll
8 have to take a fresh look at that, but it's not
9 complete until the, the awarded contract --
10 contractor gives us their Transition Plan and we
11 marry the two together and that becomes a single
12 Transition Plan. But as you kind of point out,
13 there's a lot on it, a lot of checklists of things
14 to go through to make sure that we -- Because we've
15 got to continue to do the mission and we've got to
16 continue to do it safely through the transition.
17 So, a lot of thought has been put into that. And,
18 and that will be a, a key area of focused attention
19 when we get to that point.

20 CHAIRMAN WINOKUR: Okay. Do the Board
21 members have any more questions? Well, not only do
22 we want to thank the final panel and thank you,
23 Mr. Richardson. But, Mr. Erhart, and, Mr. Spencer,
24 you've been with us all day today. You've given us
25 so much of your time and energy. I can't thank you

1 enough. I really appreciate your contributions to
2 this hearing.

3 And with that, we would like to move to
4 the public comment period. Thank you very much.

5 MR. ERHART: Thank you.

6 CHAIRMAN WINOKUR: Once again, at this
7 time, it is the Board's practice and, as is stated
8 in the Federal Register notice, to welcome comments
9 from interested members of the public. A list of
10 those speakers who have contacted the Board is
11 posted at the entrance to this room. We have
12 generally listed the speakers in the order in which
13 they have contacted us, or, if possible, when they
14 wished to speak. I will call the speakers in this
15 order and ask that the speaker state their name and
16 title at the beginning of their presentation. The
17 presentations should be limited to comments,
18 technical information, or data concerning the
19 subject of this public meeting and hearing. The
20 Board members may question anyone making a
21 presentation to the extent deemed appropriate. And
22 with that, I'd like to invite our first speaker,
23 Mr. Joseph Carson.

24 MR. CARSON: Good afternoon. Should I try
25 to raise this or is this adequate?

1 CHAIRMAN WINOKUR: I -- You may, you may
2 raise it, please.

3 MR. CARSON: Okay. Well, good afternoon.
4 I'm Joseph Carson. I'm a nuclear safety engineer.
5 And I'm a safety engineer for the Department of
6 Energy for twenty-three years now. I'm speaking in
7 my personal capacity, but I wish to be held
8 accountable as a Licensed Professional Engineer
9 that all my statements here be truthful and
10 objective. And if you question that, I would
11 respectfully request you file a misconduct
12 complaint against me. I really want a chance to
13 make my case and DOE has denied that now for years.
14 So, I'd like to -- And I've read a little about
15 your backgrounds. Many of you have an engineering
16 background. When I was interviewed by Admiral
17 Rickover way back when, I couldn't go to him with a
18 very impressive GPA. And he asked me, you know,
19 why did I want his program. And part of my answer
20 was I said I wanted to be a better engineer. And I
21 would contend that a better engineer could be
22 someone who is an expert in a technical area. But
23 I also would contend that a better engineer is
24 somebody who sticks his neck out for the Code of
25 Ethics in engineering, who puts his personal

1 economy at risk to protect others when that's his
2 professional duty, you know, to his employment, or
3 his client. And that's what the legal record shows
4 I have done repeatedly. I stuck my neck out
5 because I thought things were unsafe in DOE. And
6 at this time in the early '90's, this is when you
7 the Nuclear Defense Board was just of getting up to
8 speed. I was at Headquarters, an EH resident. And
9 I was basically advised that nothing's wrong and
10 that no one would report anything wrong. And there
11 was a lot wrong. So, I stood my ground because I
12 decided I was going to be an engineer in life. And
13 engineers have to blow whistles when necessary.
14 And I got it regardless of possible employment
15 retribution. Okay. So, so, for ten years, I
16 fought DOE. I prevailed eight times. Eight times.
17 That was -- with some more litigation. And after
18 awhile, you know, I'm running this gauntlet, I'm
19 saying like, well, why do I still have to run this
20 gauntlet. Why is not the system that's supposed to
21 protect concerned federal employees from
22 retribution working? And being an engineer, I'm
23 kind of analytical. You know, I'm not going to say
24 it was fun, you know, going through the
25 retribution. But I kept trying to just get above

1 it and see what's the bigger picture. And this is
2 what I'm trying to share that is relevant to the
3 Defense Board is that your Mission Statement says
4 DOE is self regulating. And that's true in part,
5 but it's not completely true. DOE is self
6 regulating for nuclear safety. It is self
7 regulating for safeguards and security. But it is
8 not self regulating for its management culture.
9 And by explicit congressional intent reflected in
10 the Civil Service Reform Act of 1978, which created
11 a complex statutory scheme in implementing agencies
12 to regulate the management culture, including the
13 safety culture in every federal agency. And the
14 reason Congress did it that way is they wanted a
15 comprehensive system for almost three hundred
16 federal agencies and, frankly, it didn't trust
17 agencies to self regulate their management
18 cultures. So, my point -- My takeaway to you is
19 that if there's a management issue in DOE, please
20 consider the possibility that the causes of the
21 management issues are outside of DOE, that the
22 other agencies with essential responsibilities for
23 the regulation of DOE's management cultures may not
24 be doing their duties properly. So, you know,
25 somewhat humorously, you know the old story is, why

1 is the drunk looking for the traffic lights over
2 here? Well, that's where the street lights are.
3 My point is, you know, the DOE IG and I think the
4 Defense Board will say our writ stops at the walls
5 the laws of DOE. Therefore, whatever is wrong in
6 DOE has to be caused within DOE. And I'm
7 suggesting not necessarily so, not the way the law
8 is written regarding the regulation of DOE
9 management's culture. Specifically, the two
10 agencies that were created and given essential
11 responsibilities for the regulation of management
12 culture in DOE and other agencies are the Office of
13 Special Counsel and the Merit System Protection
14 Board. So, for the last ten years, I've been doing
15 my analysis and experimentation, my one-man civics
16 lesson with the Office of Special Counsel, OSC,
17 Merit System Protection Board, (MSPB). And I'm
18 saying this as a P.E. Okay. P.E. Okay. I'm now
19 publicly claiming that the Office of Special
20 Counsel is a thirty-five year old, law breaking
21 fraud. I am publicly claiming that the Merit
22 System Protection Board is a thirty-five year long,
23 law breaking enabler of OSC being a fraud. I've
24 been to the Supreme Court twice with these claims.
25 No one has shown me wrong. And the Office --

1 Excuse me. The Office of Special Counsel is unique
2 in history. No other federal agency in any country
3 has ever been created for the primary purpose of
4 protecting federal government employees from
5 federal government law breaking. Okay. It's out
6 there. There's no analog to it. And while it has
7 a statutory duty to act in the interest of people
8 like me who seek its assistance, it's mostly
9 attorneys. And those attorneys have told me --
10 I've been there enough time; we've kind of talked
11 to each other -- that even though they think my
12 concerns are reasonable, because they're attorneys
13 who are employed by OSC, OSC is their client, so
14 they can't actively try to get -- you know, take
15 steps to try to get my concern resolved. And when
16 I took OSC to court, they did everything they could
17 not to try to get the case decided on the merits,
18 but to get the case dismissed without a merits
19 decision. And you would think that you would want
20 to get it right. But, no. OSC knows it's not
21 right and doesn't want that examined. And to give
22 OSC a mitigating factor, it only has a hundred and
23 ten employees to police a workforce of two million.
24 So, it's a very narrow interpretation of the law
25 and does a lot of things off the books just to get

1 through the day. So, relevant to your duties --
2 And I, I could say that about a dozen laws are not
3 being interpreted properly, but I'd just like to
4 limit it to two as kind of a, a test relevant to
5 Y-12 and NNSA. I say that the law is very clear
6 that a contractor employee at NNSA/Y-12 Security
7 Complex has a statutory right to bring concerns
8 confidentially, even if they're classified, to the
9 Office of Special Counsel. Excuse me there. I got
10 a little dry. And I claim those laws now since
11 1989. I left this out of my statement. I also say
12 that if you're a federal employee as myself and you
13 go to the Office of Special Counsel with a
14 disclosure about a violation of laws, regulations,
15 a safety issue, and the Office of Special Counsel
16 does not make what it terms a substantial
17 likelihood determination, which is right up there
18 with truth beyond a reasonable doubt, it has the
19 discretion of still referring it to the agency
20 head, to the agency head. But OSC has continued
21 its practice of informally referring it to the
22 Agency IG, the difference being if it goes to the
23 ID, the IG can throw it in the garbage can, where
24 if it goes to the agency head, the agency has to
25 respond. It's a record. So, that's something that

1 I'm asking you to, to substantiate or dispel. And
2 the way that you could do that is to request the
3 Office of Legal Counsel of the Department of
4 Justice to issue an opinion as to how these laws
5 are being interpreted because it's relevant to your
6 duties. And if the Office of Legal Counsel --
7 whatever it would say. They will say, well,
8 there's the answer. But that would be an answer I
9 have not been able to get for, you know, ten years.
10 You would think that the Office of Special Counsel
11 would want to go to get the right answer to make
12 sure they're doing right. But, huh-uh, no. Well,
13 that's really, really all I have. I appreciate
14 your patience.

15 CHAIRMAN WINOKUR: All right. Thank you
16 very much. Thank you, Mr. Carson. Susan
17 Gawarecki. And if I didn't pronounce it correctly,
18 you'll tell me.

19 MS. GAWARECKI: You pronounced it
20 correctly. Thank you for the opportunity to speak
21 to the DNFSB. And thank you for coming to the
22 Greater Oak Ridge/Knoxville over -- this close to
23 the holidays. I appreciate the hardship that's
24 involved in this kind of travel. My name is Susan
25 Gawarecki and I have a technical background in the

1 environmental engineering industry, a Ph.D. in
2 geology. And I'm a Registered Professional
3 Geologist in three states. I have worked on DOE
4 community issues since 1992. And in 1997, I was
5 hired by the Local Oversight Committee as Executive
6 Director and I served in that capacity for fifteen
7 years. The LOC represented the concerns of local
8 governments, the eight jurisdictions -- nine
9 jurisdictions surrounding and downstream of Oak
10 Ridge. So, I am currently unaffiliated, but I
11 wanted to let you know I'm bringing my observations
12 and experience from this work forward in these
13 comments.

14 I wanted to address three topics of
15 concern to area stakeholders.

16 The first is in the area of emergency
17 preparedness and response, the second in the
18 removal of contaminated facilities and ability to
19 replace aging infrastructure, and the third has to
20 do with disposal of enriched uranium on the Oak
21 Ridge, Oak Ridge Reservation.

22 As Executive Director of the LOC, I
23 interacted with the emergency management planners
24 and personnel from an eight county area, including
25 especially the four counties and the City of Oak

1 Ridge that have Mutual Aid Agreements with the
2 Department of Energy. I sat in on many of the full
3 participation exercises, some of which involved the
4 Y-12 facility. And I always looked at it from the
5 perspective of how would the public and the media
6 be able to get the information they needed to make
7 appropriate decisions. This is handled through a
8 facility that none of the third panel members
9 mentioned to you, which is the Joint Information
10 Center, which is located approximately fifteen
11 miles away from Oak Ridge in northern Knox County.
12 And in sitting in on these exercises, what I would
13 often do -- I, I was closely affiliated with the
14 Anderson County Local Emergency Planning Committee.
15 So, I could see on their big computer screen what
16 was happening and what the decisions were and
17 everything. And I could call in to the J.I.C. and
18 ask them questions as if I were a community member
19 who needed information or a member of the media --
20 and this is kind of exercise play -- and, and also
21 sit in on the press conferences. And, inevitably,
22 the -- they rarely had information that was
23 helpful. Like they did not know, for instance,
24 when the Red Cross would open shelters, they did
25 not have advice to the public in certain sectors

1 when you called their phone banks even though the
2 operation is set up with a, a press room, and then
3 immediately adjacent to that, a room where
4 representatives from all of the participating
5 agencies, both local and state and DOE, are
6 gathered and getting realtime information on their
7 computer screens and on the big screen in the wall.
8 Information that should have been immediately
9 available to the public would take at least
10 forty-five minutes and often two hours to be
11 released as periodic press releases and press
12 conferences. I think you're facing something which
13 has long been ignored by DOE because I would give
14 them comments on this regularly in that their
15 interaction with the public is seriously flawed
16 through the Joint Information Center. It needs to
17 be much closer to realtime. It can't be approved
18 by the Emergency Operations Manager on the site and
19 then go up and be approved by DOE Headquarters and
20 come back down. It takes too much time. Your
21 public and your media is going to go elsewhere.
22 They're going to make their own decision. They are
23 not going to follow instructions to shelter in
24 place or to evacuate or whatever action they need
25 to take that might come from the instructions from

1 the DOE. DOE needs to authorize a representative
2 who can take realtime information, communicate it
3 to the press and the public. And this is in the
4 interest of public safety, preventing panic, and
5 ensuring that correct realtime information is
6 released. I think this means that Headquarters has
7 got to give up a little bit of authority, but I'm
8 sure they can find someone trusted locally who can
9 be able to release this information on the realtime
10 basis.

11 When the third panel spoke, they talked
12 about if the emergency response community could do
13 a do over on Katrina, they would have supplies
14 pre-staged. DOE has an opportunity to prevent some
15 potentially disastrous releases on the reservation
16 in the event of the large regional emergency. This
17 would be by accelerating the removal of their
18 aging, dilapidated, and contaminated structures.
19 Oak Ridge has -- of all of DOE's facilities, major
20 facilities probably has the highest population
21 density immediately adjacent to the reservation.
22 The reservation itself largely lies within the city
23 limits of Oak Ridge. You have the city itself, you
24 have Knoxville, and some rather heavily populated
25 suburban areas all in the immediate vicinity of the

1 reservation.

2 CHAIRMAN WINOKUR: May I ask you to --

3 MS. GAWARECKI: Oak Ridge also has --

4 CHAIRMAN WINOKUR: May I ask you to
5 summarize your comments in the next one or two --

6 MS. GAWARECKI: Oh, okay.

7 CHAIRMAN WINOKUR: -- minutes? We
8 appreciate this so much, but --

9 MS. GAWARECKI: Okay. Sure.

10 CHAIRMAN WINOKUR: I know you have a long
11 list there.

12 MS. GAWARECKI: Yes.

13 CHAIRMAN WINOKUR: I certainly want to
14 encourage you to submit your written --

15 MS. GAWARECKI: I will.

16 CHAIRMAN WINOKUR: -- response for the
17 record.

18 MS. GAWARECKI: But I wanted to mention
19 that Oak Ridge lies within a super storm zone. And
20 it -- You've undoubtedly seen the results of
21 tornados on Joplin, Missouri and the Oklahoma City
22 area, and also southeastern Tennessee within about
23 fifty miles of Oak Ridge. I think that is an area
24 that the DOE needs to increase the priority of the
25 removal of these structures on the reservation.

1 Currently, it lies on the bottom of their risk.
2 And it's a public, it's a public safety issue, not
3 just a DOE programmatic list issue.

4 My final comment is regarding the disposal
5 of enriched uranium. There is an on-site circular
6 waste cell in Bear Creek Valley, which is on
7 Defense Program property. Material from the
8 enrichment site at ETPP is being disposed over
9 there. It includes piping and converters that have
10 deposits of enriched uranium. Some of this is
11 supposedly stabilized with foam. And the
12 original -- The only Criticality Evaluation was
13 done by the original contractor, the Bechtel Jacobs
14 Company. And to my knowledge, this has not been
15 independently reviewed or verified. And I think
16 this is a recommendation you could make to DOE
17 because the assumptions regarding performance of
18 the cell in keeping water out of the contents --
19 and we're talking about very long-term
20 performance -- as well as the performance of the
21 foam, and whether there's a potential for movement
22 of this uranium and its concentration that might
23 represent a future criticality hazard, anything
24 that can be done to diminish this risk prior to
25 closure of the cell, all of these issues should

1 probably be looked at with a little bit more rigor
2 than has been in the past.

3 Thank you very much for your time.

4 MS. WINOKUR: Thank you, Ms. Gawarecki.

5 MS. GAWARECKI: And I'd be happy to answer
6 any questions.

7 CHAIRMAN WINOKUR: Well, please submit
8 your written statements -- your comments for the
9 record, please. Thank you very much. Jenny
10 Freeman.

11 MS. FREEMAN: Good evening. You guys are,
12 you guys are really good. This has been a rigorous
13 day. And I really appreciate the opportunity to,
14 to speak to you briefly. And it will be brief. I
15 don't want you to leave town -- And thank you for
16 coming. Really, it's an honor for us to, to have
17 you come to Knoxville to focus on what we do in Oak
18 Ridge, what we proudly do in Oak Ridge. But I
19 don't want you to leave without hearing one more
20 time the impact that government shutdown had on us
21 in Oak Ridge in terms of the uncertainty it
22 produced for two weeks where our normally
23 rigorously trained eyes that are focused on safety
24 and security for two weeks were blurred by
25 uncertainty over potential job loss, potential what

1 happens to our projects, what happens next. Two
2 weeks of people being pulled off of jobs that they
3 normally performed to scour contract language and
4 H.R. requirements to see how to lay off people
5 correctly if the government hadn't, hadn't picked
6 up again. That went on for two weeks. And
7 Mr. Spencer can tell you the pain that it caused
8 Y-12. It was going on at ORNL. Not to the extent
9 that it was at Y-12. And the D&D work at ETPP
10 continued for two weeks without stop. Companies
11 like mine, a small business, we pulled four people
12 in for two weeks to go over all of this to figure
13 out how we were going to lay off eighty percent of
14 our company. So, the uncertainty that was created
15 by government shutdown cannot be overstated. And I
16 want to give credit to Helen Hardin because Helen
17 was very concerned about this. And she came to me
18 and said, "How can we help? What information can
19 we get out about the impacts of government shutdown
20 on safety and security at our facilities and within
21 our nuclear community of Oak Ridge?" And then the
22 other side of uncertainty is the ongoing dealing
23 with funding uncertainties, working -- doing these
24 world class programs under continuing resolutions.
25 It doesn't make sense to me how we cannot pass a

1 budget. And over time, I think it pulls at the
2 fabric of the world class safety and security
3 programs that we strive so hard to maintain every,
4 every, every day that we go to work. I'm here
5 representing the East -- the Energy Technology and
6 Environmental Business Association. I met with
7 y'al last year. I'm sure you'll remember that we
8 represent about two hundred and fifty large, small,
9 and mid-size companies that provide technical
10 services to DOE, NNSA, prime contractors, and other
11 customers. So, be aware if you would on the
12 impacts of uncertainty on safety.

13 The other thing that I want to tell you is
14 something really positive. I was going to meet
15 with y'all again tomorrow at seven-thirty, but I
16 can't because I'll be in Oak Ridge at the American
17 Museum of Science and Energy where for the ninth
18 year in a row, the community has held a series of
19 safety forums to help support what goes on at the
20 sites from the grass roots. And we look at
21 everything from the electrical safety to hoisting
22 and rigging to lessons learned from other sites.
23 And we have a community discussion about these
24 issues three or four times a year. Tomorrow is our
25 last Safety Forum of 2013. We're focusing on

1 commercial and nuclear facilities and safety
2 programs at work. And we're having speakers from
3 Y-12, one from ORNL, one from Tennessee Eastman,
4 and one from Alcoa to talk about what similarities,
5 and then what can we learn from the commercial
6 world and the nuclear world, what lessons learned
7 can we share to make us safer as -- not only within
8 the DOE complex, but as a region. So, I'm sorry I
9 won't be here at seven-thirty to, to meet with you.
10 I will be at AMSE (American Museum of Science and
11 Energy). And if you're here and you don't have
12 anything to do, come out to Oak Ridge and attend
13 our Safety Forum.

14 Again, thank you. Really appreciate you
15 being here and all the, the comments and the
16 questions that I've heard today. It's been very
17 educational for me. Thank you.

18 CHAIRMAN WINOKUR: Thank you, Ms. Freeman.
19 Are there any other members of the public that
20 would wish to make a comment? At this time, I'm
21 going to turn to the Board Members for their
22 closing comments and then I will end with my
23 comments. Ms. Roberson.

24 VICE CHAIRMAN ROBERSON: I have no
25 additional comments, Mr. Chairman.

1 CHAIRMAN WINOKUR: Mr. Sullivan.

2 MR. SULLIVAN: None. Thank you.

3 CHAIRMAN WINOKUR: Dr. Mossman.

4 DR. MOSSMAN: No comments.

5 CHAIRMAN WINOKUR: So, now I'm going to
6 provide my closing comments. First, I want to
7 acknowledge the hospitality of the Y-12 National
8 Security Complex and local community. I would also
9 like to thank our witnesses and all of the members
10 of the public who participated in this meeting and
11 hearing. I particularly want to thank the
12 Congressional staffers, elected officials, and
13 other representatives of state and local
14 organizations that participated here today. An
15 active community with engaged leaders is a vital
16 part of any successful program of this nature.

17 The mission of the Y-12 National Security
18 Complex is vital to the national security of the
19 United States. A committed and dedicated workforce
20 has successfully performed this mission for over
21 six decades and must continue to do so well into
22 the future. The safe execution of this mission in
23 the long term, however, is contingent upon a number
24 of key elements.

25 First, the transition of enriched uranium

1 operations from Y-12's aging existing
2 infrastructure to the modern Uranium Processing
3 Facility is an important part of NNSA's strategy
4 for modernizing its enriched uranium processing
5 capabilities. In the meantime, programs
6 implemented by NNSA and B&W Y-12 to mitigate risk
7 are essential to ensuring continued safe operation
8 for the remaining mission life of Y-12's existing
9 enriched uranium processing facilities. In this
10 challenging budget environment, detailed monitoring
11 of facility and equipment conditions plays an
12 important role in characterizing the risk of
13 age-related degradation effects and helping NNSA
14 make informed decisions regarding the priority for
15 upgrades and replacements. The various elements of
16 Y-12's aging management programs are an encouraging
17 step to this end. Senior leadership within NNSA
18 should remain committed to addressing deficiencies
19 in existing facilities and vigilant in their
20 assessment of when safe operations can no longer be
21 assured.

22 The aging conditions in Y-12's nuclear
23 facilities place an increased reliance on workers,
24 management, and oversight entities to ensure that
25 any loss in safety margin is countered through

1 rigorous and formally executed operations. The
2 overarching principles of Conduct of Operations and
3 Integrated Safety Management form part of the
4 foundation for ensuring that nuclear operations are
5 conducted safely. Y-12 has made progress towards
6 improving the execution of both maintenance and
7 production work, and now is the time to build upon
8 these efforts to ensure the gains are sustained for
9 the long term.

10 Similarly, increased emphasis on planning
11 and preparedness for severe events is warranted
12 given the known vulnerabilities in Y-12's nuclear
13 facilities, as well as Y-12's emergency response
14 infrastructure.

15 In looking ahead to Y-12's future, the
16 successful startup of the Uranium Processing
17 Facility is an important part of NNSA's enriched
18 uranium modernization strategy. Yet it is also
19 important that the project team integrate safety
20 into the design of this new facility to assure
21 safety of the public and workers once it is
22 operational.

23 To support safe operations at Y-12, the
24 Board will continue to focus its oversight
25 activities on the safe performance of nuclear

1 operations, the processes used to manage the
2 risk of aging facilities, and the integration of
3 safety into the design of modern replacement
4 capability -- capabilities for Y-12's important
5 enriched uranium processing facilities.

6 Once again, I want to sincerely thank
7 everyone for their participation in this hearing. The
8 record of this proceeding will remain open until
9 January 10th, 2014.

10 I'd like to reiterate the Board reserves its
11 right to further schedule and regulate the course of
12 this public meeting and hearing, to recess, reconvene,
13 postpone, or adjourn this public meeting and hearing,
14 and to otherwise exercise its authority under the
15 Atomic Energy Act of 1954, as amended.

16 This concludes the public meeting and hearing
17 of the Defense Nuclear Facilities Safety Board. We
18 are now adjourned. Thank you for attending.

19 (End of public meeting and hearing)

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1 REPORTER'S CERTIFICATE

2 STATE OF TENNESSEE)

3 COUNTY OF KNOX)

4 I, Patti Antol, LCR# 174, court reporter and
 5 Notary Public, in and for the State of Tennessee, do
 6 hereby certify that the above TRANSCRIPT OF THE
 7 PUBLIC MEETING AND HEARING was reported by me,
 8 transcribed by me, and that the foregoing 196 pages
 9 of the transcript is a true and accurate record to
 10 the best of my knowledge, skills, and ability.

11 I further certify that I am neither of kin
 12 nor of counsel to any of the parties not in anywise
 13 financially interested in the outcome of this case.

14 I further certify that I am duly licensed by
 15 the Tennessee Board of Court Reporting as a Licensed
 16 Court Reporter as evidenced by the LCR number and
 17 expiration date following my name below.

18 In WITNESS WHEREOF, I have hereunto set my
 19 hand and affixed my Notarial Seal this 29th day of
 20 February, 2014.

21 *Patti Antol*

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