

UNITED STATES OF AMERICA
U.S. NUCLEAR REGULATORY COMMISSION

BRIEFING ON STATUS OF OUTREACH AND
EDUCATIONAL EFFORTS WITH EXTERNAL
STAKEHOLDERS RELATED TO THE SAFETY CULTURE
POLICY STATEMENT

February 9, 2012

9:00 A.M.

TRANSCRIPT OF PROCEEDINGS

Public Meeting

Before the U.S. Nuclear Regulatory Commission:

Gregory B. Jaczko, Chairman

Kristine L. Svinicki, Commissioner

George Apostolakis, Commissioner

William D. Magwood, IV, Commissioner

William C. Ostendorff, Commissioner

APPEARANCES

External Panel:

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Nuclear Energy Institute, Fuel Cycle Facilities
Representative

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Organization of Agreement States
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1 PROCEEDINGS

2 CHAIRMAN JACZKO: Good morning everyone. The Commission
3 meets today to discuss the educational outreach efforts of the staff to our
4 regulated communities in regard to our Safety Culture Policy Statement. The
5 purpose of the Safety Culture Policy Statement, which was finalized in June of
6 2011, is to establish the Commission's expectation that individuals in
7 organizations develop and maintain a positive safety culture in line with the
8 safety and security significance of their activities and the nature and complexity
9 of their organizations and functions.

10 I think this was a tremendous accomplishment for everyone
11 involved. Communicating our expectations requires recognition of the wide
12 variety of individuals and organizations in the regulated community, with a
13 community that includes industrial facilities, hospitals, clinics, research and test
14 reactors, large scale fuel fabrication facilities, operating reactor plants, and more.
15 There cannot be one approach that will be effective or appropriate for all settings.

16 Establishing and maintaining a safety-conscious work environment
17 requires hard work, steady commitment, and continuous monitoring. So I
18 certainly look forward to learning more today about the staff's outreach and
19 education efforts in our stakeholders work to establish and strengthen a positive
20 safety culture within their organizations today.

21 We will hear from two panels, first a panel of external stakeholders,
22 and the staff NRC panel. So before we begin, if my colleagues would like to
23 make any remarks.

24 COMMISSIONER SVINICKI: Yes, just briefly Mr. Chairman, I wanted
25 to second your remarks about what a tremendous undertaking this has been and

1 I want to thank the stakeholders that we have here today, and the many others
2 that have participated in the agency's development of this work. And I think this
3 is a wonderful meeting because we'll have a chance to hear, you know, what has
4 worked well, what might be suggestions for the future, so thank you.

5 CHAIRMAN JACZKO: Okay, well thank you. We'll begin, I guess,
6 with Janet Schlueter, who is the Director of Fuel and Materials Safety at NEI.

7 JANET SCHLUETER: Good morning, Mr. Chairman and fellow
8 Commissioners. My name is Janet Schlueter; and I am the Director of Fuel and
9 Materials Safety at the Nuclear Energy Institute. NEI is the nuclear energy policy
10 organization, which does represent a wide array of regulated nuclear facilities
11 and activities. Thank you for the opportunity today to present the fuel cycle
12 industry's views on the importance of fostering and maintaining a strong safety
13 culture at the fuel facilities. As you are aware, the domestic fuel facility is limited,
14 yet very diverse. Not only is it diverse in terms of facility operations, specifically
15 uranium conversion, enrichment, and fuel fabrication, but also in terms of years
16 in operation.

17 Some facilities have safely operated for as long as five decades,
18 while one has operated for approximately two years, and there is the potential
19 that a new depleted uranium conversion and de-conversion facility may become
20 operational soon. As such, it's only natural that there would be some variance in
21 the safety culture elements at the fuel facilities. However, I trust that my brief
22 presentation will demonstrate the strong commitment that fuel facilities have to
23 further developing, maintaining, fostering, and improving the safety culture at
24 their respective facilities. Next slide please.

25 First, it's important to recognize that the overall concept of safety

1 culture of fuel facilities is not new. As we stated during the March 2010
2 Commission briefing on this topic, all fuel facilities, by their very nature, have a
3 safety culture. Safe and secure operations depend on it. While facility specific
4 safety culture elements or principles may vary across the industry, facility
5 management and staff strongly support efforts to maintain and improve their
6 safety culture.

7 Even before the NRC had issued its draft Safety Culture Policy
8 Statement, fuel facility representatives had supported several NRC-led efforts to
9 discuss and solicit information on safety culture. For example, we made
10 presentations on safety culture at three different fuel cycle information exchange
11 meetings, the 2009 Regulatory Information Conference, various NRC workshops
12 and steering committee meetings, as well as the March 2010 Commission
13 briefing. We commend the staff for its outreach efforts in this regard, and we fully
14 believe that this effort could, and should, serve as a model for future NRC efforts
15 to inform its regulatory decision-making process.

16 Industry's approach to ensuring an effective safety culture places
17 prime responsibility on all employees at all levels of the organization. Each
18 employee, regardless of rank, title, or job description bears responsibility for
19 fostering a strong safety culture. The goal is to provide an ongoing, holistic,
20 objective, transparent, and safety focused process that uses all available
21 information, such as that that is available in corrective action programs, review of
22 performance trends, audits, and assessments, among other sources of
23 information. Such reviews can provide early indicators of potential problems,
24 help develop effective corrective actions, and help ensure that the corrective
25 actions that are implemented are determined to be effective. Industry's approach

1 also benefits from self-initiated and in some cases, NRC-directed assessments of
2 a facility's safety culture. In that regard, we believe that both a facility and the
3 NRC benefit from this continuous learning process from such assessments. Next
4 slide please.

5 As stated previously, the concept of safety culture is not new. In
6 fact, facility policies, procedures, and training programs have been in place for
7 some time. At a few facilities, the safety culture elements developed by the
8 Institute for Nuclear Power Operations, which did greatly inform your efforts, were
9 in use prior to development of the NRC policy statement. This is due in part to
10 the fact that some fuel facilities support much larger companies, whose nuclear
11 operations are diverse and include the commercial nuclear power industry. The
12 limited list of safety culture elements offered on this slide is by no means all-
13 inclusive. Rather, we offer a few specific examples of common safety culture
14 elements to provide a glimpse of a wide array of elements in place today.

15 Two other examples are causal analysis and peer checks. Also,
16 fuel facility employee concerns programs typically provide multiple mechanisms
17 for employees to report their concerns. For an example, an employee can
18 verbally inform their supervisor, submit a written report, or complete one online.
19 Offering several reporting options for employees encourages timely reporting,
20 and the process allows employees to submit a report anonymously if they choose
21 to do so. Next slide please.

22 These examples of practices in place today help foster a strong
23 safety culture, and they also contribute to the effective implementation of the
24 policy statement. While facilities, policies, procedures, and programs are
25 critically important to ensuring safe operations, mentoring, communicating, and

1 continuously demonstrating a safety culture, a strong safety culture, are most
2 critical. We also agree with the policy statement that a facility's safety culture can
3 be difficult to measure and assess, but that should not stop our best efforts to try.

4 The practices on this slide represent a subset of the broad
5 collective set of expectations and actions needed for a strong safety culture, and
6 it's recognized that personnel, characteristics, attitudes, and behaviors can be
7 subjective, however, observing, interviewing, conducting surveys, or more
8 objective concrete tools are used by industry and NRC to properly assess a
9 facilities safety culture; and these tools have been demonstrated to be
10 appropriate.

11 Another important attribute is the need to identify early indicators of
12 potential safety culture problems, trends, and effective corrective actions. For
13 example, a facility may triage employee reports into the system and assign codes
14 that relate to specific safety culture issues while looking for trends in reports or
15 behaviors. Further, implementation of the corrective actions must be monitored
16 and evaluated to determine their effectiveness, and also a determination made
17 on whether additional action is needed to prevent the event or a similar one from
18 recurring.

19 Operating experience typically yields the insights needed to help
20 foster and ensure an effective safety culture. In that regard, the nuclear industry
21 as a whole, much like the NRC, is experiencing a relatively significant transition
22 in the average experience level of its employees. As such, it's more important
23 than ever that our more experienced workers understand their obligation and
24 responsibility to demonstrate safety culture, and help ensure that the less-
25 experienced employees fully understand those expectations as well. Industry

1 takes this responsibility seriously and we work to ensure that such knowledge
2 transfers occur efficiently and effectively. Next slide please.

3 This slide provides a few illustrative examples of actions taken by
4 individual fuel cycle facilities, both before and after the NRC issued its final policy
5 statement. In some cases, the action was taken as long ago as four or five
6 years. For example, one facility established a new management position
7 dedicated to ensuring that all safety related program elements and attributes are
8 fully developed, implemented, and maintained. Another facility recently reviewed
9 its then current policy statement and modified it, to ensure that the NRC's traits
10 were described in the final policy statement, and that employees received the
11 proper training on it. I can assure you that several actions have been and will
12 continue to be taken by the individual fuel facilities to ensure that their programs
13 meet our own and NRC's high expectation for a strong safety culture. Next slide
14 please.

15 Finally, the fuel cycle industry firmly believes that NRC's current
16 regulatory oversight process has demonstrated to be appropriate when
17 assessing safety culture at our own facilities on an as-needed basis. As has
18 been documented, a less than adequate safety culture was determined to be a
19 root or contributing cause of a small number of past events at fuel facilities. As
20 such, we strongly encourage continuous learning objectives and activities to
21 prevent recurrence of such events or similar ones. To that end, the fuel facilities
22 hold themselves fully accountable for applying and ensuring full implementation
23 of effective safety culture related corrective actions.

24 As we stated during the early phases of our discussions with the
25 NRC staff on an improved fuel cycle oversight process back in 2009, industry

1 recognizes and supports NRC's intent to more explicitly address safety culture
2 within an improved oversight program. How safety culture might be addressed is
3 not clear at this time, but we'll continue our discussions and -- with the staff on
4 this matter, and we'll also be informed with how safety culture is being addressed
5 within the context of the reactor oversight program. In that regard, we look
6 forward to working with the NRC staff as it implements the two recent Staff
7 Requirements Memoranda on the improved oversight process. In closing, thank
8 you for your time on the important topic and I look forward to your questions at
9 the appropriate time.

10 CHAIRMAN JACZKO: Well thank you. We'll now to turn to Lee
11 Cox who's the Director of Emerging Issues and Advocacy at the Organization of
12 Agreement States, and he is the head of the California division of health service
13 regulation, so here the OAS representative from North Carolina, correct?

14 LEE COX: I would like to be from California, but I'm from Carolina.
15 [laughter]

16 Good morning Mr. Chairman, and Commissioners. Thank you for
17 having me and giving me the opportunity to address you about Agreement State
18 activities relating to the Safety Culture Policy Statement. Slide two please.

19 Before I discuss current activities and where we want to go with this
20 current safety policy, I think it's important to understand how we got here and the
21 history of safety culture within Agreement State programs. All Agreement State
22 programs were founded on a strong safety culture. This culture always included
23 health, safety, and security. The current policy statement is clear in its intent to
24 include those same components. Most Agreement State program regulations
25 evolved from dynamic documents called Suggestive State Regulations for

1 Control of Radiation or SSRCRs. Safety culture is inherent in these documents,
2 which continue to be revised and updated. In step with these SSRCRs, the NRC
3 offers licensing guidance in its NUREG 1556 series, which documents -- 1556
4 series which document incorporating safety cultures as well. The Agreement
5 State program regulations are a melting pot of ever-changing safety suggestions
6 and guidance.

7 Since 1996, the integrated materials performance evaluation
8 program, or you may know it as IMPEP has ensured that Agreement State
9 programs and NRC regions are adequate and compatible with these evolving
10 safety standards. Our history embraces and is reflective of a safety first focus,
11 recognizing that safety culture is not a static component in an organization, and
12 is in constant need of evaluation and improvement.

13 The current Safety Culture Policy Statement, we think is a
14 validation of our past robust safety culture foundation, while recognizing the need
15 for continuing progress. As a policy statement, safety culture can, and is, being
16 implemented across all radioactive material uses in an effective and efficient
17 manner, while allowing flexibility and encouraging buy-in from all of its
18 stakeholders. It allows us all to regulate radiation under our specific authorities
19 with a single focus and common language. Expectations are clear in the policy
20 statement, and while not incorporated in the regulations, many of the traits may
21 be inherent in existing radiation safety programs.

22 So now, what activities have the Agreement States completed,
23 specific to the current Safety Culture Policy Statement? First, I would like to
24 speak to some high level activities that the North Carolina radiation protection
25 section has completed. North Carolina felt like this policy was important enough

1 to lead by example. Slide three please.

2 First, this includes our governor, Beverly Perdue, proclaimed
3 November 2011 as radiation safety month. Slide four.

4 This is the proclamation, where in doing so, the governor is
5 promoting awareness of radiation safety, while encouraging reducing hazards.
6 Slide five.

7 Our agency then took a look at our mission statement, and thought
8 it needed modifying and inclusive of a statement to ensure the existence of a
9 preeminent radiation safety culture. Slide six.

10 This is our first promise to the citizens of North Carolina in our
11 mission statement, where we include that statement. Slide seven, please.

12 Next we saw an opportunity to evaluate all of our radiation
13 regulatory programs, and bring them in step with the Safety Culture Policy
14 Statement. It allowed us to modify the safety culture policy pamphlet to be
15 inclusive of all North Carolina radiation regulatory authorities, including not only
16 radioactive materials, but also X-ray and tanning programs. The original NRC
17 pamphlet was made a North Carolina publication. In having the Safety Culture
18 Policy Statement, it has allowed our agency to be more efficient and effective by
19 having a single focus and common language across all of our programs. Slide
20 eight please, and then slide nine.

21 This is a draft document awaiting final touches from graphics, but
22 that's what we've done with the NRC original pamphlet. We've got some other
23 graphics coming and some more editing, but that's an example. So now, let's
24 look at some activities many states are undertaking within the Agreement States.
25 Slide 10.

1 The states are educating licensees during radioactive material
2 inspections about the Safety Culture Policy Statement. This is conducted during
3 the entrance and exit meetings with facility leadership and radiation protection
4 personnel. Individuals are informed of the nine traits, including the specific
5 expectations of leadership in individuals. NRC safety culture pamphlets are
6 handed out during these meetings as well.

7 This is also an opportunity for states to identify and communicate
8 with licensees existing state regulations that mimic some of the traits found in the
9 policy. Many state regulations already require licensees to develop, document,
10 and implement a radiation protection program commensurate with licensed
11 activities. These safety programs are typically required to be reviewed annually.
12 Also, many state regulations already mandate a safety-conscious work
13 environment where personnel feel free to raise safety concerns without fear of
14 retaliation, intimidation, harassment, or discrimination. This requirement is
15 usually captured in workers', or representative of workers' rights for requesting
16 inspections. These meetings inform the regulated community that while the
17 Safety Culture Policy Statement is not a regulation, it does identify expectations
18 that may be closely related to existing regulations, and inherent in existing
19 radiation safety programs.

20 Next, the states are developing list serves of licensed facilities and
21 emailing the NRC safety culture pamphlet in its original form to radiation safety
22 personnel and leadership. Third, the states are also posting the NRC safety
23 culture pamphlet in its original form on their state program websites. Also, state
24 representatives continue working with NRC on rulemaking working groups and
25 NUREG 1556 licensing guidance documents to ensure that expectations, with

1 regard to safety culture, are consistent with the policy statement. Slide 11
2 please.

3 Looking forward, in evaluating the success of the current safety
4 culture policy evolution, we already have the tools in place to help us come to a
5 determination on that. We have the nuclear material events database, or NMED,
6 as you may know it, that will help us identify safety culture trending. We also
7 have the integrated materials performance evaluation program, or IMPEP that
8 will help us evaluate the implementation and national education of the regulated
9 community of the Safety Culture Policy Statement. It should be recognized that
10 measuring the success of this current policy will be an ongoing long-term effort,
11 due to varying inspection frequencies that may take up to five years to be face to
12 face with some licensees. While everyone will have access to educational
13 material, more effective learning is through one-on-one interaction, so going
14 forward the Agreement States will continue with all of these efforts while being
15 mindful of opportunities for enhancement.

16 In closing, the Agreement States pledge their support for this policy
17 statement, they feel that it enhances the safety culture that already exists within
18 the state programs and its regulated committee without further burdening
19 resources. We want to thank you for the opportunity to actively participate in
20 working alongside the Commission on this policy and look forward to continued
21 partnership on existing and future working groups. Thank you.

22 CHAIRMAN JACZKO: Well thank you for that presentation. We'll
23 now turn to Ed Halpin, who's the president and CEO and Chief Nuclear Officer at
24 South Texas Project Nuclear Operating Company. I didn't get all that right.

25 ED HALPIN: That's all right. Thank you, Mr. Chairman, I

1 appreciate it. Commissioners, as well, thank you very much for allowing me to
2 be a part of this, what I think is probably the most important topic in operating a
3 nuclear power station. If you go to slide two, just take a look, a little bit of the
4 history of STP.

5 Bottom line is that early in life, our team learned the importance of
6 safety culture, and culture in general. Our transition from a construction
7 organization to an operating plant from 1988 to '89 was rocky at best. Our
8 leadership model did not support necessarily individuals raising concerns,
9 working together as a team to fix issues, and as a result we failed. In 1993 we
10 had equipment problems that resulted in augmented inspection teams coming in,
11 and eventually confirmatory action letter which kept units one and two shut down
12 for about 14 months. The main emphasis in that shutdown was management
13 effectiveness. There were certainly technical issues that had to be resolved, but
14 it was really our culture and our safety culture. People felt more comfortable
15 going to the Nuclear Regulatory Commission than they did coming to
16 management to get their issues resolved, so we had a problem.

17 Now, the real story behind South Texas is not the fact that we were
18 shut down and went through that, it is the recovery. In focusing on safety culture
19 and culture in general, what the station did was we changed out the people at the
20 top, okay, so the director over the station was changed out and about four other
21 senior vice presidents as well, who then in turn set the tone and the leadership
22 model for South Texas. South Texas went from being a shut down units in 1994
23 to an INPO excellent plant in 1996, and did it with the same people, just changing
24 the leadership model at the top, and changing the culture and focus on nuclear
25 safety culture, and since that time period you've seen what the performance is at

1 STP. We've been known to put safety first in everything we do, and of course,
2 the overall performance of the station has been very good, and the culture and
3 the focus on nuclear safety culture has served us well in good times and when
4 things aren't going so well.

5 In fact, in 2003 we experienced the first of a kind industry issue
6 called bottom mounted instrument head cracking. This was first discovered on
7 unit one and our culture helped us to guide through that scenario to understand
8 the cause, look at the extent of condition, and of course to repair it, and so we
9 think that was an example well set.

10 So we have been advocates of having a process in place that's --
11 has a common language, that allows you to regularly assess safety culture, that
12 puts corrective actions in place where you see a degradation of that culture, and
13 of course, teaches the behaviors that reinforce a positive safety culture. We're
14 very pleased at the industry. If you go to the next slide.

15 The industry, under the leadership of NEI, has pulled together the
16 process for assessing safety culture and making sure that it is a strong
17 continuous process. South Texas was one of four pilot plants that volunteered to
18 help really shape the overall program and to run it. We began that back in 2009,
19 and you can see the years and the things that have been accomplished. So far
20 as a pilot plant we have conducted two nuclear safety culture assessments, our
21 nuclear safety culture monitoring panel is in place, our senior executives have
22 met several times, there have been several issues that have come out of
23 watching this process that we've taken action on, and I think over this period of
24 time, it has served our station very well. Next slide please.

25 On Page 4, you see some process lessons learned, and I'm not

1 going to go through all of these, but I'll point out two of them. Bullet number two
2 talks about learn to identify and act on faint signals. The overall process takes a
3 lot of data, and you have people that look at the data through the corrective
4 action process through input from NRC reports, executive oversight offsite
5 reports, et cetera, as well as interviews. There's a tendency to really focus on
6 the technical. You've got a lot of technical who are involved who want to focus
7 on the data. You have to do more than that; you have to focus on the human
8 interactions and the behaviors. Look for the faint signals. It's one of the lessons
9 that has come out of this process for us that we've been able to incorporate back
10 in.

11 I'll give you an example of paying attention to a faint signal.
12 Usually, when we have our quality exits we have our team in the room, I'm there.
13 Quality will exit on the topic and by that time the exit takes place, usually the
14 issues are resolved, the team has met, they've come to agreement on it, and
15 there's dialogue back and forth, there's clarity. There's never really a lot of
16 emotion in those meetings. We had one about a year ago where we had our
17 quality people doing the debrief and our generation people got pretty heated in
18 the discussion. The topic was foreign material exclusion. We were trying to fix
19 that issue, so it was very unusual to see that type of a interaction on an exit,
20 frankly, in front of me. I watched in amazement as people jawed back and forth,
21 you recognize that we understood the issue, but we were not aligned on a
22 number of things associated with it. That's a faint signal.

23 Turns out, when you pull on that string, we find out that the actions
24 we've taken for foreign material exclusion, people are in agreement with it, but
25 they were not in agreement with how it was implemented or the change

1 management process to put it in place, and so we uncovered an issue at STP as
2 a result of paying attention to that faint signal, putting it back into our process,
3 and identified change management and went out and actually rebuilt our change
4 management process. So it's helped to elevate the performance of the station.

5 Another point that I'll make is that it's essential to monitor the
6 effectiveness of actions. It's one thing to sit and talk and dialogue about issues,
7 but you have to move to action, and in some cases we were coming out of
8 meetings assigning actions and not following up. Well, you can't be very
9 proactive if your actions are not implemented. So those are a few lessons
10 learned from South Texas.

11 If you turn to Page 5, you can see that overall, and I think I speak
12 for the industry as we talk through these, this process that we have in place
13 provides continuous assessment of our culture, it is an excellent platform for
14 communicating the relevant issues associated with safety culture. It certainly
15 promotes accountability of the managers, in regard to what they're doing and
16 how they're minding safety culture and the behaviors that are associated with it,
17 and it also increases the familiarity with the nuclear safety culture principles.
18 Next slide.

19 In regard to the industry, all of the stations who fully endorsed this
20 process have the procedures in place. Several of the monitoring panels have
21 met and by the end of the first quarter of 2012, the senior leaders at the station
22 will meet and will take a look at the data, and then we'll move to action on
23 corrections that have to be made at each of their stations. NEI has also received
24 input from the Nuclear Regulatory Commission in regard to the nuclear safety
25 culture assessment process, and is incorporating that feedback in order to gain

1 agreement there as well, and we should be able to work through that at the end
2 of the first quarter of 2012.

3 We appreciate the discussion that we've had recently in December
4 of 2011, on common language. There has been a lot of progress that's been
5 made in this area; we think we're very close, so we appreciate those efforts. In
6 fact, the teams got together in December, were able to bin the attributes and I
7 think there's very good alignment on this common language. We still need to
8 drive it home and close it out, and so the anticipation is that we'll work throughout
9 2012 and get it to a point where agreement is reached by the end of the year and
10 then we'll move into action as an industry, specifically INPO, in adjusting the
11 performance objectives and criteria associated with safety culture and then
12 rolling out a training process.

13 In conclusion, the process that we have in place, we think, is an
14 excellent process. It provides for a methodology that's very proactive in
15 identifying issues so that we can move to action and correct any slippage, if you
16 will, in safety culture. It holds the managers accountable to, what I think again, is
17 the most important topic in operating a nuclear power plant. It's well defined and
18 repeatable, and this is essential. You know, we look at the demographics in the
19 nuclear industry, and we know that the turnover rate is about to increase
20 dramatically, so being able to make sure that the principles are continued to be
21 cultivated, inculcated in people's thinking is important. It shouldn't matter if your
22 CEO is Bill Cottle, Joe Sheppard, Ed Halpin or the next person that follows me.
23 This process will help to keep that in check and keep people aligned.

24 And in the end I would also say it's transparent. We've had a lot of
25 people that have watched our process, and we think that that overall has served

1 us well. This concludes my remarks and I look forward to your questions.

2 CHAIRMAN JACZKO: Well, thank you. We'll now turn to Billie
3 Garde, who's an attorney and partner at Clifford & Garde.

4 BILLIE GARDE: Thank you very much. Thank you for inviting me
5 today to share my views on the progress that has been made on the safety
6 culture work done within the agency and the industry. As you know, I've been
7 involved with this for much of my career, and so I'm very pleased to see where
8 it's come. First slide? Actually, second slide.

9 The Safety Culture Policy Statement that was issued in June '11
10 was something that I think the agency and everybody that was involved in it
11 should be very proud of. It came about as a result of a tremendous amount of
12 work by the staff to include stakeholders and all of the aspects of the regulated
13 industries to ensure that everybody was on the same page. It was, in my
14 experience with the NRC, one of the most unique positive experiences I've been
15 involved in, and I was very happy to see you ultimately issue the policy statement
16 in June of 2011, and I think it has, and will continue to serve you well. Next slide.

17 It has been an exhaustive regulatory journey, I'm not going to
18 summarize the history or we'd be here for the couple hours because this was a
19 very, very long time in coming. Next slide please. Next slide. Caught up here
20 with me. Could I have the next -- thank you.

21 The Safety Culture Policy Statement, as I said in my previous
22 remarks has, and will become, a benchmark for other low-risk, high consequence
23 industries, and as an agency I think you should be very proud of the leadership
24 that you have demonstrated in this area. It's already changed the face of the
25 industry in many ways with more to come. I listened with interest in what Ed had

1 to say, and can personally attest to the difference between South Texas when
2 that was most of my litigation docket, sorry.

3 [laughter]

4 And today, where as recently as within the last couple years I was
5 invited down to South Texas to actually assist in evaluating some of the safety --
6 aspects of their safety culture program, and was not met with guards when I got
7 to the gate. Well, actually, I probably was --

8 [laughter]

9 CHAIRMAN JACZKO: I was going to say, I would hope that you
10 actually were guards there, so...

11 BILLIE GARDE: I'm sure there were, but they didn't -- they didn't
12 sit in a room --

13 CHAIRMAN JACZKO: We'll take that as an allegation.

14 [laughter]

15 BILLIE GARDE: So I agree that the current management across
16 the industry, I think, is much more attuned to the importance of safety culture,
17 open to what it can do for them, and is relying more and more across the industry
18 on the importance of it. I also -- next slide.

19 I would also like to acknowledge the great work that the current
20 NRC staff safety culture team has done per your direction and encouragement
21 and guidance, they have put a substantial amount of effort into outreach
22 meetings, communications, dialogue, continuing the workshops with all
23 stakeholders, a tremendous amount of work has been put into that. You've had
24 staff, you know, on the ground, across the country over the last couple of years
25 really reaching out to all different parts of your licensees, which is very, very

1 important, because over the last couple of years, many of the places that really
2 noisy safety culture problems have happened has not been so much in the
3 commercial field as in more of either the smaller licensees or the fuel cycle or the
4 kind of one offs, the NDE contractors. A lot of activities in those smaller
5 industries, agencies, smaller companies that aren't really familiar with what safety
6 culture can do with them and for them, and what their required to do has really
7 been a challenge, and I think the staff's done a great job in terms of reaching out
8 for them -- to them.

9 The common language workshop has started, it's making great
10 progress, it's not finished yet, that has been a particular interest and concern of
11 mine for at least the last decade because we -- although we've all been operating
12 under some safety culture, safety-conscious work environment rules, we've all
13 had kind of a different set of language, and that makes working together very
14 difficult, and so I really am optimistic that the finishing up on the common
15 language process will be really helpful to everybody. The -- as I've said before,
16 you have a highly motivated, well-qualified, and committed staff that are doing an
17 excellent job as advocates for the safety culture activities. Next slide.

18 There is more work needed. Frankly, my objective this morning is
19 to get you to take the gloves off. See this statement you wrote where you put
20 down and said that the policy statement is not a regulation and stack of activities
21 beyond communication and education should not be pursued without further
22 specific Commission approval. It's time to give them approval. I think that they
23 have demonstrated that -- they've demonstrated that they know their job, they're
24 highly qualified, they know what they're doing, they have spent a tremendous
25 amount of time developing the relationships and the communications with both

1 the industry, they understand your expectations, that I think you really need to
2 give them the latitude to do the work that they believe they need to do. Trust me,
3 they're not going to make a regulation when you're not looking, okay? It's not
4 going to happen. They understand what the -- what the parameters are that you
5 have given them and I really think that they could -- they can serve your agency
6 well if you let them do what they need to do. You would trust technical staff to be
7 experienced and know what they're doing, and these folks know what they're
8 doing.

9 I also think that they do need to have a little bit more disciplined
10 approach assuming that you do give them more latitude to proceed. I do think
11 that along with that should come some metrics and timelines that you can hold
12 them accountable and they can hold themselves accountable on what they want
13 to accomplish and by when, and put some timelines in place so that they can
14 work to those timelines, and so assuming that happens, I would hope that in the
15 near future they would come back to you with -- they already have a plan in front
16 of you, I think it needs a little bit more timelines, a little more timelines and
17 metrics so that you can see how they're measuring .

18 I also believe that the staff, including both OI and OIG activities
19 need to keep safety as the overriding priority. I think that they're -- over the years
20 the issue of harassment, intimidation, intentional violations of the rules and
21 regulations prohibiting retaliation have become very compartmentalized within
22 the NRC. I understand why it started that way, I understand that that's where the
23 authority lies to be able to accomplish something, but there I think that the lines
24 need to have a little bit more -- there needs to be more work on this because you
25 can't just take something out of a retaliation case, put it in OI space for the next

1 three or four years and think that the lessons that need to be learned immediately
2 are going to happen, and so I think that as there's more outreach and
3 development, there really needs to be some participation by both OI and OIG to
4 get that correctly -- done correctly. Next slide please.

5 In addition, I think that there needs to be more work done with
6 respect to resident inspectors. In particular, they're the first line of defense but
7 they are often the most overworked and least trained in recognizing safety
8 culture issues, as Ed said, by faint signals, as I kind of refer to them as
9 precursors of issues. I think that that's very important. Next slide.

10 Industry initiatives, I think, have been good. The pilot programs
11 have done a great job. My only comment for the industry, really, is that there
12 needs to be more outreach within the local communities. When I attend a lot of
13 issues and the places that I am in involved in, there still is a high degree of lack
14 of understanding among citizens' groups about the safety culture work that's
15 been done, and what that all means for the citizens to be able to rely on much of
16 what's going on at the plant, so I think that there's more efforts and I think that's
17 mainly industry related.

18 I've expressed my concerns about barriers towards successful
19 implementation, and I'd like to just end -- last slide please -- with an
20 acknowledgment about the loss of Eric Fries. I don't know if any of you ever
21 knew -- met him personally, but he was a valued member of the NRC safety
22 culture team. He was my age, he died on New Year's Day this year,
23 unexpectedly. I worked with Eric since Millstone. He was at Millstone when I
24 came into that independent oversight activity and since that time have had the
25 opportunity to work with him on and off, both as a consultant and then after he

1 became part of the NRC. Before he came to work at the NRC he used to take
2 the train down as we were working through all those safety culture workshops
3 and on his own dime, you know, put himself up at a hotel because he so strongly
4 believed in the importance of making safety culture changes within the industry
5 based on his own experience at Millstone and felt like it was critical to the
6 success -- ultimate success of the industry and he made that commitment, you
7 know, for years and years as we worked through a lot of the safety culture
8 workshops. I worked with him in the oil and gas industry, he did some incredible
9 work in that field following Texas City accident as well as in Alaska, and he'll be a
10 loss and I want to recognize both to the team and to the Commission the work
11 that he did in this area. Thank you very much.

12 CHAIRMAN JACZKO: Well thank you for those thoughts, and
13 particularly your kind words on Eric. That's very nice of you to do that, and I want
14 to thank all of you for your presentations and for the work that all of you, I think
15 as Commissioner Svinicki said, it's -- you know, we have made tremendous
16 progress and you all didn't start out in the same place --

17 MR. HALPIN: No, we didn't.

18 CHAIRMAN JACZKO: -- but I think it's a credit to your commitment
19 to this issue that you were able really to come together and coalesce around
20 some very important ideas and I think that's just one of the strengths of this effort,
21 is that support from all of you and as you said, the work that the staff did to help
22 that, I think, has been tremendous. So we'll start with Commissioner Ostendorff.

23 COMMISSIONER OSTENDORFF: Thank you, Mr. Chairman. I
24 want to add my thanks to the chairman's for all of you being here today, and
25 Billie, I wanted to start out with you to -- before I get into questions -- to do two

1 things. One, echo the chairman's thanks for your comments on Eric. I did not
2 know Eric personally, but I think we're all grateful for your sharing your personal
3 interaction with him, and the respect you have, and that's really appreciated. I
4 also will comment that, Billie, on a second note, that I think agencies such as
5 ours are better, our staff is better, the Commission is better for people who
6 demonstrate zeal, enthusiasm such as you have over many years to help us get
7 to higher playing field, and so --

8 BILLIE GARDE: Thank you very much.

9 COMMISSIONER OSTENDORFF: -- while we may not always
10 agree on certain aspects and pieces, but conceptually, at a high level, I'm
11 appreciative of your efforts, and I think a large part of where we are today is --
12 can be tied back to your interest and positions.

13 BILLIE GARDE: Thank you.

14 COMMISSIONER OSTENDORFF: Let me -- I'm going to start out
15 with a question, I guess, for Janet and Ed. I'll ask others if they have pieces to
16 throw in here, but one thing that really resonated with me was I heard -- actually
17 three of you mentioned things -- actually Janet, Ed, and Billie, early indicators,
18 faint signals, precursors, and that really is a huge issue for me. I spent years at
19 sea on submarines, and I could walk on board, when I was engineer or
20 commanding officer or squadron commander, I walk back in the engine room and
21 in about 20 minutes or less I could get a good assessment of a lot of things. I
22 could look at underneath, you know, 688 submarine, the turbine generator lube
23 oil base sump, is a very hard to get to area. If that area was dirty, then it told me
24 something. I could go watch the primary sample sink and see the engineering
25 laboratory technician who was there in a reader/worker mode drawing a primary

1 coolant sample for radiochemistry, and I could just watch that and in five minutes
2 assess are these communications formal, are procedures being carried out
3 properly, or proper torquing techniques on valves, et cetera.

4 I could go look at the torpedo room, a non-nuclear example but it's
5 relevant here. For people that don't have that much training necessarily,
6 technical training, but watch the formality of communications when you're moving
7 a torpedo from one low position to a torpedo tube. How navigational charts were
8 being changed. When it changed your sub-note came in that required a
9 deviation of path was a process being taken to -- in the ship, to ensure that
10 proper navigational safety was being ensured by people reviewing this change
11 that came in, making sure that you didn't go over any sea mounts or that you
12 watched your water depth.

13 So I bring this up because I think you -- all three of you have
14 commented on areas. Ed gave us one example in FME at South Texas, but I
15 wanted to see, are there other examples of things that you or your teams look at,
16 whether it be at NEI or in the industry or fuel facilities, or Billie, from your
17 perspective, and Lee feel free to chime in here, you know, that you kind of use as
18 a barometer for how are things going? There might be this precursor or this faint
19 signal or this early indicator. Janet, you want to start off?

20 JANET SCHLUETER: Well, I think it begins at the individual
21 facilities with, you know, maybe a new process line, for example, and the training
22 that has to go on prior to that process line beginning. The orientation of the new
23 employee, the practice that goes on, the pre-job briefs, stopping, thinking, acting,
24 reviewing the procedure before the work ever begins. Those body -- the body
25 language that you implied there to watch for, being more sensitive to a newer

1 employee's lack of experience, perhaps, in that particular area, but on the other
2 hand, not taking for granted that a more experienced employee necessarily
3 knows the procedure inside and out. So those facilities -- or experiences are
4 happening all the time at these individual facilities, and then we create different
5 opportunities within NEI, whether it be our routine phone calls between our fuel
6 operations committee, or the meetings that we have to exchange information of
7 that sort so we have that sort of learning opportunities that we provide at NEI
8 within the industry, so that we can share those experiences and learn from them.
9 And as I mentioned, there are some facilities that have actually applied the INPO
10 elements for years, as long as 10 or 12 years ago. These types of self-
11 assessments and peer reviews were going on based on INPO's guidance.

12 COMMISSIONER OSTENDORFF: Okay. Lee, and I realize you're
13 in a different position with OAS, but I certainly would welcome any examples or
14 thoughts you may have.

15 LEE COX: Sure, I appreciate the opportunity. For the Agreement
16 States, I think it starts right with the entrance meeting. We can get a -- we get
17 those faint signals right with the leadership when we're talking about why we're
18 there, what we're going to be doing, a performance-based inspection, and then
19 once we go out into the inspection -- the performance-based inspection we're
20 observing, we're interviewing staff and employees, we're seeing if they're walking
21 the walk. If what they've got in their procedures, are they doing that in reality, in
22 practice, so for us it starts at the entrance meeting and throughout the inspection.
23 Thank you.

24 COMMISSIONER OSTENDORFF: Okay. Ed?

25 ED HALPIN: Mr. Commissioner, I would just point out to -- in our

1 process there are lots of process inputs that we just talked about to help us really
2 make decisions and understand culture, but let me tell you what I do, as a part of
3 my routine.

4 COMMISSIONER OSTENDORFF: Sure, sure.

5 ED HALPIN: One of the things that I think is most helpful that I
6 feed back into this process are my interactions with people. So, on a regular
7 basis, what I do is I have -- on a monthly basis I have what's called coffee with
8 the president, so I'll invite probably about 12 people from a cross section
9 throughout the station to come in with their compliments and their concerns, and I
10 get a chance to dialogue with them, and to understand where they're coming
11 from. I don't necessarily solve their issues in that meeting, but it really gives me
12 a good barometer of what to -- what is happening from their point of view, which
13 is essential.

14 I meet monthly with my quality manager, and just allow her to really
15 give me her perspective. I talk monthly with my employee concerns manager,
16 who also comes in and gives me a perspective. I meet twice a week with various
17 departments trying to meet face to face with the employees asking them the
18 question, "What's on your mind and what can I fix?" and then last, and probably
19 most important, each week I'll walk my plant down, talking to the people, getting
20 them one on one and just asking them, not a cursory, "How are you doing?" but
21 I'll say I'm not going to leave here until you give me one thing that I need to fix,
22 and then there's that slow pause and they think, and typically I'll get something,
23 and I'll use all of that data to help feed back into this process.

24 COMMISSIONER OSTENDORFF: Thank you, Ed. Billie?

25 BILLIE GARDE: Great question. I wasn't on a submarine, but I do

1 go to quite a few sites now, I'm on a number of safety review boards, and I do
2 have a couple of things that I look at as quickly as I can on a site. One of the
3 things is -- one of the first things really is understanding where the safety culture
4 expectations or safety-conscious work environment expectations fall within the
5 evaluation process of evaluating new leaders. So is it actually on their
6 performance evaluation? Are they actually being measured and their
7 performances being measured, and decisions being made about salaries and
8 bonuses, et cetera, on how well they manage their employee concerns, how well
9 they demonstrate the behaviors of a positive safety culture. Some sites actually
10 do that. They line it up and it may -- it has made a huge difference. It isn't real
11 unless it's in your pocketbook, and you can say it all you want, but if it's like okay,
12 we have one set of expectations for operational issues and one set for when
13 we're talking about safety culture, you're not there yet. I talked to the site
14 infrastructure, that is, the HR department, the legal department and try to
15 understand what role do you play in making sure safety is the overriding priority
16 in how you do your business, and if they have that vacant look in their eyes like
17 that's not my job, I'm HR --

18 COMMISSIONER OSTENDORFF: Yeah.

19 BILLIE GARDE: -- I'm the legal department, that's not my job.
20 They're not there yet. I look at --

21 COMMISSIONER OSTENDORFF: That's a great comment you
22 just made, about it not being my job.

23 BILLIE GARDE: Yeah.

24 COMMISSIONER OSTENDORFF: Yeah.

25 BILLIE GARDE: I look at the corrective action program or the PINR

1 program and try to get a real handle on what is the level of the issues that are
2 coming into that corrective action program? What does that look like? Are these,
3 you know, serious issues that need to be resolved, or are you capturing
4 everything. Is it an everything in program, I really try to get an understanding of
5 kind of the flexibility and willingness of people to raise issues somewhere,
6 whether it's in that program, do you have another kind of program, do you have a
7 green card program, do you have -- you know, do you have something that you're
8 trying to sweep up and that -- the discussion about observations or concerns is
9 really part of the daily communications, and then I look at the leadership
10 involvement in the ECP programs.

11 If the leadership doesn't understand involved support, the employee
12 concerns program, then you've got a site where it's compartmentalized. That's
13 their problem, that's their issues, you'll tell me about it when you need to. Good
14 safety cultures, you've got -- the leaders are going to be able to tell me, "Yeah,
15 I've got half a dozen serious concerns, issues. I've got a work environment
16 problem going on in this department, you know, I've got my hands on what's
17 really going on," and they have a really healthy relationship between the ECP
18 manager and the site leadership team. They're valued, they're included, and
19 they know what's going on.

20 COMMISSIONER OSTENDORFF: Okay. Billie, I appreciate that.
21 All of you had very thoughtful answers, and the one thing I would just comment
22 on is it's so important to talk about these issues, and whether there'll be different
23 debates about implementation of whatever this may be, or about measuring or
24 metrics or goals, et cetera, but a common principle that applies irrespective of
25 where things going forward is the importance of sharing your perspectives and

1 talking about it. Thank you, thank you Mr. Chairman.

2 CHAIRMAN JACZKO: Commissioner Svinicki.

3 COMMISSIONER SVINICKI: Well, my thanks to each of you,
4 again, for your presentations. I'm going to start with a very general question, and
5 I'd like each of you, if you'd like to, to weigh in with your perspectives, but it's my
6 sense, as we developed the policy statement, there was an acknowledgment that
7 one size doesn't really -- is not going to fit all in terms of the different
8 communities of practice, that once we'd established the policy statement there
9 are a lot of different communities that will need to make this policy statement
10 meaningful to them. So I would ask you each to comment, if you have something
11 you feel that we've done well since the policy statement in terms of
12 communicating it forward and really working with the diversity of communities of
13 practice, so what has worked well in the approaches that NRC has used and
14 then that you have used with the constituencies that you work with, and then
15 what might you think be -- may be impediments to making this policy statement
16 to be inculcated into the different communities as well as it could be, so if you
17 would share anything in terms of what has worked well, and what maybe was an
18 obstacle. Yes, Janet.

19 JANET SCHLUETER: As I mentioned, and others have mentioned,
20 the workshops that OE led were unique. They were tremendous. They were
21 providing a forum where there was a very large group of representatives around
22 the table that really did represent all the little cats and dogs outside of the reactor
23 community that are so important to ensuring that the policy is implemented
24 nationwide, and that worked extremely well. I think the staff has been doing a
25 great job at getting out to professional society meetings, normal, you know, mid-

1 year or annual meetings that are going on within the materials communities, and
2 there's a lot of them, and I'm sure, you know, you read that in the SECY paper
3 how many opportunities they have taken to get out and to have those kinds of
4 conversations, but it's not just making those presentations. They're also talking
5 to individual groups of licensees, perhaps while they're on site, just discussing
6 safety culture and making sure that our facilities understand the expectations
7 which we believe our clearly laid out in the policy statements. It's a concise
8 statement, but I think the expectations are clear.

9 There's obviously more work to be done with regard to guidance for
10 materials users, and the staff has started to begun that effort -- begin that effort,
11 they have, for example, put out a draft attachment to NUREG 1556 that applies
12 to some industrial users. There needs to be some more work in that regard, I'm
13 sure the staff does intend to do that, but that's the way that they'll get at specific
14 guidance for specific types of users because, as you stated, it is very different for
15 different users across the field, and you've acknowledged that, we've
16 acknowledged that, and I think that the staff will keep that in mind as they
17 proceed.

18 COMMISSIONER SVINICKI: Okay, thank you. Lee?

19 LEE COX: Yeah, thank you. I think what is done very well is I want
20 to applaud the NRC for making this a policy statement, and maybe recognizing in
21 many of the states the current administration perceived increased regulations as
22 a roadblock to jobs, and this as a policy statement, it allowed us to get buy in
23 from all of our stakeholders, and I think that was a very important thing that NRC
24 maybe recognized right from the get go, and I think all of the workshops that you
25 had, bringing all of the stakeholders together, the states, the industries, not only

1 the nuclear industry but all of the radioactive material uses, the medical, I think
2 that worked very well in getting buy in from everyone, and going forward, I really
3 don't see any impediments for having this common language across our nation
4 for safety culture.

5 COMMISSIONER SVINICKI: Thank you, and I'm going to ask Ed
6 to weigh in, but Ed, you know I just violated what you did. I let both Janet and
7 Lee, I should have said I'm not going to move on until they give me something
8 that can be fixed.

9 [laughter]

10 ED HALPIN: Well, let's see. Well, let me just say I'll echo Lee's
11 comments in regard to making it a policy statement. I think in doing so, it shows
12 the endorsement by the NRC over something that I consider to be vitally
13 important, so I appreciate that. The outreach programs have, I think, been
14 excellent. If you look at the website that you all have put together, it's top notch
15 on safety culture. The case studies that are on there, there are three that I
16 thought were very well put together, and had good lessons learned.

17 In regard to the common language efforts, I mean you've put a lot
18 of time in working with NEI and INPO in regard to understanding common
19 language, so that is appreciated, and like I said, we look forward to closing that
20 out --

21 COMMISSIONER SVINICKI: And you and Billie both mentioned
22 that. Can you talk -- could you describe in general terms what remains to be
23 done? Are we at some sort of impasse, or it's just that we need to continue the
24 dialogue and close out, kind of, open issues?

25 ED HALPIN: It's -- I think it's just close out of open issues. The

1 December meeting, which I thought was very productive, is one where there was
2 a binning process that took place on the attributes, I think that we had good
3 alignment, and I think it just needs to be finalized and agreed to.

4 So there's no impasse. It's important to have that common
5 language, so the one delta I would give you, Commissioner, is we need to make
6 sure that the common language issue gets driven and closed. You know, one of
7 the -- one of the lessons learned for us in helping to transform our culture, and
8 keep it consistent and high performing, you have to speak a common language,
9 and if we're not talking about the same things and we don't have the same
10 definition as to what safety culture is, or all of its attributes, it will not result in
11 good alignment, and it'll hurt performance -- and also, with -- I wanted to mention
12 a positive. I gave you delta, some positive is the staff's involvement in the 09-07
13 process. You have been very involved with the process. You've observed it,
14 you've provided feedback, and that's helped us out quite a bit. We appreciate
15 that.

16 COMMISSIONER SVINICKI: Okay, thank you. Billie?

17 BILLIE GARDE: Right. Let me just echo the comments on a
18 common -- you know the common language piece. You know years ago, I don't
19 even remember how -- the discussion particularly at this table always was I'll
20 know it when I see it. It's like pornography. So -- and I have always said no. It's
21 identifiable, it's definable, it's measureable, and you'll know it when you see it.
22 But you'll know it and you'll really be able to talk about it using the right
23 terminology. Is it a trust issue? Is it at this site? Are we having a
24 communications problem? Is there something that deals with the lack of a good
25 corrective action program and you're not going to be able to fix it until you do

1 that. We're -- I would say we're 80 to 90 percent there and it's really just finishing
2 the work once the holidays happen you know kind of thing.

3 So I think it's just getting it finished. But once it is actually finished
4 then the program materials, the training materials, then everything else can really
5 be developed because you have to have those elements in there with the
6 common definition before everybody can realign all their materials and realign
7 their programs so it's all consistent and we're all talking the same language. So
8 there's a lot of work that needs to be done as soon as the language thing finishes
9 in order for our programs to become more sophisticated and rolled out and really
10 working.

11 And then how those traits translate to a five person NDE shop or a
12 medical lab is really where a lot of the work is going to ultimately happen to make
13 the program be able to be implemented and so I think a year from now, 18
14 months from now, if you invite us back, there'll be you know a giant leap in terms
15 of where everybody is, in terms of implementing the issues and the programs.

16 And I have no complaints about the work that has been done. I
17 think that there are some licensees that are still a little bit arrogant. We got this;
18 we don't need your help. My own experience has been that they're more in the
19 university area, in the laboratory areas, and they're a little bit less involved. I
20 don't say they're non-cooperative but they're a little bit less involved and I think
21 there just has to be continued outreach, talking at their conferences, presenting.
22 I mean I think that the staff has really done a good job in terms of identifying
23 where to show up and talk about what this all is and they'll continue to do that I'm
24 sure, especially if you take the handcuffs off so they can do more work.

25 COMMISSIONER SVINICKI: And I agree, Janet had referenced

1 the attachment to the SECY paper that showed it had the same thought, is that
2 the staff has been very searching in terms of opportunities to go and talk about it.
3 With the remaining little time that I have left, Ed you had talked about having
4 received NRC staff input on the nuclear safety culture assessment process. Just
5 very briefly, could you characterize kind of where that stands in terms of the
6 feedback that was provided in moving forward?

7 ED HALPIN: So this is in regard to using the nuclear safety culture
8 assessment process specifically for plants that are in column four and needing
9 that evaluation. The feedback that was provided to the staff via NEI on the
10 process had to do mostly with consistency in asking questions during interviews,
11 so that there was a level of consistency--

12 COMMISSIONER SVINICKI: Okay.

13 ED HALPIN: -- and so that feedback has been taken by NEI and
14 they're in the process of revising that procedure. It should be done and back to
15 the NRC for review by the end of the first quarter of 2012.

16 COMMISSIONER SVINICKI: Okay, all right, thank you very much.
17 Thank you Mr. Chairman.

18 CHAIRMAN JACZKO: Commissioner Apostolakis.

19 COMMISSIONER APOSTOLAKIS: Thank you Mr. Chairman.
20 Thank you for your presentations and as you were speaking I couldn't help but
21 think back. Maybe it will come as a surprise to you that there was a time when
22 people were refusing to accept that power plant operators could make a mistake
23 because they were well trained. Then as a community we were forced to
24 consider the possibility of human error, but then we focused all our attention on
25 the operators that they would do something randomly wrong. Then some bright

1 people developed models that said that maybe it's not entirely the fault of the
2 operators that there are psychological precursors and the context is very
3 important, the context within which they function. Part of the context, of course,
4 is the management, and there was a long time when nobody dared say anything
5 about management or culture. The Commission, I remember, was told by a
6 senator once that nobody regulates Boing's management, why do you guys want
7 to do it to the nuclear industry? Of course we're not regulating now, even now.
8 There was strong resistance by engineers, even my colleagues, some of my
9 colleagues on the ACRS making statements like we have no business getting
10 into people's minds. This culture business is hot air and so on.

11 So, I'm very pleased to see where we are today and the unanimous
12 agreement among you four ladies and gentlemen that this is an important issue
13 and we're making a lot of progress. And now I'm wondering what the next step
14 will be. The question that always comes to my mind is how do you know you
15 have a strong safety culture? Maybe it's easier to identify a weak culture, but I
16 don't know about the strong culture. Maybe the question is meaningless, but I'm
17 always wondering about that and then Ms. Garde mentioned about metrics, so
18 I'm wondering whether that will be the next step? Is it necessary to have such a
19 step or it will come naturally as people see the need of it? What do you think
20 about that? I mean I know that you want metrics but I wonder whether the other
21 three feel that this is something that is needed or we have achieved our major
22 goals and if metrics come in the next 10 years maybe they will be welcomed but
23 they're not really necessary? Ed, what'd you think?

24 ED HALPIN: Let me make sure I understand the question. You
25 asked about metrics, but are you talking about what's the next step for the NRC?

1 COMMISSIONER APOSTOLAKIS: No, no I'm not so down to
2 earth. It's much higher level.

3 [laughter]

4 COMMISSIONER APOSTOLAKIS: We're talking about culture, but
5 we really don't measure it. Right? So you know, we talk about strong culture but
6 if you ask people what is a strong culture I don't know that you will get the same
7 answer from different people. Ms. Garde said that the goal should become
8 measurable metrics. So you know in other words, can I have a scale of some
9 sort that will tell me that the culture is level three out of -- on a scale of one to
10 five, five being best? I mean do I need that or would that come naturally later if it
11 is needed? What? If you don't have an opinion, that's fine.

12 ED HALPIN: Well, no, I mean we have that. We have metrics. We
13 have numerical scores that are part of the process. Each of the safety culture
14 principles actually gets graded and it's on a sliding scale and it's -- the words are
15 associated with numbers but that is the evaluation process that takes place.

16 COMMISSIONER APOSTOLAKIS: So it's a judgmental scale?

17 ED HALPIN: Well no, it's quantitative as well. It is -- and it is
18 judgmental based on human interactions. It's a combination of both. That's the
19 power of this process, is that you're taking data along with the observations and
20 interactions and you're putting it into a process that then gives you something
21 that you can communicate and act upon and some of it is quantitative, it gives
22 you a score.

23 COMMISSIONER APOSTOLAKIS: Is it just at South Texas or is it
24 widespread?

25 ED HALPIN: No, throughout, as a portion of this industry and

1 people do it a little bit differently but and it varies somewhat to a certain degree
2 but there are outputs that are numerical and/or wording that would tell you for
3 example whether it's acceptable, unacceptable, or strong.

4 COMMISSIONER APOSTOLAKIS: Now, let's say five is the best.

5 ED HALPIN: Okay.

6 COMMISSIONER APOSTOLAKIS: Does the definition of best
7 come from an industry wide survey what is best, or is it an individually unit's
8 judgment as to what is best?

9 ED HALPIN: Well it's graded against really the principles of strong
10 nuclear safety culture which in the back associated with each principle there are
11 attributes that tell you what those best look like.

12 COMMISSIONER APOSTOLAKIS: So this is industry?

13 ED HALPIN: So I mean we have a good benchmark to base our
14 decision. It's not arbitrary. It's very well founded.

15 COMMISSIONER APOSTOLAKIS: I didn't say it was arbitrary, I
16 didn't say.

17 ED HALPIN: Yeah.

18 COMMISSIONER APOSTOLAKIS: Mr. Cox.

19 LEE COX: Yes, the Agreement States don't have a sliding scale
20 that five at the end of an inspection, that five is you've got a great safety culture
21 and we also currently do not have each of the traits with a sliding scale as
22 indicating what those might be measured against, but -- and I'm not sure that I
23 would advocate for that. What we do have in place are violations. We have
24 severity levels. And I would say at the end of the day that if a facility has three or
25 four violations depending on what severity that would give you an indication of

1 either having a strong safety culture or not having a strong safety culture.

2 Also, the Integrated Materials Performance Evaluation Program,
3 IMPEP, evaluates our state programs against adequacy and compatibility. And I
4 would say that if we're not adequate and compatible, well maybe we are not
5 implementing a strong safety culture. So I think those things are in place and we
6 also look at results of incidents and events and we can track that and look for
7 safety culture trends in the nuclear material events database and that is an
8 ongoing daily activity that we do and the NRC does.

9 JANET SCHLUETER: As Mr. Halpin explained I think INPO, along
10 with the NRC's policy statement, facility specific goals if you will, and methods
11 that they use to measure their safety culture are in place today. It does vary
12 among the fuel facilities just because of the operations of the fuel facilities
13 whether you're an enrichment facility or a fuel fabrication or so forth. But it can
14 mean things like loss of work time, permit violations, release limit being
15 exceeded, and then there's the human aspect of all of those performance
16 elements. So with the routine SCWE surveys that are done at fuel facilities and
17 safety culture assessments, I would say that it's relative to that facility's safety
18 culture at that time. You know how do you -- that's where the continuous
19 learning and improvement comes in. How can you step back and look at your
20 own facility? And then of course, as I mentioned, some of these fuel facilities are
21 part of much larger companies and corporations which have their own
22 expectations and fall closely in line with the INPO model and now NRC statement
23 as well.

24 COMMISSIONER APOSTOLAKIS: Ms. Garde, do you agree?

25 BILLIE GARDE: Well metrics have been used in the safety culture

1 assessment process for a long time, really since Millstone, and you know in
2 some ways I'd like you to be on a safety culture assessment team because I
3 think once you actually saw how they put together the assessment, you would be
4 impressed with the kind of data that is collected from other indicators. There are
5 -- you know the industry's already measuring near misses. They're already
6 measuring when they do a root cause analysis. Was training a contributor, work
7 behaviors are contributors? And it's become a science to pull out those
8 behavioral measurements, put that together with the more subjective questions
9 to the work force. Do you trust your manager? Do you communicate? You
10 know is safety an overriding priority? You take those questions and then you
11 take the actual data that demonstrates whether or not people are actually
12 behaving that way and put those together. And you get a pretty good idea
13 across the site about what's really going on and the value of that to leadership I
14 think is immeasurable because all of a sudden you find out you've got a huge
15 problem in this particular shift and department that you didn't really see coming,
16 or all of a sudden you can see these precursors that, yes we hired this guy out of
17 the industry but it turns out he's a screamer. So he yells at everybody. So even
18 though we got a lot of technical competence, the moral in that department is
19 going in the toilet. And the value of those metrics is very important in terms of
20 where to put resources as opposed to just dumping a glass of water on the table
21 and trying to cover everything.

22 COMMISSIONER APOSTOLAKIS: But then why do you want --
23 why you're saying goals should become measurable metric. You seem to be
24 happy.

25 BILLIE GARDE: Well, I think that that slide, and maybe I wasn't

1 clear about it, the slide that I have is talking about metrics for the NRC's staff to
2 complete their work. So they've issued a safety culture implementation plan, I'm
3 sure it was in your package, but it really doesn't -- they're not really put -- they
4 haven't really identified for themselves goals, timelines, and metrics in a way that
5 I think will help drive the staff, which is doing an excellent job, just to keep things
6 moving in a way that they can come back to you and say we've met these
7 metrics. So I think I didn't do a good enough job explaining that.

8 COMMISSIONER APOSTOLAKIS: Well, Mr. Chairman, this is a
9 love fest. Thank you.

10 [laughter]

11 CHAIRMAN JACZKO: Commissioner Magwood.

12 COMMISSIONER MAGWOOD: Let me echo my thanks to my
13 colleagues for all the statements made. And really all the energy that all of
14 you've put into this issue and you know, Ms. Garde, obviously I wanted to echo
15 Commissioner Ostendorff's thanks for your long efforts in this area, and
16 particularly thanks for your comments about Eric Fries, who I'd never had the
17 opportunity to really have any sustenance conversation with, but I think it
18 highlights something that I think often is forgotten with all government
19 organization that you know no matter -- people speak of the NRC as a monolith.
20 It's not. It's a collection of people that are very dedicated to what they do and
21 they work very hard. And I think often you know the public forgets that its
22 individuals. It's Americans who are dedicated to a task and I really appreciate
23 the fact that you highlighted that. So, thank you for that--

24 BILLIE GARDE: Thank you.

25 COMMISSIONER MAGWOOD: -- on behalf of the staff. I wanted

1 to make sure that I gave you full opportunity to sort of talk about where you think
2 we should be going from here. I've heard your responses to Commissioner
3 Apostolakis. Commissioner Svinicki talked about some of things that need to be
4 done but I wanted to see if there's, when you think about taking the handcuffs off
5 I think was your terminology, where do you think the next steps ought to be?
6 What are the, you know beyond closing out the issues that you talked about?
7 Where do you think we should go from here?

8 BILLIE GARDE: Well I think really there's a two pronged effort that
9 needs to be done. The first is with the industry. Finish out the common
10 language, continue to do the outreach that they've identified and then implement,
11 you know once we have the common language done really work with the
12 different industries and licensees to make it fit for purpose for their organization.
13 And that is going to be different across the licensees. And I think the staff has
14 developed a really good understanding of the different industries and the
15 workshops really brought out a lot of the challenges. So that's one prong.

16 The other prong that I maybe don't see enough of but I think that
17 needs more work is within the NRC itself. I think one of your organizational
18 challenges, like all agencies, is that you remain very compartmentalized and so
19 that you have a safety culture staff and that's their job, but actually it's -- I don't
20 think it's that simple. I think you as an agency will ultimately be much stronger if
21 your technical team, in particular your resident inspectors because they're on the
22 ground, they can see and feel everything that's going on in a really different way,
23 has much better education and understanding of the safety culture work that's
24 being done. You need to be able to rely on them and I've interacted with resident
25 inspectors on and off over the years and over the last maybe five or six years

1 have continually been disappointed in the response of resident inspectors to say
2 my job is to pick up the phone and call the employee concerns program or get it
3 scheduled into you know the ROP, next ROP inspection. You need better input
4 than that. You need the resident inspectors to be able to weigh in on, as we've
5 all talked about, the precursors, the little identities. If they walked past a meeting
6 and they hear a supervisor you know screaming at another employee, which is
7 obviously not a safety culture behavior, there needs to be a better set of tools
8 that that resident inspector has to what to do about it. It's not enough that they
9 just see it and kind of put it in the back of their mind.

10 And that may be the wrong -- a bad example. If there's a missed
11 opportunity, safety culture opportunity, it needs to be identified and incorporated
12 in your entire agency approach. That's going to take a little more sophistication
13 and it's going to take more than just sending inspectors to a two hour training
14 class. I recently gave a class at a licensed facility. The NRC inspectors sat in
15 that class and came up to me afterwards and said we learned more in this two
16 hours than we've learned in anything, the training we've got from the staff. That
17 shouldn't be. They shouldn't be learning from me in two hours more than they're
18 learning as part of their job in terms of resident inspectors. And that stuck with
19 me because you know I cover a lot in two hours but I don't cover anything that's
20 that unique. So I'm concerned about both that and the technical staff because
21 I'm getting too many answers back just that it's not my job.

22 COMMISSIONER MAGWOOD: All right, that's very valuable. I
23 appreciate that. Now I'm sure the staff will have a -- I see Bill over there smiling
24 so I have a feeling that we'll probably hear some reaction to that when the staff
25 panel comes up. And you know I think that, you know from conversations that I

1 have with resident inspectors and I think you'll like, like any other class of
2 employees, I think there's variance among resident inspectors on how they deal
3 with these issues. But my perception is that the second part of what you said is
4 probably the bigger challenge. It isn't so much whether the resident inspectors
5 recognize the problems exist, it's what tools do they have to--

6 BILLIE GARDE: Yes.

7 COMMISSIONER MAGWOOD: --react to it and I, you know I think
8 that some of them deal with it, deal with these issues, I guess I would say almost
9 in an informal way by simply making observations in meetings and saying well
10 you know we heard something, seen perhaps someone should look into that.
11 You know I mean I'm sure there's ways that they deal with that on a case by
12 case basis. This is very difficult. We don't have the tools to attack you know
13 issues like a screaming supervisor--

14 BILLIE GARDE: Right.

15 COMMISSIONER MAGWOOD: --very well, but it's something I --
16 it's really -- it's a good observation so I appreciate that. I'm looking forward to
17 hearing what the staff has to say about that. I wanted to move to Ed. You know
18 one of the things, as I was listening to your discussion it was quite interesting
19 because and I'm not surprised you approach it this way but your discussion of
20 safety culture sounded more like a dissertation on good management. You know
21 it was -- what I heard from you wasn't so much here's how you know STP has
22 fixed safety culture. I really heard from you, here's how STP fixes management
23 and I wonder from your perspective, is it the same thing? Is good management
24 good safety culture? Are they coincident? And if you're doing a good job
25 managing the safety culture more or less is just part and parcel to what you do or

1 do you think there really, or do you think that that's something that even good
2 managers have to be conscious of and have to take an extra, take extra effort to
3 incorporate safety culture into their organizations? Just want to hear your
4 thoughts about that.

5 ED HALPIN: That's an all-day discussion Commissioner.

6 [laughter] I will tell you that you know how you talk about management; I'll use
7 the word leadership. I think that focusing on having good leadership at the
8 station is vital to support a strong nuclear safety culture. In fact, in reality you
9 know these principles, I told you about the South Texas experience happened
10 back in '93, and then we developed the behaviors that were definable,
11 repeatable, teachable, we held people accountable to in the '94 timeframe and
12 that helped us to develop an environment that was open, collaborative, where
13 people could raise issues, we could have dialogue and do it effectively. And that
14 in turn, you know, we then in turn as we matured as an industry, incorporated this
15 language to make sure that that culture put safety first.

16 So really it's a -- I think that you can have good leadership but you
17 have to have the, I'll call it the lens or look through it from the standpoint of
18 nuclear safety culture in order to be effective at what we're trying to accomplish
19 here because good leadership, where people are motivated and you know
20 producing and getting good results and you walk through the door and people
21 feel good about things, can make mistakes in this area if you don't have that
22 focus on safety culture. So really it's a combination of both. I don't think you can
23 have a strong safety culture without good leadership. I'll say that. I think that if
24 you have poor leadership, I think that if you create an environment where people
25 don't feel comfortable, you won't have this. One of -- the third principle in here is

1 trust permeates the organization and trust is something that is built every hour of
2 the day and that takes good leadership.

3 COMMISSIONER MAGWOOD: I appreciate that. It -- as you sort
4 of wave your INPO pamphlet, I wonder if just in the last few seconds we have.
5 Do you feel -- because I think that you know the STP experience has been a very
6 positive one and you've discussed this. How do you feel that your peers in the
7 industry view this? Do you think there's a lot of common views about this issue
8 or do you think there's still a lot of work to be done on the executive level to
9 communicate these issues?

10 ED HALPIN: No, I think I'll just tell you I presented the 09-07
11 proposal to all the chief nuclear officers and made the proposal and it was
12 unanimously accepted. People understand the importance of nuclear safety
13 culture. I think we all have a varying level of experience and skills in it but I think
14 the commonality is people recognize just how important it is, certainly at the chief
15 nuclear officer level and in as well at the chief executive officer level.

16 COMMISSIONER MAGWOOD: Excellent. Thank you very much.
17 Thank you.

18 CHAIRMAN JACZKO: Well I just have a couple of brief questions.
19 One, it -- I mean it sounds like we've made a lot of progress and a couple of
20 issues that are with -- still to be resolved. The common language which seems
21 like it's got a good resolution path and the concern that I have, and maybe I could
22 say it this way, is where will we be in five years or 10 years from now? There's a
23 lot of attention right now on safety culture. We've just finished the Safety Culture
24 Policy Statement, so there's activities and efforts to roll it out, to begin this
25 campaign. And I guess the question I have and I'm going to propose it this way

1 is, what do we need to do to make it stick? So that 10 years from now, you know
2 when we have a briefing on or an update on safety culture, we're hearing the
3 same kinds of things that we're hearing today or we're hearing more, even more
4 things are being done or advancements and enhancements and continuous
5 improvement in this area. Maybe I'll just start. Janet if you wanted to start first.

6 JANET SCHLUETER: Yes, I think with regard to the fuel facilities
7 it's a matter of additional communication that needs to occur between the NRC
8 staff and our industry. And I think that's going to come not only with our fuel
9 cycle information exchange and other sort of more formal opportunities but as we
10 begin to work on enhancing the current oversight process. I mean as I
11 mentioned, we recognized a long time ago that safety culture would probably be
12 more explicitly addressed in some manner in an improved program. But that
13 dialogue needs to occur. We're going to continue to watch and monitor on the
14 reactor oversight process side of the house, how that's implemented, and take
15 any lessons learned that we can and apply to the fuel cycle side.

16 So yes, there's a lot of work that needs to be done on our side of
17 the house when it comes to additional communication and mutual
18 understandings of the expectations and the state of affairs. If I could just briefly
19 for those other materials users, I think it comes in additional outreach
20 discussions, workshops perhaps, and the guidance documents that need to be
21 updated in the NUREG series. And as I mentioned the staff has begun to do that
22 and I trust that they'll continue to. So there will be additional written guidance I
23 suspect and then in the context of the oversight process in place five years from
24 now which will give those communities more insight as to NRC's expectations
25 and unfortunately we may all learn from an event, and if it occurs that's what it's

1 all about, is improving the safety culture.

2 CHAIRMAN JACZKO: Thanks. Lee did you--

3 LEE COX: Yeah, thank you. For the Agreement States and our
4 diverse crowd of material licensees, I'll mimic what Janet said, continuing
5 education outreach. The majority of our licensees and facilities do want to meet
6 our expectations and if our expectations are to have a strong safety culture that's
7 what they're going to try and meet. While this new evolution of safety culture is
8 new since June of this year, this, as in my presentation, this is not a new
9 concept, it's a new language. And I think we need to continue conversing with
10 our facilities, telling them, educating them on the traits, educating them on the
11 definition of safety culture, continuing to help the NRC evolve their licensing
12 guidance. There, in turn, the states' licensing procedures will be evolved to
13 include safety culture, including this common language, and also looking to help
14 the NRC evolve IMPEP which is their auditing tool of programs. That's what we
15 would advocate.

16 CHAIRMAN JACZKO: Thanks.

17 ED HALPIN: Mr. Chairman for operating nuclear power plants I
18 want to let you know that the process that we've built 09-07 I have personally
19 been involved in the writing of it, the implementing of it, going through and
20 running the pilot program, and the here today. I have the highest of confidence
21 in this process and what we need to do is to ensure that it's fully implemented
22 across every nuclear power station in the United States, and the process is in
23 place, and the teams are kicking into action throughout 2012. We need to
24 monitor it and do check and adjust, because there will be failures. There will be
25 areas where cultures break down. We'll have the process in place and we'll wind

1 up scratching our head a little bit, and so we need to monitor, do checks, and
2 adjust, and just let the process mature throughout 2012, but I have the highest of
3 confidence in what we've put in place. It is repeatable, definable, it embraces
4 these principles, and I think it's something -- it's -- when I came into this whole
5 discussion four years ago, was that we have got to have repeatability and a
6 framework such as when we look down the road five years from now, the
7 cultures are strong.

8 BILLIE GARDE: Well, I think the next ten years is actually got a lot
9 of work that given your, you know, continued encouragement in moving in the
10 right direction will kind of work itself out. I think it's going to take a couple of
11 years once the kind of language things are issued for all of the materials to get
12 issued, for all of the regulations, for all of the documentation, and to work its way
13 through, I think then that will generate a new set of training tools, and so
14 realistically, that's going to take a couple of years before that's really kind of set,
15 and moving on its own. I think that during that same time period, licensees who
16 are new to this right now will start to get comfortable with it. There'll probably be
17 some enforcement actions in the context of like using these issues and
18 principles, and concepts, there will be events that will apply what we've learned
19 here, and so there'll be some sophistication of those.

20 And I think frankly, as Ed said, as the commercial plants -- we're
21 actually, we're moving into the next generation of leaders and so you've got a
22 generation of leaders now who have come up with this terminology, and these
23 concepts, even though everything hasn't been kind of etched in stone over the
24 last 10 years. They're now going to be moving into real leadership positions in
25 the industry, and I think will embrace, and take that, those leadership styles,

1 commitments with them. Twenty years ago, people didn't know what an
2 employee concern program was. They didn't -- the standard in expectations
3 were completely different. It doesn't look anything like it looks like now, and like,
4 frankly, I would be surprised if 10 years from now any one at a commercial plant
5 made a disciplinary decision, decided to fire somebody, without it going through
6 the equivalent of an executive review board, and having everybody at the table
7 be able to have an intelligent discussion of about is this going to cause a chilling
8 effect. How is this going to land on the work force? How are we going to
9 implement that, and everybody around the table be able to have that discussion,
10 whereas right now, even now, even if you have one. When somebody joins an
11 executive review board, there's a whole like integration process and training
12 process, and people kind of have to get up to speed on how you approach this
13 very simple problem in a new and different way to make sure safety continues as
14 the overriding priority.

15 I would think 10 years from now, that that's just part of the way
16 business is done, and therefore, how business is done is going to look very
17 different, and is going to be continuous improvement. We're not going to spend
18 a lot of time. I'm glad I'm getting out of litigation, so, because there won't be a lot
19 left, if they get this right.

20 CHAIRMAN JACZKO: Well, thank you, and --

21 BILLIE GARDE: I'll come up with other --

22 CHAIRMAN JACZKO: Well, we don't want to lose you. You've got
23 to -- we don't want to lose you from ours, so, well, thank you, and I think that to
24 me is really the most important thing, and that gets back to Billie, to your
25 comment about kind of taking the handcuffs off, and, you know, it does seem like

1 from everything I've heard from all of you, these are reasonable ways to go
2 forward. I just want to make sure that we're properly capturing it now, so that in
3 ten years, we don't look back and realize somewhere we dropped the ball, and
4 somewhere these things that you've talked about didn't get accomplished, and
5 obviously for the power reactors I think it's easier, because we do have -- you, as
6 an industry have more defined processes. With NEI 0907 you can have CNOs
7 adopt it and then it becomes or CEO wherever level you do that, it can then
8 become a formal part of your process. The IMPEP is perhaps, for OAS, a way
9 we can capture this is to formally put some things into IMPEP, presuming when
10 we get the fuel cycle oversight that captures, I think, the fuel cycle facilities with
11 some definitive way that this is logged, and then, you know, can be continued to
12 be monitored.

13 So, appreciate your comments and appreciate your participation,
14 and I think this is, again, I think been a tremendous effort, and a lot of real good
15 work, and I think a lot of good things to come, and what I'm just really thrilled by
16 is the continued interest in continuing to do these things, and to make it work.
17 So, I think that's great. Thank you. We'll take a very, very short break.

18 [break]

19 CHAIRMAN JACZKO: Go ahead. Want to get started, Bill?

20 BILL BORCHARDT: Okay. Good morning. Thank you. As you
21 heard this morning, I think I could best describe this process as saying that we're
22 in a in progress success story. I mean this really has been a very good
23 experience for the NRC staff and for all our stakeholders, and although Andy and
24 Diane are going to be the main presenters this morning, you should recognize
25 that the activities that they talk about are going to reflect the very large amount of

1 work done by all of the program offices, reaching out in many, many different
2 forms, and through many different vehicles, to each of the various stakeholder
3 constituencies, because the implementation of this policy statement, it has to be
4 unique to the individual organizations, and the various licensee types. So, there
5 is -- even though each of the program offices have done their own activities, it's
6 been very well coordinated. There's a great deal of consistency amongst the
7 methods that have been used, and they've all been very successful. So, I think
8 just with those opening comments, I'm going to turn to Andy, and Diane will give
9 the rest of the presentation.

10 ANDY CAMPBELL: Thank you, Bill. Chairman, Commissioners,
11 I'm Andy Campbell. I'm the Deputy Director of the Office of Enforcement. As Bill
12 mentioned, we were here today to talk to you about the Safety Culture Policy
13 Statement Implementation Plan, including outreach and education, and activities
14 related to our external regulated community. I'd like to begin with a brief
15 description of the roles and responsibilities of the various offices involved in this
16 effort. I want to emphasize to you that the program offices are directly
17 responsible for outreach and education, and for incorporating the Safety Culture
18 Policy Statement as appropriate when revising existing program office
19 procedures, documents, and inspections, and that includes qualification
20 programs for inspectors.

21 The Office of Enforcement's role is to support program offices by
22 developing presentation and education materials, and has played a significant
23 role in coordinating policy related matters, and providing outreach at meetings,
24 conferences, and workshops, and participating in international activities as well.

25 The Office of Nuclear Regulatory Research and the Office of

1 Nuclear Security and Incident Response support OE in the program offices in
2 their Safety Culture activities by providing technical expertise and support as
3 needed. To facilitate the presentation today, Diane Sieracki, a senior safety
4 culture program manager from the Office of Enforcement will be providing an
5 update on safety culture activities encompassing all of the program offices'
6 efforts. Questions related to program office activities will be responded to as
7 appropriate from the various members of the group here today.

8 Cindy Flannery, a health physicist from Federal and State -- excuse
9 me -- from the Office of Federal and State Materials and Environmental
10 Programs will represent that office. John Kinneman, Director of the Division of
11 Fuel Cycle Safety and Safeguards is representing the Office of Nuclear Material
12 Safety and Safeguards. Laura Dudes, Director of the Division of Construction,
13 Inspection, and Operational Programs is representing the Office of New
14 Reactors, and Undine Shoop, Chief of the Health Physics and Human
15 Performance Branch is representing the Office of Nuclear Reactor Regulation.
16 We also have representatives from Research and NSIR here in the well, to
17 answer any questions that might be posed to them, and with those introductions,
18 I'll now turn to Dianne, and let her begin the presentation.

19 DIANE SIERACKI: Thank you. Good morning, Mr. Chairman and
20 fellow Commissioners. I'd like to start with just a very, very brief background.
21 You've heard some of that previously from the external stakeholders, but a little
22 over a year ago, in January of 2011, the staff sent up the draft Safety Culture
23 Policy Statement for your consideration, and that was the culmination of nearly
24 three years of outreach efforts and extensive stakeholder input, and support.
25 You did consider that Safety Culture Policy Statement, approved it, and it

1 became effective in the Federal Register, in June of 2011, about seven months
2 ago now.

3 Along with that approval, you provided a Staff Requirements
4 Memorandum to the staff, which directed the staff to continue to engage with our
5 stakeholders, to continue doing outreach, education, and communication
6 activities with those stakeholders, to help them to embrace the Safety Culture
7 Policy Statement, and in addition, you also provided the staff with direction to
8 provide you with any thoughts that we had, activities that would go beyond
9 education and outreach, so that we could receive approval before moving
10 forward on those activities.

11 In addition, we received a tasking memo, last July, July of 2011,
12 that asked the staff to provide an implementation plan for any new activities that
13 would be beyond education and outreach, and that plan should include both
14 short and long term goals. The staff has provided an implementation plan for
15 your consideration. That plan is really focused on education and outreach, as
16 the staff feels that that's the appropriate avenue at this point in time. We've
17 divided the plan up in to completed activities as well as planned activities, and
18 this morning I will give you some examples of what we've done to date, as well
19 as some examples of what we're planning to do. I also want to mention that staff
20 will be assessing the effectiveness of these activities as we move along
21 throughout the next several months and years, and if there are any new activities
22 that we will be engaging in, that are beyond education and outreach, we would
23 be bringing them to the Commission for approval Okay, next slide, please. The
24 next slide, please.

25 I want to start with some background on some educational tools

1 that we've developed in the Office of Enforcement. The educational tools were
2 really serving a couple of purposes, one, to provide some tools for our regulated
3 communities to use on their own, and secondly, really to use, for the program
4 offices as we go out and do our outreach at conferences and workshops. The
5 Office of Enforcement has put together -- you heard this morning a little bit about
6 case studies. We have a case study project and what we've done is we've
7 looked at events that have happened in a broad range of industry. So, it's not
8 unique to our own regulated communities and we looked at events that had
9 safety culture attributes to them.

10 Analyzed the publically available investigation reports. So, this is
11 not an analysis done by the NRC, but in fact, we reviewed publically available
12 investigation reports, and we used the conclusions, causes, results of those
13 investigation reports to take a look at the safety culture policy traits, and we tried
14 to show evidence where there was a weak safety culture and thus this is what
15 the result was, or the cause of the incident, and in others, we have tried to show
16 where when there are strong safety culture attributes present or traits present,
17 that it can mitigate the consequences of an event. We have three that are
18 available on the public website right now. Two of them are really focused around
19 not having the best safety culture traits, and the other one is really a good case
20 study on positive traits. The one on positive traits is very well known. I'm sure to
21 most of us here it's the U.S. Airways landing in the Hudson River, and the two
22 that really show what happens when safety culture isn't at the forefront, was the
23 metro accident that we had here in D.C., just a couple of years ago, in 2009, as
24 well as an older case that still has learnings today. It's in the construction area.
25 It's the Willow Island tower collapse back in 1978, which really was responsible

1 for the deaths of 51 individuals. So, there's a lot of learnings that we can take
2 from that as well. Those case studies are up on the web page along with a
3 users' guide, because we didn't want to just put them out there and have people
4 read them, but we wanted individuals to really get the best use of those.

5 So the users' guide has a little bit of history on safety culture. It has
6 a discussion of the traits and it has some thought provoking questions. So that
7 when an individual or an organization uses these, they can think about what
8 happened in the environment or what happened at this organization who had the
9 event, that might be here in our environment, and what can we do so that
10 something like this doesn't happen for us. So, it's some thought provoking
11 questions to provide some good use of that product.

12 Other outreach activities that we -- or I'm sorry, other educational
13 tools were the brochure -- you've heard about it. It was called the pamphlet, by
14 Mr. Cox this morning, a color brochure that we use to provide an educational tool
15 as well as to use when we go out on outreach activities. It includes the
16 expectations, applicability, the definition, and the traits. We've used over 4,000
17 of those throughout the industries, as we've gone to conferences and workshops,
18 including international events. We have published that brochure in Spanish as
19 well, and both of those documents are out on our public webpage.

20 We've also done a poster that really has taken the brochure
21 contents and put it on a poster. We can use that on an easel when we go out
22 and do conferences and workshops, presentations, and there are also smaller
23 sizes that are applicable for, or will be applicable for our resident inspector
24 offices, as well as the Regions. So, next slide, please.

25 So, with those educational tools as the backdrop, I'd like to talk

1 about some of the education outreach that we've been doing with our licensees
2 and stakeholders, and I'll give you just a couple of examples from each area. For
3 the Office of Enforcement, we have been out doing conferences and workshops,
4 and a couple of those areas where we have been, is a vendor's sponsored
5 continuous improvement conference for operators of nuclear power plants, and
6 we've also been involved in a presentation at one of a kind safety culture
7 workshop that just occurred, that was sponsored by INPO and by Duke Energy.
8 We continued to support the other program offices as their needs arise for
9 someone to go out and do these presentations.

10 Our FSME staff has provided a number of teleconferences with
11 their Organization of Agreement States, as well as the Advisory Committee on
12 the Medical Use of Isotopes. They've done a number of outreaches throughout
13 2011, and some of those include presentations at the Annual National
14 Conference on Radiation Control, the material licensee counterpart meeting, the
15 Child Health Corporation of America Radiology Directors' Forum, as well as
16 meeting with the Navy officials who oversee the Navy master license, material
17 license.

18 NMSS hosted the Fuel Cycle Information Exchange in 2010. That's
19 a forum that happens every two years. So, that will be coming up again. It really
20 did have a strong safety focus, safety culture focus, and in addition to
21 presentations made by NRC staff, licensees and members of the public also
22 provided presentations, and participated in the discussions. NMSS staff has also
23 briefed licensees, and vendors, and state representatives at the NEI Used Fuel
24 Forum, and they have also provided brochures, posters, and the case studies at
25 the Spent Fuel Storage and Transportation Regulatory Conference. So, if we are

1 not able to get on the agenda to provide a presentation, we are able to bring our
2 educational materials, and have a table, and still give that information.

3 NRO staff provided an overview of the Safety Culture Policy
4 Statement at the workshop on vendor oversight. That was back in 2010 as well,
5 and we were far enough along in the process for both the fuel cycle information
6 exchange, as well as this vendor oversight workshop, to still give a good
7 presentation on what was going on in them with the Safety Culture Policy
8 Statement. Again, that's every two years. So, that's coming up in 2012 as well.

9 NRR staff was busy doing conferences and workshops throughout
10 2011 as well, including at the Corrective Action Program Owners Group. NRR
11 has also provided case studies and the brochures for the attendees of the
12 National Organization of Test, Research and Training Reactor. Our NSIR staff is
13 involved in a couple of the industry's representative working groups in the D.C.
14 area here. One is the Nuclear Security Working Group and the other is the
15 Emergency Preparedness Working Group. They use those forums to make sure
16 that safety culture becomes a topic of discussion, and stays at the forefront.

17 I want to move now just a little bit from our external stakeholders
18 into our staff, our inspector staff, and what we're doing to educate them. Both
19 FSME and NRR staff have been out at counterpart meetings, regional meetings,
20 and division meetings here at headquarters. The purpose of those meetings with
21 our inspector staff is to provide the information related to what are our
22 expectations for the licensees. It also gives them an opportunity to ask
23 questions, and we provide them with information related to the educational tools,
24 where they can be found, so that when they have discussions with their
25 licensees, they can let them know what's available out there for them, related to

1 the policy statement.

2 We also had a briefing of the spent fuel storage installation
3 inspectors. They were at that NEI Used Fuel Forum. So, they were in the
4 audience and received the benefit of the robust discussion there as well. NRO
5 has developed a communication plan along with the Region II Center for
6 Construction Inspection area for the inspectors and staff in that area, again, to
7 provide the expectations that we have of our licensees, and to make them
8 familiar with the educational tools. You've heard from Mr. Cox this morning that
9 the Agreement State inspectors are going out and talking with their licensees at
10 discussions for inspector -- at inspector exits and entrance meetings. Our
11 regional inspectors do the same on the material side.

12 Outreach to our workshop panelists, and these are the panelists
13 that you heard a bit about in our previous panel as well. This was the group of
14 individuals who helped us to develop the policy statement through the large
15 workshop in February of 2010. We maintain close contact with those people.
16 They've been a wealth of information for us. We do a lot of emails with them and
17 we had a teleconference last June to provide the information that the policy
18 statement had just become effective, as well as to discuss with them some of the
19 educational tools, like the case studies and brochures, and to get information
20 from their perspective on what they were doing out there, and had planned for
21 activities. Next slide, please.

22 With respect to communication, and this is outside of going out and
23 doing presentations, we have a number of vehicles just to get the word out as
24 well. Both FSME and NRR are using newsletters. FSME has been successfully
25 using newsletters to impart information to the Agreement States, and licensees.

1 NRR has used that vehicle with their inspector staff, again, to provide information
2 of expectations for licensees. We issued an agency-wide Regulatory Information
3 Summary, just this past January, in January of 2012, for all of our licensees
4 across all of the regulated communities. Again, as a vehicle just to get that
5 information out.

6 Safety culture webpage, I've mentioned that a couple of times and
7 when you go to the safety culture webpage, both internally and externally, the
8 first thing you'll see will be the Safety Culture Policy Statement. We have all of
9 the information related to the development process of the policy statement,
10 including minutes from previous meetings, Federal Register notices, the brochure
11 is on that page with a link to both English and Spanish, as well as the FRN is in
12 English and Spanish. Case studies are there with the users' guide.

13 We also have developed a safety culture blog. We had our first blog a
14 couple of months ago, really just imparting information, again, on what is safety
15 culture, and some information related to the Safety Culture Policy Statement.
16 We received 10 responses to that blog. The majority of those have been
17 positive. Next slide, please.

18 Along with our efforts with our external stakeholders here in the
19 U.S., and our licensees, and our communication tools, we've also been active
20 with other regulators across the nation, as well as international communities.
21 Both Research and NSIR are involved here in the United States, with other
22 regulators. NSIR does bilateral meetings every year with Department of Energy,
23 and I mentioned the working groups that they work on. Research is involved with
24 other regulators as well, and our international outreach has been quite extensive.
25 There has been a lot of interest.

1 In addition to Research, NSIR and NRR staff as well, going to
2 meetings, OE staff has been very involved. In 2010, before the policy statement
3 was issued, we did have a request by the State Department to provide a
4 presentation in Egypt to the regulators and licensees, and we did that. We were
5 requested a second time by the State Department to do that same presentation
6 with regulators and licensees in Jordan, and that was in 2011. We also provided
7 a presentation to regulators and licensees in Russia, and in Vienna, at IAEA
8 Headquarters, for a number of European nations.

9 And finally, we gave a presentation at a training, a two week
10 training workshop on the Safety Culture Policy Statement, to a number of South
11 African nations and European nations, at a training session that had been
12 cosponsored by Argonne National Labs, and IAEA. OE staff has been working
13 on a couple of consultancy meetings and documents with IAEA. We have
14 participated in the development of a technical document entitled, "Regulatory
15 Oversight of Safety Culture"; and we have been instrumental in actually having a
16 copy of the policy statement as an appendix to that document. That document's
17 going through the approval process right now.

18 We also worked through a consultancy meeting on the
19 development of a second document called "Continuous Improvement of Safety
20 Culture." It is for both licensees and regulators, and we have included the
21 concepts of our safety -- the case study project that we're working on, as well as
22 the safety culture blog, into that document. That's another document that is
23 going through the approval process right now.

24 And finally, we did provide some input into another report series
25 document on the self-assessment process that will be used mainly by licensees

1 throughout the world. We do continue to plan activities in the international
2 community, and there has been very positive results, and a lot of interest in that
3 arena. Okay, next slide, please.

4 Other safety culture activities, the reactor oversight process has
5 been in place for some time and the NRR staff believes that the current process
6 for both monitoring and assessing safety culture is effective within that
7 established framework. The staff continues to enhance the ROP guidance
8 documents and though the staff believes that the existing ROP already fits within
9 the framework of this policy statement, they are continuing to work with internal
10 and external stakeholders through the normal processes, to better align with the
11 language in the policy statement, and they are considering insights from other
12 industry initiatives, such as the 09-07 initiative that you've heard about from Mr.
13 Halpin this morning.

14 NRR staff has observed three of the pilots through the 09-07
15 process and has also observed the revised Nuclear Safety Culture Assessment
16 Process that was held at Hope Creek Generating Station.

17 You heard a bit about the common language effort and NRR staff is
18 involved in that effort with external stakeholders. We held the first workshop in
19 December of 2011, and we will be continuing that effort as well. The ROP has a
20 self- assessment process. It looks at all the provisions of the ROP and it
21 evaluates the performance based on metrics, established metrics. In 2006, when
22 we added the safety culture -- introduced safety culture into the ROP, those self-
23 assessment metrics were revised, so that they could measure the effectiveness
24 of the safety culture enhancements, and the metric for safety culture is the
25 perceived effectiveness of safety culture enhancements to the ROP. So, we

1 analyzed survey responses to evaluate if internal and external stakeholders
2 really believe that the ROP safety culture assessments help them in identifying
3 licensee safety culture weaknesses, and focus licensee and NRC attention
4 appropriately. That annual report is provided to the Commission each year, the
5 ROP Self-Assessment.

6 Moving on to the Construction Reactor Oversight Program, during
7 the last five years, NRO has engaged their stakeholders in with the development
8 of the Construction Inspection Program, held public meetings in 2008 and 2009,
9 to receive stakeholder feedback on that process, and the safety culture approach
10 developed for construction is consistent with the ROP methodology, including
11 cross-cutting issues, safety culture components, and aspects. NRO staff believe
12 that this approach provides their office with the means to communicate with
13 licensees about the impact of findings about safety culture at the construction
14 sites. Next slide, please.

15 So, with all of those activities on the completed side, I want to turn
16 your attention now to those activities that staff is planning. I'm going to start
17 again with educational tools. We will continue the case study project that we're
18 working on. There are several that are under development. One of those is the
19 Big Branch mining accident. So, we are working on those and they will continue
20 to be posted on the webpage for our regulated community to use. We will also
21 do any other educational tools that seem appropriate and can help the program
22 offices as we do our continued outreach.

23 With respect to presentations, the OE staff has recently been asked
24 to provide a presentation in both March and April, at the upcoming Nuclear
25 Safety and Security Group, which will inform the GA in May. They are interested

1 in the development process as well as the status of current activities related to
2 the Safety Culture Policy Statement.

3 We've also been asked in OE to provide a presentation at the
4 National Association of Employee Concerns Program Professionals and we have
5 a panel dedicated to safety culture, coming up at the Regulatory Information
6 Conference.

7 FSME staff has two events that are scheduled in May. One is the
8 Uranium Recovery Workshop at the National Mining Association Conference and
9 the second is the International Radiation Protection Association meeting. Both of
10 those, again, are in May, and FSME staff will continue with newsletters as well as
11 letters to inform their vast level of licensees and Agreement State licensees, and
12 will continue to teleconference with the Organization of Agreement States, as
13 well as the Conference of Radiation Control Program Directors.

14 As I mentioned previously, both Regional and Agreement States
15 are working with licensees through discussions at entrance and exit meetings.
16 They will continue to do that as we move forward. As NMSS staff develops the
17 agenda for the next fuel cycle information exchange, topics on safety culture will
18 likely be included and they are also planning outreach and education as
19 opportunities come up for the Spent Fuel Program. NRO and NRR staff are also
20 planning outreach, again, for conferences and workshops as opportunities arise,
21 and we will also continue to educate vendors about the policy during inspections,
22 and at public meetings, professional meetings, and conferences when available.

23 NSIR staff will continue their bilateral initiatives with the DOE and
24 will continue their meeting with the industry representatives at the two meetings
25 that I previously mentioned, emergency preparedness and nuclear security. We

1 do plan, as I mentioned before previously, additional input into international
2 documents and attending conferences. Next slide, please.

3 In addition to that outreach, when we brought the SECY up with the
4 draft Safety Culture Policy Statement in January of 2011, we provided some
5 information on the part of FSME, for some plans that they had in updating
6 guidance documents. They're in the process of doing that now and I want to just
7 touch on a few of those initiatives.

8 One of them is to incorporate the safety culture policy and traits into
9 Inspection Manual, Chapter 1248, which is really the learnings for the licensees,
10 for their inspector staff. That manual chapter is the qualification programs for
11 Federal and State Materials, and Environmental Management Programs. You've
12 heard a bit earlier, in the first panel, about the NUREG 1556 Series updates as
13 well. These are the consolidated guidance for material licenses. FSME has
14 started that process. The policy statement was not the driving factor. They are
15 being revised in any event, but this is a great opportunity to take to put in
16 information related to the policy statement, and expectations. The first volume,
17 volume two, revision one, which relates to the industrial radiography licensees
18 was in the Federal Register for comment in November of 2011, and we did do
19 some outreach to the Agreement States as well as our workshop panelists, to let
20 them know that that was out there, that they had the ability to comment. This is
21 about a three and a half year project, so it's going to take some time to get all of
22 the volumes completed, but that work has begun, and FSME staff will also
23 incorporate safety culture updates into the uranium recovery and
24 decommissioning licensing documents. Next slide, please.

25 With respect to other planned activities, you heard about the

1 common language workshop. NRR is continuing to work with external
2 stakeholders. We would like to do some continuing work based on what we have
3 done so far at the December, 2011 workshop, and we are working with external
4 stakeholders on steps forward. With respect to additional inspector educational
5 opportunities, NMSS is considering putting information related to the policy
6 statement and expectations for licensees into their inspector qualification training
7 programs. NRR is looking at the same for the research and test reactor
8 inspectors and to educate them on safety culture itself.

9 A number of other initiatives that we have, the construction reactor
10 oversight process is in a draft revisions state at this point for the assessment
11 process. It's based on the ROP assessment process, and they've begun a pilot,
12 the two programs or the two plants that the pilot will be run at is Vogtle Electric
13 Generating Plant and Virgil C. Summer Nuclear Station. NRO is working with
14 NRR staff on a common language effort as well for consistency within our
15 oversight processes here at the NRC.

16 The fuel cycle oversight process just recently received your
17 approval for the recommended option provided by the staff, for a fuel cycle
18 oversight process with cornerstones, significant termination process, a
19 performance assessment process based on that significance determination
20 process, a fuel cycle action matrix, and the cross cutting areas that are used in
21 the ROP and informed by the Safety Culture Policy Statement. With respect to
22 spent fuel storage and transportation, right now the staff is assessing the
23 inspection program for effectiveness and efficiency improvements as directed
24 through their SRM, and as this assessment proceeds and enhancements are
25 proposed and implemented, the staff may consider even further oversight that

1 maybe even something likely to be similar to the fuel cycle oversight process.

2 I'd just like to talk very briefly on some thoughts we have, on the
3 assessment of these oversight and educational activities. Our inspection staff,
4 through observations when they're doing inspections, as well as discussions at
5 entrance and exit meetings will be getting information related to safety culture,
6 and their observations. Through the ROP self-assessment process, as well as
7 the assessment process of the cROP pilot program that is going on now, we will
8 take lessons learned and determine if there are any additional activities that we
9 need to pursue beyond education and outreach, and at this point, the staff would
10 be bringing any of those activities to the Commission for your approval. Next
11 slide, please.

12 So, in summary, we've done a significant amount of outreach since
13 the policy statement has been effective last June, and we are continuing to do a
14 significant amount of outreach and education, and we will also assess the
15 effectiveness, and again, propose any new activities for approval. Thank you.

16 BILL BORCHARDT: Thanks, Diane. You know, I think it's pretty
17 clear from this morning's discussions that the policy statement has been
18 especially effective vehicle at raising the awareness and sensitivity to the entire
19 area of safety culture. Earlier this morning, we had some discussion about
20 resident inspectors in particular, and I think it's fair to broaden it to all inspectors,
21 while within the staff. And Diane talked about the training that has been
22 conducted. Just to make the linkage also to the fact that even before the policy
23 statement, there was a linkage to the Reactor Oversight Program. It specifically -
24 - the substantive cross cutting issues of safety conscious work environment and I
25 think maybe a little more loosely associated, but problem identification and

1 resolution are all very closely tied to safety culture. There is no position within
2 the NRC that is more well positioned to identify safety culture issues than the
3 resident inspector, and they have been, I think I can speak for myself, for the last
4 25 years, very sensitive to those issues, and the ROP has provided a vehicle to
5 get that more into a more clearly defined regulatory space. Having said that,
6 there's also the balance that this is a policy statement and not a regulation, so we
7 are mindful that we're not regulating safety culture as much as using it as a way
8 to inform our other regulatory activities, to make sure that safety is enhanced and
9 at the highest level possible with the licensees.

10 Diane did a very good job describing the future work that's going to
11 be done. 2012's going to be incredibly busy. We're on the alert to look at
12 additional activities that would benefit the process, and I think we have a
13 challenge to identify the linkage between safety culture and actual safety
14 performance at each of the various licensee types, and that's not necessarily an
15 easy thing in my mind to do, but we're trying to explore that as well. So, that
16 completes the staff's presentation.

17 CHAIRMAN JACZKO: Thank you, Bill, and everyone for the
18 presentations. We'll start with Commissioner Ostendorff:

19 COMMISSIONER OSTENDORFF: Thank you, Mr. Chairman.
20 Thank you all for your efforts and your leadership of the safety policy statement
21 development and the education outreach, and I think this is a very helpful
22 session. I realize this may be premature or too early in the stage, but I'll ask
23 Diane a question, and please feel free to have anybody else add in, as you
24 desire. I recognize, and this is a relatively new policy statement, are there any
25 initial indications of success from what the staff has seen by our regulated

1 licensees, that where this policy statement has had a positive impact, any
2 discrete examples?

3 DIANE SIERACKI: Okay. I would say that yes, we have had
4 indicators and some of those are really, you've heard some of them in the other
5 external panel. The fact that we have the reactor community really interested in
6 coming to the table on the common language. Their other initiatives throughout
7 their industry on the private side has shown some real interest in safety culture.
8 The Agreement States have taken our brochure and made that really unique for
9 them, so that they can use it for their -- and it makes sense that they've
10 customized it for their own use. So, I do believe that we are seeing indications of
11 some real interest. We continue to get calls. Our workshop panelists are still
12 involved and so I think from that perspective, there is still -- there's a great deal of
13 interest, and you heard it this morning from the external panelists, that they're
14 excited and interested in moving forward. Is there anyone else?

15 COMMISSIONER OSTENDORFF: Let me flush out that question a
16 bit, because I think this is going to go tie back into Bill's comments on the
17 residents. So, let me just pause it that we all agree that if a resident inspector,
18 and I'll use Billie Garde's example from the first panel, if a resident inspector
19 witnesses inappropriate behavior by a licensee and an employee with a -- I think
20 Billie's example is screaming. Is it the case -- I think this is maybe a multi-part
21 question, but if one could imagine a resident inspector observing some kind of
22 behavior, I don't care what it does, that they believe is not conducive to proper,
23 safe operation of nuclear power plant, is it the case, Bill, that that resident
24 inspector feels empowered for he or she now to maybe not as part of a formal
25 ROP type step, but just, hey, go to the supervisor and licensee, and say, "Look, I

1 saw this today. This is a problem where it didn't look right," or, "This is a
2 concern." I'm trying to get to the core of what the resident inspectors, again, part
3 of this is based on comments made on the first panel, that the resident inspectors
4 outside of formal ROP processes, feel that they have the authority or the charter
5 from the EDO, then to get involved along those lines?

6 BILL BORCHARDT: Well, yeah. Well, all inspectors, including
7 resident inspectors, have the authority to use all information that they have, and
8 do what's right.

9 COMMISSIONER OSTENDORFF: Are they encouraged to do so?

10 BILL BORCHARDT: Of course, and so what I would expect in the
11 situation that you laid out is that there would be a discussion probably with the
12 resident inspector supervisor, back in the Region, just to kind of get calibrated.
13 There is frequent interaction between the senior resident inspector and the plant
14 manager. Whoever the senior official is and the licensee's organization on staff, I
15 would expect that that would be the vehicle. The resident inspectors are not the
16 supervisors for, you know, first line supervisors in the plant. So, we would
17 clearly provide that kind of feedback into the plant organization, so that it was
18 addressed. I think the other thing that comes to my mind is that when you get
19 that kind of information on the ground, it helps inform that sample that you're
20 going to do, for the next several weeks or months, right, that if you think that
21 there's something that doesn't feel right, the resident inspectors have the
22 flexibility to tailor their inspections to maybe look a little bit more than they might
23 have otherwise, and then that would identify that linkage to safety if there's some
24 actual regulatory findings that are related to that, and then that's largely why we
25 have resident inspectors. It's that kind of interaction.

1 COMMISSIONER OSTENDORFF: That's very thoughtful and I
2 want to give you just one second, I just want to highlight that point, because, you
3 know, Ed Halpin, from the previous panel, had really good, you know, comments
4 to the Commission about things he does in South Texas in this area, and the
5 feedback loops, and so forth, and I completely resonate with what Ed said, and
6 Bill, with what you say, and I think that, you know, one will never know what bad
7 thing has been precluded by an early intervention, but if we ever have a chance
8 to preclude a bad event by having taken an early step to say, "Hey, this is
9 improper -- you know, sloppy briefing of an evolution, or poor maintenance
10 practices, that or just kind of anecdotal in a one part of the plant kind of thing, you
11 never know that there may be some very positive things that that initial
12 intervention is able to forestall or preclude. Okay, Laura, I know you were going
13 to -- please chime in here.

14 LAURA DUDES: Yeah, I just want to support what Bill was saying,
15 in my own experience as a resident inspector, as a senior resident inspector
16 under the old process and the new, that I did have that ability to raise these
17 issues early with plant personnel, with the management in the Region, and they
18 were able to be addressed by chilling effect letters and/or substantive cross-
19 cutting letters in our process. So, I think we do have those tools. So, it's just
20 confirmation of the implementation.

21 COMMISSIONER OSTENDORFF: Please.

22 UNDINE SHOOP: I would also like to add something that we've
23 seen recently is that when the residents speak back with the Regions to identify
24 concerns, if a plant has gotten into a 95002, which is column three, some of the
25 95003 inspections are -- 002 inspections include focus groups, and they will look

1 at certain sectors of the organization to see if there is an underlying problem or
2 not, as part of that inspection.

3 COMMISSIONER OSTENDORFF: Those are very helpful
4 perspectives and I think you hit, at least from my experience before coming to the
5 Commission, and I think you've hit a very key cross-cutting issue from the staff's
6 perspective, that really goes to the heart of where there is the opportunity to
7 really enhance safety through an active role by the NRC resident inspectors.

8 Andy, I want to ask you a quick question. There was a comment
9 made at the first panel that addressed, you know, potential concerns on
10 compartments, compartmentalization of safety culture here within the NRC staff?
11 I know that certainly OE has their role and leadership role there, but any
12 observations or comments you want to make in response to what the Chairman
13 made in the first panel?

14 ANDY CAMPBELL: Well, one thing is that it's important to
15 recognize that we do have different roles to play within the agency, that are
16 particular to our offices, and OE is responsible for overall leadership and safety
17 culture, but as you've heard from the presentation today and even from the
18 panelists, is that compartmentalization really doesn't preclude us from interacting
19 with one another, for sharing experiences. There's been a tremendous effort on
20 the part of Diane and the other safety culture staff, to interact repeatedly with the
21 program offices, and also with the Regions, provide training, provide information,
22 and so it's a integrated effort, not just OE does this, you know, FSME does this,
23 NMSS does that, NRO -- it is an across the board, and we participate in a lot of
24 activities that normally are indirectly related to safety culture, but we observe and
25 interact, and try and raise issues. So, it is collaborative in that sense and I, you

1 know, while I understand that we do each have our jobs, we do that in a way that
2 is, I think Bill uses the phrase interdependent, and we do it in an interdependent
3 way.

4 COMMISSIONER OSTENDORFF: Okay. Anybody else want to
5 add to that at all? John, it looks like you want to --

6 JOHN KINNEMAN: Commissioner, I'd just add that, as you know,
7 my background is not the reactor program, that in fact those kind of interactions
8 occur in the non- reactor program, where from a number of processes,
9 observations come forward to the supervisors, and both with OE and among
10 ourselves. We often have had discussions on well, here's an observed behavior.
11 Can we connect that to safety in a way that we can present it to the licensee that
12 will be convincing and will lead them to change their behavior. So I think I agree
13 with Andy and all the other comments, that there's a clear communication across
14 the various elements of the agency, even though there's a focus on safety culture
15 and OE.

16 COMMISSIONER OSTENDORFF: Thank you, John, and again,
17 thank you all for your efforts in this very important area. Thank you, Mr.
18 Chairman.

19 CHAIRMAN JAZCKO: Commissioner Svinicki?

20 COMMISSIONER SVINICKI: Well, I will thank you as well for your
21 presentations and your work on this effort. I have some maybe more specific
22 questions. Diane, I wanted to ask -- you talked about the workshop in
23 December, on the common language efforts and it's my understanding though
24 that that workshop might have occurred in December, because for resourcing
25 issues at NRC, we might have actually moved it later in the year. In terms of

1 where we stand now and we heard from the first panel about the importance of
2 sustaining our effort to bring the few remaining issues there to closure, are you
3 aware of any resource constraints that we would have in the current year, that
4 would be an impediment to continuing our common language issue resolution?

5 DIANE SIERACKI: Commissioner Svinicki, I'm going to move that
6 over to Undine Shoop, because she --

7 COMMISSIONER SVINICKI: Okay.

8 DIANE SIERACKI: This is her area and she would have to respond
9 to resources.

10 UNDINE SHOOP: We are very encouraged by the common
11 language effort. We're encouraged by the enthusiasm we see from the industry,
12 but you are correct in that we were ready to move forward with the initiative and
13 then the events in Japan happened, and that took resources. So, we ended up
14 having the first workshop in December instead, and we were moving forward to
15 complete and finalize, and work with our stakeholders to do that. The only
16 impediment that I see is that anytime you try and work with any stakeholders, you
17 want to make sure that they're all involved, and so as we move forward, we need
18 to make sure that any time that we select to have any interactions, that all of our
19 stakeholders are available, and the only other ones that may be a slight
20 impediment is that we do have a plant in column four that will require a safety
21 culture assessment, but it's my understanding that that's now been pushed back
22 to a timeframe that will have very little impact.

23 COMMISSIONER SVINICKI: Okay. Thank you. It's also my
24 experience that where we're trying to engage and bring a finite set of issues to
25 closure, that the more time there is between the engagements with the

1 stakeholders, the more difficult it will be. Often a sustained push can get you to
2 that closure and resolution sooner. So, I inquired about the resources along
3 those lines. It seems from the first panel that we're close, so I think it will be
4 productive if we can sustain that effort. So, I appreciate your answer on that.

5 I'm not certain who on the panel, or perhaps someone in the well, I
6 wanted to pursue a little bit further. We heard from Lee Cox about Agreement
7 States efforts, and he had mentioned or suggested that, you know, if we look at
8 the IMPEP evaluations, that's a way to have a very uniform approach to our
9 outreach on the policy statement with Agreement States, and then through the
10 Agreement States, with Agreement State licensees, is there anything more you
11 could talk about? Does the staff have efforts in that regard? Or are you at the
12 beginning of the engagement with the agreement states on that?

13 CINDY FLANNERY: Thank you. Yeah, there are several ways that
14 we've engaged the Agreement States. One is the revisions to the NUREG 1556
15 series --

16 COMMISSIONER SVINICKI: Okay, yes.

17 CINDY FLANNERY: -- as well as the changes to Inspection
18 Manual Chapter 1248 to incorporate safety culture. Both of these initiatives have
19 an Agreement State representative on the working groups. Also, Diane
20 mentioned the revisable brochure. Shortly after the brochure was published,
21 FSME and OE worked together on developing a brochure that could be used that
22 could be revised and used by the states to tailor to their own needs. With
23 regards to IMPEP, we're taking advantage of that opportunity where we're
24 dialoguing with the Agreement States to, again, raise awareness of the Safety
25 Culture Policy Statement, share some experiences, and find out what they're

1 doing in the Agreement States. And also we have monthly teleconferences with
2 OAS and CRCPD, which is another opportunity to provide updates on what we're
3 doing and sharing experiences.

4 COMMISSIONER SVINICKI: Okay, thank you very much. That's
5 very helpful. And I wanted to return to the issue that Billie Garde had raised
6 about, I think Commissioner Ostendorff called it compartmentalization and,
7 again, this has been addressed. Andy, you talked about it a little bit. You talked
8 about the fact that we acknowledge the Office of Enforcement has the safety
9 culture lead, but there is a lot of engagement that goes on. It's a very
10 collaborative process with the programs, but maybe I just want to ask it a little
11 more bluntly. Diane, if you're the kind of person who's doing a lot of direct
12 engagement with NRO or NRR, do you feel that when you approach them their
13 view is okay, I'm going to put on my safety culture hat because Diane's coming to
14 talk to me, but mostly that Diane's job and after that meeting is over I don't do
15 safety culture anymore? Do you ever feel that you pick up on that vibe as you
16 engage with program offices?

17 DIANE SIERACKI: Actually I don't. It's been -- they've been very
18 receptive. The people that you see at the table here are my main contacts. We
19 have a steering committee, in fact, that has members from a number of the other
20 offices that support as well from Research, NSIR and OGC, and that group gets
21 together quarterly. And so we do have support. It's -- having the lead means
22 doing most of the work, I guess, but the actual input from the program offices has
23 always been very good and at this point in time with the policy statement actually
24 being effective, they really have the lead role for their areas with their licensees
25 to do these activities and we have really come back more into a support role.

1 And that's been working very well. They have a lot of things to do and they're
2 patient with me and I'm patient with them.

3 COMMISSIONER SVINICKI: Okay, very good. I appreciate that.
4 And the last question I had wanted to inquire about was this was in some of the
5 background materials provided to the Commission for this meeting. There was a
6 discussion in an inspector newsletter about the creation of a safety culture
7 assessor qualification card. Is there someone who can speak kind of -- to me it
8 indicated that we're getting some rigor in how we're putting it into people's
9 training plans and things like that. Is there someone who could talk about this
10 qualification card?

11 DIANE SIERACKI: I'll just quickly make one statement and then I'll
12 move it over to Undine if she has something further, too. This safety culture
13 assessor card that you see now in the manual chapter was actually in a memo
14 format before, so it's really just formalized. It's not done specifically for the
15 Safety Culture Policy Statement, but it's for those inspectors who work on 95003s
16 and 02s, and if there's anything you want to add, Undine.

17 UNDINE SHOOP: I would just like to add that while we developed
18 the card specifically for our reactor inspectors, we do anticipate that there are
19 parts of it that the other program offices will be able to use as well if they decide
20 that they want to develop their own qualification card.

21 COMMISSIONER SVINICKI: Okay, thank you. Well, thank you all
22 again. Thank you, Mr. Chairman.

23 CHAIRMAN JACZKO: Commissioner Apostolakis.

24 COMMISSIONER APOSTOLAKIS: No questions, Mr. Chairman,
25 except to congratulate the staff on the great job they're doing.

1 CHAIRMAN JACZKO: Thanks. Commissioner Magwood.

2 COMMISSIONER MAGWOOD: Thank all of you for your
3 comments today and, you know, Diane, I suspect the fact that so many people
4 are so happy with this process has a lot to do with the way you've led it. So, I,
5 you know, congratulations.

6 DIANE SIERACKI: Thank you, appreciate that.

7 COMMISSIONER MAGWOOD: It's rather rare to have a love fest
8 in this room.

9 [laughter]

10 So we'll bathe in that glory while we can, so thank you for that. I
11 wanted to -- I have a couple of questions for you. I wanted to sort of bounce over
12 to Bill and Laura and Undine for just a moment on this resident inspector issue. I
13 think you covered it quite well with Commissioner Ostendorff. I just wanted to get
14 a little clarification. I did hear, and I think my understanding is consistent with
15 what you said, which is that, you know, if there were isolated cases you would
16 expect a resident inspector to take appropriate action by making comments to
17 senior management of the plant or if it becomes, and I think the way I interpret
18 what Laura said, if there's clearly a trend and there clearly is beginning to
19 become a significant issue in the way the plant's operating, that falls into a cross-
20 cutting issue, and that would deal in ROP space. So, basically it's an order -- it's
21 a magnitude issue. If it's an isolated thing it's a concern, but it's not leaking into
22 performance, it's handled more informally. If it's getting into performance it
23 becomes more formal. Is that the way they really think about this? Is that a fair
24 characterization?

25 And Ms. Garde was emphasizing the need for additional tools that

1 speak specifically to safety culture. Do you feel that there are other tools out
2 there that should be considered? I know we always assess the ROP and we're
3 always improving, but is there anything out there right now that you're aware of
4 that we should be considering, or the Commission should give thought to
5 regarding giving additional tools to inspectors?

6 BILL BORCHARDT: I don't know if Undine knows of any inspection
7 procedure updates and progress.

8 UNDINE SHOOP: As part of the Safety Culture Policy Statement
9 and then the common language effort, we will be revising the guidance
10 documents for the ROP. But if you look at the ROP as it currently is developed,
11 it's a very flexible process that actually allows us to do a lot of things and there is
12 actually one area where you can have an isolated incident, get you, you know,
13 where you have to do something about safety culture and that is the safety
14 conscious work environment cross-cutting area. You can have one incident and
15 we'll be looking very closely at your plant if you get one of those.

16 But that's -- the other ones, obviously based upon performance and
17 the underlying causal factors to things that are happening at the plant. We do
18 believe that that's a very good indicator as currently developed to inspire the
19 licensees to go and take a look at areas that may be degrading.

20 COMMISSIONER MAGWOOD: Okay, great.

21 ANDY CAMPBELL: Let me just briefly add to that that we're
22 currently developing additional guidance in the area of the chilling effect letter
23 and Lisamarie Jarriel is working and will be presenting that material at the
24 NAECP conference coming up in February. So, we are working in terms of how
25 this chilling effect -- there are processes that we've been following for years that

1 are becoming formalized in the allegations arena.

2 COMMISSIONER MAGWOOD: Okay, excellent. Thank you.

3 Commissioner -- I think it was Commissioner Svinicki had a brief discussion
4 about resources. I wanted -- have we defined or do we know now what
5 resources we expect to put into this effort in the current fiscal year in total and
6 then in the next? I mean, is there a plan -- a long-term resource plan for this
7 activity?

8 DIANE SIERACKI: With respect to the Office of Enforcement, we
9 do have dedicated resources. We have two and a half FTE. Those are also to
10 be used for the other program offices. Each of the program offices, and you may
11 have seen this in the SECY paper, feel that their current resources are sufficient
12 to continue the work that we are doing with the plans that we have.

13 COMMISSIONER MAGWOOD: I don't recall from the SECY paper
14 whether the staff actually identified how much resources each office would
15 contribute to this. Was that defined? I don't remember seeing it.

16 DIANE SIERACKI: It is not defined in those terms. You mean for
17 FTE? How much FTE? No. It was more of a blanket statement that we were
18 able to conduct the activities that we have planned with the current FTE.
19 Oftentimes for the program offices they have -- it's a part of someone's work, so
20 it's not a dedicated person, but in the Office of Enforcement we have dedicated
21 people for safety culture.

22 COMMISSIONER MAGWOOD: Right. Bill, anything you want to
23 add to that?

24 ANDY CAMPBELL: Let me just add that in developing the policy
25 statement that was presented a year ago, I think we actually spent around four

1 FTE of work and we did a lot of that by bringing in people on rotation and we still
2 rely -- OE relies a lot on people who come in on rotation, the individual working
3 on the case studies right now is on detail to OE. So we can, you know, apply
4 additional resources as needed. Within the budget process the different
5 business lines, budget for OE activities and included in those budget processing
6 we include safety culture and include that as part of what we get from NRR, what
7 we get from NRO, and so on for the different business lines.

8 COMMISSIONER MAGWOOD: Okay. Diane, what about -- I think
9 the two and a half FTEs? Was that 2012?

10 DIANE SIERACKI: Yes, and through 2013.

11 COMMISSIONER MAGWOOD: And 2013, so, okay. All right.
12 Appreciate that. A couple of specific questions for you. One is, we've -- I think
13 the chairman mentioned the big challenge is really not so much the reactors, it's
14 really more the materials, but even going a little bit even drilling down further,
15 when you think about the very small licensees, portable gauge licensees, and the
16 small industrial licensees, they're probably the most difficult to reach in this
17 process. What special efforts have been made in that direction to try to get to
18 those people?

19 DIANE SIERACKI: Just briefly and then I'll let John add to that.
20 We do -- our risk that we just issued, that would get out to some of those
21 licensees and we are watching for annual meetings and any opportunities that
22 we have that we can get together with the smaller licensees, as well as the larger
23 groups. We also maintain contact with that work group that was the panelists
24 from February of 2010, and they represent all of that community, so we've got
25 those lines of communication open as well so that we can take advantage of

1 opportunities. John.

2 JOHN KINNEMAN: Actually, while this used to be my area, now it's
3 Cindy's, so I'll let Cindy answer that.

4 [laughter]

5 CINDY FLANNERY: I was just going to say besides the dialogue
6 during inspections, we're also doing some work with industry. For example, the
7 organization American Portable and Nuclear Gauge Association has indicated
8 plans to share information with the portable gauge licensees, for example, with
9 their next newsletter. They're going to be providing NRC safety culture brochure,
10 as well as volume 1 of NUREG 1556, and the timing of that distribution will
11 coincide with when volume 1 goes out for public comment, which is due in a
12 couple of months. So we're facilitating the process of working with industries to
13 also share information.

14 COMMISSIONER MAGWOOD: What's your confidence that we're
15 reaching those people? I know the activities are going on, but do you have any
16 way of, at least on an anecdotal basis, to get a sense as to whether those
17 licensees are getting, absorbing, implementing, based on what you're doing?

18 CINDY FLANNERY: Yeah, I mean, you know, we're receiving
19 support of the policy statement and there are certainly indicators that it's reaching
20 licensees and resonating with them. We have received some feedback that -- of
21 plans to post information, of plans to provide training, but you know, of course for
22 some of these smaller licensees, you know, they're going to be hearing about it
23 for the first time from these inspections. So there's really quite a variation in
24 terms of level of awareness when we interact with them.

25 COMMISSIONER MAGWOOD: Okay, great. Thank you. One last

1 question, Diane. You mentioned the international outreach that's going on. You
2 know, one of the things that I think certainly I've seen over many years and
3 others have as well is that safety culture is part of culture. And as you go into
4 different cultures, communicating these issues becomes an interesting exercise
5 and I wondered from the outreach you've done so far, do you have any
6 observations or thoughts about the international aspect of this and how we
7 communicate and whether we're on the same wavelength of the other countries.

8 DIANE SIERACKI: Actually, my experience has been that there
9 has been a high level of interest and understanding. I think the only presentation
10 I did that they were really not on the same page was Russia. They have one
11 owner and they have 10 units and they just completely think about safety culture
12 differently than we do. But other than that, I think it's been very -- it's been a
13 positive experience and I think the new documents that we're working on that will
14 reach all of these member nations are very significant. These are documents
15 that they've never looked at before. Continuously improving safety culture has
16 never been touched before. So I think it shows that it's really in the forefront and
17 it may be Fukushima and it may be some of the other things that have happened
18 recently, but it's really -- safety culture is really getting a lot of attention.

19 BILL BORCHARDT: Just based on our involvement in the
20 Convention on Nuclear Safety, there's worldwide acceptance of the importance
21 of safety culture and there's some -- there's some differences between countries.
22 I think we're probably further down the road in giving definition to what needs to
23 be done. I think a lot of countries are looking to us to pave the path for
24 something that they could implement, but there is universal agreement about the
25 uniqueness of the nuclear industry, of the work ethic, and the required safety

1 culture to make it safe.

2 COMMISSIONER MAGWOOD: Okay, appreciate that. Thank you.
3 And thanks to all of you for all the work you've done in this area.

4 CHAIRMAN JACZKO: Well, thank you, everyone. The only
5 question I would ask is similar to the question that I asked the previous panel is
6 what are we doing and what do we need to be doing to make sure that 10 years
7 from now, five years from now, whatever the timeframe is, that these things that
8 we're talking about today are engrained and implemented in an effective way and
9 probably even built on and enhanced as we learn? Whoever wants -- Diane, if
10 you want to start.

11 DIANE SIERACKI: I'll begin. I think with the oversight processes
12 that we have in place, you know, certainly the ROP and now the cROP and the
13 fuel cycle oversight process, that will keep that in the forefront, because we'll
14 have it very visible. On the Agreement States side with the guidance documents,
15 now that it's going into the NUREGs, those don't just get put on a shelf. That'll be
16 something that is out there as well. And I think if you look back on the policy
17 statement for safety conscious work environment when we brought that out back
18 in 1996 when that was, that was a policy statement, too, that could've ended up
19 on a shelf and it really permeated all of the organizations. And we have
20 regulations and we have ECP programs at every station, and I think if you keep
21 this out in the forefront and we continue with this dialogue and education and get
22 people to embrace it, it will sustain itself.

23 ANDY CAMPBELL: I think that two key things we have to keep
24 doing is pushing out to the community that we regulate and emphasizing safety
25 culture and as things evolve pushing more of that material out, and then

1 assessing through inspectors, really, as well as other observations and coming to
2 and understand, is it working? Is it not working? Do we need to do things
3 differently? And then consciously moving ahead with if it's not working in one
4 area is there something we need to do to address, either change our guidance,
5 change our regulations, if possible, you know, those kinds of things. But I think
6 at this point we're eight months out from the issuance of the policy statement. It's
7 probably going to be several years before we can come to those kinds of
8 conclusions.

9 CHAIRMAN JACZKO: Okay. Well good. Well thank you for that
10 and I think as you go forward I certainly expect that you will come forward if there
11 are, in addition to the education and outreach activities, other things that you
12 think you need to do and if you do feel constrained by previous direction, I would
13 expect that you would let us know and give us some proposals to how to change
14 it. So again, I want to thank you all for the work that you've done and the work
15 that you will do in the future to continue with this effort. So I think there's a lot to
16 do.

17 COMMISSIONER SVINICKI: Mr. Chairman, I just wanted to
18 observe that it's wonderful that there's this much interest, but I don't think -- in
19 safety culture, but I don't think people realize the meeting started at 9:00.

20 [laughter]

21 CHAIRMAN JACZKO: I think -- no, I think that's a good point and I
22 think it was strategic of us to place this meeting right before, I don't know we're
23 doing something afterwards.

24 COMMISSIONER SVINICKI: I think so.

25 [laughter]

1 CHAIRMAN JACZKO: It's not lunch.

2 ANDY CAMPBELL: Mr. Chairman, I would like to acknowledge
3 from the safety culture staff and from all of us in OE and anybody who worked
4 with Eric, what a tremendous person he was. He wasn't just a tremendous
5 worker and extremely knowledgeable, but just a wonderful person and he really
6 changed the way we interacted with people, everything from participating in
7 inspections in Region II that were very difficult involving safety culture issues to
8 producing some of these brochures and posters, and always doing it with a
9 smile, and we do miss him.

10 CHAIRMAN JACZKO: Well, thank you for that and I think that's a
11 very nice tribute from you, as well as from Billie and others earlier. It's just a
12 testament to his work, so thank you for that. And again, I want to thank
13 everybody for their work on this and the work, as I said, that will need to be done
14 still and we'll -- we'll adjourn now, reconvene at 12:05 and have our affirmation
15 then. Thank you.

16 [Whereupon, the proceedings were concluded]