UNITED STATES OF AMERICA

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DEFENSE NUCLEAR FACILITIES SAFETY BOARD

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OVERSIGHT OF COMPLEX, HIGH-HAZARD
NUCLEAR OPERATIONS

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TUESDAY

NOVEMBER 24, 2009

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The Board met in the DNFSB Hearing Room at 625 Indiana Avenue, N.W., Suite 700, Washington, DC 20004, at 9:00 a.m., John E. Mansfield, Vice Chairman, presiding.

PRESENT:

JOHN E. MANSFIELD, Ph.D., Vice Chairman
JOSEPH F. BADER, Board Member
LARRY W. BROWN, Board Member
PETER S. WINOKUR, Ph.D., Board Member

STAFF PRESENT:

RICHARD A. AZZARO, General Counsel
TIMOTHY J. DWYER, Technical Director
BRIAN GROSNER, General Manager
RICHARD E. TONTODONATO, Deputy Technical Director

ALSO PRESENT:

THE HONORABLE DANIEL B. PONEMAN, Ph.D., Deputy Secretary of Energy
BRIGADIER GENERAL GARRETT HARENCAK, USAF, Principal Assistant Deputy Administrator for Military Application, National Nuclear Security Administration
THE HONORABLE INES R. TRIAY, Ph.D., Assistant Secretary of Energy, Office of Environmental Management, Department of Energy
GLENN S. PODONSKY, Chief Health, Safety and Security Officer, Office of Health, Safety and Security
JAMES J. McCONNELL, Director, Office of Safety, National Nuclear Security Administration
DAE Y. CHUNG, Principal Deputy Assistant Secretary for Environmental Manager, Department of Energy
STEVEN L. KRAHN, Ph.D., Deputy Assistant Secretary for Safety and Security, Department of Energy

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P-R-O-C-E-E-D-I-N-G-S

(9:00 a.m.)

VICE CHAIRMAN MANSFIELD: The hour of nine having occurred, I am Jack Mansfield, the Acting Chairman, Vice Chairman, of the Board. And I have a certain amount of boilerplate I have to run through fast, required by law.

I am the Vice Chairman of the Defense Nuclear Facilities Safety Board, and I will preside over the meeting and hearing. I would like to introduce the members of the Safety Board who are present today. To my left is Joseph Bader, to his left is Dr. Peter Winokur, and to my right is Larry Brown. We four currently constitute the Board.

The Board's General Counsel, Richard Azzaro, is seated over here. Next to him is the Board's General Manager, Brian Grosner. To my right is Timothy Dwyer, the Technical Director, and several members of our staff that are closely involved with oversight

of the Department of Energy's Defense Nuclear Activities are also here and will serve as resources, if needed.

Today's meeting and hearing were publicly noticed in the Federal Register on October 20. The meetings and hearings are held open to the public in accordance with the provision of the Government in the Sunshine Act, to provide timely and accurate information concerning the Board's public and worker health and safety mission throughout the Department of Energy's Nuclear -- Defense Nuclear Complex.

The Board is recording this proceeding through a verbatim transcript and video recording, and a simultaneous webcast on the Board's website.

As a part of the Board's e-government initiative, all of the statements and the video will be available on our website, with the associated documents, public notice, et cetera. It will also be available

in our -- for viewing in our Public Reading Room on the seventh floor, and an archived copy of the video recording will be available through our website for at least 60 days.

In accordance with the Board's practice, as stated in the Federal Register notice, we will welcome comments from interested parties of the public at the conclusion of the testimony. A list of those speakers who have contacted the Board to speak is posted at the entrance of this auditorium, and we have listed people in the order in which they contacted us or signed up. I will call these speakers in order at the end, after the government witnesses have spoken, and ask that speakers state their name and title at the beginning of their presentation.

There is also a table outside with a sign-up sheet for members of the public and members of the government that didn't have a chance to sign up before. Any members of the public who wish to speak that are on that list

will be invited to testify after those who had made prior arrangements.

I ask people to keep their original statements to five minutes, and the chair will give consideration -- ultimate consideration to additional comments should time permit.

The presentations of the public we would request be limited to comments, technical information, or data concerning the subject of the meeting and this hearing. The Board Members may question anybody -- any Members that are making a presentation to the extent deemed appropriate.

The record of this proceeding will remain open until December 24, and I would like to iterate that the Board reserves the right to further schedule and otherwise regulate the course of this meeting and hearing to recess, reconvene, postpone, or adjourn this meeting and hearing, and exercise its authority under the Atomic Energy Act of

1954, as amended. There.

Okay. Today's meeting is the first in a series of Board meetings on oversight of high-hazard and complex nuclear activities within DOE (Department of Energy). We preceded these hearings with eight public hearings in '03 and '04 that were prompted by DOE's proposal to change the methods and techniques and arrangements for government oversight of high-hazard operation.

What concerned the Board then, and continues to be today, is this, in the face of the changes that will be possibly made or that have been talked about: will modifications of DOE's and NNSA's (National Nuclear Security Administration) organizational structure and practices, with increased emphasis on productivity and scientific excellence, improve or reduce the safety and increase or decrease the risk of high-consequence, low-probability nuclear accidents?

I have quoted the recommendation

just now, because we have observed some areas where progress has been made surely, but there is subsequent evidence of backsliding. A case in point is the difficulty establishing and keeping established the Central Technical Authority (CTA), which built up and has been the subject of a bit of backsliding.

The Board became -- first became aware of the -- that the CTA and Chief of Nuclear Safety, which were originally established in your -- in the Office of the Under Secretary, subsequent to our original understanding, but now we understand that the CDNS (Chief of Defense Nuclear Safety) and the CNS (Chief of Nuclear Safety) were restored, but the question is: will they be considered part of the Under Secretary's offices or as part of a staff?

Regarding the complex work performed by DOE and NNSA, we know where the responsibility is for public health and safety. It is squarely on the government

officials in charge and, Mr. Secretary, it starts with you, or it starts with your boss. It starts with you as the Chief Operating Officer.

The Chief Operating Officer, in our view, should be the champion for safety and should be the adjudicator of resource issues when it comes -- when a collision occurs between the interests of production, of science, and of safety. And by safety I mean of course not just public safety but worker safety, as well.

So from the beginning of the Board, in our first testimony before Congress, the Chairman insisted that public health and safety was included in the Board's mission, although it wasn't explicitly listed as a duty of the Board to oversee public -- to worker safety in the legislation of the Board. That has been accepted by every Congress since then.

I won't speak again against -- of

the Rickover Rule, but you know it well. Any delegation of responsibilities you choose to do, you will retain the absolute responsibility. It is never given away and it is never ceded, and that is what we believe makes it work.

We believe that DOE has made -- 20 years ago made an astounding and encouraging and very effective beginning with SEN (Secretary of Energy Notice) 35-91, which linked DOE's approach and dedication to public and worker safety to the -- those of the Nuclear Regulatory Commission with the requirements to not increase -- the goal -- not a requirement, the goal -- not to increase the risk of the public beyond a reasonable amount.

That goal is not a requirement, but it drives requirements, and the Board has always expected to see DOE set requirements and fund them to achieve progress toward that goal all the time, every budget. We believe

that they have to be -- that those -- that 35-91 has to be reaffirmed by action, and that the absence of action on the part of DOE is the surest indication to the public that their dedication to 35-91 is slacking.

The Department of Energy, as all complex organizations, doesn't run itself. And it is my opinion, I believe shared by the Board, that the Chief Operating Officer is required to pay intrusive attention to the activities under him, continually questioning and demanding answers for questions that have been raised by his people, by the public, by the Board.

The potential hazards associated with nuclear operations require that the government -- of course, the contractor, but certainly the government, possess technical competence to do the work: safety. If the government doesn't have that competence, it needs to find it. It needs to hire it or it needs to purchase it.

The government can't be an honest customer for hazardous operation unless it is the technical equal of the contractors. That technical competence continually exercised, and exercised in a way that challenges the contractors' decisions, has proven to be absolutely necessary to prevent big, expensive errors, which have happened in the past because DOE didn't know enough to get mad at the contractor and make him prove what he was doing.

We see evidence of this -- I'm sorry to say we see it all the time, but we do see stronger and stronger protestations by your people, the contractors, not doing a complete job. Putting that kind of pressure on the contractor, as we have seen in a number of things, most recently at the Waste Treatment Plant, can only be good. Neglecting to put pressure on the contractor can only be bad, and it has been that way for a long time.

DOE has established goals, as in

35-91, and the -- as I say, continually funding the wherewithal to proceed toward those goals is the important -- most important aspect of your safety management program that we -- look, it can't -- we don't believe it can be ignored, and if it is ignored in the budget, it is ignored by you as -- in our view.

As a self-regulating agency, of course, DOE is expected to publicly maintain vigorous oversight and talk about it and to take every opportunity you can to make it clear that you are running the show and not the contractors. If that doesn't happen, that message gets out very fast, in our view.

The workers, the laboratories, who tend to be confused about this anyway, get even more confused when it doesn't appear that they are going to be held to the standard of plants, for instance, because they're a laboratory.

Fifth, the -- your promotion of a

safety culture has improved greatly. It always has to be examined. It always has to be -- you always have to undergo -- submit yourself to self-examination. Safety culture can only be maintained by mentoring, by examination, by qualification, by challenging, and by demanding continual improvement on measurable metrics.

I believe you have done a great deal toward that, but that is the quickest thing to go, in my mind. If you don't insist from the top on active measures like mentoring and qualification, people get the message very quickly.

There are 22 commitments under the Recommendation 2004-1 on oversight of complex and high-hazard operations. All of them by now should have been completed. Progress has been made on -- some of them are completed, and progress has been made on some of them.

Lately, we have seen no discernible actions for the Department on some

of them, and we will raise that with your subordinate commanders as they come up in the other -- in the subsequent hearings, perhaps four of them.

The commitments we are most worried about are this: research and development; DOE seems to be puzzled and confused about what kind of research and development is required for safety. They made -- you have made some good steps on things that we clearly didn't know about, like non-destructive examination and things like that, but there are other things where the contractor knows more than you are -- you do, or the contractor doesn't know anything at all.

I'll give you some of the examples. There is no credible model for pulse jet mixing in non-Newtonian fluids and how they will suspend solids. And no one -- but DOE has to be ready to spend money to build a factory that may behave in a way -- in

a bad way. It may not behave the way you want.

I would imagine that DOE would see that as a requirement for research on its own, even though the contractor -- it would expect the contractor to be able to do it. If he can't, you've got to get him to do it or do -- or fund it yourself. In any case, you fund it yourself, even if he doesn't.

But, you know, when you see research failures, I believe that it is up to you to push and make sure that they don't happen. There is no credible theory and experiments for what happens to pipes if hydrogen explodes.

We are trying to find that now. We are finding lots of mistakes that the contractor made that he should never have, and that we shouldn't have been the ones to find. You know, the theory and practice, including pilot plants for hydrogen in pipes and vessels, are DOE's responsibility. If the

contractor didn't do them, I believe you have to make them.

There is -- a third one is that there is -- and this isn't just your fault, it is the whole world -- there is no clear understanding of the failure modes of SCADAs (Supervisory Control and Data Acquisition) and distributed control systems.

Everybody, including you, tolerate as unavoidable the occurrence of unpredictable mystery states where valves open and others close and dampers open and power goes off, and there are completely unexpected results from what is really a causal process, not random. It isn't cosmic rays; it is something that somebody programmed in that you didn't know, and they didn't know, and it -- there is no way to convince me that it is not a safety problem when that situation occurs.

Those are three areas where nobody, I believe, is doing research, but I certainly think that they are important for

safety.

And, finally, DOE committed to develop quality assurance plans, as required. This was declared complete. I think it's good, but it is not very good. It is -- I think that we are concerned with the fidelity and implementation of the QA (quality assurance) plans, and we will keep an eye on that.

We will examine these topics in greater detail, as I said, later on, and in today's meeting I look forward to hearing your responses now, your views. And after that I will ask the members of the Board to either make opening statements or ask you questions.

Mr. Secretary, the floor is yours.

MR. PONEMAN: Thank you, Mr. Chairman, and thank you, distinguished members of the Defense Nuclear Facilities Safety Board. On behalf of Secretary Chu, I would like to thank you for this opportunity to speak today about the Department of Energy's

philosophy and approach to safety in general, and to nuclear safety in particular.

I would like to begin by recognizing the Board's essential role in promoting safety at the Department's defense nuclear facilities over the past 20 years. Through its oversight of operations at these facilities, evaluation of new nuclear facility projects and review of proposed changes to our nuclear safety requirements and guides, the Board has provided the Department with invaluable recommendations that have helped us maintain and improve upon a strong nuclear safety record.

We value your expertise and insight, much of which you have just displayed, and look forward to your continued input as we fulfill our responsibility to ensure safety at our defense nuclear facilities.

In the invitation to this meeting, you identified six topics that you wish to

discuss. Today I will focus on the first topic -- expectations of the senior Department of Energy leadership with respect to safety philosophy and safety management approach. General Harencak, Dr. Triay, and Mr. Podonsky will address the other topics as they pertain to their respective programs.

With respect to our safety philosophy, let me state clearly that the entire senior management team, starting with Secretary Chu, is dedicated to maintaining high standards for safety across the enterprise. With respect to the Department's defense nuclear facilities, the Secretary and I are committed to ensuring the safety and security of our workers, the public, and the environment.

The Secretary and I established goals for the Department and rely on our program offices and site managers to manage our operations safely and effectively, but you are right, sir, that the accountability flows

up and down and rests with the Secretary and me, and we accept that.

We expect our senior leadership team to be responsible and accountable for safety in the areas they oversee, and we hold our line managers directly responsible for the safety of our activities. We expect all line managers to make sound technical decisions, drawing on all available information, including information and recommendations provided by the Board.

The oversight of our complex, high-hazard nuclear operations, a primary subject of this meeting, shows how your feedback has resulted in safety improvements at the Department. At the end of the day, as I stated earlier, Secretary Chu and I recognize that we are accountable for safety at our nuclear facilities and across the Department. We take this responsibility very seriously and expect every employee and contractor to take his or her safety

responsibilities just as seriously.

The Department promotes a safety culture to instill in every employee the importance of safety at our nuclear facilities. The safety culture encourages setting and maintaining high standards, identifying and resolving problems and deficiencies, accepting criticism and recommendations for improvement, and promoting mutual respect and effective communication between line managers and our staff offices.

The Board has asked if the Department of Energy is committed to building and strengthening our safety culture. The answer is yes. I strongly believe that we must continue to promote the safety culture within the Department, and today I can assure you that we will continue to do so. Effective safety performance does not merely require adopting the right systems and processes, it also requires promotion of safety values and beliefs and informing the behavior of the

people who manage and perform the work.

To improve our safety culture, the Department will continue to focus on engaged leadership and strong worker involvement. We also need to educate our workers on safety through programs such as the Voluntary Protection Program (VPP) and the Human Performance Initiative (HPI), and I can tell you that in the numerous sites visits that I have already made in my months in this position, I have seen evidence of this in many places across the complex.

It is our responsibility to instill workers with understanding of their missions, of the hazards associated with them, and of our expectations for controlling these hazards. It is also important to recognize good work. Every single worker needs to be accountable for safety, and we should reward individuals, groups, and organizations that meet our goals and expectations.

And in this connection, I would

like to note on my recent visit to Los Alamos a number of the individuals at the complex were recognized specifically for their contributions to safety, both in specific measures and the overall safety culture. We actually handed out awards in this respect.

Where there are failures, our system of oversight should teach both managers and workers what they are doing wrong and how to do it right, with a goal of fixing the problem in a manner that minimizes the risk of its recurrence. For a safety culture to be effective, it needs to be -- it needs to promote safe practices and recognize the efforts of people and organizations that are responsible, accountable, and successful.

This approach is more likely to succeed than one that criticizes without teaching or that adds new requirements where proper implementation of existing requirements will allow the Department to meet its safety goals.

Our commitment to safety culture builds upon long-standing departmental safety policies such as SEN-35-91, Mr. Chairman, as you referred to a bit earlier, the Nuclear Safety Policy, as well as DOE Policy 450.4, Safety Management Policy, and DOE P 441.1, Department of Energy Radiological Health and Safety Policy.

As we instill the importance of safety in every worker, we also integrate safety into every stage of our work from planning to execution to control. The Department continues to strive to improve safety at our facilities through the use of our integrated safety management system approach. This approach treats safety as an integral part of our work, not as an afterthought, so that missions are accomplished in a manner that protects workers and communities.

We strongly support the continuation of initiatives like integration

of safety into design -- another point that you mentioned in your opening remarks which I agree is critical -- to ensure that safety is considered as early as possible in project planning and development.

We will also continue to implement the principles of nuclear safety that have served the Department well, including minimizing the inventory of hazardous materials at our facilities, designing our facilities in accordance with national standards to minimize the potential for an accident, utilizing highly reliable preventive and mitigating safety controls, and ensuring high levels of quality assurance in all our activities.

The Department of Energy cannot achieve its critical missions if we cannot operate safely, and in this respect, sir, the comments that you raised at the opening of your remarks about whether we would view productivity and scientific excellence as

something that would be advanced at the expense of safety, I, frankly, view as a non-sequitur, because safety is integral -- is integral to our mission.

And if we are not delivering our product safely, if we are not achieving excellence safely, we are not achieving our mission. So I actually think safety, having been integral to the mission, cannot be put at odds with the mission if we are thinking about it properly.

We must achieve our missions. As we face tremendous energy, security, and climate challenges, the Department's work is more important than ever. To help meet these challenges, we are carrying out the missions in the following areas: encouraging science and discovery, building a clean, secure energy future, promoting economic prosperity, strengthening national security, and cleaning up our environmental legacy, and lowering greenhouse gas emissions.

Under our direction, the senior leadership of the Department is developing new management principles to ensure that the Department is operating efficiently and optimizing the use of our resources to more effectively meet our needs. Let me assure you and the Board that we are incorporating safety into these new principles. We will only succeed if we work in a manner that values safety and protects our workers, the public, and the environment.

These new principles will help us more effectively manage our contractors and projects. The changes will strengthen safety and the safety culture at our defense nuclear facilities. We also need to increase our expectations of contractors when it comes to nuclear safety, and, again, I think, sir, this resonates with your opening remarks.

Safety requires every worker, whether federal or contractor, to be vigilant. We must have high expectations, while allowing

contractors to have flexibility to meet our nuclear safety requirements more efficiently and with measurable outcomes. In essence, we are looking for more safety at less cost.

This is fully consistent with the management approach to safety and the safety culture that the integrated safety management system aims to produce. Ultimately, the responsibility for nuclear safety lies with the Department and its leaders, and it is up to us to oversee our contractors to ensure both mission and safety goals are met and that performance continually improves. We must hold contractors accountable, and we must hold ourselves accountable.

In addition, we need to provide the appropriate level of safety oversight at our nuclear defense facilities, both line organization oversight and the independent oversight provided by the Office of Health, Safety, and Security (HSS). To streamline this oversight and make it more effective, we

need to eliminate redundant, non-value-added oversight of the same operations by multiple organizations.

In this spirit, in August I directed the Department to examine options for improved regulation of worker safety. Our goal was to look for improved ways to regulate worker safety that would enhance productivity and achievement of mission goals while maintaining the highest standards of safe operation at the Department's facilities.

The program offices will keep the Department's leadership informed as they track our mission and safety progress. The Central Technical Authorities (CTAs), and their chief of nuclear safety -- and Chief of Defense Nuclear Safety (CDNS), will strive to ensure that our line managers are working to enhance our safety culture as part of implementing their missions.

We expect the Office of Health, Safety, and Security to assist the programs

and sites to promote safe operations and high productivity. We will rely on HSS to provide rigorous, independent nuclear safety oversight, and to provide independent feedback on how the Department's programs and sites are implementing safety culture.

Finally, we look forward to working with the Board and hearing your views. We want your feedback so that we can have an ongoing dialogue about safety at our defense nuclear facilities. As you provide feedback, we hope that you will recognize the positive aspects of our safety programs as well as provide insights into where we can improve.

The safety and security of our defense nuclear facilities is vital to our mission. We focus on this every day. We remain vigilant and committed to protecting our workers, protecting the public, the environment, and the nation.

Thank you again for the opportunity to speak with you today about

these important issues, and I look forward to continuing our conversation today as well as in the future.

Thank you.

VICE CHAIRMAN MANSFIELD: Thank you, Mr. Secretary. That is just the start that I expected from you, and that is -- it's very good, very helpful.

I'll add one comment, and then I will pass it on. Your predecessor, Secretary McSlarrow, quoted Secretary Abraham in 2003 in the following way: "I want to speak about safety, because nothing is more important. If we do this well, everything else will fall into place. If we fail, nothing else we can do to make up -- there is nothing else we can do to make up for the failure."

This is a -- sort of like our statement that safety breeds success, every organization that has driven safety down to the working level has ended up being more productive. The history of PF-4 (plutonium

facility) at Los Alamos is a good example for you to look at some time.

Now I would like to recognize Dr. Winokur, the Chairman nominee of the Safety Board, to ask some questions.

DR. WINOKUR: Thank you very much, Mr. Vice Chairman. I was very appreciative of all the comments you made about safety culture, and as you are aware, the previous Acting Deputy Secretary Kupfer issued a memorandum in January of 2009 that suggested taking integrated safety management to the next level -- and integrated safety management is the way we do work safely in the complex, that taking it to the next level meant establishing a safety culture, and based upon your comments today, I would be right to assume that you are in concert with that and would agree with that.

MR. PONEMAN: I have not seen Mr. Kupfer's specific remarks. I can tell you that the ISM (Integrated Safety Management)

System is integral. We had a major conference focused on the ISM System. I participated by video conference. And so certainly the sentiment of the importance of ISM and deepening it throughout the DOE culture is a sentiment that I share.

DR. WINOKUR: All right. And just to add to that, there are activities, EFCOG (Energy Facilities Contractors Operating Group), and other activities within the Department that are assessing safety culture and attempting to improve it, and I sense that you would be very supportive of that.

MR. PONEMAN: Oh, indeed, and this is something we have encouraged, and the review that I mentioned in my prepared remarks, that we launched in August, we specifically went out to organizations such as EFCOG to make sure that their views were taken into account, so that we would get the full benefit of that kind of input.

DR. WINOKUR: Thank you. Now, Mr.

Secretary, you mentioned in your testimony that -- about this August 7, 2009, memorandum that basically launched a look at the options for regulation of worker safety in the complex.

MR. PONEMAN: Right.

DR. WINOKUR: And I know that work has been done in that regard. Can you share any of the findings of that study, any potential recommendations you might be making to the field, based upon that?

MR. PONEMAN: Well, we are still in the process of that review, and so I don't have anything conclusive. But what I can say is that we asked for a thorough and integrated look at how best to deal with worker safety, which of course extends beyond nuclear worker safety to worker safety writ large across the complex, and as you well know, we have many, many workers who don't have anything to do with the nuclear mission.

And so there are a number of

generic options that were looked at and that are continuing to be looked at. One group of them is to basically see ways in which we can improve our internal procedures, our internal safety culture, our internal directives, and achieve better results, both in terms of productivity and in safety.

I will tell you that there is at least a sense -- and I don't have massive empirical data about this, but there is a sense that there has been over the years an accretion of directives, piled-on directives, that have not always in the net produced -- a net increase in safety, but indeed sometimes an increased confusion and needed to take -- needed another look. So that was one set of options that was looked at.

Another kind of option is whether some third-party entity, other than within the four corners of the Department of Energy itself, could or should take on some of the role, and it is well-known to all, you know,

what some of those entities across the U.S. government might be, and so the question of whether some external regulator should be brought into the picture is also being looked at.

I guess the last thing, just to mention generically, because the study is not done and we are still looking at things is, there has also been -- there has been interest expressed in looking at standards that are set either by national or international groups that are widely respected and accredited, you know, ISO (International Organization for Standardization), and so forth, that might also bring some added safety benefit to bear if they were used in some kind of measurable, certifiable manner.

So those are the kinds of options that are being looked at. We are not done with the review. We have committed at the Department that, before the Secretary makes any decisions, we will consult with

stakeholders, which is the right and fitting thing to do. And so, at such time as we shape up the options to the point where we feel it is ripe to bring in those parties to get their views of some considered set of alternatives, we will do that.

DR. WINOKUR: Thank you. I wanted to just share some insights with you very briefly about this study of options, and I think there is a question here in the end, too.

My understanding is that one of the important drivers for this study of options was the fact that DOE contractors felt that the oversight, the bureaucracy, was too burdensome, and that it was preventing them from accomplishing their mission.

And along with that, we sometimes hear that people feel the Department is too risk-averse. Now, having worked in the labs for 23 years, the Sandia National Laboratories, I know that when we are dealing

with issues like scientists going to foreign -- to international conferences, presenting papers, or foreign visitors coming back to the labs, things are very bureaucratic and it is very frustrating.

But I am hopeful to draw a distinction between that and nuclear safety associated with nuclear operations. And it is hard for me personally to understand how the Department can be too risk-averse when it is dealing with plutonium operations at Los Alamos or chemical separation of enhanced uranium at Y-12.

And along with that, I also believe the directives that support the nuclear operations, which we have established over 50 years and are rooted in commercial nuclear power and naval reactors, are also very important.

So my concern in this whole process is to make sure you don't throw the baby out with the bathwater, that, if there is

oversight in the Department, that you are very careful and very mindful, which you appear to be, that nuclear operations are extremely important and different than other areas that the Department concerns itself with, which -- its science mission, for example, that are very important.

Do you sense that distinction and share some of my thoughts in that?

MR. PONEMAN: That is an excellent -- I'm making a note so I don't forget. It's an excellent question. Let me just make three comments in response. Number one, nuclear is different. There is no question about it. The risks are unique and uniquely dangerous, and they require a unique set of responses.

I don't think there is any question about that, nor do I think that any of the options that had been even considered in this review that began in August that we have been talking about have taken any different premise.

Second, that having been said, the Department is committed, in support of the President and Secretary, to do certain things that are defined as top-line missions -- and, again, not only in the nuclear area, lowering greenhouse gas emissions, creating transformational scientific breakthroughs, reducing nuclear dangers not only through the maintenance of a safe, secure, and reliable deterrent, but through a wide array of non-proliferation activities.

And so one of the differences that we see between the role of the Board, for example, and our ourselves is the Department has to remain focused on those top-line missions. It is possible that if one were to ignore those top-line missions and think only about safety, that you could produce a, you know, barnacling or an accretion of directives that would not necessarily be net increasing safety, but could be increasing cost, confusion, red tape and so forth. And that

brings me to my third point.

I think what we are dealing with here is what I have seen develop as something of a false dichotomy, and it is this idea that mission and safety are somehow at odds.

I had an interesting conversation with a very now-senior manager, but somebody who grew up operating hot cells, and he said, I operated my hot cell safely, not just for the sake of safety per se, but because if I didn't operate it safely I wouldn't get my job done in the mission space.

So one of the things I think, frankly, we are trying to come to terms with in building this kind of culture that we keep talking about is really instilling, not just in the feds, and not just in the contractors, but in every individual the deep understanding that safety is part of the mission. It is not at odds with the mission.

And I think that is what we are trying to do, and, therefore, for example,

when I arrived and hear these various discussions about whether the program side or the mission side is more dominant, I think the important point is that every mission manager has to own safety in terms of viewing it as part of their core mission.

And I think every safety manager has to view the mission as part of their core responsibility, too. Only in that way will we work together to deliver the results that the President and the American people have every right to expect at the level of safety that the President and the American people have every right to expect.

DR. WINOKUR: Thank you, Mr. Secretary.

Thank you, Mr. Vice Chairman.

VICE CHAIRMAN MANSFIELD: Mr. Bader.

MR. BADER: I think Peter has asked most of my questions.

One that is left over -- I noted

that you were discussing seeking stakeholder input on your proposed reanalysis of how you plan to run the safety part of the Department. I would like to ask if we are part of those stakeholders in your mind.

MR. PONEMAN: You are, sir.

MR. BADER: Thank you. I have no further questions at the moment.

I would like to make one observation, and that is that we are here today because there have been issues with the implementation of 2004-1. And I would hope that you would support the reinvigoration of the effort by the Department to support 2004-1's completion of the implementation plan. And I think there will be good opportunity in the near future to work with you on that.

Thank you for being here.

MR. PONEMAN: Thank you, sir.

MR. BADER: Mr. Vice Chairman.

VICE CHAIRMAN MANSFIELD: Mr. Brown.

MR. BROWN: Thank you, Mr. Secretary, for coming this morning -- I know you are a very busy man -- and taking the time out to meet with us.

If I could read a short statement, because I think it is important, even in light of what I would characterize as the unequivocal support that you have stated for safety and its importance to the complex, I think it is important that you hear from me, us, on where we stand, and to develop a mutual understanding here.

After the Board issued Recommendation 2004-1, it was followed up with a tech report, Number 35 (TECH-35), that provided background information and ideas for implementing the recommendation. That report summarizes academic research on organizations involved in high-consequence operations, as well as lessons learned from major accidents and near misses.

What I think the Board is seeing

now is kind of a déjà vu. And prior to that recommendation, we held eight hearings like this, gathered testimony from a number of individuals which led us to write that report. At that time, it was the LO/CAS system, Line Oversight/ Contractor Assurance System, that was of concern, and the shift from what appeared to be DOE's responsibility for the safety of the complex to a contractor center.

If I could quote from the introduction to that report: "DOE's latest initiative gives more responsibility and flexibility to DOE field offices and contractors. The new approach is intended to increase productivity, but could move nuclear operations closer to a high-consequence accident. The underlying concern is that the pendulum may swing away from safety; decisions on balancing productivity and safety will be primarily in the hands of contractors, independent DOE oversight will decrease, and risk to the public and workers could increase.

This is clearly not an acceptable outcome." End quote.

The concerns in that 57-page report were the basis of Recommendation 2004-1. And as you ponder changes now being proposed to the management of safety and the management of the complex, I recommend that you read the Board's Tech Report 35.

And, frankly -- and I don't mean this in a way that you should or -- but you might consider, if you want a deck plate perspective of what happens when production and safety are out of balance, I would suggest that you meet with the Rocky Flats workers that experienced the fire in 1969, as I did this past summer. They will give you an earful, and it will change your perspective.

If I could follow that with one question. When Recommendation 2004-1 was written, the Board felt that nuclear safety research had more or less fallen off of DOE's priority list. At best, it was carried out at

the program level, was only being done when it had a nexus with a specific project, and was not integrated across the DOE complex between the programs.

Generic subjects that applied across DOE programs, like health physics, for example, could not compete with the importance of doing research on systems, buildings, et cetera.

The implementation plan for Recommendation 2004-1, which the Secretary signed, assigns nuclear safety research to Defense Programs as the integrator across DOE. Do you think Defense Programs can effectively integrate safety research across the DOE complex between the under secretaries? It just seems like it is pretty far down in the programs.

MR. PONEMAN: Do you mean nuclear safety research only in respect to the defense complex, or beyond?

MR. BROWN: No, beyond.

Throughout the DOE.

MR. PONEMAN: Well, I will be able to comment at the level of philosophy and approach. I have not yet read that, but I certainly will read the tech report and the other documents referred to. One of the things that has been very, very important to Secretary Chu is, frankly, to break down the stovepipes that have long existed, really, since the creation of DOE.

We have -- now we are blessed with three very capable under secretaries. We have Dr. Kristina Johnson, Under Secretary for Energy Programs; we have Dr. Steven Koonin, Under Secretary for Science; and then of course Administrator D'Agostino is dual-hatted as Under Secretary for the NNSA complex.

We meet regularly. We have done a great deal precisely with a view to breaking down stovepipes between them. I can tell you very recently indeed I have been working with Administrator D'Agostino and Under Secretary

Johnson looking at some of the issues at Savannah River in which both environmental management as well as NNSA issues come into play. Certainly, Dr. Koonin has ranged widely across these portfolios.

So without knowing exactly who is doing what bench-scale research, what I can tell you is that a stovepiped or blindered mentality to these issues that was uninformed by the wider equities where, for example, the nuclear energy -- on the civilian side, responsibility obviously is vested in the Under Secretary area headed by Dr. Johnson, and the scientific expertise obviously is vested in Dr. Koonin.

So I will say at the level of philosophy, we would not take a stovepiped approach to safety, just as we are not taking a stovepiped approach to really any of the other major issues that are facing the Department.

MR. BROWN: Thank you. That's all

I have.

VICE CHAIRMAN MANSFIELD: One comment that I would like to leave you with, because I know you are going to have to leave soon, is that you have to more or less outdo C.P. Snow. I mean, you have -- we talked about a safety culture. There is clearly a security culture and a mission culture. They are so different that they risk the poor outcomes that C.P. Snow forecast for the scientific and literary cultures.

Your security culture is based on worst-case constructs that you need to deter or prevent. Your safety culture is based on a very relentless nature that can't be -- can't be deterred with both human and inanimate issues to be addressed, some of which can be managed, some never can.

And your mission culture is based on a very relentless nature that is -- that is full of mystery and surprises, and I think the challenge is to have -- the challenge is that

functioning areas and practitioners in each of those cultures need to understand the similarities between the cultures, the -- you know, the necessity for understanding the imperatives.

The mission imperatives, as you pointed out, are very, very clear. It would be -- it is unfortunate that, you know, the gates and guards don't respect the importance of that imperative sometimes. You know, so there's a collision between the security culture and the mission culture -- examples of that.

But this is not a new problem. It is 75 years old now, and no one has come up with a good solution, and yours is half again as hard as anybody else's. So I appreciate your approaching it with the vigor that you do, and I am going to take you up on the fact that we expect to be your stakeholders and to cooperate right from the beginning of getting involved in early operations.

The last thing -- the last issue I would like to leave you with is one that I suggested before, that when we get involved early in the calculations and engineering evaluations, scientific experiments, and things like that, it begins to look to us a lot like we are doing your business, and we should never do that.

We don't believe that the nation is served well if we are smarter than you are. We are frustrated when we find that we can't get questions answered, because the work hasn't been done by your contractors. And as a result, we seem very intrusive, and we seem to be, to you, I'm sure, that we're sticking our nose in all the time before the contractor can get his job done.

I assure you that the -- we will continue to work the only way we know how. We are anything but unobtrusive. We cannot be. We have to be involved very early, especially very early in the design of facilities and of

processes.

If we don't, we run the risk of making everybody mad, like we made all of the stakeholders at Hanford mad, by insisting that the seismic environment at Hanford was not sufficiently considered during the design of the waste treatment plant. We got blamed for delaying it, right? We didn't delay it. I mean, God did. I mean, the notion is that there are certain things we can't move, and that is a natural phenomenon.

And the result is that we appear to be intrusive, and I guess -- I guess we are. But we never, never want to be doing your job, and I hope that that is a message that you will -- you will take back and pass on.

MR. PONEMAN: Well, thank you, Mr. Chairman, and I would just make a couple of comments in response to your comments, sir. You are right to note that there are three very different sets of considerations in terms

of program mission, security, and safety. And they all need to be thought about in different ways.

Now, if we wanted to be completely safe, we wouldn't do any of this at all. We would be completely safe, and we couldn't defend the country, right? So -- to take it to one extreme. Or, you know, if we were wantonly disregarding safety, you know, we would be making many people sick and polluting the environment.

So the question always comes down to an optimization, and that entails a consideration of relative risks. And each of these three areas have different kinds of risks that are measured in different ways, and I agree with you that is what makes this so challenging. And if it weren't so challenging, we wouldn't need this distinguished board, and you wouldn't need a Department of Energy, and somebody would just go out and do it.

VICE CHAIRMAN MANSFIELD: And it wouldn't be fun.

MR. PONEMAN: Right, and it is not reality. So I think what we need to do is to be thoughtful and analytical in measuring these risks and in laying out the trade-offs, and then it is then up to the Department's senior leadership to make the decisions and the line managers to decide how to draw those lines that must be drawn. There is no free lunch here. Somebody has got to make these kinds of decisions. That is the first point.

It actually relates to your second point, and I very much appreciate that you are being very explicit on a point that has come up implicitly earlier today, which is that the role of this Board and the role of the Department, while they are related to each other, are discrete and they are different, and this is an oversight board, and we are an operational organization, and we are committed to and we are responsible for delivering

mission results to the President and to the American people.

We rely on this Board to help us to do that safely. In this respect, I do not reject -- to the contrary, I welcome -- the early intervention, having already seen consequences when one has to go back and correct something post hoc. This is not desirable for mission, it is not desirable for cost, it is not desirable for effectiveness, it is not desirable for efficiency.

And so I think if we are in our respective roles each of us clear in terms of what those roles are, and the oversight role as opposed to the programmatic role on the one hand, and also the benefits that can come from obtaining the oversight advice at an early enough stage in a project, that you can design safety into the project as opposed to retrofit it into the project --

VICE CHAIRMAN MANSFIELD: Yes.

MR. PONEMAN: -- I think in that

respect we will achieve what I think is the desire of both of us, which is to deliver the mission that the country expects in a manner at the level of safety that the country expects.

VICE CHAIRMAN MANSFIELD: Right. Thank you. I completely agree. We have begun to do that, after getting our knuckles rapped by staffers, at least, on the Hill for not getting involved early enough.

Our recent success in delivering the CMRR (Chemical & Metallurgy Research Replacement) certification to Congress is a good measure of the success of early involvement. It was painful and it was expensive. I mean, it was -- for us it was very expensive. I hope we can do it more -- with more felicity in the future.

MR. PONEMAN: Thank you.

VICE CHAIRMAN MANSFIELD: Joe. Mr. Bader.

MR. BADER: I would like to make

one comment, and that is to suggest you look at the way we are working on the NNSA side, on the Uranium Processing Facility, and the way we are working on the environmental management side on IWTU (the Integrated Waste Treatment Unit in Idaho) where we are trying to use both of those as examples of how we both benefit from early involvement, early identification of issues, and early resolution.

And while nothing is perfect in this world, both of those, in my estimation, are going reasonably well, and can serve as examples. To me, CMRR was a failure of that kind of an effort, and we shouldn't have had to have been involved in a certification, and it was not good for either of us from a use-of-resources point of view, but it worked.

VICE CHAIRMAN MANSFIELD: We never want to be on your critical path, and we were in that case, and that's very -- it's disconcerting and expensive for both of us.

May I recognize the Technical

Director, Timothy Dwyer?

MR. DWYER: Sir, in your comments you discussed it is better to teach where failures are found than to criticize. And also, you defined for the HSS office a role of independent oversight and also to assist the site offices. Aren't these heading in opposite directions? Just to discuss how you see the role of HSS. We are going to have some further discussions with Mr. Podonsky afterwards, but if you could provide a vision of whether you see them as oversight or assistance, that would be helpful.

MR. PONEMAN: As oversight or what?

MR. DWYER: Assistance.

MR. PONEMAN: Yes. Well, there is I think -- I don't think an inconsistency. I think there is a duality in the sense that there is a core competence inside HSS, developed over many years, of people who have a deep technical understanding of safety

issues, as well as infused in the culture of that.

And in some respect, they are a resource to the entire Department, and in providing that kind of resource it is independent of and reports separately through the channels up to the Deputy Secretary at the same time. And this is something that I think we are working on actively now in line with the philosophy that we have been talking about these last few minutes.

HSS is an indispensable and integral partner of mission, and as we are trying to develop these systems in the context of this review that we began in August -- and, by the way, this is not -- as I said a few minutes ago, not purely in the nuclear area but across -- right across the complex and conventional worker safety that is, you know, just known throughout the complex in dealing with hazardous or potentially hazardous situations.

Then, they are part of the overall integrated organization reporting up through the under secretaries to the Secretary. So there is a duality to it, and I would note in addition that since HSS are on the federal side of the equation, in terms of the leadership of HSS, that some of the independence that they display is an independence in terms of dealing with the broad array of contractor activities across the complex as well.

So, and I appreciate the question in pointing out that duality, but, in fact, I think that it works together, and, by the way, we believe in a layering of these sorts of responsibilities. So the independent oversight that we obtained comes in one form, which is also wedded to mission in the form of HSS. It comes in a different form from this Board. It comes in a different form still in the form of the Inspector Government.

And so of the various sorts of

external oversight that we have, if you will, some are more external than others. While HSS has this -- if you will this sort of dual role, that is not the situation with this Board or with the IG (Inspector General), and, therefore, I feel we can obtain the full benefit of external detached oversight without concern of a potential conflict of interest, which I think is the premise underlying your broader question.

MR. DWYER: Well, part of the question has to do with, do you actually view HSS as providing oversight or just purely assistance? Just to be very explicit.

MR. PONEMAN: I think they are overseeing the safety component of our mission, but they are also providing support for the mission.

MR. DWYER: Thank you, sir.

DR. WINOKUR: Well, I would just add to that, Mr. Secretary, that I think you are aware of the fact there was a GAO

(Government Accountability Office) report, and there is some congressional language in terms of the independent oversight that HSS provides. It is extremely important, because it is really your only independent oversight that you are providing.

We have seen that there may be a new vision for exactly how that oversight is being applied, but getting back to our previous conversation, our understanding right now is that when it comes to nuclear-related matters, that the traditional independent type of oversight that HSS has provided in the past will continue.

And there may be some assist models looked at for other functions, but that in the arena that the Board has purview on we would expect it to continue much the same as it has in the past.

VICE CHAIRMAN MANSFIELD: It is what we have called in the past transaction-based oversight.

MR. PONEMAN: I know that we are deeply involved in the response to the GAO report, and we will be continuing to work on that. And I think some of my colleagues will be prepared to discuss it in greater detail in your session today.

VICE CHAIRMAN MANSFIELD: Very good, and if there are no more comments from the Board, Mr. Secretary, I want to thank you personally for making -- digging a hole in your schedule to spend some time with us.

MR. PONEMAN: No, it's -- I want to thank this Board for its service to date, and for the service that it is still going to render for the nation, and on behalf of the Secretary to just express our gratitude as well as our firm commitment to work closely and collaboratively with this Board.

VICE CHAIRMAN MANSFIELD: Thank you. We will now recess for five minutes and reconvene at 10 after 10.

(Whereupon, the above-entitled

matter went off the record at 10:05 a.m. and resumed at 10:11 a.m.)

VICE CHAIRMAN MANSFIELD: Thank you all for convening again. We can now proceed to the next part of our public hearing this morning. I am just looking for my Table of Contents to see who is next.

I am going to invite Secretary Triay to --

MR. BADER: No.

VICE CHAIRMAN MANSFIELD: No?

DR. WINOKUR: We are going to make comments.

VICE CHAIRMAN MANSFIELD: Oh, yes, I'm sorry. Comments. Fine. Okay, okay.

So I will recognize you, Peter. Dr. Winokur.

DR. WINOKUR: Thank you. The Board Members are going to make comments now, prior to your testimony.

Thank you, Dr. Mansfield. I would

like to thank the Deputy Secretary for his remarks, as well as his colleagues from DOE and NNSA who will be testifying here today.

To reiterate, Board Recommendation 2004-1, Oversight of Complex, High-Hazard Nuclear Operations, was issued by the Board in response to DOE proposals in 2004 to change the methods it was using for contract management and nuclear safety oversight at defense nuclear facilities.

More specifically, the Board was concerned about DOE's and NNSA's desire to shift responsibility for safety oversight from headquarters and field offices to contractors' self-assessment programs. We are having these same discussions today.

The Department is reexamining options for regulation of worker safety at its defense nuclear facilities. But regardless of what oversight model is adopted, DOE and NNSA line management's responsibility for safety cannot be diminished or delegated.

Independent oversight, which is another focus of today's hearing, is a key element in a system of checks and balances that is fundamental to effective safety oversight. When properly conducted, independent oversight, from which the early identification and resolution of problems, while they still have minimal safety consequences. By its very nature independent oversight provides an appropriate balance between mission and safety and helps mitigate DOE's inherent conflict of interest that arises from its self-regulation.

The question that needs to be asked is: how can we not afford robust, independent oversight? Finding problems early in a design or preventing a serious accident costs pennies on the dollar when compared to doing a retrofit or performing an accident investigation. And even more importantly every worker deserves the right to go home safely at the end of the work day.

In our commitment to prevent a low probability, high consequence accident in the nuclear weapons complex, we need all of the arrows in our quiver, and vigorous independent oversight has a sharp point.

The efficacy of independent oversight falls squarely on the people doing it. They need to have a high degree of technical competence. They need to have the questioning attitude that will allow them to fully understand the system or situation they are assessing, and they need to have the moral courage to identify problems to senior leaders who are often many paygrades higher in the organization.

An investment in independent oversight is an investment in human intelligence, ingenuity, and moral fiber. I encourage DOE to invest wisely.

I look forward to the continued testimony today on DOE's oversight of complex, high-hazard nuclear operations with particular

regard to views on the implementation of contractor assurance models, the appropriate balance between mission and safety, and DOE and NNSA senior management ownership of and commitment to safety at its defense nuclear facilities.

Mr. Bader now has an opening statement.

MR. BADER: Thank you, Dr. Winokur.

I spoke at the Integrated Safety Management conference in Knoxville this August and highlighted two major issues in the nuclear community; and I was talking not just about the weapons complex, but also about the commercial nuclear business: the shortage of strong leadership, and the tendency of the community to reinvent old problems previously solved.

This hearing and our situation with response to -- or with respect to 2004-1 highlights examples of both situations with

regard to the complex. We have examples of both headquarters and line management in DOE working together on actions to identify and resolve issues while balancing mission and safety and failures to adequately do so.

This is being played out against a backdrop of a questioning of the effectiveness and necessity of the entire safety structure by DOE senior management. In this series of hearings, starting with today, we the Board will focus on what actions are being taken by DOE headquarters, NNSA, EM (Environmental Management), to reinvigorate their response to 2004-1, and to maintain adequate oversight over that response.

The time for endless analysis, backtracking, and questioning of already committed but unfulfilled parts of the 2004-1 implementation plan is over.

That is the end of my statement.

Mr. Brown?

MR. BROWN: Thank you, Mr. Bader.

And welcome, everyone, this morning. I, too, am concerned with the issues that have been raised by my colleagues here. But in the interest of time, I am not going to repeat them. Instead, I want to focus on what I think is one of the important aspects of 2004-1 that has not been mentioned.

I would like to provide a few thoughts on continuous improvement as regards nuclear safety. What it boils down to -- and my pun is intentional -- is the Second Law of Thermodynamics. Any closed system will experience an increase in entropy unless work is put into it. The defense nuclear complex is a closed, complex system of human beings, facilities, machines, and nuclear material.

To maintain safety in this closed system, it must be constantly reinforced, or, like the Second Law of Thermodynamics suggests, safety will degrade. It is my experience that if you are not actively seeking improvement, then you are falling

backwards.

Work done in research and development creates a basis for continuous improvement and is one of the metrics for measuring whether continuous improvement is being realized. Nuclear safety research and development will be the topic of focus for a future public meeting and hearing, so it will be discussed in greater detail at a future day. However, I would like to hear from our speakers today their perspectives on continuous improvement as the means, including safety research, that they intend to use to effect continuous improvement.

Thank you, Mr. Chairman.

VICE CHAIRMAN MANSFIELD: Thank you, Mr. Brown.

We will proceed now to hear from the line managers within the Department of Energy, beginning with Brigadier General Harencak, the Principal Assistant Deputy Administrator for Military Applications,

historically an enormously important part of the -- of DOE's work with hazardous material, nuclear material, and nuclear weapons.

General Harencak.

GEN. HARENCAK: Well, thank you. Thank you, gentlemen. I am honored to be here this morning with you and to share our philosophy in NA-10 on the many, many important issues you brought up already this morning.

I am new to this enterprise, relatively new, since March. But I assure you I am not new to the concept of commitment to safety. I have spent my entire adult life in America's Air Force, where I have seen repeatedly the consequences of not a strong focus on safety.

Let me be very clear about this. I am here in at NNSA. My colleagues and I in Defense Programs work to accomplish the mission. Period, dot. You will not see a slide in NNSA Defense Programs. You will not

see a poster in any of my commands in the United States Air Force that says, "Safety is paramount." It is not paramount. Mission accomplish is paramount.

We exist to accomplish the mission for our nation of national security. However -- however, that mission cannot be accomplished unless safety principles are adhered to, safety is integrated in all aspects of the mission. It is not -- there is not two chapters of a book, one mission accomplishment, the other safety. They are one. And our guiding philosophy in Defense Programs is that there is no light of day between doing things safely and accomplishing our mission.

That is made very clear to all of our line managers at all of our sites each and every day. My commanders' intent to them is clear: accomplish the mission while protecting the public, our workers, and the environment, at all times. That is a very

clear and definitive statement we make not only in memos or in e-mails or in talks, but we live it. We live it each and every day.

Now, our overall safety approach is that it must be integrated in all phases -- all phases of work planning, execution, control. We want to make absolutely sure that it is not ever considered a "check the box" activity. If a checklist demands X,Y,Z be done, we must make sure at all times that X,Y and Z is done. It is just not verbally said and then checked off.

And I have a third safety philosophy that we in Defense Programs constantly push, and that is a commitment to continuous improvement. Let me be very clear. I am absolutely certain, I am 100 percent certain, that we don't have it 100 percent right. That is the only thing I am 100 percent certain about is that out there we are not perfect, and we are doing things that perhaps we should be doing better.

If at any time anyone in our complex, in Defense Programs, believes or makes the statement to me that we have this 100 percent right, I am immediately suspect and will probably shoot them in the head. Okay? We cannot -- we cannot have that attitude.

That should not, however, be considered a flaw. That should never be considered a problem of concern. In fact, I would hope most people see that as an enduring strength, because we are constantly looking at better, safer ways to accomplish the mission, protect the public, our workers, and the environment.

And how do we do that? Well, our organizational safety roles and responsibilities, I just want to spend a few moments and to tell you of our personal commitment of how we work. At NA-10 headquarters, okay, those of us working in the Forrestal Building, what do we see as our

safety roles and responsibilities?

Number one -- number one, an enterprise-wide focus. We have a vast complex out there, lots of diverse sites, all working on one team, all working for one goal of course, but doing vastly different things. A thousand things a day, totally different in form and in function.

We have to maintain an enterprise-wise focus where we balance priorities at the enterprise level. We do not have unlimited budgets. You know that, as well as we do. We are painfully aware of our budget problems in NA-10. But we need to ensure that resources are adequate across our entire complex, to effectively address safety, programmatic, and operational considerations.

We realize that we could have the world's greatest safety record at Site X. But if Site Y hurts a worker, damages the environment, does not protect the public, then our safety record is then dismal, regardless

of how we are doing at every other site.

So we have got to ensure that all resources are adequate, and that we oversee the effectiveness of all of our site offices to push our one enduring vision of a commitment to continuous improvement and overall absolute safety. We also need to be keenly aware here in Washington, D.C., of our contractor's performance at all times.

In our site offices, we demand that our site offices balance site-specific priorities. All sites are different, but -- and we recognize that. At the end of the day, an injured worker, it doesn't matter, though, whether they are injured at a non-nuclear site or at a site that is working with special materials, that worker is still injured. We still have created a problem.

So what we have to ensure is that while we maintain an enterprise-wide focus specific sites are fundamentally focused on those unique -- unique concerns in safety that

they are -- and that they prioritize and they adjust accordingly under our guidance.

And we expect and demand that our site offices oversee contractor operations, with teamwork in mind but also a critical and completely impartial view of how our contractors are working.

Our contractors are next. We demand of our contractors and continually oversee our contractors to make sure they develop and implement site and facility safety-specific programs and systems, execute the operations within requirements, essentially do the work, and implement a robust assurance system.

And by that we mean processes and activities designed to identify all of the deficiencies and all of the opportunities for improvement to complete corrective actions, and, most importantly, going back to my earlier that nothing is ever perfect, and that we don't have it 100 percent right, to share

the lessons learned effectively across all their aspects of operations, and then with other contractors and our other sites.

Lastly, let's talk about our workers. We absolutely are committed to the simple fact that we all know is true that regardless of advanced degrees, vast experience in programs, at the end of the day, at the tip of the spear, there is a worker, there is a loyal employee, there is a dedicated American that is going to do the actual work.

Regardless of what we decide, regardless of our grand plans here, all the work, at the end of the day it comes down to the worker doing what is right, making sure that we involve that worker and get that worker's feedback. What we develop -- the fantastic plans and absolute -- pat ourselves on the back, how great job, we have worked with your Board to come up with something at the end of the day, it is up to that worker to

actually do it.

So we try to make every effort, and I think we have been very successful at it, to involve the individual workers that are going to do the thousands of operations each day at every site, in there and get their feedback and get their ideas and get their buy-in, to make sure that we do things safest.

Finally, and this is very important when it comes to worker, we stress the absolute significance of a stop work authority for all workers. This is key.

Now, as I go to our sites, and we do our all-hands, and we talk, and tell them how important they are, I sometimes ask, "Does everybody know who the safety officer is here?" And sometimes they always point to, you know, Mr. So-and-So or that, and I go, "Wrong. You're the safety officer."

We're all the safety officers. Everybody is deputized with the Safety Merit Badge. Okay? We are all in this together,

and everybody not only should have the authority, I think they have the moral imperative, they have the absolute responsibility regardless of their rank, regardless of their salary, to make those decisions that protect the public, protect their fellow workers, and protect our environment and our entire complex.

So we stress that, and those are the organizational safety roles and responsibilities. And let me talk briefly of our enduring commitment to integrated safety management. As I said, it is the cornerstone of every safety program that is implemented by NNSA and Defense Programs and its contractors.

Now, I am not going to go over the ISM principles and core functions. Obviously, many of you probably wrote them. So I don't need to go on there. But I do want to assure you that we make every effort to rely on those functions and principles that ensure safety is integrated into all aspects of operations.

You know, we realize we are going to make mistakes. As an aviator in the United States Air Force, I have made every mistake known to manned flight. Okay? Fortunately, none of those mistakes have been fatal, obviously. But it has allowed -- it has allowed me to realize that mistakes will be made. Mistakes will be made.

The key, of course, is to make sure we pass along, those of us who have made it to more experienced -- I won't to use the word "old," but more experienced members of the Safety Board, more experienced, our colleagues who are working at Forrestal, who started out, who worked their way through the enterprise, we have to make sure that we are communicating to those who are following us, those mistakes we have made, how we corrected those mistakes, and hopefully, hopefully ensure that we don't make the same mistake twice.

That is our commitment to the

principles of reliance. It is to make sure that as we make mistakes -- and we will -- hopefully fewer and fewer as we go along, but we make sure that we go out to our -- to all of our workers, to all of our sites, and we make sure that we will make new mistakes, not the same mistakes, because those, in my view, in the view of my colleagues in NA-10, are inexcusable and there is no reason to do that, if we are using integrated safety management principles effectively.

So continuous improvement in our recent focus areas for this continuous improvement, to make sure -- to make sure that we are learning from mistakes, to make sure that we continue a process of continuous improvement. We are strengthening our safety culture at our sites by emphasizing contractor responsibility and accountability, holding our contractors accountable to make sure those workers are actually giving feedback, we are taking their feedback, and we are making sure

that each and every day we strengthen that culture.

Encouraging initiatives like the Human Reliability and Human Performance Improvement Initiatives, initiating the development of enterprise-wide performance measures for safety -- those are not -- some people are skeptical that how -- how can you measure it?

I personally believe that you will never improve something unless you measure it. You just -- you just can't take -- especially in our business, you just can't take gut feelings and go, "Well, I think the guys are doing great. I think the gals are doing great." No, I mean, we must develop. They are not perfect. Our metrics for it are not perfect.

There are sometimes great bar charts. There are great pie charts you make. But we continually ask ourselves: "Is that really -- is that really a good metric for

what we're doing?" That's a clear case of something I am absolutely sure we don't have 100 percent right, but we are committed to continually finding ways to measure -- measure performance safeties -- performance measures of safety, supporting integrated safety management champions and events like the ISM conferences, to facilitate sharing of lessons learned throughout the enterprise.

Now, everybody thinks their unit is the best. Everybody thinks everybody is doing right, but it is keenly important, especially in our enterprise, that we communicate effectively, we do what we call in the United States Air Force, "good, clear, weapons school debriefs," meaning regardless of the rank of the pilot, the other pilot could say, "You really screwed that up today." And when the debrief is over, he goes out and calls the man "General" again, but in the meantime, during the briefing, he is very clear, very clear, about what we did wrong.

We are trying to develop that, and I think we are very successful of developing those weapons school type debriefs between our sites. Only through that can we avoid, again, the possibility of making the same mistake at a different site.

We also want to strengthen the effectiveness of the federal workforce, specifically by focusing upon nuclear safety performances improvements at the headquarters and the site offices. A lot of that are biennial reviews, self-assessments. Again, we certainly look for ways to improve that. We know we don't have that 100 percent right, but we do believe we are making very good progress in that. And, of course, you have been very helpful to us in pointing out ways that we can improve upon that.

Improving our technical training qualification program implementation for the federal workforce, ensuring senior managers have the training to carry out their critical

safety functions -- the Nuclear Executive Leadership Training Course, for example. Absolutely, absolutely required in our view, and there is absolutely no reason for any of our senior managers not to get that training.

Training is good, especially in our business. It is tough to pull people away from their day jobs to make it happen, but we have made a complete commitment to doing that, to making sure that all of our senior managers have the most current, most accurate as we know, training to help them in integrated safety management improvements.

And, of course, implementing established technical communities of practice between the headquarters and site offices. That I think has been a very successful aspect, but we are going to continue -- we are going to continue to press communities of practice that further integrate -- make sure there is absolutely no seams between what is going on at one site and the other site and

specifically at all of the sites and our headquarters.

So, gentlemen, I look forward to your questions. And, of course, my true experts are sitting right behind me, and will be happy to answer your questions.

Let me state that, you know, I see your role as complete partners with us to make this happen. You understand we have to get the mission done. You understand that. You also have a very clear mission to help us accomplish that mission as safely as possible.

Will we always agree? No. In fact, if we are always agreeing, I would be very, very worried. Okay. We cannot have, in this -- in this business, I think it would be a serious mistake to have group-think. Okay? We need to have your independent thoughts.

We need to -- where there is agreement, that's great, fine, but then let's move on and find those areas where we could have a vigorous and -- a vigorous discussion

of pros and cons, where we could talk priorities, where we could come hopefully to make each other's job accomplished, but also you help to make us better.

So I don't particularly see any particular problems with us having -- having discussions. We have had a couple since I've been here in March, and I looked forward to them in the past. In fact, as I said, I would be very concerned if we were always in agreement. That means that we are not, obviously, continuously improving.

So with that, I, again, thank you. Thank you for your service. I thank you for your commitment to our enterprise and to all we do in NNSA that at the end of the day we exist for one reason, and that is to defend America. And your part of that is certainly appreciated by all of us at our enterprise.

So, thank you, and if you have any questions --

VICE CHAIRMAN MANSFIELD: Thank

you, General Harencak. One or two comments and questions. The biennial reviews by your Chief Technical Authority, are those progressing as well as you thought? And are they becoming as valuable as we hoped they would?

GEN. HARENCAK: I think so. You know, I -- and I -- please jump in if you have -- obviously, our gentlemen here have a lot more experience on that, but certainly I found -- I think they are a very useful, useful task, if you will, and I know I personally get a lot out of them. I think that they are a needed and certainly well-read review, so I do -- Jim, do you have any comments on that?

VICE CHAIRMAN MANSFIELD: Yes, please. Mr. McConnell.

MR. McCONNELL: My name is Jim McConnell. I am the Director of the Office of Safety for NA-10. I think one of the best examples of the benefit and the impact of the biennial reviews is that a couple of years ago

for the first time in a very long time in my history they actually did a biennial review of the program office, the headquarters office, and its role in safety, which in turn was one of the key documents that was -- defined the reorganization of NA-10 that has just recently occurred and resulted in the creation of NA-17 and this new office of mine, the Office of Safety.

So there is an example of a self-assessment that found some pretty critical issues that drove Administrator D'Agostino to approve a reorganization of the headquarters for lots of reasons, but one of those reasons was to improve safety and create both Gerry Talbot's office, NA-17, and my specific Office of Safety. And they continue to be that beneficial and that impactful.

VICE CHAIRMAN MANSFIELD: Also, you have -- we note that you have -- Defense Programs established a working group to share lessons and best practices. Do you believe

that is working effectively?

GEN. HARENCAK: Oh, absolutely. And as I said in my statement, you know, that is a key pillar to what we are doing as far as continuous improvement. I mean, I don't see how -- how you can continually improve unless you share the lessons from the mistakes you have made in the future, as I talked about.

So that has been a tremendous success, and we are going to continue to build on that success. You know, we are going to make sure that this gets even more engaged in our day-to-day operations.

VICE CHAIRMAN MANSFIELD: I would expect that that forum would be a good place to uncover differences in approach to safety basis and controls, for instance. Is that one of the things you do during these working groups, present -- does Los Alamos, for instance, present how they went about putting together a compliant safety basis and the assumptions they had to make and things like

that? Is that open for discussion between other sites, so that you can learn with -- learn from each other?

MR. McCONNELL: The working groups we have so far are -- generally don't get -- at least they are not chartered at that level of specificity. Obviously, those kinds of issues are free to come up when people either have identified a problem and they are looking for their peers to help them with, or have come across a solution that they are particularly interested in making sure that they share, push out to the rest of their peers.

EFCOG, for example, is another -- you are well aware of them. They have defined groups that work at that level with specific charters of communicating analytical technique level lessons learned across our M&O (Management & Operating) contractors, where that analysis is really primarily conducted.

An example of our working groups

would be something like the Human Performance Improvement Working Group that the General talked about, where we are trying to figure out how to share lessons learned and to integrate the benefits of human performance improvement in all of our site offices and contractors, because we have a couple of sites -- Pantex and Savannah River -- that are notably successful and pretty far out in front of the rest, and so we have a real good opportunity to help people skip some steps in the chain of getting those types of things in place.

VICE CHAIRMAN MANSFIELD: I raise the issue because we see cultural differences between sites in the way they approach some of these problems. And it would seem to me that it would be -- it would help to work those out by exposing how you did the problem, and how safety bases are developed at each site.

I agree -- we all agree -- that 35-91 is a goal, but along the lines of the

Second Law of Thermodynamics, the work toward the goal, tending toward the goal, should be visible and accountable all the time.

And so they -- you know, it is a bad year when we don't see some measurable change in the -- in, for instance, the risk to the public, the ratio of the mitigated risk to the design basis risk, you know, that sort of thing. There is -- we clearly look for these things, and if we don't see them, that is something that worries us a great deal. Backsliding is the easiest and most inevitable process in safety, I believe.

On the issue of quantitative measures, we are -- we are all impressed. The entire -- the entire technical community in the country is impressed by the way and the detail which DOE collects and organizes its -- and analyzes its occurrence reports, you know, the way that they are searchable and things like that.

But I continue to worry that we

don't have a way to keep track of the non-reportables, and the sites tend to fight to keep things non-reportable, and only when they fail to do that do we see them in ORPS (Occurrence Reporting and Processing System).

I think you are missing a lot in collecting and analyzing events that don't rise to the proportion -- to the level of an ORPS report. That would be measurable progress toward the goal, I believe, and would convince you that you are making progress.

So the -- you comment, for instance, that although you can't reach the goal there are qualitative achievements that you have made for significant controls, fire systems, et cetera, et cetera. The measures -- these measures in aggregate -- I am quoting here, "These measures in aggregate provide a qualitative assurance that the goals established in 35-91 are met." Well, they are obviously not -- you know, they are a goal. They are never met. They are something to aim

at.

They are a measure of your progress toward, rather than away from, that goal. But that means that -- I read that to mean that the whole set of controls that you put in place to make sure you have -- you are confident in a qualitative fashion, that you are satisfying the requirements of approaching the level of protection of the public that you committed to from 35-91, that whole set of controls is important.

And you can't let those controls fail to be available, and that I expect -- and I am seeing it, but I expect to see that you would identify those issues and get them into the program, so that you can remedy them. For instance, you know, fire protection -- seismic qualification of a fire -- of a ventilation system at PF-4 or fire protection, things like that.

If you ignore those problems, you know, or put them off, so that nothing

measurable can happen for 10 years, I don't believe that you are satisfying the requirement of tending toward that goal of 35-91, and you are sliding backwards.

That's all I have to say. Thanks.

DR. WINOKUR: General, I want to thank you for your service, and I certainly acknowledge the incredibly important mission that NNSA performs, and I always like to say that I think safety is very much on the critical path of that mission.

But the Deputy Secretary of Energy spoke quite a bit about building a safety culture, which is something I am interested in, and an important part of building a safety culture is what leaders say and what leaders do, kind of what I call the talk and the walk. And so I have one question for each one of those for you.

When I visited Pantex last week, I saw several signs acknowledging their great safety record, and they do have a good safety

record. But the biggest sign I saw was the NNSA mantra of "getting the job done." And you have alluded to that, you have talked about that.

As a senior manager of NNSA, do you think it sends the right message to the workers? Is that a balanced message to the workers to say, "Get the job done"? Does that provide enough motivation to make sure they are clear about the fact that it is not just production or mission, but that there is an important safety component?

GEN. HARENCAK: Well, if we have done those -- it's a great question, it really is. And I think any -- any leader has to always wrestle with that -- that specific question. Where I come down on it, I think it is -- if you have done -- if you have prepared the battlefield correctly, and I believe we have, to stress that safety is inherent in everything we do, we make sure we go through those ISM principles, that that lays the

absolute foundation to allow you to say, "Okay. Now we are going to get this."

With that safety background, with that culture, that we believe we have -- we have instituted that we are never there, we're are never to the goal where everybody is on board all the time, seven days a week, 365 days, and the recognition that it is always a work in progress, if you have prepared the battlefield correctly, it allows you, then, to do the -- get the job done. And I am -- you know, I am very comfortable with that.

Everybody knows, as I said, if we inoculated every worker to know that they could stop at any given time, they have the authority and the responsibility to do so, that we have those continuous improvements, I don't think there is any -- any friction at all between those two, because hopefully our complex realizes that they are not going to get anything done if we close them down due to safety. And I believe they know that.

So, you know, I think it does send -- it does send the right message that we are going to get the job done, and we are going to do it safely. And at the end of the day, you know, I always stick my flag in the ground and say, "Hey, this is about us accomplishing a mission."

And if -- really, if all we were concerned about is complete safety, where we never -- we never do a dismantlement, we never launch an airplane, you know, we never sail a ship, anything like that. So I think we have done the groundwork. I think we have prepared the battlefield to the point where our workforce understands their absolute compliance with safety issues is -- is the vehicle that allows them to accomplish the mission.

So we are to the point where they -- we could put -- get the job done, and every day they walk in they go, "That's -- I'm going to get that job done today. I'm going to

contribute." But, of course, I'm not going to do that unless I adhere to all of our safety principles.

DR. WINOKUR: Well, you know, certainly one of the guiding principles of ISM is balancing that mission and safety. My concern is the workers, who at times I believe will feel that the production pressures are so much that they will forget those -- that training and those guiding safety principles.

I do believe, and I understand we have a disagreement here, that the safety message from NNSA could be improved in that regard, and that I kind of like "getting the job done safely," but -- but, I mean, you understand where I'm going with that.

GEN. HARENCAK: Oh, absolutely. And I have -- you know, I don't argue that that is a -- something that I think should always -- should always concern any senior manager.

DR. WINOKUR: And let me ask a

question about the walk, which is -- you know, in your written testimony you say, "NNSA monitors the balance between mission and safety against available resources." But when I travel to NNSA sites, I often find that critical upgrades like fire suppression systems or containment ventilation systems aren't being upgraded or aren't being put in place because of a lack of resources.

And so what I'm asking you as the senior leader at headquarters is: how do you ensure the appropriate balance of resources is applied to safety projects and mission projects? And I think you used the word that you have an enterprise-wide approach to things, but my concern is that when I put all the mission and safety projects in one bag, I have a sense that your contractors are going to pull out those mission projects much more frequently than they are going to pull out those safety projects, because they want to get the job done and that's what their

incentives are. That's what you pay them for.

GEN. HARENCAK: Exactly.

DR. WINOKUR: So how do you -- how do you at headquarters strive to find the right balance there?

GEN. HARENCAK: Well, that's the $64,000 question. I mean, that's why we -- you know, we get -- in my view, that's why I get paid to make ultimately those decisions based on, you know, the great counsel of our colleagues with their vast experience.

At the end of the day, we have to make those -- we have to make those calls. Our budget -- you know, in Defense Programs I have lost 20 percent of my buying power in the last five years, $100 million right off the top. We are a seriously underfunded enterprise. It's as simple as that. I tell people in Congress that. I tell people we -- I am giving you my best military advice. Okay?

I don't have a long history in the

labs. I don't have a long history in this -- in this thing. I have come from -- essentially as an outsider, and I looked, and, like I said, we are literally underfunded. We are accepting risks that with more fundings we wouldn't have to accept. That's a fact of life.

So my -- my job, what we are paid for, is to, in the resources we have, to accomplish the mission safely. So I -- nary a day goes by where we don't have to make those types of decisions, specifically where we have to take an operational risk management, where we can -- where we can -- do have the ability to put money and resources into something we will always choose to lower the risk and lower our exposure to potential problems.

But at the end of the day, you know, I just don't -- we have to every day make those enterprise-wise decisions go -- you know, something -- something will not get

funded, because we fund something else. That is -- you know, that's where we rely on your expertise and rely on our expertise to help us at headquarters make those decisions.

But I do not disagree with you at all, Doctor. You know, I think that that is a very real possibility, that at some point we could choose poorly. But we are committed to not choosing poorly. So, and we will certainly need your help on that.

DR. WINOKUR: Thank you, General.

VICE CHAIRMAN MANSFIELD: Could I make one follow-on --

GEN. HARENCAK: Sure.

VICE CHAIRMAN MANSFIELD: -- one follow-on to that line of inquiry? There are cases when -- an example, the fire system lead-ins at Pantex -- where, in my opinion, you are in danger of having something fail and not be able to satisfy the requirements of your safety basis. And so you would -- as I understand it, you would have to stop. You

know, you are no longer authorized to carry on -- to complete your mission.

So there are safety issues that are, you know, right on the edge that -- that in my mind have to be considered above the line until proven otherwise, because they can stop you dead. That's all.

Mr. Bader.

MR. BADER: General, you made the comment in your testimony that you never improve something unless you measure it. And with DOE and NNSA being self-regulating, could you tell me how you measure your compliance with safety? And is it an independent function in your mind?

GEN. HARENCAK: Oh, I think so. I -- you know, and we can probably debate this, but I think there is a lot of organizations out there that do not have an independent safety -- for example, the United States Air Force, internal to every unit is their own safety, where it is required that internally

we work -- our inspectors come and evaluate us on mission accomplishment.

We evaluate ourselves, and with some outside help, but for the most part we evaluate ourselves when it comes to safety. So I don't think we are unique in that. I do believe that this organization, in my years of government service here, I -- I don't think there is a -- I have not been associated with an organization that does this particular aspect better than NNSA and Defense Programs does.

Can we improve? Absolutely. Are there probably better ways to do it out there? But I have been very impressed since I have been here in March of how well we independently assess our abilities to accomplish the mission safely.

So if the crux of the question is, you know, should somebody else come in and approve -- look at it, you know, that's not for me -- for me to honestly decide. As the

structure stands now, we maintain that function internal to us, and I think we have been very successful. Of course, you know, you play a big part in that, so it is not completely where we don't have any independent oversight. I certainly think that you guys provide that.

MR. BADER: Do you see your oversight being provided by headquarters or by the line at the sites?

GEN. HARENCAK: Well, I would say --

MR. BADER: Or a mix?

GEN. HARENCAK: Well, it is probably a mix. I mean, that is probably the best way to do it. I don't think -- I certainly think we at headquarters maintain the command -- the commander's intent and the command at the end of the day. We make the tough calls. But it is more of a teamwork between the sites and us.

MR. McCONNELL: Just to combine

sort of the last two questions. Our site offices are the primary responsibility for direct oversight of the contractor. We have, through the Chief of Defense Nuclear Safety, the biennial reviews we have talked about.

The biennial reviews are an evaluation of how well the site office is performing, and I won't put words into my colleagues' mouths, but we acknowledge and we focus very carefully on identifying whether or not the issues that are identified in these collaborative biennial reviews -- my office, the CDNS, other site offices, come together and it's -- a distinction is made if there is an issue found that has been already identified by the site office.

That is validation that the site office is performing. Everybody has problems, as the General indicated. If the site office identified it and is working on it, then we validate that they are performing.

The problem is in that rare

instance or the small number where the biennial review finds something that is news to the site office, because that is a gap in their knowledge. That is an issue at the site office.

The same thing is done, as I talked about, when the CDNS comes in to talk and does an evaluation of NA-10 at headquarters level. If our self-assessment was deficient, in that there was a problem that we didn't know about, that is a much worse situation than if they just validate that the things they find wrong with us that we have already -- there is issues we need to deal with.

As far as the higher level metrics, Frank Russo, the ES&H (Environment, Safety & Health) advisor, maintains the -- for the Administrator the metrics for worker safety which are somewhat a little more tractable, a little easier to get your handle on worker safety metrics than high

consequence, low probability accident indicators.

But his quarterly reviews include a roll-up of significant occurrences. They also talk -- we also talk about significant near misses, Mr. Chairman, as you indicated. And then, on the nuclear safety side, since we don't -- we are working, but we don't have perfect metrics yet, we rely a little bit more on the collective insights of the senior people involved in our oversight system to provide an overall, you know, health checkup quarterly to the Administrator and to the other senior leaders on how we are doing as far as indicators that might point to high consequence, low probability events, since we don't want to rely on a metric that would be -- that would be useful. But to rely on a metric in that regard might be misleading.

MR. DWYER: Dr. Mansfield, if I could -- just for a point of clarification. So you are contending that the oversight

provided by the CDNS biennial reviews is your oversight?

MR. McCONNELL: Well, the CDNS provides independent oversight of nuclear safety from the perspective of a site office. Oversight is a very broad and generic term, I mean, so I don't want to say any one element of our oversight program is the oversight.

MR. DWYER: Okay. And our understanding is that that office has been directed to shift to assist visits instead of audit visits, if you will? There will be no findings, is that correct?

MR. McCONNELL: I can't comment on that. There are certainly different approaches to biennial reviews that are being considered. But as far as I know, we haven't decided to change the fundamental approach to a biennial review, at least not at this time.

MR. DWYER: And, General, I understood you to say that as far as external oversight, in your opinion, the Board is your

external oversight, no other?

GEN. HARENCAK: No. No. I think you play a part, obviously, but, no, I wouldn't say you are our -- you are the only oversight.

MR. DWYER: Okay. So are there other external oversight agents that you would cite?

GEN. HARENCAK: Yes. Mr. Podonsky's organization.

MR. DWYER: Okay.

MR. BADER: That was going to be my next question was what the role of Mr. Podonsky's oversight function was and your thoughts.

GEN. HARENCAK: Well, you know, it is critical, and I am sure you are going to hear from Mr. Podonsky. As I will say based on -- again, as somebody who has not had a vast experience in DOE, I can tell you I think we have -- we have a very robust program. I am -- I am very, very comfortable. I sleep

well at night knowing the competence and the extensive nature of Mr. Podonsky's programs.

And one of the things that I know about it is why I am so confident of his ability, of his organizations, is people at all the sites complain about it. And that, to me, is a clear example of why I believe we have it right. Probably not 100 percent right, going back to my early things, but I think we have certainly got it a lot more right than we don't.

VICE CHAIRMAN MANSFIELD: We get the same reaction.

(Laughter.)

MR. BADER: I think that's all. I'll pass.

VICE CHAIRMAN MANSFIELD: Mr. Brown.

MR. BROWN: Yes. First, let me thank you, General, for your service to our country. And I particularly appreciate, although you have -- I don't think you have

explicitly said it, but you provided I think answers for the record on the lines of inquiry that we -- that the staff had put together. And I have been reading through those, and I appreciate them, because they are very helpful.

If I could just ask a couple of questions about those. In your answer on the overarching nuclear safety strategy, among others you say, "Enforcing nuclear safety requirements, as set forth in departmental regulations and directives," and then determining the appropriate balance between mission and safety.

You say, "Our nuclear safety requirements define the acceptable safety envelope." We certainly agree with that.

My question, though, is like the Deputy Secretary said this morning, he has these voluminous regulations, orders, guides, that he thinks can be cut back and reduced. I don't know if I have paraphrased him

correctly, but that is what I got out of it.

And so when they reduce those orders/safety guides, does your envelope for safety then expand? Or if the -- if the contractor is then shifted to the primary responsibility for a subset of those requirements, does your safety envelope change with that? Or how is that going to work as we change the safety requirements that DOE imposes?

GEN. HARENCAK: Well, I would hope -- I would hope that what it does is it focuses activities. You know, I don't believe that we are going to -- it is going to shrink or expand our envelope. I think our -- what we hope -- and I will not speak for the Deputy Secretary, but if -- speaking for myself, we do have -- well, you know, large -- you know, you -- what is the average, you know, the largest lot of regulations?

Okay. That's fine. That is not unique to this governmental department. Okay.

But as we relook at those, I hope we reduce them in such a manner that allows for greater clarity for our people to follow. I think one of the problems in crafting the safety problem, safety concerns, and getting that culture, is that we don't confuse -- we don't confuse our people.

So I think it is possible, and I think it is needed, and we have to be careful we do this. But as we reduce these, we make them more manageable, and we make them clearer, let's talk in English on these things. Okay?

Let's be very clear. What is it we want our contractors to do? What will our contractors get before? You know, accomplishing what? Too many times I believe in an effort to look at all possible contingencies, we develop -- you know, I have seen some of these paragraphs.

One sentence is a paragraph, you know? I mean, gosh, you know, is there any

way we could make it a little bit clearer? If we truly want every worker, absolutely every person up and down the line to realize, to buy into our safety thing, we have got to make it understandable for them.

So I think that should be the goal of these, certainly not lessening standards, giving -- delegating. We talked about Admiral Rickover, you know, giving up responsibility or anything like that. But I think it is absolutely imperative that we make these regulations understandable, clearly understandable, to everybody, not just the nuclear physicist with a doctorate. Okay? But the groundskeeper who is going to take care of things, the brand-new post-doc that walks in that does not completely understand this facility.

So long answer to a short question, but I believe, sir, that by reducing these hopefully if we do it right we are going to make things clearer, more easily

understood, and focus scarce resources on those things most important for us to accomplish our mission safely.

I don't think -- when you look at those things, I don't think any human could come away saying, "Oh, well, that's all -- it's all intuitively obvious in there." You know, I think we need to make efforts to do that. So, again, speaking for myself and not the Deputy Secretary, I think that is the thrust of our efforts to reduce the regulations.

MR. BROWN: Thank you. My second question is about the subject I spoke of in my opening statement -- research and development. And you are, by the implementation plan for 2004-1, the integrator for the Department in nuclear safety research.

Do you -- is this the right level for that integration function to be carried out at? And do you feel empowered? It comes out of your budget, doesn't it?

GEN. HARENCAK: Right.

MR. BROWN: And I -- it just seems to me like competing against national security requirements for nuclear weapons with health physics is a tough competition.

GEN. HARENCAK: Well, I'll tell you, sir. I had those same concerns, okay? How have those concerns been addressed? Well, I have come, as my staff -- as our staff has told me, the true expertise for this in our Department happens to reside, they live on the fourth floor, you know, behind my glass doors in Defense Programs. I have become convinced that it is the expertise in the programs in NA-12. It is these incredibly talented members of NA-17.

For the Department, we are -- we are the keeper of the orb of knowledge, if you will, when it comes to this. So it is probably debatable, but it is just -- it is just the way it has kind of worked out, that the lion's share of the expertise to implement

this thing lives in Defense Programs.

Now, can we use more money? Of course. Are we aggressively trying to build this, get expertise that does exist to a lesser extent throughout big DOE and our enterprise? Yes. We are not totally satisfied with it, but -- and I will invite Jim to add to that, but I'm convinced that at the end of the day the reason it is with us is because, you know, we've got the knowledge to make this happen, and it resides in our rice bowl.

MR. McCONNELL: I will just -- if I can elaborate a little bit. Obviously, we have a skill set in Defense Programs where we have program managers who have experience administering research and development programs at our national laboratories. So the skill set to administer the program is -- we have what is needed in Defense Programs.

Now, our colleagues across the Department have very capable people who

understand how to do research and what issues need to be addressed, and so the administration of the program resides in Defense Programs. The management of the program is jointly shared between those -- the leadership in Defense Programs. And I think it is actually Steve Krahn, if I'm not mistaken, is -- from EM is their representative to this, being EM and Defense Programs, the two largest program offices of concern to the Board.

And so the actual governance of research and development is a joint, broad thing. The administration of it -- you have to have somebody -- you know, one belly button happens to be in Defense Programs. And so that -- that is the structure. The broader issue of funding is something I will -- as the General said, is -- continues to be a challenge. It had been a challenge under the previous approach to this.

MR. BROWN: How can we help with this subject?

GEN. HARENCAK: Yes. We need about $25 million.

(Laughter.)

And I -- now, I -- certainly, I am being, obviously, not completely serious. I'd take the money. That's --

(Laughter.)

But the point is, certainly, your advocacy of this helps, as an independent body. We appreciate your expertise on it, and we -- again, you know, I go back to my first couple of minutes of this thing. I don't -- you know, I'm not comfortable that we have it 100 percent right. And nobody is here.

So we need to continue to work. This is a -- I see this as a living program that should evolve, that should change, that should grow. And, you know, if somebody comes in to me and gives me the slides and goes, "You can read it. We've got this one done. What is the next project you've got for me?" you know, that is the wrong -- that is the

wrong attitude, because this is going to be, something that is going to be, I think, a continual process.

MR. McCONNELL: And just one other thing to add, make sure that, you know, there are long-term, historically well-funded, and continuing to be funded in the future, key things like the criticality safety program, which we manage under Dr. Jerry McKamy that has had a long tradition and has continued in our FYNSP (Future Years Nuclear Security Plan) to be funded, as well as things like nuclear explosive safety research and development.

And I'm sure Dr. Triay, when she comes up, will talk about the technical challenges that EM faces and their research and development that they have in place to address those issues.

MR. BROWN: And my last question, this round at least, at the Board's hearing in 2003 that led to this recommendation, then-Deputy Secretary McSlarrow talked about

specific examples where EM had used a contract to hold contractors accountable. And he listed off a series of examples of essentially penalties at the Fernald site, at the Savannah River site, at the Idaho site, and Price-Anderson enforcement. Those are all what I would call sticks.

It seems to me that carrots could be used, too, to incentivize contractors to operate safely. Do you have any examples of either that DP (Defense Programs) has used, or are you studying the kinds of -- are you studying incentives as a means to ensure safety? And could you share any of that today or in the future?

GEN. HARENCAK: The answer is, yes, sir, we are, and we are committed to using incentives. We would -- of course, everybody would much rather, you know, use carrots than sticks. But do you have any specifics, Jim, that you want to discuss?

MR. McCONNELL: It's -- I won't go

into any specific contracts, since they are all structured pretty much the same. There are -- in almost all of our contracts we have incentive fees to achieve certain objectives, and they can be, and are often, you know, directly specifically safety-related, implement some actions that came out of a DSA (Documented Safety Analysis) and the SER (Safety Evaluation Report) for that DSA.

And so those are -- those are core incentives, and then we actually put on top of that stretch goals. So we have -- so beyond what we think we have directly funded, we incentivize you -- whatever contractor it is -- through your own initiative and your own ability to implement those requirements efficiently and effectively and cost effectively to achieve an even higher level of performance, implement -- you know, repackage more material, upgrade more systems, whatever they might be.

I don't want to get into the

details, but -- so we use incentives rather than penalties, and then stretch goals to even get our contractors to try and figure out on their own how to gain efficiency. And we even go so far as to have a complex-wide where our eight sites are all mutually dependent to be successful. For example, some of our nuclear material shipping incentives are a complex-wide goal. The eight sites together have to achieve this, or none of the sites get that incentive.

MR. BROWN: Okay. I have a couple more questions, but I defer to anybody else, if you would like to --

DR. WINOKUR: I would just like to make a very brief comment. You mentioned something about regulations before. But from the workers' perspective, what I think we have done is we have given them integrated safety management, and that is what the workers really need to know, to identify the hazards, to identify controls and implement them to

perform the work, and feedback and improvements.

So even though these regulations can get very complicated, I do feel at a worker level it should be understandable to them, and the truth is most of the problems we have are because things on that prayer wheel aren't effectively done. We don't get the hazards right. So it -- I understand regulations themselves can read and they can be very wordy, and so on and so forth, but I do think we have given the workers -- DOE and the Board working together -- some pretty good tools.

VICE CHAIRMAN MANSFIELD: Joe, would you like to --

MR. BADER: General, I would like to follow up on Mr. Brown's line of questioning on research and development. What have you accomplished? I understand you've got the competencies, and I understand you've got the management capabilities. But what has

been accomplished?

GEN. HARENCAK: Well, we have -- well, we have had an NSR&D (Nuclear Safety Research and Development) forum. We are making a lot of progress on completion of commitment 7, if you want -- you might want to address that.

VICE CHAIRMAN MANSFIELD: That would be good.

MR. McCONNELL: I think if your question is, what is the completed research, I mean, what is the syllabus of things we have researched and published on, and, honestly, I mean, we have work underway. I am not sure outside of those specific things -- criticality safety programming -- I mean, I can go into some pretty specific examples of really very, very useful, for example, collaborations with the French government that have allowed us to both use our facilities much better to gain data, and even to use their facilities to gain, for example,

solution-based criticality safety knowledge that we would be -- it would be unavailable to us otherwise.

So our R&D (Research & Development) program has enabled us to continue to progress and even expand our knowledge in some key areas. I'll get back to you with the syllabus of published documents or completed research, because I don't have that at hand.

MR. BADER: But my picture of the situation is not much. I mean, that is one of the glaring areas that remains incomplete to me in 2004-1. I mean, something as elementary as airborne release fractions -- we are still using experimental data where when they ran out of fuel the investigator broke up some of the boxes around them and tried to keep the fire going to keep the experiment going.

I mean, this is antique data, which if we had a better set of data, we would minimize a lot of arguments and probably save

an awful lot of money for the Department of Energy. And I don't see any -- I see no real impetus behind the research and development effort, safety research and development effort.

I mean, most of what I see -- and there are some good things going on -- are very specific to projects, very specific to programs, not broad-based safety R&D. And these are the kinds of things that pay for themselves hundreds of times over in the design and construction of facilities.

That was too much of a speech and not a question, but --

VICE CHAIRMAN MANSFIELD: I'll make a little -- add a speech, too. I look on this as something akin to training and maintenance in an Air Force. You know, they don't kill any enemy, they don't generate any missions, they don't deliver any ordnance, but without them you quickly fall apart.

GEN. HARENCAK: You know, I don't

disagree with that, and we certainly take that critique in the -- I don't think any of us disagree that we probably have not progressed to the point that we had hoped we would on that.

MR. BADER: And you are holding the bag, but -- and that was I hope a good comment I heard from the Deputy Secretary this morning, and that was breaking -- that one of his intentions was to break stovepipes. To me, it would also make sense to invigorate this kind of an effort, because it saves money, time, and effort in an awful lot of places, once it is successfully done.

GEN. HARENCAK: I agree.

MR. BADER: So, anyway.

GEN. HARENCAK: I agree.

VICE CHAIRMAN MANSFIELD: All right. Any further questions?

MR. BROWN: Yes. I just refer to your statement here, following up on Mr. Bader, talking about R&D resources. These

resources will be used to support about 10 projects, which could reduce the conservatism and authorization basis controls, which ultimately could result in cost savings. And I see in the complex a very large bubble of conservatism in everything we do, which is based upon what we know.

There is a lot that we don't know. And if this cross-cutting, integrated, research and development could increase our knowledge base, decrease the uncertainties, we could save incredible amounts of money in the operation and building of these facilities.

But because, in my view, we are comfortable with that envelope that we have developed in all of these orders, regulations, and instructions, nobody wants to really go back and redo those. And they fight to defend them, and it seems to be -- like you mentioned airborne release fraction, I think in your statement as one of the areas.

It is -- by understanding that

better, we could change a lot of the things we do, and I think for the better. There is always the chance that if you do more research you are going to find out something bad, that you weren't conservative enough. But I don't believe that's the case. I think there is so fertile ground out there for research to bring the conservatism bubble down that the Department is really being penny-wise and pound-foolish by not aggressively going after these areas of research.

You mentioned that you can't improve unless you measure, and later on we were talking about risk, and I wondered how you measure risk in DP. I mean, do you have a formal process for measuring risk? Or is this kind of how -- you know, based on what the Board says and HSS says and --

GEN. HARENCAK: Well, that is -- you know, that is a tough question. I mean, it depends of course on the risk we are looking at. Obviously, if it is a specific --

a specific task, I think we are very good with ways that, you know, we -- using formulas, using, you know, tried-and-true procedures, we come up with the risk.

Now, as you look at the bigger enterprise, you know, I think -- I think our operational risk, if you will, comes down to less of a science and more of an art based on our experience, based on those issues. So I guess the answer to the question is: it depends. It depends on what we are talking about. Are we talking about a specific dismantlement exercise, or are we talking about, you know, overall uranium processing for that matter?

MR. BROWN: Well, I would go back to what Dr. Winokur brought up as the lead-in for the fire water system at Pantex. We have -- apparently, the risk has been assessed that that can be put off for several years. I was wondering if that is just based on intuitive, or is there an analysis that has been done?

GEN. HARENCAK: Well, it is definitely an analysis. If you want to --

MR. McCONNELL: That is an example where I would submit that the risk we are taking is an operational risk.

VICE CHAIRMAN MANSFIELD: Yes, that's mission risk.

MR. McCONNELL: Mission risk -- because if the lead-in fails, the fire water pressure will go down, we will fail to satisfy an LCO (Limiting Condition for Operation), and we will have to suspend operations.

VICE CHAIRMAN MANSFIELD: Yes.

MR. McCONNELL: So because we have -- the only -- in the conditional risk where somehow it fails during a demand, would actually be a real safety risk. But for the most part what we are -- we have to figure out is, relative to our priorities in our -- because that safety issue is inherent in mission success, it is not do the mission and do it safely, it is safety is a core value, so

the mission inherently includes that safety.

We have concluded that -- that specific example, there is some indication of that failure, such that we can take action. We will, unfortunately, have to absorb a mission risk, but there might be some other thing we need to do where we are not as lucky to be able to identify a facility failure. And so we -- that -- we can't control that risk as well, and so we have to make an educated decision to put our resources somewhere else for now -- 9212 (Y-12), for example.

VICE CHAIRMAN MANSFIELD: Can I -- one point that Mr. Brown made about the sometimes overwhelming and discouraging conservatism that are in some of your safety analysis, almost "can't get there from here" sort of thing.

A good example is in (DOE Standard) 3009 we -- you almost always use Appendix A, which means the -- you know, since

it says the MAR (Material at Risk) is everything in the building. That is not the only way that 3009 allows you to proceed. You can approve something else, like, for instance, you could -- you know, some material could be considered less dispersible, and blah, blah, blah.

But even more, the worst case of it is that you have, in our Recommendation 2009-2, these terrible numbers were based on an amount of material that you don't even have in the building. And it's -- and why? Because it is too much trouble to lower the MAR limit. It is too much trouble, if you lower it, to try to get back up again. I think that is probably an artificial problem, and it is making you look bad.

Okay. Anything -- I think we ought to move on.

MR. BROWN: Well, I have one --

VICE CHAIRMAN MANSFIELD: Oh, yes. I'm sorry.

MR. BROWN: -- one short question. And this is kind of a yes or no question. The Congressional Commission on Strategic Posture of the United States is quoted as saying, "Existing DOE production facilities are genuinely decrepit and are maintained in a safe and secure manner only at high cost." Do you agree that DOE's defense nuclear facilities are genuinely decrepit?

GEN. HARENCAK: You said yes or no. I would say it depends. It depends.

(Laughter.)

So, you see, I have been in Washington only nine months, and I have got it down. It really -- there are specific things where they are decrepit. I have said publicly many times, you walk through 9212, and you wear a hard hat, not just because OSHA (Occupational Safety and Health Administration) tells you, but because crap falls on your head. Okay.

That is unacceptable. That is

unacceptable for a nuclear power, as we are the world's foremost nuclear power, and that is the place where we process uranium. That's insane. In my military -- best military advice, okay, that's insane.

On the other hand, we do have some pretty nice facilities out there that we have spent, so I think that is a broad comment that is very accurate in some issues and in other sides. I certainly wouldn't call NIF (National Ignition Facility) decrepit. I wouldn't call many of our mason -- all those systems -- we've got a lot of -- a lot of good out there, but we've got a lot more we absolutely have to invest in. This is too important for our national defense to defer any main site.

The reason -- we have too many areas where we are single-point failures -- high explosive pressing, for example. I mean, you know, that thing was built during the McKinley administration or something --

(Laughter.)

-- you know, I mean, we have got to -- you know, we have got to find out those single-point failures, we've got to fix it. But I would not -- you know, unfortunately, I would not point to it that everything is decrepit. There are areas that are -- we need to aggressively fix those, and we need the money to do so.

MR. BROWN: Thank you very much.

GEN. HARENCAK: Thank you.

VICE CHAIRMAN MANSFIELD: General Harencak, thank you for your time and your attention and your wise comments.

Now I would like to --

GEN. HARENCAK: Thank you.

VICE CHAIRMAN MANSFIELD: -- ask Dr. Triay, the Assistant Secretary, to address the environmental restoration issues and waste management.

The Board notices Mr. Dae Chung and Dr. Steven Krahn as joining Ms. Triay on

the -- at the witness table.

Thank you.

DR. TRIAY: Good morning, Mr. Vice Chairman, and members of the Defense Nuclear Facilities Safety Board. I appreciate the opportunity to be here today to represent the Department of Energy's Office of Environmental Management and address the actions our office has taken regarding oversight of complex, high-hazard nuclear operations.

My remarks cover the six topics you provided to the Secretary in your letter dated August 25, 2009.

Safe operations, including safety of the public, safety of our workers, and protection of the environment, are paramount to the environmental management program. While the cleanup work we accomplish is fundamental to risk reduction, it is more important that all of our workers are able to go home at the end of each day as healthy as they were when they arrived for work.

I have often heard the Board describe safety management by using an analogy to a three-legged stool. The idea is that you need all three legs of the stool for the system to work properly. One leg is requirements, and the other two legs are bright and inquisitive people performing oversight, along with good processes and procedures.

I believe this analogy appropriately identifies our safety management approach within the environmental management program. We rely on requirements, people, such as our facility representatives, and our processes and procedures to ensure safety. Our strategy for meeting the environmental management's programmatic goal is the rigorous application of our rules, standards, and requirements, many of which you have helped us develop through your recommendations and comments.

Line management and oversight will

ensure that these requirements are effectively implemented, and a system of rewards and penalties when they are not. Our field offices provide management of the contractors that run our facilities. They have delegated responsibilities for most nuclear safety functions, a prominent exception being startup authority for Category 2 nuclear facilities, which I retain at headquarters.

The environmental management program takes a list of these limited term delegations and reviews and issues delegations annually. EM requires that managers with nuclear safety responsibility be qualified as senior technical safety managers and take nuclear executive leadership training.

My field of office managers rely on their staffs to ensure that the Department of Energy requirements are implemented. Foremost among these are our facility representatives. I depend on my facility representatives as my eyes and ears in the

facilities.

Procedure development and compliance is a significant part of the oversight conducted by the facility representatives. They are assisted by the Headquarters Office of Safety Operation Assurance.

A frequent question is: how do we strike a balance between safety and mission? The view being if, evidently, that we somehow need to sacrifice safety to accomplish our cleanup mission. I reject this view.

We select controls to ensure that all of our operations are safe and believe that a well-structured set of controls can improve both safety and mission effectiveness. Certainly, experience gained in the commercial nuclear industry supports this.

In addition, we have been encouraging and partnering with contractors in an effort to improve our integrated safety management systems by providing tools for

contractors to improve their safety culture.

A primary result of the coordinated contractor and DOE effort is the identification of three focus areas and associated attributes that will have the most impact for improvement -- leadership, employee/worker engagement, and organizational learning. Our experience shows us that safety culture is an important element in our overall performance improvement.

A number of DOE and EM contractors are currently piloting safety culture improvement tools and will be working to provide feedback on their effectiveness and sharing lessons learned, so that others can take advantage of this pilot effort.

We have also been monitoring the Nuclear Regulatory Commission rulemaking effort in the area of safety conscious work environment and issued a Federal Register Notice to solicit public comment on the need for the DOE to pursue similar rulemaking.

At headquarters, the Environmental Management Office tracks a suite of DOE corporate database indicators on a monthly basis for all of its operations from a field office, site, contractor, and contractor corporate viewpoint, including normalized and severity-weighted scores that represent a composite of all safety-related occurrences.

Various types of operating experience events tracked by control chart and dashboard indicator methods, including electrical safety, nuclear criticality, authorization basis, near misses, environmental releases, conduct of operations, equipment degradation and failure, fire protection, occupational safety, industrial hygiene, and radiological control.

The final measure is total recordable case and days away from work on work restriction or job transfer case rates. The monthly indicators are analyzed and reported to the Assistant Secretary and other

senior EM leadership and shared with the field office managers. The reports are intended to give management some standard tools to evaluate safety performance and/or the identification of adverse trends for investigation and improvement activities as needed.

While these indicators have been shown to be useful, they are used in conjunction with a robust line in safety and project oversight effort that provides the headquarters daily operational awareness of emergent safety issues. These emergent issues are brought to my attention daily, or are documented in a weekly report as the events or issues warrant.

I have brought along the most recent monthly safety report and will submit it for the record.

Glenn Podonsky will be going over the status of the Department's implementation of your recommendation 2004-1 in more detail.

I would like to take this opportunity to mention two of environmental management's actions in response to this recommendation.

The environmental management organization improvements have been made since 2004. They have included organizations that focus on safety policy and increased safety line oversight and operational awareness. The environmental management safety organization also added quality assurance two years ago to improve the environmental management's overall quality assurance posture, as well as focusing on safety and quality assurance of capital nuclear facility construction projects.

EM's technology development includes objectives to improve safety, performance, and reduce uncertainties associated with design and operation of our facilities. Specifically, our multi-year program plan summarizes the strategic initiatives to improve safety and reduce costs and environmental impacts associated with

waste processing.

Safety-related items in the multi-year program plan include evaluation of high-efficiency particulate air filter performance under upset conditions, enhanced chemical cleaning, and long-term performance of cementitious wasteforms and materials of construction, among others.

EM is an active participant in the annual nuclear safety research and development forum, and I know that Dr. Krahn has briefed you several times on the environmental management technology development program.

The environmental management program has supported the integrated safety management as the foundation for safety management since your recommendation on the subject almost 15 years ago.

In the area of integrated safety management, the 2009 annual environmental management declaration process is underway. This process requires the environmental

management field organizations to perform an integrated safety management systems and quality assurance effectiveness review for fiscal year 2009 and submit a declaration report to the environmental management Office of Safety and Security by October 30, 2009.

The annual integrated safety management system effectiveness review conducted by the environmental management field organizations and contractors is an essential element of the integrated safety management systems implementation that allows for evaluation and making necessary adjustments.

This review is a comprehensive review that encompasses multiple elements, including review of self-assessments, oversight review results, integrated review across multiple reporting elements, performance against established safety performance measures, and other feedback and performance information.

Elements of this review are ongoing throughout the year and culminate in a review report that supports an annual summary evaluation. This year's annual declaration is required to address 10 criteria designed to assess effective integration of safety, quality assurance, and environmental management systems elements.

Along with the annual integrated safety management systems and quality assurance declaration report, the field offices have been requested to provide the most recent update of their office's integrated safety management systems description. We review these declarations in detail every year.

We apply the principles of integrated safety management during reviews of our construction projects. The overall purpose of the environmental management construction reviews are to determine, through the use of an independent technical review

team, whether the scope of the projects, the underlying assumptions regarding technology, project management, cost and schedule baselines, along with the contingency provisions, are valid and credible with the budgetary and administrative constraints under which DOE must function.

The major elements addressed in each review are project relevant technical disciplines -- project management, contract systems, cost engineering, environment, safety, and health, quality assurance, and prior reviews.

The following projects were reviewed in 2009: Depleted Uranium Hexafluoride Conversion Facility at Portsmouth, plutonium preparation at Savannah River Site, Waste Treatment Plant at the Office of River Protection, Solid Waste Processing Facility at the Savannah River Site, uranium-233 at Oak Ridge, Integrated Waste Treatment Unit at Idaho.

The 2010 review schedule is being developed.

Implementation of a contractor assurance system is defined in the Department's Oversight Order 226.1A, which is included as a requirement in our contracts. We use the information provided by our contractors, such as self-assessments and assessments performed by our field offices, as input to development of the headquarters assessment schedule.

Our reviews cover both the field office and their contractors. We at headquarters perform an average of more than one safety or quality assurance assessment per month, and target those areas where additional oversight is appropriate, based on continuous monitoring of site office and contractor safety and quality assurance performance.

In addition to the baseline reporting requirements of the occurrences, EM has put in place enhanced reporting

requirements that ensures that injuries or process offsets that might not otherwise be reportable are also discussed with my headquarters safety and quality assurance management.

Our recent environmental management headquarters reorganization is now nearing completion. Safety functions and the staffs responsible for those functions have not changed significantly as a result of the reorganization. As you know, I have named Dae Chung as my Principal Deputy, and Dr. Steve Krahn as Deputy Assistant Secretary for Safety and Security. I believe that these changes have strengthened our safety posture by having substantial nuclear safety expertise at these two senior positions within our organization.

Now that the reorganization is nearing completion, I am allowing the environmental management staff to request reassignments. However, I do not anticipate that any resulting reassignments will affect

critical safety functions, and I will be monitoring any moves to ensure a strong safety posture is maintained.

Additionally, the Chief of Nuclear Safety and his staff have a continuing role to support the environmental management program. As you know, the Chief of Nuclear Safety is staffed with a cadre of senior safety specialists. The Chief of Nuclear Safety is providing support in the Secretary's initiative on external regulation and represents the environmental management program regarding this initiative.

The Chief of Nuclear Safety has led construction project reviews for the environmental management program, initiated discussions with the major construction projects on developing a comprehensive approach to commissioning activities and has developed a Code of Record policy for the environmental management program.

The Chief of Nuclear Safety is

also conducting 2007-1 reviews in accordance with the Board's 2007-1 implementation plan. Further, the Chief of Nuclear Safety has worked closely to integrate oversight and assistance efforts with the environmental management Deputy Assistant Secretary for Safety and Security.

The environmental management program also has comprehensively documented individual and organizational safety responsibilities in the environmental management functions, responsibilities, and accountabilities document, and, in specific, formal safety delegations of authority.

First, I would like to discuss my February 25, 2009, letter emphasizing safety in planning Recovery Act work and the role of Recovery Act readiness evaluations in ensuing preparations for this work, maintain and build on the environmental management long-term commitment to safe work execution in the Recovery Act work.

This letter required the following: federal oversight to include standard site coverage for facility representatives, federal project directors, and as an element of site oversight of contractor assurance programs for safety management programs. Contractor oversight to ensure that the work is accomplished within the bounds of existing integrated safety management systems, including safety performance metrics tracking.

Recovery Act readiness activities to supplement existing site safety support, establish headquarters oversight site representatives at each site receiving Recovery Act funds, reporting directly to headquarters, and nuclear safety requirements for scope performed within Hazard Category 2 or 3 facilities, include 10 CFR 830 compliant or properly-exempted authorization basis. And meet DOE Order 425, Operational Readiness Requirements, as applicable.

The environmental management program has consistently encouraged worker involvement to participating continuous safety improvement. EM encourages our sites and contractors to develop and implement voluntary protection programs to better involve workers in planning and performing work safely.

Many of our environmental management contractors have received, or are pursuing, Voluntary Protection Program recognition. Eight field offices have contractors recognized under the Department of Energy's Voluntary Protection Program.

The environmental management line management believes worker involvement is fundamental to ensuring safety improvement. The headquarters environmental management and integrated safety management systems description provides for mechanisms for all workers and management to participate in the integrated safety management systems and improve safety program and performance.

Field office integrated safety management systems descriptions follows the lead of the headquarters integrated safety management systems description. Contractors are encouraged to provide programmatic avenues for worker involvement through participation and development of the integrated safety management systems and other safety management programs and procedures, workplace oversight, and event investigations.

An important example of worker participation is work planning and control where crafts, engineers, subject matter experts, and others work together to fully identify hazards and effective controls. Our contractor employees receive training in their worker rights, responsibilities, and ways to participate in the contractor's 10 CFR 851 worker safety and health programs.

The unions representing our workers have proven to be valuable to program improvement activities and the communication

of worker-identified hazards or other safety concerns requiring the Department of Energy's involvement. I encourage our contractors to continuously communicate with the unions at our sites.

EM has made strides in ensuring health effects from our operations are identified and evaluated through strengthened industrial hygiene and occupational exposure assessments and occupational medical programs. An example of this is our operations at the Hanford tank farms and the Savannah River Site.

The Hanford tank farm contractor made significant improvements in its industrial hygiene program several years ago in response to increased occupational exposures due to an increase in tank waste transfer activities. This industrial hygiene program is continuing to improve by implementing protective exposure limits for chemical contaminants that do not have

regulatory limits.

Environmental Management program continues to support occupational exposure database and health surveillance activities provided by the DOE Office of Health, Safety, and Security, to include reporting into the Beryllium Registry and supporting HSS health evaluations for DOE former workers.

I am constantly working with my senior leadership here at the headquarters and in the field to identify good practices and quickly share and implement lessons learned. This past month we provided guidance to the field on the conduct of quarterly safety and recurring event analysis to emphasize the rigor and followup needed to ensure continuous improvement opportunities are identified and addressed.

I have several programmatic opportunities for EM senior management to discuss recent operational experience and sharing of lessons learned, including bi-

monthly environmental management field manager calls and monthly and quarterly project reviews. These calls and reviews emphasize safety as an integral part of the discussion.

In summary, safe operations, including safety of the public, safety of our workers, and protection of the environment, are of the highest value to the environmental management program, and this is reflected in our management approach.

We have made, and continue to make, progress implementing improved oversight of nuclear operations. We are using the principles of integrated safety management as well as our nuclear safety requirements as a foundation for our safety programs.

In addition, from the outset of the Environmental Management's Recovery Act planning, I have directed that it is even more important for us to ensure this work is planned and conducted to meet the high safety standards and performance expected within the

Environmental Management program and that safety must be integral and robust from the beginning of this effort.

Poor safety performance due to inadequate safety infrastructure, immature safety management programs, inadequate safety training, or the lack of appropriate work planning, will not be acceptable or tolerated.

We continuously assess contractor safety performance and take actions, as necessary, to ensure worker and public protection. Safety functions have been maintained throughout our recent reorganization, and we expect continuous improvements in our already-strong safety performance. Nevertheless, we will never be complacent when it comes to safety.

We will continue to pursue this and other steps to ensure the safety and protection of the public, our workers, and the environment.

I thank you for all the work that

you have done personally, and including your staff, and I look forward to your comments and questions.

Thank you.

VICE CHAIRMAN MANSFIELD: Thank you, Madam Secretary. I have two. We will speed things along here.

The Deputy Secretary and General Harencak, noted that they realize the necessity of our sometimes intrusive involvement in the processes of the Department as a necessary part of our conducting our oversight. It especially affects your organization, because you are building essentially all of the big facilities that have issues of -- that require us to get involved early.

You will remember we didn't do that very much at the beginning, because we weren't told to. We have been told to, and we have been given more people to do that. The result is that we are going to be there -- we

are already -- early and often, and our work can easily -- and is -- easily be perceived, and is perceived by the contractor, as being intrusive.

We are -- we intend to continue to challenge technically and probe and identify potential mistakes. Nobody likes that, and they complain, and they probably complain to you. And I know they complain to the Deputy Secretary that we are out of bounds by pushing too hard too early before they've got their activities together.

We see no other way to do that. Some say it is not our business. I say it is. And what do you say?

DR. TRIAY: I think it is, and, interestingly, when I stood up the Recovery Act program, my principal deputy, Dae Chung, and I, as well as Dave Anderson, the head of the Environmental Management Recovery Act, talked a lot about oversight. And Dae Chung said, "It appears to me the diverse oversight

model is the Defense Board model for oversight."

So in the Recovery Act, we have the Defense Board model for oversight. We deploy representatives from the headquarters operation and embed them at the sites, so that we can address issues in real time. There is always a natural tension between an oversight role and an advocacy role that, for instance, headquarters needs to have with its field operations, that the field offices need to have with their contractors, but I think that that natural tension is healthy.

In having the model that you essentially have instituted, which is the deployment of representatives to the field offices, if you -- to keep in mind, you know, that we do need to accomplish work throughout the complex. It actually can streamline decision-making rather than waiting until the issue has become so huge that it is not easily addressed.

We can address issues early and perhaps even prevent the majority of the issues as we move forward. That is the name of the game. In order to obtain performance, which is not only results but achieving results safely, securely, and compliantly, we need to not only resolve issues early but avoid issues altogether.

That it has been, in our opinion, the best oversight model that we have seen implemented, and as it is said, that imitation is the highest form of flattery. We have adopted that same oversight model for our Recovery Act implementation.

VICE CHAIRMAN MANSFIELD: Thank you. Thank you. I totally agree, obviously.

My second question is --

(Laughter.)

I set you up on that one.

(Laughter.)

My second question is about collecting data on occurrences that may not

otherwise be reportable. I struggle with that. I have a strong suspicion that there is value there, but I am not competent to suggest what sort of data would be useful to collect and analyze.

I am encouraged to say that you have put in place enhanced reporting requirements to achieve that end. Can you tell us at all when these will be at a degree of maturity such that they can be kept in a database and searched the way the ORPS reports are?

DR. KRAHN: Let me try to answer that.

MR. AZZARO: Would you identify yourself for the record?

DR. KRAHN: This is Steve Krahn. I am the Deputy Assistant Secretary for Safety and Security. We have had in place by memo, I believe for about two years, these enhanced reporting requirements. There are criteria for what needs to be reported to the chain of

management at headquarters on a timely basis.

Because these are, as the Chairman correctly points out, below reportable level -- I can't use the term "occurrences" in the DOE parlance. Let's call them events. We have to date received these reports in text format. They are described to us from the standpoint of what injury, if any, occurred; what equipment failure, if any, occurred; and what the perceived near-term causes were. And then, there is discussion between headquarters and the field whether additional investigation is required.

I would say what we have done most frequently, both myself and my predecessor who is sitting on my right, is accumulate those more on an anecdotal basis, and determine if aggressive headquarters action is required to reverse what appear to be adverse trends.

I would point out, at least since I have had the privilege of this job, we have done that once at Savannah River where we had

several injuries that occurred in addition to some less than reportable items. We discussed in detail, both myself and Dae Chung and Dr. Triay, with the field office management our convinced belief that action was required on their part to turn around what was a potential adverse trend in worker safety in this case.

And we have monitored the contractors and the field office's response to that. I took a trip down there directly focused on this several weeks ago, and my operational safety group has since followed up on that. So I don't know that we can dump them into a database yet, Mr. Chairman, but we are certainly using them --

VICE CHAIRMAN MANSFIELD: Okay.

DR. KRAHN: -- on a day-to-day basis in performing our line management job of managing safety.

VICE CHAIRMAN MANSFIELD: Let me suggest that an overemphasis just on non-reportable but safety-related events may not

be the best way to proceed. I mean, your responsibilities are QA as well as safety. You know, everything that happens that is not the way it is supposed to happen, like things not getting delivered on time, or the -- failing a slump test on the concrete or things like that -- are non-reportable occurrences, but they give you a good picture of what is going on.

If that had been involved -- I realize this is not your area, but if such a collection -- method to collect events were available for the HEUMF, the Highly Enriched Uranium Materials Facility, I have a feeling that things would have been discovered quite a bit earlier and could have been remedied quite a bit cheaper if that had been done that way.

That is the end of my questions, and I will pass that on to --

DR. WINOKUR: First of all, Madam Secretary, I want to thank you for the

leadership you displayed by writing that memo requiring the safe performance of work on the recovery program. I thought it was outstanding.

I have just a couple of very brief questions. Conduct of operations at some EM sites is kind of cyclic in nature. We have periods of outstanding performance punctuated by periods of poor performance. And we hope that that variation is centered around some average high value, but still we have these peaks and valleys. Do you have any sense of what the root cause or solutions are to that performance?

DR. TRIAY: We have part of -- some of these initiatives that we have started between the contractors and the Department of Energy is actually to analyze the data that we all have been collecting -- they have, we have -- and try to address how to deal with those cycles.

I mean, like you mentioned, people

appear to get distracted, you know, very close to the holidays, during the summers, you know, that we have the majority of our work being done because the weather is -- is -- helps us. We also see a lot of issues.

So it is part of what we are trying to address, you know, with our contractors, to see whether we can do what I call adjusting time lessons learned. You know, as they are walking out the door, you know, during that plan of the day, you know, that we remind them that at this time of the year it is very easy to fall due to the snow or, you know, to whatever.

It is very easy at this time of the year to get distracted because the holiday season is upcoming, and that in the past three years at that site there have been X number of accidents or incidents related to this particular function that they are about to perform.

Not unlike, you know, what

happens, you know, when you get coached, you know, if you are into sports. You know, the coach tells you before you walk in the field, "Don't drop the ball." You know, so that's what is in your mind, you know, as you are out there under the pressure of the activity that you are conducting.

So this is part of the things that we are trying to work out with our contractors, aided by EFCOG of course. That is the organization that helps us out.

And I would like to also give the opportunity to Dae Chung or Steve Krahn if they have additional comments on this particular -- we have noticed the same cyclical type of trending.

MR. CHUNG: Yes. Just a comment that we have gone through some contract changeovers in the recent years. We have taken particular attention to the leadership aspect of our contractors. I think that is a key to maintaining good conduct of ops without

-- someone mentioned from the Board this morning about walking the talk.

We want the top leaders at our site organization, particularly the contractor and the field organization, to walk the talk by not just sending e-mail messages or letter messages to spend the time in the field. Many of our work -- whether it's nuclear or non-nuclear -- are very transactional in nature, hands-on activities. So without really walking the talk, it would be very difficult, in my mind, to be able to maintain high status of conduct of ops.

So we -- that is something we emphasize every time we have an opportunity to meet as a leadership, not just within the field managers and the headquarters leadership, but also with the contractors' leadership in the field as well as their corporate entities.

For instance, URS (United Research Services) has a promulgated corporate conduct

of ops types of very investigative review process at their responsible sites. For instance, at WIPP (Waste Isolation Pilot Plant) we have some issues with the conduct of ops. Rather than headquarters taking the hard charge assessment, we work with the URS Corporation to be able to send their top safety leaders and con ops leaders to be able to assist in a way to have their sister organization at WIPP to realize that there were some issues.

So that is something that we have worked out as a mutually beneficial process. Sometimes we send our own representatives to participate or observe. Certainly, we get to discuss the results, so that is -- in my view is very important in terms of having those leaderships to walk the talk in terms of con ops and any other safety initiatives or main processes.

DR. WINOKUR: I would suggest that there is a big benefit to you to solve the

problem, because typically what I see -- and I think you know it -- is fixes, where we have supervisory watches, and these things to me are just, you know, more and more checkers, and so on and so forth, and they are really not good solutions.

So to me it sounds like you are looking at some safety culture-related aspects of things, which I think might be the best approach, but I urge you to pursue that, because I think it will have a big payoff for you.

And the last question I have very briefly is: on your desk, Madam Secretary, are there any metrics you really like, that you really feel comfortable with, that tell you something about how things are going in terms of safety at the EM sites?

DR. TRIAY: I look a lot at the daily occurrences, you know, that get summarized every morning, you know, and sent to -- to every line manager in the

organization. Those occurrences probably, you know, say more about the culture of the organization than almost anything else.

TRC (Total Recordable Case), DART (Days Away From Work, on Work Restriction or Job Transfer) important metrics, I do look at them very carefully. But I get a weekly report that summarizes the prominent aspects of those daily occurrences.

And I feel that it is not only what happens, but how is it dealt with? It tells you a lot about the safety culture of the organization. You see an organization that, you know, tends to blame the worker, if you will, you know, because the worker is the closest, you know, to that incident or accident by, for instance, saying, well, you know, there was a sign, you know, saying not to take this particular vehicle -- all the others were fine, this one in particular we couldn't use.

Well, you know, the question would

be: well, why do you have it in a row with everything else, just with one sign? You know, why did you not remove it to another area? You know, the person is busy, you know, they come in, you know, they grab the first vehicle that they come to, why have it there?

I understand that indeed there was a sign, that indeed the worker was told not to use that vehicle, but does that make it easy for that worker to do something that is going to put him or her in an unsafe condition?

So I believe those daily summaries, they tell you a lot about the safety culture of the organization, and the further review on a weekly basis of those same occurrences I think are the most helpful tool that I use to assess what is the safety posture of the environmental management complex.

DR. WINOKUR: Thank you.

VICE CHAIRMAN MANSFIELD: Mr. Bader.

MR. BADER: Dr. Triay, I would like to compliment you on your testimony. It has a heavy preponderance of actions that commends itself to me.

Going beyond that, one of the things we have talked about this morning has been the self-regulating role of the Department and the necessity of independent oversight. Would you comment on the value of the role of HSS in providing additional independent oversight to what you provide internally to EM, please?

DR. TRIAY: I think the value of the independent oversight of HSS is extremely important. HSS's role -- you know, the way I see it, and, of course, you know, I definitely defer to Mr. Podonsky, who is going to be in front of you next, number one, is to ensure that we have requirements that in my view many of which need to be standardized across the complex.

I believe that those requirements,

like has been said, if they are based on a sound technical basis, could actually help reduce the cost of many of our operations. So that, in my opinion, is the first extreme value of having an HSS organization that looks across the Department of Energy.

The second, of course, is the independence of the oversight. Many a time when we have a particular accident or incident inside environmental management program, Dr. Krahn or Mr. Chung have decided if we are so close, you know, to this particular issue that having a different pair of eyes, you know, to come in and tell us how have people addressed this situation, what could be the potential root causes of this, is extremely valuable. And we have used HSS exactly in that manner in the environmental management program.

Like the Deputy Secretary said, that does not mean that the huge and vast expertise of HSS cannot be used to assist a particular field office that either asks for

help or needs the help based on the outcome of our particular review.

And I think that that duality is also extremely beneficial, and I find the independence, if you will, of HSS, which is based on the fact that they are outside of the chain of command of the Environmental Management program, you know, the organizations that have to deliver a particular product, invaluable.

MR. BADER: Good. I have one other question. If you look at the situation of safety R&D in the Department, do you have any thoughts on how we could get broad-based safety R&D identified and funded?

DR. TRIAY: In terms of --

MR. BADER: Good question.

DR. TRIAY: Well, yes. In terms of the thoughts that I have, I mean, I do agree with what has been said regarding research and development in the safety area. I mean, hydrogen issues are something that we

have spent a lot of resources addressing. Perhaps if we had better data some of those continual resources that we spent addressing this particular issue could be reduced. Like you mentioned, those investments pay huge dividends in many areas of our safety envelope, you know, so there are several options.

Of course, you know, we could make that an integral part of the research and development portfolio of the Department of Energy. And when we are developing the research and development priorities of the Department, we can have that as part of the research and development that we must do in the Department of Energy.

So perhaps one option would be a complete integration, if you will, of the safety research that is needed into the research portfolio of the Department of Energy, which we looked at very carefully every year, you know, during the planning for

the submittal of ultimately the President's budget to Congress, so that we can focus on the type of research that would have this type of return on investment.

You know, perhaps what we have not done well is point out, you know, to the senior management that gets around the table to make the decisions on priorities, the return on investment of this research, perhaps that is the way to proceed in order to give it a higher priority.

MR. BADER: Thank you.

VICE CHAIRMAN MANSFIELD: Mr. Brown.

MR. BROWN: Yes. Welcome, and thank you very much for the statement. I found it very comprehensive.

DR. TRIAY: Thank you.

MR. BROWN: And I would say it reflects, in my view, the performance of EM's headquarters under your leadership, which has been -- which I think has embraced the

principles of 2004-1 maybe better than any other organization at the headquarters.

Part of that is you have had the flexibility, which is probably funding that is made available for you to take initiatives, and that is important for you to have that capability, because if you didn't have that flexibility you would not be able to implement those initiatives.

I particularly appreciated in your comments about fac reps.

DR. TRIAY: Absolutely.

MR. BROWN: They are, as you say, the eyes and ears. But you can have eyes and ears, but if you don't listen to them, then they are worthless. I looked at the GAO report that talks about -- recommends in HSS establishing an increased presence at sites with nuclear facilities to provide more frequent observations of nuclear safety. But for the fac reps, the Department would not have any eyes and ears.

And so while I agree with GAO personally that there should be greater presence at the sites, the fac reps are very important, and I appreciate you pointing that out, and also, in ARRA (American Recovery and Reinvestment Act) for deploying folks out to emulate that experience of people onsite.

So my question to you is, with regard to 2004-1, our recommendation, are there any things in that that you would change in the way of more emphasis or less emphasis or new directions that it should take?

DR. TRIAY: In my view, you know, the recommendation, I thought, was extremely well crafted and thought out. We have taken it to heart. You know, we feel that it is essential to enhance, if you will, our role when it comes to integrating safety into the management of our operations.

So perhaps the area that I believe, like I believe that you share that opinion, is in the area, indeed, of research

and development. You know, that the important area of trying to reap the benefits of some of these technical issues, that if resolved by having a clear path forward based on the -- on good science and technology, we actually could improve the safety of the complex, and perhaps even spend less resources.

I'm sure that maybe Steve Krahn or Dae Chung have additional comments.

MR. CHUNG: In that vein, I think that we have some opportunities coming. We have learned valuable lessons when we took an effort to standardize transuranium waste-related safety documentation processes over the past several years. I think we can achieve a similar type of benefit perhaps in the tank waste arena.

Just as Steve and I were going through some of the pending issues related to 2004-2, validation process, we recognize some discrepancies or some differences between Hanford tank farm versus Savannah River.

Maybe there should be a difference, but we could not come up with that conclusion during our conversation.

So using that as an example, I think -- and the Assistant Secretary talked about, you know, the great value that we can enhance through a standardization effort. I think there is an opportunity.

Safety research -- I think if we accept a more mechanistic approach, I think one of the reasons why we are not terribly motivated sometimes is that we take, you know, an ultraconservative approach in postulating our accident scenarios in a very non-mechanistic fashion.

That may be discouraging our very smart people to -- not to talk a whole lot about, hey, let's take a different phenomenological approach or let's challenge some of our assumptions that were made in the Handbook 3010 in terms of release fractions. Perhaps if we can allow for more mechanistic

approaches that -- I think we can stimulate more thoughts in terms of R&D arena.

DR. KRAHN: The only thing I would add to what my colleague said is I think one of the things that, in coming back into the Department, I enjoyed about joining the EM management team is that management meetings focused on safety, not just management meetings, but management meetings focused on safety.

We have inside the Environmental Management operations, the Technical Authority Board, which is a senior group of managers who meet only to evaluate technical and safety-related matters. It is a different focus of meetings when the only reason you are getting together is to discuss safety-related issues. Very often we, as senior managers in the Department, have many pressing issues on our minds. There is great value to be added by meetings that just have safety as a focus.

I think the commercial nuclear

business has understood this with their plant-specific safety groups and their corporate safety review groups that are required by the NRC (Nuclear Regulatory Commission).

The other thing I would add is that, you know, we do focus on safety even in our regular management meetings. We have bi-weekly field management calls where there is -- I don't want to use the coy word of "safety topic," but we all -- with a $9 billion program with the ARRA, there is always enough going on so that somebody can share a lessons learned.

And we tend to delegate out to the field, or somebody who has been what Mr. Conway used to call "Lucky Pierre," and has had -- had an event at their site to share both the event and what their analysis and corrective actions are, even if they aren't complete. I mean, it is a management team, and we are discussing management issues.

The other -- and the reason I

focus on this a bit is because often our corrective actions for safety-related matters can be so focused on the people -- the actual event that sometimes we miss management-related insights.

So I think that is one of the things that when we talked with our colleagues out at Savannah River, there was an awful lot of focus in their corrective action management on workers being more attentive, which is certainly very important. Board Members have already discussed the important part that our workers play in executing work safely.

But we also encouraged the Savannah River team and their contractors to have their management teams act more, to be more visible, and to be more informed, visible participants in the safety management process, as they worked through their trend.

So that -- I would say that you -- that actual meetings where management sets aside the time to focus on just safety-related

issues are a very important lesson learned that I -- I have gotten over the last two years.

VICE CHAIRMAN MANSFIELD: Thank you, Dr. Krahn.

MR. BROWN: One more question. I talked about performance incentives and contracts with the earlier witnesses. Are there any incentives, either carrots or sticks, that have been particularly effective or ineffective in promoting continuous improvement in safety from your perspective?

DR. TRIAY: I think that, you know, when it comes to safety I do believe that it is important to have carrots and sticks, meaning when we talk about improving performance, you know, performance are the results obtained, but also the manner in which those results were obtained, which means that you have to conduct delivery of that product in a safe, secure, and compliant manner.

So those are the rules of the

game. When a contractor is not capable of delivering the product in a safe manner, we -- I believe those penalties that are associated with reduction in fee are important, because it sends a message. This is, if you will, a part of what you come to work every day, is to make sure that those workers can return home as healthy as when they came in in the morning.

With respect to carrots, I must admit that I have agonized over that particular question. Should we have incentives that just focus on improving performance, safety performance? And how do we measure that?

Let's say that we measure TRC and DART, as an example. Is that going to encourage non-reporting? In other words, are we going to have a situation where the workers, you know, are under pressure by their peers, you know, and nobody wants to report because that is going to cost the company

money, which ultimately, you know, if it is -- if they share, if you will, into the company profits, which is very often the case, they feel this is going to effect my pocketbook, if I am reporting something like -- perhaps it could even be a somewhat trivial accident. You know, I fell or, you know, whatever it is.

So this is the debate that we have been having in the Environmental Management office with the contractor team that EFCOG actually facilitated, you know, for us to have these discussions.

We do incentivize resolving specific safety issues. You know, the Vice Chairman, you know, talked this morning about a mixing -- jet pulse mixers, technical issues, or hydrogen in the pipes. We do incentivize resolving those safety-related issues. Certainly in the nuclear world those are part of the design of issues that the facility has in order to be able to move forward.

So those I believe are incentivized. That is the right thing to do, and that is an important carrot, you know, for the contractor to deliver on that particular set of products.

When it comes to just metrics, like TRC, DART, occurrences, the only concern that has been expressed so many times is, how do we continue to encourage reporting, because reporting is how we learn, how they learn, you know, that their colleague also had the same issue, and perhaps there is something that needs to be done that is just not as simple as that worker just violated that procedure.

You know, after that happens, there is an opportunity to say, "Well, you know, that procedure will result in many workers violating that particular step, because it is not clear, it is not placed in the right order, you know, whatever it is. And if we stop reporting just because we want to get to the incentivization of the fee, that

would not serve us well.

So we have taken the approach of not incentivizing specific safety measures directly, you know, not to say, well, if you increase your performance, or essentially you have a better TRC or DART, we are going to give you this amount of money associated with that incentive. So we use essentially a -- the penalty approach. We do use that.

Second, we use -- when there are award fees associated with the contracts, certainly that is part of the -- how the contractor is actually performing their work, and we take their safety performance into account. And, in addition to that, we definitely incentivize specific safety issues that need to be resolved in order to move forward with the design. But, in general, we don't incentivize a particular safety metric.

MR. BROWN: Thank you very much.

MR. DWYER: Dr. Mansfield, before we go further, if I could ask a question?

VICE CHAIRMAN MANSFIELD: Yes. Mr. Dwyer.

MR. DWYER: Dr. Triay, just a logistics question. When the CNS office was initially set up, the funding for those billets came out of your budget. Is that still the case, or has that been shifted elsewhere?

DR. TRIAY: As you know, the Environmental Management program is the program that gives the Chief of Nuclear Safety the most business. And for that reason, the staff of the Chief of Nuclear Safety does come out of the Environmental Management budget. But it is just a matter of we are the ones that, by and large, have the issues that the Chief of Nuclear Safety on behalf of the Under Secretary for -- the Under Secretary, in other words S3, Under Secretary Johnson, has to focus on, you know.

So it was just a matter of you are using this particular function the most, you

know, so it is going to come out of your budget.

MR. DWYER: Thank you.

VICE CHAIRMAN MANSFIELD: Thank you very much, Madam Secretary. We appreciate your views and appreciate you could spend so much time with us. You are dismissed.

DR. TRIAY: Thank you.

VICE CHAIRMAN MANSFIELD: Now, the next is Mr. Glenn Podonsky, the Chief Health, Safety, and Security Officer of the agency.

Now, I mean no disrespect or no slight or no affront, I mean only to recognize Mr. Podonsky's diligence in getting his statement to us four days ago, so that we could put together our questions. And, therefore, I would like to ask him to just summarize his views, perhaps with the following focus.

In your opinion, are the DOE's plans to respond to the GAO recommendations on track? Do the management reform efforts of

the National Laboratory Contractors Group paper -- are those consistent with the direction of the oversight that you believe you have been tasked to do?

And how -- what is your feeling about the ever-difficult problem of balance between line management's authority and oversight from headquarters?

MR. PODONSKY: Thank you, Mr. Vice Chairman, and Board Members. I just quickly took my 17 pages and cut it down to three to answer the focus of the public hearing today. I truly want to say I very much appreciate that you are having this hearing, so we have this opportunity, as the Chief Health, Safety, and Security Officer, to give you an update on where we are going and what we are doing within the Department as it relates especially to the responsibilities that reside within my office.

I do think it is very important -- if you will indulge me just for a moment and

recognizing time is limited -- but I would like to begin recounting a little bit of the past, because the past seems to be prologue currently, in that in May of 1994, former DNFSB (Defense Nuclear Facilities Safety Board) Chairman Conway wrote to Secretary Hazel O'Leary to understand in detail what we were going to do in terms of managing the Department's safety. And that was the birth of integrated safety management.

In my office back then, as the Deputy Assistant Secretary for Independent Oversight, out of the former EH (Environment, Safety, and Health) organization, we actually helped put that correspondence together that later became the implementation plan for the Board Recommendation 95-2.

It is important also to share with you I believe that Chairman Conway also sent a letter to the Assistant Secretary for ES&H, Tara O'Toole, expressing interest in recommendations by a Federal Advisory

Committee on the external regulation of health safety at the Department facilities.

The Chairman stated in his letter, "One must always remember that no outside regulator or other agency outside DOE can assure safety. Nuclear and non-nuclear safety at DOE facilities is the responsibility of you, parenthetical, Tara O'Toole, and other DOE personnel responsible. It cannot be delegated or transferred to others."

I share that with you, Board Members, because today the Department is again examining its regulatory model. We heard the Deputy Secretary say today under testimony that he and the Secretary are looking to reinforce the commitment to ISM, to the principles of strong safety culture, and an effective nuclear safety posture. And we endorse all of that.

I would also say that my organization, beginning in 1996 as the independent oversight, we examined other

industrial models. We benchmarked against IBM, Dupont, Dow Chemical, General Electric, and we used that benchmarking to establish the type of oversight that we have been doing now for 15 years.

In respect of the administration, the administration wanted to examine, as we heard the Deputy Secretary talk about, examining what is the correct model for safety. Mr. Winokur, he -- Dr. Winokur, he differentiated, as you did, safety versus nuclear safety.

And I want to emphasize -- if you look at the correspondence that I put out as HSS to the community in changing the model, we didn't talk about nuclear safety. So now I want to make this very clear. In April of this year, April of '09, I signed a letter with the concurrence of all program offices, all Secretarial offices, to accept and start implementing the GAO recommendations that were contained in the GAO report. And we have done

many of those right now.

As we also heard the Deputy Secretary say, I think to the Technical Director's question, how do you have independent oversight, and then you also have assistance, and he talked about duality. So I suppose I am now the Chief of Duality.

(Laughter.)

But the reality is that after 15 years, Mr. Vice Chairman and Board Members, we have developed a technical expertise unsurpassed in HSS. It continues to get stronger with new hires that we are bringing in with nuclear engineering backgrounds, so that we are in fact compliant with our OMB budget, so we are spending what we have been allocated, and how we have been allocated that, to do independent oversight.

As you sit there, you may say, okay, so during the last 11 months, Mr. Podonsky, how many independent oversight nuclear safety reviews have you done? And I

will say, "We have changed the model during this study period. We went out to Livermore, and instead of doing the traditional inspection we did more of an assist role," using the same protocols that we always have.

And my technicians -- my technical experts are telling me categorically, "We are learning more the way we are doing this right now than we would just in the pure inspection." And the results are even greater, and I'll tell you why. I have testified many times on Capitol Hill where members of Congress have said, "Your reports are very good as an independent overseer, but the Department doesn't always take actions to your reports."

I will tell you, we are getting more mileage over this last 11 months, even though it has been very tumultuous for us, I am very pleased to hear the Deputy Secretary in a public session confirm his commitment to nuclear safety oversight that HSS does.

I am also very pleased to hear the General talk about how unpopular we are, because I agree that is a good indication that the -- I should clarify, the unpopularity of our operations tells me that we are on the right track in a number of areas.

Now, how does this flush out to our assistance? Dr. Triay, for example, has asked us in a number of areas to go and assist, take a look at different areas. I don't think that compromises our independence, because if independent oversight is done properly, it is another form of assistance.

I would offer to the Board the question is: how does the Department receive the oversight? You all were gracious enough to have an implementation or a Board Recommendation 98-1 that helped us, as an independent oversight, have the Department respond to our findings. It was very important for us to make sure that the Department followed through on our findings as

opposed to the fact that, since we are not founded in legislation, it was just our technical prowess that they would respond to.

So today, Mr. Vice Chairman, I would say that we are at a crossroads. We know that nuclear safety is very important, and we intend to adhere to all the recommendations in the GAO report, and go beyond. And so that independent nuclear safety oversight is not going to change other than be strengthened in every aspect of the GAO report.

In regard to worker health and safety, it will also be strengthened, but in a different model, where we are using the under secretaries -- I will use that -- say that again -- where we are using the under secretaries to get the under secretaries to make sure that their responsibilities are carried through all the way through the line.

I will close my extemporaneous statement here by saying after 15 years of

this model, we find that it is really good for HSS to also assist the line as opposed to just leave a report with ratings, because we have seen -- we have oftentimes corrective action plans that we negotiate back and forth. We have not always seen the results that we are seeing now.

The last example -- we went up to Argonne National Laboratory. Originally, it was an inspection. The Office of Science asked -- they said they have a lot of problems, they really don't need an inspection, they need assistance.

The only thing we did differently, we didn't give ratings. We had findings, we had issues. And as the head of my organization from that inspection, or that review, said that we learned a lot more and we got more done. And at the end of the day, the contractor and the lab learned a lot more.

So the duality, Mr. Dwyer, is all about doing assistance, using our technical

expertise where we can, and using our independent oversight to focus on nuclear safety work we must do.

VICE CHAIRMAN MANSFIELD: Thank you. Thank you, Mr. Podonsky. Before we go on to questions, let me correct an oversight on my part.

The record shall include the written statements of General Harencak and Mr. Podonsky.

Dr. Winokur.

DR. WINOKUR: Glenn, you say, "We will endorse and we will implement the recommendations of the GAO report." Do you mean by that the Secretary and the Deputy Secretary of Energy want you to do that? They are fully invested? I mean, that is senior management's decision that that is what the Department is going to do.

MR. PODONSKY: It's a two-part question. At first, in September of last year, the last administration, we took issue

and signed out by former Assistant Deputy Secretary Kupfer -- we took issue with some of the way that the GAO report was couched.

DR. WINOKUR: Yes.

MR. PODONSKY: And the Acting Comptroller General came and talked to the Acting Deputy Secretary, and then we had the transition of the administration. For the first three months of the administration, I had briefed the various Chief of Staff, Deputy Chief of Staff, and then finally -- and we were waiting for the Deputy Secretary.

In the meantime, I instructed the HSS staff to proceed forward with putting together an action plan to make sure that we were going to be addressing the recommendations. But I still required the approval of the Deputy Secretary and the Secretary, which we had not had at that time.

I mentioned in my just brief comments here this morning, or this afternoon, that we got full concurrence from every

program office in the Department, and I was the one who finally signed it out. I don't believe I signed it out without the approval of the Deputy Secretary. When I say I don't believe it, I have talked to the Deputy Secretary as recent as last week, and he is fully on board with what we are doing.

I think, clearly, as the Deputy said, when you asked about the special review, he said we haven't come to a conclusion yet. And the reality is is that the Secretary and the Deputy have to decide on the recommendations that have come out of the -- of that report.

So in the meantime, we have the GAO focusing on nuclear safety, and then we have this other piece on worker safety.

DR. WINOKUR: I understand. So what you are saying is the Deputy and -- the Secretary of Energy and his Deputy have fully approved your new vision for oversight. They are fully -- and as well as they have endorsed

that you implement the recommendations of the GAO report.

MR. PODONSKY: Correct.

DR. WINOKUR: Great. You know, I am a little concerned that you may not continue to be unpopular if you pursue this role of being in assist mode, but you will have to -- maybe that will be one of your metrics that will tell you how good a job you are doing.

But I do want to talk about something in your written testimony. I was sensitive to it. You were talking about the management reforms we just mentioned, and you say -- and I'm quoting from your written statement, "The Secretary has recognized that many aspects of safety performance within the Department are excellent, particularly in the area of worker safety and health. However, he also believes that it might be possible to maintain high levels of safety performance, as well as necessary rigor and oversight and

enforcement of high-risk areas under a modified structure that would support enhanced productivity and the achievement of mission goals."

And when I read that, it makes me think that there is a tradeoff taking place here, that the Secretary doesn't necessarily demand the highest levels of safety. He wants them just to be high enough so that he can accomplish -- you know, do the enhanced productivity and achieve his mission.

Do you think that's in the trade space of what is going on here? Do you think the sense is achieving the highest safety goals is really not what we should be doing or what the Department should be doing?

MR. PODONSKY: There is no -- there is no second-guessing on safety. It has to be the number one priority. I don't disagree with the General when he says, "Get the job done," but you have to get it done safely first. And I will -- and I do not

think -- I do not believe the Secretary is intending for us to put safety as a secondary focus to mission.

On the contrary, if I can give you one anecdotal in talking to the Office of Science of recent. One of the senior managers -- we were talking about the tritiated water situation up at Brookhaven that took place back in 1996/97 timeframe. And the site manager told the science manager that, "You should have given me money for the monitoring wells," and the response came back, "I did. It was the first $35,000 you should have been spending, before you spent it on anything else."

So I think, Dr. Winokur, that the Department is trying to balance getting a very challenging mission done and not compromising safety. And one of the issues are, when you first come into the Department, and you see directives, guides, rules, the whole litany that we have, it becomes somewhat confusing if

you are first coming in.

And so that is why we have been asked to explore, are there industrial standards out there that are not DOE-centric? Not relative to nuclear safety -- I want to make that clear. Not relative to nuclear safety, but looking at all of the other safety requirements that we have in the Department. Is there a better way of doing it?

And I would offer to you, after a short 25 years in the Department, some of the solutions the Department has come up with over time have been bolted on to be responsive to one committee or another and haven't always been analyzed thoroughly, and then we live with them.

And so I believe what the Secretary is trying to do is, as he said, "Reset the Department, not to denigrate safety, but make sure that we are more efficient as we do this."

DR. WINOKUR: Okay. Thank you. I

will have other questions later if there is time. But let me defer now.

VICE CHAIRMAN MANSFIELD: Mr. Bader.

MR. BADER: If we look at enforcement actions, you have had no enforcement actions on nuclear safety this calendar year. How does that fit with the duality of having independent oversight as well as assist?

MR. PODONSKY: For the last 11 months, we have had -- we have had nuclear safety enforcement issues that have been coming up to me, and we have been looking at them. I deliberately have held them until we were -- until I was convinced that not only did we have a good case across the board, but that we also were thinking in terms of how effective the enforcement is.

So there is -- if you will indulge me, there's two parts to the answer. The real thing is that since 1994 the enforcement

activities of the Department of Energy, in my opinion, have been very convoluted. It is a process that, for example, at Savannah River we had a fatality a few years back, and the EM acting manager at the time, Paul Golan, took immediate action.

The former EH organization took exception, because they thought they were in enforcement space. The enforcement actions took 18 months and resulted in were a far smaller fine. So during this past 11 months, while we knew that the Secretary and the Deputy Secretary and the entire Department were examining another regulatory model, I said, "We cannot stop this effort. We should not stop this effort. We have to have the moral fiber," as, Dr. Winokur, you talked about in oversight. But we also have to be somewhat circumspect on how we are doing this.

And I will assure you, Mr. Bader, that the enforcement rollout that we are going to be coming up with in the next few months is

going to be much more rigorous and much more focused and much more timely than it has in the last 15 years.

MR. BADER: So we can expect to see enforcement actions in the not-too-distant future.

MR. PODONSKY: Absolutely. Without question.

MR. BADER: Good.

MR. PODONSKY: You are going to see them in a timely fashion, and they are going to be appropriately focused, and it is going to involve the line management, because the enforcement rules -- all three, not just nuclear safety -- it was not intended just to be an HSS tool. It is supposed to be a tool of the line managers. They are supposed to help embrace this to help -- to hold their contractor accountable, not just HSS. So you are going to see a whole different enforcement, much more rigorous.

MR. BADER: Do you expect to

continue to do audits, in the true sense of the word, as part of your duality?

MR. PODONSKY: Just yesterday -- the answer is yes. Just yesterday I was talking to the Administrator, Tom D'Agostino. We talked about the fact that we have been helping some of the sites as the regulatory model was being examined. And I told him that we must, because of timing, complete our efforts in the GAO implementation. And that means that we need to do a rigorous nuclear safety oversight of the defense facilities. He totally agreed.

I share that with you, because he is one of our biggest customers, if you will.

MR. BADER: Yes.

MR. PODONSKY: And so, as I said, the short answer is yes, and that is what we are going to do.

MR. BADER: And these will have findings, and they will have action plans to mitigate those findings.

MR. PODONSKY: Everything that we have done in the past will be there. The difference, since you mentioned the duality, and I have mentioned it as well, is that it would be a shame to take all of the expertise that we have and not apply it to some of the sites, the non-nuclear sites, that can use our expertise in a way that they will get better.

Some of our expertise we are also going to apply at our National Training Center. One of the shortfalls of this Department has been training and retraining of some of the folks that are out there. The challenges that I gave to my independent oversight during this last 11 months is take a look at all of the findings that we have had across the complex.

Where are the issues? Where are the places we need to -- where we need to circle back to make sure that we have coursework developed for people to reexamine things that they haven't studied for a while,

or haven't learned, other than reading our reports? So we are using the resources in a number of ways while this regulatory examination has been taking place.

MR. BADER: Okay. Thank you.

VICE CHAIRMAN MANSFIELD: One question. You mentioned that the Department and your group are examining the order system to see what kind of simplifications can be made. But it wouldn't change any of the orders having to do with defense nuclear facilities.

Besides those orders which have obvious linkages to defense nuclear facilities, there are a number of other orders that the Board has traditionally been interested in, and included in a list of that name, "Orders of Interest to the Board". It includes such things as emergency management, the technical standards in general, differing professional opinions, things of that nature.

Can you assure us that those will

remain intact?

MR. PODONSKY: What I can assure you at this point, given the authorities I have, is that we are doing a thorough review within HSS on existing requirements and orders compared to whatever national standards are there and what we believe that the Department could afford to change. And then, we are going to take that to the Assistant -- to the under secretaries.

The reason I say that is because the Deputy Secretary and the Secretary wanted a top-down look as opposed to bottoms up. And we have been doing bottoms up, noodling in the fringe, for quite a long time. We decided to take all of our policy staff and managers to take care of this ourselves, to make sure that we did not unintentionally create a vulnerability with the elimination of any order arbitrarily and capriciously. So we are examining that.

So as far as -- again, as far as

my authorities go, I can assure you that we are not going to endorse the elimination of anything that is going to denigrate nuclear safety.

VICE CHAIRMAN MANSFIELD: Okay. Good.

Mr. Brown.

MR. BROWN: Thank you, and good morning. In the GAO report, one of the items was to establish an increased presence at sites with nuclear facilities to provide more frequent observations of nuclear safety. Without getting into what your response is going to be, can you give me some options of how you might execute that direction?

MR. PODONSKY: We are examining the fac rep program, and I'll tell you why, Mr. Brown, because a while back I actually had nuclear site residents, and I had industrial safety occupational residents as well in the old EH model. And it wasn't very effective, and it wasn't because we didn't get qualified

people. We couldn't keep them from going -- in the NRC terms, going native.

And so over time that program was disbanded by the former -- one of the assistant secretaries, and we did not reestablish it. We do have, as you all know through our Defense Board Liaison Office, the sponsorship of the fac rep program.

They are not part of our organization, but it is, we believe, a tool that we need to utilize, in addition to a more rigorous examination of the reports coming in through our analysis group and utilizing our analysis group, together with our oversight reports, to have a more real-time understanding of what is going on at the sites, as opposed to the last four or five years of modeling where we have just mostly relied on our independent oversight inspections, which don't go out there enough to maintain the presence that I believe GAO is looking for, and I think that they are

correct.

MR. BROWN: So it isn't an increase in numbers of people. It would be a duality, if you will, of responsibilities that the fac reps would have to line management and to HSS? Is that --

MR. PODONSKY: No, it would be our utilizing their information more appropriately than we have used in the past, as well as our own analytical function that we have.

MR. BROWN: Okay. You mention in your testimony our Recommendation 2009-1 on risk. If I could ask a question that relates to that. It is really a question of whether or not there is unnecessary conservatism in DOE's regulatory approach.

And, as you know, DOE and NRC have different methodologies for assessing risk. NRC uses a probability risk assessment, and DOE relies upon a different methodology called deterministic.

Last week in a speech about risk

management to the American Nuclear Society, NRC Commissioner Dale Klein said that the NRC's policy statement on use of probabilistic risk assessment "seeks to reduce unnecessary conservatism associated with current regulatory requirements or, where appropriate, use PRA (Probabilistic Risk Assessment) to support the proposed additional regulatory requirements."

This past summer we made the Recommendation that DOE establish a policy on the use of quantitative risk assessment. In response, the Secretary has reaffirmed the primacy of DOE's current approach, as I read the letter.

Does this mean that DOE has the conservatism about right, or is it that DOE has another approach to reducing unnecessary conservatism, and what would that be?

MR. PODONSKY: Well, first of all, let me -- in deference to the Board, let me say, while this hearing was supposed to focus

on 2004-1, the reason I put 2009-1 in my testimony is because I wanted the Board to know officially that while the implementation plan that we are working on was not -- and our correspondence back was not totally satisfactory to the Board, it is not our intention to continue down that same path.

We think that the 2009-1, first, was a very difficult Recommendation to get the entire Department to embrace, to understand what the Board was attempting to get the Department to do. I can't speak directly for the Secretary right at this moment, but I believe that the Department is very conservative in its risk approach in a number of areas. And the Secretary has said in many speeches that he felt that we were being risk averse.

So there is going to be a very difficult balancing act here on risk aversion versus the conservative approach in terms of nuclear. I don't think there is a question.

There is no room for risk in nuclear. But in other operations within the Department, I think intellectual people can come together and take a look and figure out a way to plan accordingly for the operations.

That is why 2009-1 is -- I believe is going to be one of the bigger challenges that the Department faces, defining the risk. In fact, we -- one of our plans is to have a senior group come together to examine, how do you teach risk? And we can -- we have already notified a number of folks in the private sector that we are going to touch base with, because I don't believe that in the Federal Government that we have a culture of: how do you manage risk appropriately? And I haven't seen it in the Department.

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

VICE CHAIRMAN MANSFIELD: Mr. Bader.

MR. BADER: A comment. In an

informal discussion with an acquaintance, who is a British nuclear regulator, he made the comment to me that they thought that too much emphasis was being given in nuclear safety to probabilistic risk assessment, and they were going more heavily towards deterministic. Any thoughts on that?

MR. PODONSKY: No. I really do not have any thoughts on that that I could give you any intelligent answer to. I would like to be referred to the individual that you talked to to understand their experience.

MR. BADER: It was just about exactly what I told you. No more great depth than that. It was a comment.

MR. PODONSKY: Okay.

MR. BADER: I would also say that one of the things that I have noticed is that there seems to be a lot more use of risk assessment, risk management, and risk mitigation practices in the commercial world than there is in the government. And we are,

as a group, probably behind the times is a good way to put it.

No further comments.

VICE CHAIRMAN MANSFIELD: I might ask you the same question I asked before. It is possible, according to 10 CFR 830 and 3009, to present to the approving authority a proposed safety basis that does not include all of the very conservative approaches in Appendix A that we can now consider the safe harbor.

I don't believe that is used very often. It is -- and certainly you are not the one to take charge of making it used. But I point out that if such things are done, there is certainly risk, that in the rush to get to productivity that a site might approve a document safety analysis that was less conservative than before.

I hope you would be the one that would find out about that first.

MR. PODONSKY: We would hope so.

But I would like to say, again, I was not being coy when I said I appreciate that the Board is having this public hearing, because I think we are getting on the record positions for the Department and where we stand where there is seemingly confusion, some of which were -- emanated out of my own organization.

VICE CHAIRMAN MANSFIELD: Now I would like to recognize the Technical Director, Mr. Dwyer.

MR. DWYER: Glenn, you had a vision statement that I thought, when I was reading it, said that you would be doing assisting only, not auditing, but now you are telling us that you will continue to do --

MR. PODONSKY: No. In that vision statement what is -- what is deliberately not mentioned is nuclear safety. What was mentioned in there was all focused on what the special review was, which was industrial safety.

MR. DWYER: Okay.

MR. PODONSKY: And for the last 11 months, as the administration was getting, in the terms of Navy, sea legs, we were trying to make sure that we didn't lose momentum of the expertise that we had, but at the same time was able to carry through with what our new Secretary was looking for.

So the best way to do that was to take our expertise, as I have said in a couple of my answers earlier, take that expertise and apply it to the field where the field could use that expertise. And I would say, Mr. Dwyer, in reflection of 25 years of oversight at the Department, I have come to find that sometimes, sometimes our organization has been part of the problem, because they were waiting -- sometimes the field has waited for us to come tell them what was wrong.

And so this is why I think this duality, as -- using the Secretary -- the Deputy Secretary's term, which is, you know, a set of two, dual purpose, I think it is a

model that is not -- is not alien to a lot of organizations. In fact, you may disagree, but I think in many cases the DNFSB has served that role, helping the Department, instead of just hammering the Department.

In terms of the vision statement, we put that out because there was an awful lot of confusion within the community of DOE, both nuclear and non-nuclear, as to what the future oversight was going to be. Was there going to be oversight? Or were we going to just go to an external regulator?

So we put out a vision statement of what we were going to do, make it available to the under secretaries, while at the same time working in parallel, as I said in my April 2009 letter to the GAO, that we were going to be developing implementation for the recommendations.

MR. DWYER: Okay. So what I thought I just heard you say is nuclear safety is not treated in your vision statement.

MR. PODONSKY: Not in that statement, that's correct.

MR. DWYER: Okay. And so the reason I go there is that the vision statement also included a caveat that HSS would not go to any site unless invited by the Under Secretary. And I was trying to understand how an invitation only and an oversight organization could exist.

MR. PODONSKY: Well, as I said in one of my earlier answers is, we are challenging the under secretaries to be now engaged in oversight of their own organization, utilizing us.

When we talked about invite, perhaps that wouldn't be the best choice of words. But it is more of a collaboration, if you will.

We don't lose our independence. Just as I said -- just last evening when I was talking to Administrator D'Agostino, and I will just repeat. I said, "We need to, at the

end of this period, recognize that your sites are going to be inspected from the nuclear standpoint in the same way we always have done that." And he said he wouldn't expect it any other way.

MR. DWYER: Okay. And then, specifically related to 2004-1, we have a series of documents in the directive system that appear to be hung up. We have some documents associated with ISM. We have some documents associated with oversight. We have some documents associated with activity-level work planning. Is there any prospect in getting those out in the near future?

MR. PODONSKY: The short answer is yes. And it all is linked with the Secretary's final decision on the regulatory model. In my written statement, in what was going to be my oral statement, I mentioned that it appears that we are moving away from an external regulatory model.

And I want to quote the Secretary

that he made to the Defense Board during a meeting back in May, I believe it was, where Vice Chairman Mansfield asked about NRC and OSHA, and the Secretary said, "NRC was not a consideration."

While the Deputy Secretary -- I am not here to preempt his or the Secretary's decision, while he said the decision is still pending, it is a very clear indication to us that the model that we have presented, both in terms of the assistance role for some sites and the oversight nuclear safety role, is what they are endorsing, which leads me to conclude that the external regulatory model is not going to be the answer. It is going to be a more robust --

VICE CHAIRMAN MANSFIELD: May I interrupt? If I can quote for the record the statement that you referred to in your testimony. "As the Department's reform efforts have become more mature, and the options for external regulation have become

more informed, it is clear that the Department is moving forward to improve our current self-regulatory model."

MR. PODONSKY: Okay. Thank you, Mr. Vice Chairman.

DR. WINOKUR: Mr. Vice Chairman?

VICE CHAIRMAN MANSFIELD: (inaudible)

MR. DWYER: No sir, that's all.

VICE CHAIRMAN MANSFIELD: Yes, of course.

DR. WINOKUR: May I make a quick question? I just wanted to be clear about this duality. Will your decision on which model to use be based upon the site? In other words, would you actually go to a defense nuclear facility and say for the nuclear safety-related aspects, "I'm going to do my traditional independent oversight, but where I see chemical safety-related activities I might do an assist"? Would you actually split a site so you would handle different aspects

of its safety program differently?

MR. PODONSKY: Let me use -- the answer to that is it would depend on what is going on at the site. I think independent oversight has to be dynamic in how we use our resources. I think that we are committed to do a rigorous oversight within what we say with the GAO report, but I think there will be times, albeit not frequent, where a site might want to use some of our expertise for something else.

That has happened, for example, in emergency management out at the Nevada Site, where they needed our expertise. And what we did is we sent those people out to work at the site, to help them, because no amount of inspections was going to change anything. They just didn't have the -- and then, we put a fence around the people that did it, and they could no longer go back and inspect that site, we felt, because then there would be a potential conflict where they would be

inspecting their own work.

So I think, Dr. Winokur, it is really going to depend on there may be circumstances that we might want to provide assistance, or the under secretaries may ask for it, just as Assistant Secretary Triay just asked me that we would help down at Savannah River in some areas.

DR. WINOKUR: It could get confusing.

MR. PODONSKY: There's no question, we are going to have to have some very clear protocols that can stand the scrutiny of the Congress and this Board.

DR. WINOKUR: Thank you.

VICE CHAIRMAN MANSFIELD: Anybody else?

MR. BADER: It sounds to me like you wind up fencing off your people and saying, "You are inspectors; you are assisters."

VICE CHAIRMAN MANSFIELD: Not

necessarily.

MR. PODONSKY: It depends on the site. But the point of where I'm going to is that we have been -- in fact, we have been very cautious about conflict of interest and the perception of conflict of interest, because the perception is somebody else's reality.

We haven't run into that a lot, but where we have we have fenced them off, because we have to keep the integrity of the oversight intact.

VICE CHAIRMAN MANSFIELD: There being no further comments, the invited witnesses have presented their testimony, and the Board has asked several questions and gotten answers. And that concludes the first part of this public hearing.

In accordance with the Board's practice, and as stated in the Federal Register Notice, we will now welcome comments from any interested members of the public.

Are there any such?

(No response.)

There being none that have appeared, I may now note that the -- this hearing is not adjourned. The record will remain open until December 24th. The Board reserves the right to further schedule and otherwise regulate the course of this meeting in the future, to recess, reconvene, postpone, or adjourn this meeting, finally, and exercise its authority under the Atomic Energy Act of 1954, as amended.

This concludes this session of this meeting and hearing of the Defense Nuclear Facilities Safety Board at this time. We will recess and take up at the call of the chair when that time is necessary.

Thank you.

(Whereupon, at 1:22 p.m., the proceedings in the foregoing matter were concluded.)