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UNITED STATES NUCLEAR REGULATORY COMMISSION
BRIEFING ON THE STATE OF THE NUCLEAR REACTOR SAFETY

PROGRAMS

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TUESDAY

March 17, 2009

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The Commission convened at 1:30 p.m., the Honorable Dale E. Klein, Chairman
presiding.

NUCLEAR REGULATORY COMMISSION

DALE E. KLEIN, CHAIRMAN

GREGORY B. JACZKO, COMMISSIONER

PETER B. LYONS, COMMISSIONER

KRISTINE L. SVINICKI, COMMISSIONER

1 PANEL 1: NRC STAFF

2 WILLIAM BORCHARDT, Executive Director for Operations

3 BRUCE MALLET, Deputy Executive Director for Reactor and

4 Preparedness Programs, EDO

5 MARK SATORIUS, Regional Administrator, Region III

6 ERIC LEEDS, Director, Nuclear Reactor Regulations

7 MICHAEL JOHNSON, Director, Office of New Reactors

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

2 CHAIRMAN KLEIN: Good afternoon. It seems like we just did this
3 yesterday.

4 MR. BORCHARDT: We did.

5 CHAIRMAN KLEIN: Well, we have two very important programs to
6 discuss today. We have NRR and NRO. One is responsible for maintaining the
7 safety and security of the existing fleet and the other one is for safety and security
8 of the new fleet. So, we look forward to hearing a lot of activities.

9 I'd like to compliment both areas on two activities. One is, I think, both
10 organizations have gotten more efficient with no compromise on safety, which is
11 one of our main focuses on safety. And then the other is the fact that we're getting
12 to closure on some longstanding issues, like fire protection has been out there for
13 a while.

14 So, I think we're making progress on several fronts. So, we look forward to
15 hearing from both of these exciting programs today.

16 Any comments before we start? Bill, do you want to begin?

17 MR. BORCHARDT: Thank you, Chairman. Go to slide two, please.
18 You saw this same slide yesterday. And as you noted today's briefing is on the
19 two business lines of operating reactors and new reactors.

20 While there's a high level of resources allocated to these two areas in some
21 respects it's a little simpler I think than yesterday's briefing in that there's a smaller
22 range of stakeholders. There's maybe some more issues that need to be dealt

1 with, but we have essentially one type of licensee and that's generally a well
2 experienced nuclear operating generating company. So that in some respects
3 makes our life a little bit simpler.

4 It's also a program that has reached a certain maturity and stability.
5 Reactor Oversight Program has been in place -- we're approaching 10 years now
6 and it continues to be refined and improved and we're going to have future
7 Commission meetings in a few months regarding the Agency Action Review
8 Meeting and the Rector Oversight Program overview. I think it's largely a
9 successful program.

10 With that in mind the challenge we're giving ourselves for this coming year
11 is to reach closure on a lot of these issues that have been around for many, many
12 years and that is going to be our emphasis. We've engaged the industry.

13 In fact, the industry has recently provided a white paper with a proposal of
14 some ideas on how we can reach closure. A very important element of, I think,
15 reaching closure is defining what success is before you even begin the project. I
16 think maybe that is something we haven't always done as good a job of.

17 You'll see an increased emphasis on that activity at the front end to decide
18 what are the criteria for closing out an issue and to have a finite program in mind
19 before we get started.

20 It may well be that we'll complete that and have to reopen a very closely
21 related project after that, but I think we want to develop the habit of making
22 regulatory decisions based on the best technical information that we have and

1 then moving on. And so, it's that idea of reaching closure for both of these
2 program areas that we want to focus on over the next year.

3 Having said that I'll now turn it over to Bruce who's going to lead us through
4 the agenda and some opening comments.

5 MR. MALLET: Good afternoon, Chairman and Commissioners
6 Jaczko, Lyons and Svinicki. It's my privilege here to present to you what we
7 consider a look forward in the areas of operating in new reactor programs in the
8 agency.

9 Before I start I would like to acknowledge many of the people we have in
10 the audience today: the office directors and deputy office directors. From here we
11 have Chuck Casto here from Region II. Of course, we have Mark Satorius with his
12 debut here at the table from Region III. We have Victor McCree from Region
13 II and I think I said Chuck Casto, Region II, it's Region IV. Sorry, Chuck.

14 And then we have Roy Zimmerman behind me. We have Brian Sheron,
15 Jim Lyons and Cindy Carpenter. I think you'll see like yesterday's briefing many of
16 these offices are supporters and contributors to this program, not just the people at
17 the table here. If I could have slide three.

18 We are going to -- on the agenda -- the plan is to go through three topics:
19 operating reactors, new reactors and infrastructure and organizational needs.
20 There are a number of other Commission briefings that we've conducted this
21 year -- last year and we plan on conducting in the remainder of this year that will
22 go into some of these topics in more detail than we will go through today, such as

1 the Agency Action Review Meeting that's coming up later on this year. If I could
2 have slide four.

3 As we go through each area we will focus on three primary items: our
4 accomplishments, priorities and potential policy issues. We have made significant
5 accomplishments and I appreciate, Chairman, you recognizing some of those
6 since we briefed you a year ago.

7 Most importantly, I believe you will hear we have improved safety and
8 security in a number of our facilities in the United States through our aggressive
9 inspection programs and through our response to events.

10 I'm also encouraged as Bill said that we have moved towards closure on
11 some of the longstanding items that we mentioned last year as one of our goals.

12 These are dynamic times and I'm quite proud of the staff that we have that
13 have contributed and adjusted to changes to see that our work is done even to
14 complete the emergent work. We cannot report on the accomplishments we have
15 today without the hard, diligent work of all those staff in both these areas that have
16 worked and been dedicated to see that the job is done right.

17 We do have some challenges and you'll hear about those as we go through
18 some of the priorities as we speak to the priorities and policy issues we have for
19 the Commission. So, I'll turn it over to Mark Satorius who's going to start us out
20 with operating reactors.

21 MR. SATORIUS: Thanks, Bruce. If I could have slide six, please.

22 Good afternoon Chairman and Commissioners. Timely agency response to plant

1 events is critically important to our safety mission. In 2008, the Regions and
2 headquarters staff responded to a number of natural phenomenon, such as
3 seismic events, floods, hurricanes, tropical storms, as well as actual events at the
4 plant. We utilized these events and our drills that we have performed to work on
5 improving our emergency response capabilities.

6 After each of these drills or events we formally record the results of them in
7 an After Action Report that is sponsored by the Office of Nuclear Safety and
8 Incident Response. These are pored over to identify strengths and weaknesses in
9 areas that we need to concentrate on as we move forward. These are done for
10 both drills and actual events.

11 For those areas that need significant focus such that we nail them dead, the
12 office has also created in this last year a corrective action program where issues
13 are formally documented and followed for resolutions such that we can improve
14 those areas as we move forward.

15 So, as we move forward we need to continue to build on our successes to
16 maintain a reactive and highly trained staff to quickly respond to events and
17 continue to implement the After Action Reports and further development of
18 incident and corrective action programs.

19 The Regions continue to focus on the implementation of the Reactor
20 Oversight Process in order to successfully perform safety inspections in 2008 and
21 the baseline inspection program was implemented at all reactors and ensured the
22 agency maintained the appropriate level of oversight at these facilities.

1 The ROP maintains the right inspection focus through biannual realignment
2 efforts, which one is currently underway as we speak where we use that as a
3 forum for collaboration of inspection results and adjusting the inspection program
4 as necessary to ensure that we keep the right focus on the right areas of reactor
5 inspection as we move forward.

6 In addition to the baseline we also use supplemental inspections for those
7 plants that are in Columns 2 through 4. The agency's oversight of the reactor
8 facilities also is focused on special inspections and augmented inspections in
9 accordance to Management Directive 8.3.

10 Utilizing Temporary Instructions is a manner that we focus on specific plant
11 issues. For example, a recent TI that was performed this year was TI-166,
12 pressurized water reactor containment sump blockage, which was initiated to
13 resolve a generic safety issue involving the sumps remaining clear during
14 significant events.

15 So, as we move forward here the staff continues to focus on implementing
16 the ROP while seeking to optimize its focus based on emergent issues in industry
17 performance.

18 Communications and use of operating experience tools has been effective
19 and informing. The ROP inspections and coordination between the Regions and
20 the program offices has proven beneficial in ensuring consistent understanding of
21 technical issues and implementation of inspection requirements.

22 As far as oversight assessments just this February the regions completed

1 the end of cycle plant performance meetings with active participation from the
2 Office of Nuclear Reactor Regulation and Regional staff.

3 One of the stresses that we have is to focus on consistency and by
4 benchmarking prior to the meetings with other Regions and benchmarking with the
5 program office to ensure that we have it right from an oversight perspective.

6 These assessments along with the use of crosscutting issues provide
7 additional insights into licensee performance and assist us in ensuring that
8 licensee weaknesses are understood and resolved early before these manifest
9 themselves into larger problems.

10 As we move forward we continue the refinement of staff guidance with
11 respect to substantive crosscutting issue criteria and continue interactions with
12 external stakeholders.

13 With that I'll turn it over to Eric.

14 MR. LEEDS: Thank you, Mark. Good afternoon, Commissioners,
15 Mr. Chairman. Let me continue with accomplishments in operating reactors. Next
16 slide, please.

17 The staff has continued our practice of completing technically sound
18 licensing reviews in a timely manner. We literally complete hundreds of licensing
19 actions each year. A couple of examples. We completed our review to allow the
20 Susquehanna plant to increase its power output by 13% insuring it could be done
21 safely and completing the review within 12 months of the staff's acceptance of the
22 application.

1 Another example. We completed an extensive review of all necessary
2 licensing issues to support TVA's request to complete the licensing of the Watts
3 Bar Unit 2 plant. The staff has reviewed the record from the mid-1980s including
4 all regulatory activity since then and we've clearly established the safety envelope
5 of all remaining items that TVA must address. We issued our findings in a publicly
6 available report, NUREG-0847 Supplement 21.

7 We continue to focus our regulatory decision-making on our strategic goals
8 of safety and security. For example, the staff found that the licensee's initial
9 submittal to modify the Point Beach auxiliary feed water system was inadequate.
10 The licensee has since proposed a much more robust modification that it plans to
11 submit an extended power uprate.

12 With regard to security, following an episode of inattentive security officers
13 at the Peach Bottom facility the staff has enhanced its process for involvement of
14 the resident inspector staff in security oversight and we strengthen the agency's
15 allegation process.

16 The staff has also continued to improve its use of operating experience,
17 specifically incorporating operating experience into our inspection program that
18 Mark mentioned through the use of smart samples, building on industry -- building
19 on inspection findings to focus the inspector's attention and providing generic
20 feedback to the industry on problems found at specific sites.

21 In addition we've reached out to the international community to share --
22 both give and receive -- operating experience. We're currently Vice Chair of the

1 Nuclear Energy Agency Subgroup on Operating Experience and we've shared our
2 system with the European Union and several individual countries including the UK,
3 Sweden and Finland. Next slide, please.

4 This past year we completed several high priority rulemakings including a
5 rulemaking that requires all new facilities to assess the effects of large commercial
6 aircraft impacts. We also completed a comprehensive review of 10 CFR Part 73
7 on security.

8 The update of our security regulations reflects the post-9/11 environment
9 and applies to both current and new reactors. The regulatory guidance to support
10 implementation of this rule is in its final draft.

11 The staff has made significant progress on a number of challenging and
12 complex technical issues, including GSI-191 on containment sumps,
13 implementation of digital instrumentation and control systems and improvements
14 to fire protection at nuclear power plants.

15 We have Commission meetings scheduled to discuss digital
16 instrumentation and control and fire protection in the next couple of months, so
17 unless you have specific questions I won't take our time on those issues today.

18 We've also made significant progress on implementation of integrated
19 response planning and security based exercises at the commercial nuclear power
20 plants. This has been a voluntary industry initiative in response to the staff's
21 bulletin issued in 2005 to update emergency preparedness to reflect the realities of
22 the post-9/11 environment.

1 We've completed hostile action based exercises at 41 sites and we plan to
2 complete the last 24 sites during this calendar year. Proposed rulemaking to
3 codify the periodic conduct of hostile action based exercises is expected to be
4 completed in 2010. Next slide, please.

5 Now, moving into our priorities for the next several years. Our focus will
6 remain on maintaining the safety and security of the operating fleet. We plan to
7 leave our baseline reactor oversight program in place for consistency while
8 incorporating improvements and lessons learned in our quest for excellence.

9 Planned improvements include incorporating insights from our safety
10 culture initiative, implementing improvements to the Mitigating Systems
11 Performance Index based on lessons learned, revising guidance to integrate
12 traditional enforcement outcomes into the assessment process.

13 We've added security enhancements based on recent force-on-force
14 program changes and included security insights gleaned through our operating
15 experience program.

16 We also plan on completing a number of complex technical issues. These
17 include closure of our review for managing gas accumulation in emergency core
18 cooling systems. This effort has had a direct impact on improving safety at the
19 operating facilities as the licensees have found and are fixing conditions that could
20 lead to gas intrusion into emergency core cooling systems.

21 We're also stabilizing the fire protection regulatory infrastructure. We've
22 closed the Hemyc fire barrier issue and will complete infrastructure products for

1 implementation of National Fire Protection Association Code 805.

2 Another priority going forward is addressing material aging issues. We're
3 continuing work on characterizing reactor vessel material toughness properties in
4 relation to ensuring vessel safety in the event of a pressurized thermal shock
5 scenario.

6 The staff is working with industry to develop an aging management program
7 for pressurized water reactor vessel internals. For dissimilar metal butt welds the
8 ASME committee has developed inspection requirements to address cracking in
9 alloy butt welds in response to a request from the staff.

10 Also, we're working on studies to validate the effectiveness of methods
11 industry is using to mitigate welds that are susceptible to cracking. We're also
12 interacting with industry on qualification of methods used to inspect mitigated
13 welds.

14 And finally, we've approved the use of polyethylene piping to replace safety
15 related buried steel service water system piping at two reactor sites. Now we're
16 working with the ASME Code Committee to develop acceptable requirements for
17 other safety related applications of polyethylene pipe. Next slide, please.

18 We've completed the first integrated pilot comprehensive exercise and
19 expect the Department of Homeland Security to disseminate the after action report
20 to stakeholders for review and comment later this month.

21 We've agreed with our federal partners to conduct additional exercises and
22 we'll work with the applicable state and local law enforcement authorities to

1 determine sites and content of the integrated exercise -- response exercises.

2 We will continue to implement key rulemakings, such as Part 26 on fitness
3 for duty, the aircraft impact requirements and the Part 73 security requirements.

4 The staff is working to complete regulatory guidance to support implementation of
5 all these rules. Next slide, please.

6 This brings me to potential policy issues going forward. The staff recently
7 submitted a paper to the Commission on the update of the Generic Environmental
8 Impact Statement for license renewal. The update revises our approach to
9 reviewing environmental impacts from the perspective of the resources impacted --
10 the water, air, land and biota -- as opposed to our previous 1996 Generic
11 Environmental Impact Statement which assessed impacts from the perspective of
12 the power plant system, such as the cooling towers or the transmission lines.

13 In the area of regulating new technologies we're particularly focused on
14 isotope production to support the medical industry. The NRC has been
15 approached by several entities with new and innovative methods for the
16 production of isotopes which could lead to policy issues regarding licensing and
17 waste classification.

18 Although it's not on my list of bullets, I just want to mention that the staff is
19 looking forward to receiving the Commission's SRM on the research and test
20 reactor renewal process and we continue to explore options to make the process
21 more effective and efficient while maintaining our safety responsibilities.

22 And finally, the staff has an emergency preparedness rulemaking proposal

1 before the Commission which codifies post-9/11 protective measures and would
2 amend licensee emergency plan requirements based on the staff's review and
3 update of the emergency preparedness regulations and guidance.

4 With that, I'll turn the presentation over to Mike Johnson to discuss new
5 reactor issues.

6 MR. JOHNSON: Thanks, Eric. Good afternoon, Chairman,
7 Commissioners. Since the State of the Technical Programs Brief that was
8 conducted last year we moved solidly into production. Over the last year we've
9 received the bulk of the Combined License Applications that we expected to
10 receive. We've completed acceptance reviews for 17 applications received and
11 we've issued schedules for more than half of them and those schedules are
12 available on our external Web page.

13 We've completed Phase I of a six-phase review process with five of 17
14 combined license applications and two of the design certification applications.
15 We've completed Phase I of a four-phase process for 6 of 17 combined license
16 applications. We've issued the final Environmental Impact Statement and the final
17 Safety Evaluation Report for the Vogtle early site permit. And I should note that
18 the reviews we have conducted to date have been thorough and we've met all
19 external scheduled commitments to date within the NRC staff's control.

20 Regarding construction, we've made significant progress in the last year in
21 ensuring that the construction inspection program will be ready. With the close
22 involvement of our Regional colleagues we've issued the majority of inspection

1 procedures required to support new reactor construction.

2 We will have completed all the non-ITAAC and the programmatic inspection
3 procedures that are initially needed to support construction by September of this
4 year with specific emphasis on quality assurance and security programs. And
5 we've implemented the Construction Inspection Information Management System
6 and it is ready for our use in terms of documenting inspections.

7 Regarding vendor inspections, the infrastructure needed to support vendor
8 inspections is already in place including the management -- excuse me, the
9 inspection manual chapter that we use to document the inspection results.

10 We're implementing vendor inspections at vendors who are fabricating long
11 lead components and those identified as key suppliers of reactor components.
12 We've conducted 11 inspections in 2008 and we have conducted three inspections
13 thus far in 2009.

14 We'll be briefing the Commission on the vendor topic later this year, in fact,
15 in June. Next slide, please.

16 Of course, an important aspect of our activity is providing for stakeholder
17 awareness and involvement, including but not limited to involvement that is
18 specifically prescribed by regulations. We've conducted 11 public outreach
19 meetings. We've conducted 13 environmental scoping meetings over the last
20 year.

21 We've held numerous public meetings with applicants, both individually and
22 with the Design Center Working Groups. We've conducted 14 well-attended

1 public meetings on various topics such as construction inspection program and
2 vendor inspections, including a very successful vendor inspection public workshop
3 that was conducted at the end of last year in 2008.

4 We are strengthening our interface with our federal partners including the
5 Federal Emergency Management Agency and the U.S. Army Corps of Engineers.
6 And in general I should note that the results from our efforts to engage external
7 stakeholders to date has been positive.

8 Regarding international, we've developed far reaching international
9 relationships with regulators in other countries who are pursuing nuclear projects.
10 These relationships are based on our shared strong desire to continue to maintain
11 reactor safety worldwide.

12 We focus our discussions on regulatory infrastructure, design reviews,
13 vendor manufacturing, construction activities and other related areas through
14 beneficial programs, such as the Multinational Design Evaluation Program.

15 Regarding construction, we've established rapport with the key regulatory
16 counterparts across the globe. We're in the process of licensing and overseeing
17 construction of new facilities enabling the timely sharing of construction
18 experience.

19 We've performed -- as the Commission is well aware -- several successful
20 inspections of foreign vendors, cooperated with international regulators in joint
21 parallel inspections, and exchanged staff. For example, our regulatory
22 counterparts have accompanied us on inspections of facilities in their countries

1 and they've also accompanied us in inspections within the United States at vendor
2 facilities.

3 We've conducted parallel inspections with the Korean regulator. We've
4 sent an inspector to observe activities in Finland and in Taiwan, for example, and
5 we're hosting a member of Japan's regulatory agency for a one-year rotation as a
6 part of efforts to share experience on licensing and inspection of new reactors.

7 Next slide, please.

8 Looking forward with respect to priorities. Moving forward, a major portion
9 of our work and our focus is on conducting licensing reviews. Our ability to
10 conduct licensing reviews in accordance with our plan really depends on our ability
11 and the applicant's ability to communicate frequently and effectively, to identify
12 and to resolve issues and to manage to establish schedules.

13 Regarding the resources to support those reviews, in prior years we've
14 requested and received sufficient resources to begin the review of all new reactor
15 applications. Our experience to date has been that review schedules that were
16 established at the onset have been shifting out.

17 At the same time other schedules within the program such as -- other areas
18 within the program such as construction and vendor inspection, operator licensing
19 and Next Generation Nuclear Plant continue to grow.

20 With the almost certain prospect of flat budgets in the new reactor program
21 in the future it's clear that resources that we had planned to devote to licensing
22 reviews must decrease.

1 We're responding to this challenge by focusing on those projects that are
2 expected to have the highest likelihood of success in licensing and constructing
3 and operating a new reactor in the near term and we'll need to sequence the
4 timing of the other reviews who look at longer timeframes, if you will, to ensure that
5 we have those resources to provide that focus on those folks who are going to be
6 ready first to proceed.

7 This is consistent with the Commission's policy regarding factors to
8 consider when making resource allocation and schedule decisions for new reactor
9 licensing activities.

10 Regarding the second bullet on this slide, of course, the complicating factor
11 in our planning has been the continuing changes in applicants' plans. We'll need
12 to, as we go forward, quickly adjust to ensure that we are ready to make the best
13 use of our available resources. That will require that we communicate closely with
14 current and future applicants regarding their plans for licensing and construction.

15 And finally, on this slide we'll continue to establish capabilities for
16 conducting reviews of advanced reactors. A major focus is on the Next
17 Generation Nuclear Plant or NGNP sponsored by the Department of Energy. It
18 involves the design licensing construction and operation by 2021 of a gas cooled
19 hydrogen production or electricity generation reactor prototype.

20 We will conduct pre-application reviews of NGNP beginning in 2010. We'll
21 also conduct -- continue to focus modest resources on building our infrastructure
22 to support other advanced reactor technologies that seem likely.

1 And I should note that the Office of Research plays a major role in the
2 review of advanced reactor designs that are currently working to develop and to
3 implement research activities to support computer codes and models and other
4 technical infrastructure development needed for licensing review of the Next
5 Generation Nuclear Plant prototype reactor. Next slide, please.

6 NRO and Region II will be ready to support construction oversight activities
7 in 2011 as well as the necessary oversight of construction work conducted under
8 Limited Work Authorization and construction of modules. We'll continue to
9 collaborate to complete all ITAAC inspection procedures and non-ITAAC
10 inspection procedures that will be initially needed to support construction.

11 As directed by the Commission we continue to engage with stakeholders as
12 a part of our efforts to reconsider the construction assessment process including
13 opportunities to include the more objective, I should say, parts of the ROP
14 including performance indicators and also the significance determination process.
15 We'll propose options to the Commission later this year regarding that.

16 Finally, regarding staffing. We are planning increased staffing in the Region
17 II Center for Construction Inspection over the next two years to support
18 construction to again be sure that we are ready as we move forward.

19 As I mentioned the vendor infrastructure is in place. We'll continue to
20 implement 10 to 12 vendor inspections per year to provide the necessary oversight
21 of the industry's efforts to ensure that the quality of components that are supplied
22 is commensurate with the safety significance. In the years 2011 and beyond we

1 plan to increase that number of inspections to 15 inspections per year.

2 We will continue to develop the engineering design verification inspection
3 process and guidance and we will continue to engage Agency stakeholders
4 including our international colleagues in implementing and refining the vendor
5 inspection program. Next slide, please.

6 Finally, I'll touch on two policy issues that we certainly plan to bring before
7 the Commission. The first, we've begun a process of considering whether the
8 current guidelines for the use of quantitative risk estimates in our licensing and
9 overnight processes will need to be revised for new reactors given they are
10 expected to have far lower estimated risk than currently operating plants.

11 We sent a memo to the Commission describing various options on
12 February 12th of 2009. We've begun to engage with external stakeholders. We
13 conducted a meeting on February 18. We'll conduct other outreach activities and
14 consider the comments and input that we receive. We will provide a policy paper
15 to the Commission with options and a recommended approach on this issue going
16 forward.

17 And finally, with respect to advanced reactors we're in the process of
18 identifying and defining and prioritizing a policy and key technical issues related to
19 advanced reactor designs including issues applicable to the high temperature gas
20 reactors -- cooled reactors and small light water reactors with the intent of
21 addressing them over the next several years. The Office of Research will play a
22 key role in conducting the research to support resolution of the technical issues.

1 As the staff's understanding of the advanced reactor designs matures and
2 the results of the testing is analyzed and is available we'll propose resolutions to
3 policy issues for Commission consideration. We expect to issue a paper this year
4 identifying policy and key technical issues that we'll be bringing forward to the
5 Commission for resolution.

6 With that, I'll turn it over to Bruce.

7 MR. MALLETT: Thank you, Mike. If I could have a slide 18, please.
8 Since certain parts of our organization are supported by significantly infrastructure
9 issues and they're vital to our success we wanted to go over a few items in this
10 area, even though Darren Ash will talk further about corporate management at the
11 next briefing with you in April.

12 I would start out by thanking you all for your support of the project group
13 that you've helped us arrange for the advanced reactor program under, now, Mike
14 Mayfield. I think that's been essential on us being able to adjust to challenges and
15 emerging issues in that area.

16 I want to mention two areas since last year. I indicated challenges for us in
17 the area of training on new technologies and in continuing our enhancements for
18 integrated incident response program.

19 Since last year in the area of training we have new technologies. We have
20 provided training on digital instrumentation and control. We've trained in our
21 Incident Response Center in teams. Many of you have participated in those
22 teams. I think all of you have.

1 We also added scenarios to our training and incident response on different
2 scenarios and not always training for the major disaster in what we call a graded
3 scenario approach.

4 Our training center is very proud, they've established new courses in new
5 reactor designs. Some of them are ongoing this month and many people have
6 been enthusiastic about taking those and learning the differences between the
7 current operating fleet and the new reactor technology designs.

8 In the Office of Nuclear Reactors they've also established a special training
9 program for summer hires including an augmented reactor concepts course. I'd
10 be remiss if I didn't mention the Office of Research under Brian Sheron who has
11 also provided a special training program for people that have not been in the
12 nuclear field to teach them about the nuclear technology. That's received great
13 rave reviews from the people that participated in that training class.

14 With regard to the incident response upgrades we've made several since
15 talking to you last year. As far as our emergency response data system we have
16 upgraded, finished in 2008, all the parts of the system that need to be upgraded
17 for NRC. We're now working on a pilot to work on the communications and
18 upgrades at the licensee facilities. We anticipate those will all be done in 2009
19 and 2010 time frame. With that, we will have moved ERDS from a 1990 system
20 into the modern age. I wish I could say the same for myself.

21 We also issued a regulatory issue summary and we're in the process of
22 issuing another one to licensees. I consider this emergency incident response

1 upgrade to where we talk about the kinds of information we're asking them for and
2 that we will ask them for during an event or an exercise. That's proved very
3 valuable in understanding both organizations; what are the key issues we're
4 looking for on that.

5 I would also mention we have brought on operations officers with significant
6 industry experience. That's another upgrade, we believe, to our incident
7 response. We've all benefited from the HOO Highlights that we put out this year. I
8 think that has helped us get a quick understanding of the events that are reported.

9 And the last but not least we have worked on Operation Center
10 modernization and I think the first exercise -- Chairman, I think you're participating
11 in here in April -- we're going to use the Web Emergency Operation Center
12 software and that's where all Regions and stakeholders will have input into that
13 system. I think that's a significant enhancement. If I could have the next slide on
14 slide 19.

15 We do have several priorities in the infrastructure area that we're working
16 on and will work on in the periods 2009 through 2011. The first one is maintaining
17 our skills inventory. The staff talked about that yesterday in your briefing and we
18 also feel we have to maintain that.

19 Some of the things we're doing. We have focused hiring in key disciplines
20 like metallurgy or Digital I&C. Use of the Knowledge Center is helping us in
21 understanding our lessons learned and maintaining knowledge transfer. If you
22 haven't tried it yet, if you go to the Knowledge Management Center you can click

1 on actual training courses and have the speaker there and the slides. It's quite a
2 good knowledge lesson to tap into and easy to do. Even I can do it.

3 We also have issued incentives this year for recruiting in specialized areas
4 and we've established resident inspector pools in each of the Regional offices to
5 help us out in that area.

6 With regard to maintaining incident response capabilities I mentioned some
7 of the things we've been doing. I'll re-highlight that we practice in teams. I think
8 that's been very beneficial to us in headquarters and the Regions in establishing
9 some continuity.

10 We continue with upgrades and most important we're providing tools to the
11 people such as new facilities in the offices that are moving like Region III. Mark
12 and them are working on a new incident response complex and Elmo Collins in
13 Region IV will have a new design when his office moves. And so will Region
14 II when they move later on this year.

15 With regard to lessons learned feedback. This is vital to our learning and
16 improving our performance to have a lessons learned program and how you obtain
17 that feedback. If we are pro-active in this area we will not keep that memory of
18 things and learn from it.

19 Some steps we're taking in this area. Each of the Regional offices have
20 value-added findings. If you go to the Region III Website, for example, you can
21 pull up on value-added findings that inspectors share some of their findings with
22 the other inspectors.

1 Eric mentioned our operational experience program. That's much easier to
2 use. They do something I like. They have monthly briefings on certain events that
3 they select. There's a learning process.

4 I also believe a valuable lessons learned feedback is the inspector
5 newsletter that's issued. It has great insights from inspectors for other ones. We
6 also have a feedback we do in the Reactor Oversight Process we obtained from all
7 the people inspecting in that process as to what ought to be changed.

8 And I know you've expressed concern to me about some of the events we
9 have, but we do learn from those and we have had thorough reviews of those
10 events. I think Eric mentioned the one - or Mark did on Peach Bottom lessons
11 learned. We had in Region IV the NIST event. We do learn from those and feed
12 them back into the program.

13 I would also say the Regions do an outstanding job of revisiting some of
14 these events during their counterpart meetings they have twice a year and we've
15 had revisits of events like the Three Mile Island event. We've had events that
16 we've gone through like the NASA events with the orbiters as lessons learned and
17 feedback.

18 We also last year since we talked went through a list of what we consider
19 key performance -- items of declining performance or causes of declining
20 performance. We discussed those in the Regional offices amongst the staff here
21 as a way of helping ourselves learn lessons from events and other feedback.

22 I would last mention one of the priorities we have this year is our interface

1 with our other federal partners. As you know with the administration change many
2 of the leaders have changed. One of the key agencies we're working with is the
3 Department of Homeland Security and, of course, FEMA.

4 Two key areas where we must stay on top of interfacing with them is when
5 natural phenomena take their toll on facilities and surrounding areas when you're
6 going to restart those programs. We need to have the protocol in place and we
7 need to have the leaders in place that understand that protocol and our
8 interactions.

9 Also another area is the emergency preparedness for new reactors; making
10 sure we keep that protocol in place. If I could have the last slide on slide 20.

11 There's one policy issue we want to talk about. We have been working on
12 retention and relocation incentives. For the past year we've had a team evaluating
13 what relocation and retention incentives could we use to help the resident
14 inspector program. Region IV led this activity under Chuck Casto and Tony Vogel
15 out there and they gave us several recommendations. But after reviewing them
16 we decided, "Gee, this could apply to anyone in the agency that's relocating that
17 we want to retain."

18 So, we are preparing on coming to the Commission with a paper shortly to
19 explain what our actions we are taking in the area and we believe we can go forth
20 which will enhance.

21 We've got six areas we're focusing on. One is increasing our retention
22 incentives; the dollar amount. Another one is to pay progression. When people

1 came from the Nuclear Safety Professional Development Program into the
2 resident program they lost their special salary. Jim McDermott and the Office of
3 Human Resources has helped us so they now don't lose that.

4 Third area is relocation bonuses. We're increasing those with criteria.
5 We're also going to propose increasing the stay time for residents if there's a
6 particular hardship at their facility.

7 We are also removing the time restrictions to obtain your relocation and
8 retention bonus. Before you had to serve one out before you could receive the
9 other one. So, we're waiving those restrictions so you can receive them both at
10 the same time. In fact, we just did that for one of the resident sites as a pilot.

11 And then last but not least we have an alternative to the home sale
12 program. There are many more recommendations in those six areas, but we
13 chose those as the ones we thought were the most important.

14 And as I said we expect to have a Commission paper shortly to highlight
15 what those areas are.

16 With that, I'll turn it over to Bill Borchardt.

17 MR. BORCHARDT: That completes the staff's presentation.

18 CHAIRMAN KLEIN: Thank you very much for a good broad
19 perspective of two dynamic programs. We'll begin our questioning with
20 Commissioner Svinicki.

21 COMMISSIONER SVINICKI: Thank you. I wanted to start out with a
22 comment. Bill, you had talked about what does resolution of an issue look like.

1 I've been following some of your statements and under your leadership as EDO I
2 think that there's been a renewed look at that and I encourage it and think it's very
3 important. So, I look forward to, again, under your leadership where you might
4 take that.

5 I think that it's an important part of our credibility with stakeholders is that
6 we not only identify issues, but have an understanding of what a successful
7 resolution and completion is going to look like. So, I wanted to thank you for
8 opening with that important comment and I want to encourage you in those efforts.

9 You also talked about the ROP being 10 years old, I think you said, or close
10 to that. And so, I wanted to start out with a question for Eric and maybe Mark
11 would talk about it from the Regions' perspective. Again, I thank the staff because
12 yesterday's briefing and today's they've pulled together a wealth of status
13 information for us.

14 One of the things that I noticed was there was a discussion of a look at
15 substantive crosscutting issues and there was a notation that in February of this
16 year the Regions completed a peer review of each Region's determinations in the
17 area of substantive crosscutting issues.

18 The review was intended to look at consistency and determine if
19 substantive crosscutting issue decisions were consistent across the Regions and
20 that the reasoning for the decisions could be followed by stakeholders based on
21 publicly available information. It looks like from the information that was provided
22 that overall the Regions felt that there was consistency in application.

1 I was wondering if you could help me understand the methodology there
2 and was there anything that documented this since it was a peer review? Was it
3 more of a discussion or was there a written report?

4 MR. SATORIUS: I'm not sure. I'll find out about your last question. I
5 don't know exactly. I can tell you the criteria that was looked at and this was a
6 review that was looked at -- not the 2008 results. It was looked at previous years
7 and it wasn't real clear probably and that's exactly --

8 COMMISSIONER SVINICKI: It does specifically say that it was
9 using 2008 substantive crosscutting issues. That's what's marked here, but you
10 can check on that.

11 MR. SATORIUS: It looked at previous years as well; over several
12 years, not just one year. Some of the review criteria that they look at are things
13 such as do the entrance criteria by each of the Regions and within each of the
14 Regions are they consistent with each other? Are we reading the guidance and
15 coming away with the same results as reading the guidance?

16 Some of the things looked at was in the past we've change the guidance.
17 What was the basis for that change? Was it to make it more clear? Those are the
18 type of areas that they focused on when they went through this peer review, but it
19 was performed with the program office and Regional representation.

20 COMMISSIONER SVINICKI: Were there any issues identified for
21 further work or was it kind of an all clear?

22 MR. SATORIUS: No, I think there's always -- one of the things we

1 always need to focus on consistency and we need to continue to do that. One of
2 the things that I had mentioned in my remarks that we've gotten better at and Bill
3 had talked about 10 years of the ROP and I remember a lot of those years. We've
4 gotten better through -- as time went on and that is are we being circumspect
5 appropriately as we look at the entrance criteria?

6 We've just in the last several years started benchmarking across Regions. I
7 know all the Regions in one manner or another get together as a Regional meeting
8 and benchmark even between branches and between plants to make sure that
9 everybody is reading the guidance the same way so that we can come out
10 consistently.

11 We get great support from Eric's organization as we prepare for these end
12 of cycle meetings in working collectively and individually with the Regions for that
13 focus on consistency.

14 COMMISSIONER SVINICKI: Eric? Did you --?

15 MR. LEEDS: If I can add, I'm just going to amplify what Mark said.
16 There was a written report. We did write up the results of that meeting. And as
17 Mark said I agree with him. We're always looking to improve and make sure that
18 we're consistent and we also want to incorporate the latest activities that we have
19 with regard to safety culture into the program. It's very important.

20 If you'll indulge me, Commissioner, if I can introduce the Division Director
21 who's responsible for it. Fred Brown, please.

22 MR. BROWN: We issued a revision to Inspection Manual Chapter

1 0305 in the beginning of this year and a lot of the things that were documented in
2 the lessons learned report were changes we'd already implemented.

3 There are several additional things that we're looking at in addition to which
4 at this time we have NEI proposal in this area. The Regions and the Program
5 Office are working with the Office of Enforcement on the proposed policy
6 statement for safety culture. It will be coming to the Commission here shortly.

7 So, I think Eric said that we have a system which based on the Regional
8 experience has identified trends in declining performance and we've gotten those
9 to licensees in a way where they've had an opportunity to intercede early. There
10 has been feedback on a plant specific basis and that's been effective.

11 At the same time there's a lot of cost for us in implementing the current
12 system and the accuracy is subject to a continual discussion about how often we
13 get it absolutely correct.

14 COMMISSIONER SVINICKI: Okay. It sounds like there's a wealth
15 of information available. I'll have my staff pull some of that for me so I can do
16 some more reading in advance of the Commission's AARM meeting. It sounds
17 like something we could pursue there.

18 I did want to ask a question about -- I guess my questions are a bit of a
19 grab bag, but this has to do with Part 73 and I noticed that Roy is here. So, he
20 may want to contribute to the answer here.

21 I have read -- and again I don't base all my decisions on the trade press,
22 but I was catching up on some reading and was looking at the March 2nd issue of

1 Inside NRC and I wanted to ask some clarification.

2 It discussed a meeting that the staff held that was open to the public
3 regarding the updates to Part 73. It was talking about the orders and then the new
4 revised Part 73. There was a statement in here -- and again this is paraphrasing
5 perhaps of what staff represented at the meeting, but it says: "While the staff
6 expects the rule generally to supplant the orders they will remain in place unless
7 removed by Commission action." But it says, "A few discrepancies between the
8 requirements were discovered late in the rulemaking process which is the reason
9 why licensees will have to adhere to a combination of the rule and orders until the
10 rule is revised again."

11 I was not aware of an identification of things out of the post September 11th
12 orders that were inadvertently -- again, if this representation is correct -- were left
13 out of our most recent update to Part 73. Is this something that I just was not
14 aware of?

15 Roy's going to the microphone, so maybe he could give me an update of
16 this.

17 MR. ZIMMERMAN: I think the best course of action is for me to do a
18 little bit of research to make sure that I provide you the accurate information.
19 There are a couple of twists and turns, but not necessarily related to Part 73 that
20 we've been working on. My preference would be to go back to the source and get
21 that information and make sure I'm giving the accurate information to the
22 Commission.

1 COMMISSIONER SVINICKI: Okay. I assume all of my colleagues
2 would like to have that information as well. Thank you.

3 MR. MALLETT: While he does that, though, it was not our intention
4 to have any parts of the order that were not covered in the rule. So, I just want to
5 make that clear that it was the intention that the rule would incorporate all those
6 items that were in the orders.

7 COMMISSIONER SVINICKI: Okay. Again, I will appreciate
8 receiving that information. If we can -- maybe if there was some area that was
9 overlooked I think we'd be best served if we had a more comprehensive
10 understanding of anything that we're looking at incorporating in future revisions.
11 It's better to have our arms around anything right now.

12 MR. MALLETT: I don't know that it was overlooked, but there were
13 at least two areas where we didn't include them in the rulemaking. We're going to
14 have a separate rulemaking for those areas and that may be what we were talking
15 about.

16 COMMISSIONER SVINICKI: Okay. That may well be it. I'm over
17 my time. Thank you, Mr. Chairman.

18 CHAIRMAN KLEIN: My guess is we may have a second round.

19 Well, I have a question for -- I'll start with Eric, but it will probably also go to
20 Mike as well. One of the issues that has been lurking for a while are the infamous
21 sump pumps. How are we doing on the sump pump resolution for the existing
22 fleet? And then for Mike, how are we doing on the new fleet?

1 MR. LEEDS: Mr. Chairman, I assume that you're talking about
2 GSI-191 containment sumps. We're making good progress with regard to the GSI
3 and moving forward. And we're still anticipating being able to close this issue in
4 2010.

5 The licensees have taken a lot of corrective actions. There have been a
6 number of modifications: hardware changes in the plant, changing of screens,
7 mesh size, removing high fiber insulation. What remains are typically just
8 questions involving downstream effects and issues involving testing to see how
9 the insulation reacts with regard to the different types of environments that it gets
10 into. So, we're making progress.

11 The bottom line is we're making very good progress. We still have a couple
12 of items that we have to sew up and we expect this to be closed by 2010. Bottom
13 line.

14 MR. JOHNSON: Regarding new reactors I would have a very similar
15 perspective to Eric. It's, of course, an issue that we're working with respect to the
16 design certifications. The issues that Eric talked about with respect to the
17 regeneration and downstream effects are a couple of the key areas that we're
18 working and certainly these will be resolved for those design certifications before
19 we finish those up.

20 Again, we're working the issues. We have engaged more on specific
21 design centers than others as we've needed to work with them to make sure that
22 we understand what their analysis is providing and how acceptable that is to us,

1 but we are working the issue.

2 CHAIRMAN KLEIN: This is a question for you, Bill, but you can
3 deflect it to the appropriate victim if it's better. And that is, how are we doing on
4 Part 26 for the implementation?

5 MR. BORCHARDT: Well, from our perspective, we're doing okay. I
6 think we're ready to move forward. There's been continual discussion with the
7 industry and I think Bruce has recently signed a letter back to NEI regarding one
8 aspect. I might ask him to add a little bit to this. But I think there's been a lot of
9 attention to it.

10 Unfortunately, I think it might be a lot more negative discussion on a few
11 points because overall there's a high degree of agreement and a readiness to
12 implement most of the requirements in the rule.

13 MR. MALLETT: I would add we've worked through Fred Brown and
14 his group with the public and with industry on implementation of this rule for quite
15 some time now. In fact --

16 CHAIRMAN KLEIN: About fourteen years if I recall.

17 MR. MALLETT: But even after the final rule was published we have
18 worked to try and resolve some things that we thought would be implementation
19 questions at least for both our inspectors looking at it and the licensees
20 implementing the rule.

21 We were down to really two areas that were open that needed some clarity
22 and we resolved that clarity. Not everybody agreed with the answer, but we made

1 a decision to resolve that clarity as a regulator. That will be in our regulatory guide
2 that's due out in final fairly soon.

3 Fred Brown can probably add more to that, but those two issues had to do
4 with multi unit sites and how you count the minimum days off and applicability to
5 that as to what workers have for that and their working hours.

6 And then the other issue was something the industry invented was called
7 periodic over time. We felt that their position on both those issues would have
8 violated the rule. And so, we proposed a different alternative to implementing the
9 rule. I think they've accepted that and are ready to move on. They don't agree
10 with it, but they've accepted it.

11 I think a key will be once they go through some of the first refueling outages
12 when they're trying it this spring and then actually have to implement it next fall.
13 We'll have to certainly review it if there's an impact that we didn't foresee. I don't
14 know, Fred, do you want to add anything?

15 MR. LEEDS: Can I add something, Bruce?

16 MR. MALLETT: Sure.

17 MR. LEEDS: I'll speak for Fred. Fred's group has had a series of
18 public meetings where we met with industry and had representatives from all the
19 Regions there. The last few meetings were very expectation based; what we
20 expect from the licensees and what the licensees can expect from us, the
21 regulators.

22 I've had meetings and I've talked with a number of different licensees who

1 are ready to implement and they're going ahead this spring and this summer
2 implementing their processes on a pilot basis to make sure that they're prepared
3 when the rule goes final when it goes live this fall.

4 So, I think a lot of progress has been met -- has been made by both sides
5 and we're going to watch the program very carefully and take lessons learned from
6 that and keep an eye on it all the way through.

7 MR. SATORIUS: If I could add just one quick thing from a Regional
8 perspective. We're starting to see similar implementation type of issues where
9 licensees are saying this is going to be a rule the 1st of October. We need to get
10 on with it. We need understand the expectations, know what methods are going to
11 be in place for resolving conflicts and get moving forward.

12 CHAIRMAN KLEIN: Roy, did you have a comment?

13 MR. ZIMMERMAN: There's a late breaking issue that we're starting
14 to follow that has to do with some of the language that came out in the final rule
15 that is different than what was in the proposed rule.

16 The industry has raised issues with regard to what I'll call "spiked samples"
17 to ensure that the laboratory can pick up those samples. And the terminology that
18 is used is foreign in terms of the type of analyst. It may not be the position as it's
19 called in the licensee's organization.

20 So, we are looking at working with the industry to be able to understand
21 these issues and to understand if they are important and what it would take to be
22 able to make sure that we're fully aligned. That's the gist of the issue that has to

1 do with these spiked samples that are provided for the laboratory review.

2 CHAIRMAN KLEIN: I assume any modifications can be handled in
3 the guidance space that you have found so far?

4 MR. BORCHARDT: I believe so.

5 CHAIRMAN KLEIN: Commissioner Jaczko?

6 COMMISSIONER JACZKO: I guess I would just maybe follow up on
7 the issue of, I think as the Chairman described it, the sump pump issue, which has
8 a certain alliterative ring to it. I periodically get from the staff a good chart about
9 where we stand because as of now this is updated as of February 18th. We have
10 five of the 69 PWRs that are affected.

11 Staff considers those complete except for in vessel affects. Now, some of
12 this may have changed since I last got it. I'm not necessarily sure that I totally
13 agree with the characterization that we're making good progress. I think we've
14 periodically redefined progress -- I think this may be a good one where if we kept
15 the goal post where they were we would be behind, I think, at this point. We've
16 moved the goalposts again and now we're talking about 2010.

17 The Generic Letter required responses by the end of 2008, I believe; the
18 original Generic Letter 2004-02. So, 2010 is anywhere from a year-and-a-half to
19 two years after where we thought and with potentially no resolution still on the in
20 vessel effects.

21 So, as I said I think some of these issues may be resolved. It seems like
22 everyone now is moving. Apparently under the testing they're moving towards this

1 test for success which seems to be the right methodology to get the chemical
2 effects piece to our satisfaction at least from an analysis -- at least from a testing
3 standpoint.

4 And it seems like as I look through this a lot of people are moving in that
5 direction to finally put those -- at least once we get the testing resolved. We have
6 a lot of utilities or sites for which we have RAIs issues and we don't have RAI
7 responses yet. I'm somewhat skeptical that closure is quickly around the corner
8 as we think.

9 MR. BORCHARDT: I think part of this goes to my opening
10 comments. This has taken longer, but the issues have also evolved over time.
11 We didn't understand all the chemical effects when we began this.

12 COMMISSIONER JACZKO: I don't want to get into too much here,
13 but if you go back and read the Generic Letter it's not our job to necessarily
14 understand what the issues are. It was our job to recognize there was a problem.
15 It was up to the industry to identify the issues and address them. They did not do
16 that with a tremendous amount of rapidity.

17 That is partially why we find ourselves in this particular position. We went
18 out and did the confirmatory testing to identify that in fact if you mixed a couple of
19 these chemicals together and put a screen in front of it you'd get stuff that would
20 cause head loss. That was probably well into the program.

21 I happened to come into this in the beginning of my -- somewhat in the
22 middle of this, but this was very early on in the process. We issued a Generic

1 Letter. The Generic Letter required responses from the industry to explain how
2 they were going to resolve the issues.

3 The work in the requirement and the responsibility is on them to do that and
4 we didn't hold them to that. And so, we have redefined the goalpost and we have
5 moved them.

6 I think we need to be careful about recognizing too much success when we
7 have made a movement in that regard. I don't want to belabor this one too much.
8 I do want to turn to another issue that I think --

9 MR. MALLET: I know you don't want to belabor it, but I would like
10 to make a comment.

11 COMMISSIONER JACZKO: I have limited time, so let me move on
12 to another issue. I do want to talk about fire protection. Again, we've talked about
13 a closure plan. We have a closure plan. I'm not sure as I said and as I've talked
14 about a lot recently -- I still have yet to fully absorb everything that's in the closure
15 plan and whether or not that's really going to be a true plan that we'll be able to
16 deal with.

17 I have one data point right now I guess that has caused me some concern
18 and I think that would be with Browns Ferry. I think we got a request from them or
19 an exemption request for about 180 exemptions related to operator manual
20 actions and I think the staff said, "Well, we're going to have to review those and
21 review each one, I think in detail." I think TVA's response then was to pull that and
22 say, "We're just going to go to NFPA 805."

1 I tend to believe that that is going to be the direction that more and more
2 facilities are going to have to go because I think if anything the operator manual
3 actions may be a more straightforward issue to resolve than the multiple spurious
4 actuations. I've not yet had any one tell me a way that you can do an analysis to
5 demonstrate something with regard to that issue without utilizing some of the tools
6 that are available under NFPA 805.

7 We have a plan and I think that's a good thing. So I certainly look forward
8 to us making progress on that. I think in the end this is going to have to be an
9 issue where I just think in the end NFPA 805 is going to be the solution for most
10 plants.

11 I don't necessarily have a question there. But I do have some questions,
12 though.

13 On the issue of gas accumulation this has been an issue that has been out
14 there for some time since I've been here on the Commission. I'm wondering as we
15 go forward and we look at this issue does this issue look like it has the potential to
16 become a generic issue? Do we feel like we've got this issue under control at this
17 point and that it's really more of an inspection and an oversight kind of issue at this
18 point? Will this fall under Generic Safety Issue that we're going to have to address
19 kind of under that aspect of the program?

20 MR. LEEDS: If I can answer that question. I believe that we've got
21 this one in the cross hairs, Commissioner. Licensees are reviewing their systems.
22 They're finding vulnerabilities. They're making modifications and we're inspecting.

1 To be frank, we've had a couple of inspections where licensees have found
2 things and we've had special inspections at two sites because of the severity of
3 the issues that were discovered. But that means that they're going out and looking
4 and they're correcting the problems.

5 I think it's a very straightforward issue at this point and I see it on a success
6 path. I don't know what would turn this into a generic issue. I think we've defined
7 success and the licensees are going after it.

8 COMMISSIONER JACZKO: Good. I did have one generic question,
9 then, but time is ticking so I'll wait till the next round.

10 CHAIRMAN KLEIN: Commissioner Lyons?

11 COMMISSIONER LYONS: Well, first thanks for a good briefing. I
12 found yesterday's very useful and this one as well. Maybe to start with a question
13 that might start with Mike and then may go to some of your colleagues.

14 Mike, I know that you and your organization are challenged with sometimes
15 the changing priorities of some of the licensees and their plans for new plants. I've
16 had some discussion with some of the NEI leadership from the perspective of
17 whether there could be a stronger industry-led effort to try to prioritize and inject
18 realism into the schedules as far as who thinks they're really going to build when,
19 which might help in terms of your prioritizing and putting appropriate resources on
20 those that are really going to be the first movers.

21 I wondered if you could comment any on this prioritization effort and maybe
22 some of your colleagues do, too. I do think this is an important issue particularly in

1 your area where you can be somewhat buffeted by changes in industry's planning.

2 MR. JOHNSON: You're exactly correct, Commissioner. The
3 changes do cause us issues with respect to being able to forecast and make the
4 best use of our resources. And to be quite honest, to date the way we've
5 approached that is to interact fairly closely with applicants to try to identify early
6 their plans.

7 We've looked at things in addition to that with respect to when they're
8 actually scheduling to do construction, when they're actually scheduling to
9 purchase long lead items, when they're actually planning to do ITAAC. So, we've
10 got some information regarding their plans, but it would benefit us, I think, to have
11 the industry take a leadership role or to send clearer signals as best they can with
12 respect to the plans of folks, people who are most anxious to move forward. That
13 would certainly complement our efforts in terms of trying to understand -- read the
14 tea leaves if you will -- and understand how to move forward.

15 COMMISSIONER LYONS: At least personally I'm sensitive to
16 whether or not the NRC should be the one trying to identify how to prioritize
17 among different applicants, whereas if industry does it then to me that's fine and
18 very appropriate. I don't know if Bill or Bruce anyone else would like to comment.

19 MR. BORCHARDT: It certainly would be preferable for the industry
20 to do it because I think to make an informed decision in that area would require us
21 to have access to information that's probably business proprietary for some
22 companies. You'd have to understand long lead time ordering and how much

1 money has been committed.

2 That's an indication of the commitment and the potential schedule that they
3 might be on for construction.

4 But I hope that we in the industry are not being distracted by this trying to
5 figure out priorities and losing track of the remaining importance of standardization
6 because if we don't have the reference COLs, for example, that really serve as the
7 reference plants, then the whole business model, the whole resource model that
8 we've established will fall apart and we won't be able to get the efficiencies that we
9 had originally assumed.

10 So that whoever decides to go first takes on this burden and the rest of the
11 industry relies on them to be an adequate reference application.

12 COMMISSIONER LYONS: That's certainly a very important issue as
13 well. If I could turn to another question which probably falls somewhere between
14 Eric and Mark. By the way, Mark, congratulations on your recent role and being
15 here at the table.

16 It's sort of a general question, but I could phrase it either from the
17 standpoint of fire protection or digital I&C. So, it's obviously a general question.

18 As the operating plants are moving ahead in a new area, whether it is fire
19 protection or digital I&C -- and probably you could name 10 others -- I'm curious
20 how the information is gathered and presented to the residents to bring them up to
21 speed for what will be somewhat new inspection challenges, whether we're talking
22 about digital I&C, fire protection, maybe sumps.

1 But just in general if you could talk a little bit about the ongoing training that
2 brings the residents -- other residents and the other inspectors around the agency
3 up to an appropriate level for an evolving technology.

4 MR. SATORIUS: I can start and I know within the Regions we all
5 have digital I&C type inspectors that have focused specifically on that and we are
6 going out and hiring and advertising -- and they're hard to get a hold of, by the
7 way.

8 COMMISSIONER LYONS: I'm sure they're very hard.

9 MR. SATORIUS: We're hiring individuals into those specific
10 positions. Those are generally inspections that would be conducted by our DRS
11 organization, which are the more focused inspectors that focus on specific issues.
12 The residents need to be knowledgeable in a general enough manner so that they
13 can act as the go-between or enable our more qualified and trained inspectors to
14 be able to do some of the specific inspection activities.

15 MR. LEEDS: As the program office, we do a number of very specific
16 things to make sure that our staff is prepared. I'm going to ask Fred Brown to take
17 the podium again. Go ahead, Fred.

18 MR. BROWN: One of the things we do is bi-weekly phone call
19 between the program office division directors and the DRS and DRP directors and
20 go through the things that we see coming so that we've got good communications
21 and get early identification of areas for additional training, guidance, clarification.

22 So, the people actually managing the work give us that feedback early and

1 then we close the loop as necessary and appropriate in both 805 and digital I&C
2 areas we've been talking about and working on training.

3 COMMISSIONER LYONS: In areas like this -- and we could
4 probably name others -- is it then your feeling that the residents -- I certainly
5 recognize that we have dedicated experts in specific areas, but I also appreciate
6 very strongly the concern that the residents on the ground need to have enough
7 background to recognize the developing issue and bring in the experts.

8 Is it your feeling that we do have mechanisms to keep the residents at an
9 adequate level of preparation for these new challenges?

10 MR. BROWN: I'd say we -- and I'll turn it back to Mark, but we
11 leverage the resident counterpart meetings that are twice a year to get the
12 headquarters folks out to the Region when the residents are in and we can talk to
13 them all as a group about Part 26 Subpart I new fatigue requirements and new
14 requirements as they come in for exactly that purpose because they're the first
15 ones that see it typically.

16 MR. SATORIUS: The residents are trained for the most part --
17 they're engineers for the most part -- but they're generalists and they have a
18 sensitivity -- and these are large modifications that almost automatically come
19 back to the Region for more thorough review. They're typically outage type
20 modifications that are significant changes to the plant.

21 The residents get a lot of help from the DRS inspectors that are back within
22 the Region. And within the Regions are what we call the reactor program. Our

1 DRS Division and our DRP Division work together very, very closely in all four of
2 the Regions to make sure resources are shared amongst facilities as to where
3 they need to be focused and it includes identifying individuals that are trained and
4 knowledgeable in these particularly new areas so that those resources can get
5 there. And then we always have resources in NRR from a technical perspective
6 that can help us in these areas as well.

7 MR. BORCHARDT: There's one other subtle aspect -- going back to
8 my time as a resident inspector. There's a wealth of information on the site. If
9 you're doing a digital I&C conversion on the site the licensee is doing extensive
10 training for their entire operating crews for the maintenance crews and all that
11 information is available as well.

12 The resident is in a really great position to be able to draw upon many
13 different sources of information. They can only get the inspection guidance from
14 the Regional office -- from the program office through the Regional office, but
15 there's a lot of technical information; in fact, direct access to the vendors who are
16 installing the equipment. So they are in a prime location for gathering information
17 and being on site.

18 MR. MALLET: I would add one thing there. We also take -- as we
19 have these new technologies being implemented on a particular site as Bill says --
20 we take the lessons learned from that and we usually run a series as Fred said at
21 the upcoming counterpart meetings with the residents on lessons learned from
22 that.

1 There are two activities this year that I know you know we're doing and we
2 need to do that for. One is the Oconee upgrades to their digital I&C and we need
3 to make sure that we implement that and take those actions back during of
4 counterpart meeting.

5 Another are the pilot programs we're doing at the Harris Plants and Oconee
6 Plants for the NFPA 805. Those are very valuable to take those back to the next
7 resident inspector counterpart meetings to share with them things they should
8 focus on during their inspections.

9 COMMISSIONER LYONS: Thank you very much. I think that was a
10 very complete answer.

11 CHAIRMAN KLEIN: Commissioner Svinicki?

12 COMMISSIONER SVINICKI: Mike, I wanted to return to the part of
13 your presentation that had talked about staff in response to Commission direction
14 as relooking at the proposed construction assessment program again, and we
15 throw around a lot of terminology, but construction assessment is a complement to
16 the ITAAC process under the broader umbrella of construction inspection.

17 You had talked about that you were relooking at building in the kind of
18 objectivity that the ROP provided. Our exchange between you and I and one of
19 the previous Commission updates on new reactors had formed some part of that
20 direction to staff. When we had talked about it we were talking about the ROP and
21 what makes the ROP strong and it is those objective elements.

22 I had an opportunity to sit in on the Regulatory Information Conference

1 there was a session on construction related issues and I heard that the staff had
2 worked with -- held public meetings -- about, I think it 60 plus performance
3 indicators that they had at least considered and proposed. I think if I understood
4 correctly that's been narrowed down to nine now.

5 But there's always a thing you pause and think to yourself when you raised
6 an issue what were you really trying to get too. I think in my case I wasn't looking
7 necessarily for mimicry of the ROP if it wasn't meaningful and I think you and I had
8 some subsequent discussions about that.

9 I know that there's been some back and forth on this and I think just to
10 clarify for myself where I had started out is because construction assessment is
11 the complement to ITAAC it should be that necessary complement. It should be
12 only those elements that the staff feels are needed to complement areas that
13 would not otherwise be assessed under the ITAAC.

14 I guess I'd just exchange that so that it sounds like you're still trying to pull
15 in that direction and I'll look forward to what staff comes up with in that area. I
16 don't know if you want to react to any of that.

17 MR. JOHNSON: Based on our discussions I have a clear
18 understanding and yes we are moving in the direction of the guidance given to us
19 by the Commission.

20 COMMISSIONER SVINICKI: Okay. Thank you. Bruce, you talked a
21 lot about infrastructure. You talked about incident response infrastructure. Since
22 we've covered that topic I did want to raise -- I'll direct this to Mark since it's kind of

1 Region III specific and it's not appropriate for me here to exchange with you about
2 perhaps mid-year funding adjustments that aren't even before the Commission
3 yet.

4 But in last year's mid-year adjustments the Commission supported for
5 Region III they had an emergent opportunity to get some space in the building
6 where they're located that would be perfect for augmenting incident response
7 capabilities.

8 I know the difficulty this poses, so the Commission supported that and I
9 believe the space has been acquired now. But in order to be outfitted that's the
10 new emergent need. So, as soon as you support the first emergent need then in
11 the next cycle you can't catch up and you're supporting the next emergent need.

12 I guess maybe this isn't a question, although I'll allow you to respond. It is
13 important that our infrastructure planning we catch up at some point and build
14 these things in there. And again, realizing that any adjustment staff might propose
15 for '09 are not even before the Commission yet.

16 But on the broader philosophy of how you can kind of get current on this
17 infrastructure need, is there anything you can share with me?

18 MR. SATORIUS: Well, you have the scenario right; in other words,
19 we were able to take control of some adjacent space and that was from last year.
20 This year we're requesting the dollars to be able to finish that out and that would
21 complete the project, which would be a combination of an expanded response
22 center and some additional office space that we are running out of because we are

1 supporting a number of former Region III staff that have moved to the construction
2 program, but still stay in Region III and we support them there and they work for
3 the Center of Construction Inspection in Region II, as well as some employees that
4 are working in other offices here at headquarters that are telecommuting from the
5 Region III spaces.

6 COMMISSIONER SVINICKI: Okay. It was obviously an unexpected
7 opportunity and I understand the challenges where we're in space that we don't
8 own and that kind of thing. We may not know about until last minute. I think I
9 supported it because I thought it was a good opportunity to have some co-located
10 space.

11 I'm not trying to be gratuitous about it. I know that it's hard to kind of catch
12 up, but it sounds like it would be completed with the next -- if the next funding
13 increment were provided, you'd be outfitting the space?

14 MR. SATORIUS: That's what we would be doing, yes.

15 COMMISSIONER SVINICKI: Okay. Thank you. I know Marty is not
16 here, but on the IRRS and I've forgotten what that stands for, but it's the
17 International Review in 2010 that we've volunteered for.

18 Staff had identified that there were some policy issues related to the scope
19 of the IRRS, which we get to define and that they would be proposing to the
20 Commission some recommendations about the scope. I was wondering where we
21 were on that.

22 We had a lot of our international colleagues here last week and I heard

1 some different thoughts that I'm wondering if some information is out there that
2 we've made decisions about that.

3 MR. BORCHARDT: Jake Zimmerman is the leader of this activity
4 within NRR so I'll ask him to --

5 MR. JAKE ZIMMERMAN: Hi, I'm Jake Zimmerman. I'm the Chief of
6 Regulatory Analysis Policy and Rulemaking Branch. We have the paper drafted.
7 It's working its way up through management review and it will identify those policy
8 issues that we are recommending be reviewed during the IRRS mission along with
9 the eight standard modules.

10 Just to give you some idea, one of the elected policy issues would be
11 associated with emergency preparedness and then we're also looking at four other
12 issues that again, they're working their way up. The Commission should have the
13 paper within the next month.

14 COMMISSIONER SVINICKI: Okay. Thank you. I know I'm over my
15 time. Thank you.

16 CHAIRMAN KLEIN: We might even have a third round. Well,
17 obviously, we spent a lot of time on sumps and GIS-191. Bruce, was there a final
18 comment that you wanted to make regarding that?

19 MR. MALLETT: Yes, thank you. I do agree with Commissioner
20 Jaczko that it has taken some time. We have a lot of challenges, as I said, before
21 us, but what I'm encouraged by is that we have defined now what those open
22 items are and laid out a path for what we believe are the criteria to resolve those.

1 As Bill said in the beginning, I think we kept -- it was a moving target and
2 now we think we have those criteria pretty well defined. And so, if there is a new
3 issue we would open up a new item and not include it and keep piling on this one.
4 That's what I meant by I think we are making progress. When I was here last year
5 we hadn't come to an alignment of what those criteria were.

6 COMMISSIONER JACZKO: I'm sorry, Mr. Chairman. Could you just
7 outline for me what those new issues are? I'm not aware actually of any new
8 issues.

9 MR. MALLET: Well, for example, the downstream effects --

10 COMMISSIONER JACZKO: I don't believe that's a new issue.

11 MR. MALLET: -- was an issue that got added on after we had
12 considered the original.

13 COMMISSIONER JACZKO: I think as early as -- I've been aware of
14 this issue. Downstream effects have been an issue.

15 MR. MALLET: Bill Ruland is here. He can help me out.

16 MR. RULAND: Bill Ruland. I'm the Division Director for the Division
17 of Safety Systems. The downstream effects issue we took to the ACRS and the
18 ACRS asked some very pointed questions about us and we went back and asked
19 ourselves did we think we had the issue completely put to bed. Our conclusion
20 was no.

21 And so, we went back and we talked to the industry. They went ahead and
22 have done additional testing. The additional testing is now complete and we're

1 going to get a new topical report virtually within the next week.

2 COMMISSIONER JACZKO: Bill, when did ACRS first raise
3 downstream effects as an issue?

4 MR. RULAND: It was last year.

5 COMMISSIONER JACZKO: They never raised downstream effects
6 before last year? Are you sure about that?

7 MR. RULAND: Downstream effects was always an issue, but the
8 additional technical questions that the ACRS had about the way it was going to be
9 resolved was kind of where we're at.

10 COMMISSIONER JACZKO: The original staff position I believe was
11 that we were not concerned with downstream effects and we did not agree -- or
12 the staff did not agree with ACRS's concern that downstream effects was in fact a
13 safety significant issue. That was my understanding always of that issue.

14 So, ACRS always had concerns with it, but staff had said we don't believe
15 that when you look at the modification of the sumps -- as I understood it ACRS's
16 issue was fundamentally that if you increase the volume of the sumps what you
17 would have is you would ultimately potentially increase the downstream effect
18 issue because you'd actually increase the surface area and you'd allow more
19 material to actually pass through the sumps.

20 One of the advantages of a sump that clogged was in fact no material got
21 downstream. So actually by increasing the surface area you had the potential to
22 then increase the effect of the downstream effects.

1 That was an issue that ACRS raised at the very beginning as the staff was
2 considering in fact whether or not to do an intermediate step of allowing increases
3 in the sump screen sizes. So, I wouldn't necessarily characterize it as a new
4 issue. Perhaps the staff has a new interpretation and is now more in line with
5 ACRS that that is an issue that needs to be resolved.

6 I think in the past I always understood the staff interpretation was that
7 they're not concerned about that. They don't think that in the end there are effects
8 that have an effect on -- at least that's what I was told at the time.

9 MR. RULAND: The staff was always concerned that this issue reach
10 final conclusion and we believed at the time that relatively simple testing, generic
11 testing would be able to address this and that was not the case. And that's why
12 we had to go back.

13 CHAIRMAN KLEIN: I think in most cases as new information comes
14 we will address that in the appropriate way to proceed.

15 MR. RULAND: And that's what we did.

16 CHAIRMAN KLEIN: You might want to reset my time since we sort
17 of got sidetracked. Let me ask you a question, Mike, in terms of the vendor
18 inspections. At the RIC last week there was a lot of international activities going
19 on and Andre Lacoste had commented as others did about how we might share
20 vendor inspection among all regulators since we are in a global environment.
21 Could you comment on that a little bit?

22 MR. JOHNSON: Of course, we've been trying to share -- working on

1 sharing the results of vendor inspections and I sort of alluded to some of the
2 activities -- or mentioned specifically some of the activities that we have.

3 One of the working groups in fact in MDEP is a working group on vendor
4 inspection and we're active participants in that working group. One of the specific
5 functions of that working group is to engage in activities that enable us to share
6 information, specifically vendor inspection information, and so that's an active
7 piece of that program with us going forward.

8 We have specific plans. For example, coming up this year we're going to
9 go back to Korea. We expect that we're going to have international foreign
10 observers, inspectors with us when we go back to Korea to do a vendor
11 inspection. There are other inspections this year -- later this year where we're
12 going to be joined by, again, international folks with us on vendor inspections.

13 So, we've got as an active component of that activity us looking at what
14 other people are doing and them looking at what we're doing. We, for example,
15 based on our interactions with the Korean regulator identified an issue that they
16 approach vendor inspections a little bit differently than we do. They, for example,
17 bring a technical expert along on their vendor inspections and we think that's a
18 good thing to do. So, we're going to try to leverage those -- that's an example of a
19 learning we have as a result of that.

20 Beyond that -- and I haven't talked about operating experience -- but you
21 should know we are joint with NRR on all of our operating experience activities
22 including vendor insights, including construction insights and those are fed into our

1 process and that's another opportunity for us to share and continue to work
2 together with international regulators as we move forward.

3 CHAIRMAN KLEIN: Thanks. In the area -- I'll follow up on a
4 question that Commissioner Lyons began with and that's schedules and workload
5 assignments. Clearly, we've had some cases where you were going down a path
6 for looking at applicants and in some cases they have asked to temporarily delay,
7 like NRG. Now that one's back on track. And then we have cases like the
8 ESBWR where that one is certainly uncertain.

9 Could you comment on what kind of an impact that has on your scheduling
10 when you have swings like that?

11 MR. JOHNSON: It's a significant impact. Those are either a change
12 in an application, for example, where someone decides that they want to change
13 technology or if, for example, they want to change the vendor. Those are
14 significant. Probably one of the biggest impacts we can have on our scheduling.

15 We've also -- if we've gotten into a design -- actively into a design and then
16 had as we are doing that design a significant rev that is also a significant impact.

17 Those are probably the biggest impacts in terms of months or even a year
18 or more in terms of a delay in our schedule and it causes us inefficiencies and
19 rework. That's certainly a major factor. There are other factors, too, but those are
20 probably two of the most significant impacts.

21 CHAIRMAN KLEIN: Could you comment on where are we on the
22 ESBWR design cert?

1 MR. JOHNSON: We are -- we have just issued a schedule for
2 ESBWR. We got Rev 5 to the ESBWR design last June. We've been working
3 through a series of RAIs to better understand that revision and to be ready to
4 forecast what the schedule is. We've issued a schedule and that schedule is
5 available on our Web. We're working on going forward. We've still got a design
6 certification that we're reviewing. We've still got at least one applicant -- two
7 applicants, actually, who are referencing that design. So, we're moving forward on
8 it.

9 CHAIRMAN KLEIN: Thanks. In terms of potential reactors and I'm
10 not sure if this is a Mike or an Eric question. But assuming that we get a real
11 application for a medical isotope reactor -- maybe I should give it to Bill. Do we
12 have the regulations in place to respond to that application?

13 MR. BORCHARDT: I believe so, Chairman. There may be some
14 updating of some guidance that we would want to do, but I don't believe there's
15 any regulatory impediments to doing the review.

16 CHAIRMAN KLEIN: Great. Commissioner Jaczko?

17 COMMISSIONER JACZKO: I guess I would turn to another issue
18 that I think there's been some back-and-forth on and perhaps we've never gotten a
19 clear resolution as we could. That was an issue of containment overpressure
20 which we've kind of had, I think, a variety of discussions about.

21 Maybe Eric you could just provide an update on where you think we are or
22 where the staff is, I think, in regard to resolving that issue with ACRS.

1 MR. LEEDS: Another longstanding issue, Commissioner. We've
2 made a lot of progress. We continue to work the issue. I've got Bill Ruland at the
3 podium again. Let me have Bill chime in because he's been working very closely
4 with the ACRS on the issue. Bill?

5 MR. RULAND: Thank you, Eric, Commissioner, and Mr. Chairman.
6 Currently we've been working and attending ACRS meetings regarding their
7 letter-writing session for containment overpressure. As recently as maybe a
8 couple weeks ago the ACRS finished a letter writing session on their views
9 generically about what their views are on the containment overpressure issue.

10 And that letter is either today or tomorrow or this week we're going to get
11 the letter. We've already had drafts of the letter. We've already drafted our
12 response for the letter and I think what this has enabled us to do with -- and we're
13 grateful for the committee to write this down. It was a tough process for them and
14 we're basically going to respond to that letter. How we respond to that letter will
15 dictate how we will go forward from here.

16 COMMISSIONER JACZKO: This is a letter to the Commission I
17 believe, is it not? To the EDO, okay.

18 MR. RULAND: Once that letter comes we'll get a green ticket and
19 we'll respond to that letter. Like I said, we're working on drafting that letter virtually
20 as we speak.

21 COMMISSIONER JACZKO: I guess if there is a draft floating around
22 I'd be very interested in seeing the draft. It would probably be an easy thing to

1 send to the Commission.

2 MR. LEEDS: Any insights that you can share, Bill, from the letter?

3 MR. RULAND: Well, actually, the insight I'd like to share is the
4 ACRS has moved their position. They've changed -- I don't want to say they've
5 changed their position, but they've changed their views a little bit on -- came
6 closer to the way we see it and I think the staff is likewise moving in their direction.

7 So, I'm confident that we're going to get to a place where we're going to
8 reach resolution. That's my general feeling about how this is going to come out. I
9 wouldn't want to be held that that's absolutely the case.

10 COMMISSIONER JACZKO: Ed's right behind you. He may have
11 something to say about that.

12 MR. MALLETT: I would add to what Bill says before Ed talks. It is
13 imperative that we come to some resolution on this technical difference and at
14 least make a decision and a basis for that decision. So we're working with ACRS
15 and they're working with us to try and resolve this difference.

16 CHAIRMAN KLEIN: Ed, would you like to comment?

17 MR. HACKETT: Thank you, Mr. Chairman. A couple of things I
18 could add. First off, as Bill said, we're hoping the letter will be finalized this week.
19 That's my hope. And there are a couple of key items in there, but I'll just stress the
20 one for the sake of brevity.

21 The ACRS has held for a long time that containment overpressure should
22 be small in magnitude and short in duration. And, of course, I think we all know

1 over time that in some instances it's crept away from that. The gist of the letter
2 that you will receive goes to that primary point with some secondary points on --

3 COMMISSIONER JACZKO: Is that a change in ACRS's position?

4 MR. HACKETT: It's not at all. In fact, the ACRS has historically
5 expressed that position, I think, from the very beginning. As Bill said, we've been
6 working with NRR in terms of what is the clarification of that and there's no specific
7 numbers associated with that other than sort of expert judgment.

8 Another item that's come up in this regard is Regulatory Guide 1.82 on
9 containment evaluation in general. I think it's fair to say the committee feels that
10 that is in need of revision. I think NRR agrees with that. There were some efforts
11 underway a number of years to do that.

12 COMMISSIONER JACZKO: Is that a new position from ACRS?

13 MR. HACKETT: No, again, that is not a new position and I don't
14 believe it's a new position within NRR either. I think that was something that
15 maybe didn't happen due to resource constraints over the last several years. But I
16 think there's a broader agreement that there's need for updating and adherence to
17 some of the existing guidance.

18 The last piece I would mention is related to operator actions. It's another
19 issue that the committee feels strongly about. I think in that instance for cases in
20 which operator actions are required to maintain overpressure the committee is
21 looking for reinforcement from licensees and through the regulatory analysis to
22 show how these actions can be implemented and reliably performed and safely

1 done in the cases where Operator actions are indicated.

2 COMMISSIONER JACZKO: Is that the new part of ACRS's
3 position?

4 MR. HACKETT: That is a part that has, I think -- we were talking
5 earlier about GSI-191. I think that's something that's evolved through the
6 discussions and Bill may want to comment on that in turn also. What I've given
7 you is just tried to give you here real briefly is a snapshot of where the ACRS is
8 with the letter.

9 COMMISSIONER JACZKO: Thanks.

10 MR. RULAND: If I could, just a little bit of indulgence. The biggest
11 factor here is that the ACRS wrote it down. They now have a position. It's written
12 down and it gives the staff something to work with. That's the biggest advantage
13 for the ACRS writing this letter. We have the letter. It helps us create a response
14 and that's kind of where we're going from here. So, that's kind of --

15 COMMISSIONER JACZKO: Thanks. I appreciate that. I'll certainly
16 be interested in looking at the letter. The Commission certainly has received
17 several letters from ACRS on this which, I think, Eric, you and I have talked about.
18 I think it outlined the position very clearly. I'm not sure there's a lot of confusion in
19 my mind about that. I guess I don't really have any other questions. Thank you.

20 CHAIRMAN KLEIN: Commissioner Lyons?

21 COMMISSIONER LYONS: Maybe not to belabor the discussion that
22 was just going on, but I guess personally I'm very appreciative of the fact that both

1 key groups in NRR, Bill Ruland's area and the ACRS have continued to work
2 together on this. And I think it's certainly very positive that we'll be getting a letter
3 with perhaps greater clarity and just in general, I think, having those types of
4 interactions are completely appropriate. I guess my compliments to both parties
5 that are involved.

6 By way of a question, Mike, I'm remembering last week at the RIC there
7 was some discussion about the lengths to which we have gone to involve some of
8 our inspectors in gaining construction experience in several countries. I'm
9 remembering that we've had folks in Finland and Taiwan. I'm less clear -- I think
10 we're still working on France, and I'm less clear on the other places Korea, Japan,
11 China.

12 I'm curious if you could provide a bit of an update on where we have had
13 folks, where we're anticipating having folks in the future and in general I think it's
14 very, very important for us to gain that type of experience wherever it is around the
15 world.

16 MR. JOHNSON: I can give you a little bit of additional information,
17 but probably the most complete data that I'll give you would be information on the
18 full detailing of our plans that I'll have to give you outside of this meeting.

19 We have -- as you indicated and as I discussed -- we have had exchanges
20 with Finland, with Taiwan and we're planning exchanges in the future with Finland
21 and with France. We are planning an exchange -- we've worked out details now
22 where we're planning an exchange for periods of time with China going forward.

1 Those are certainly among the most prominent; China of particular interest
2 because of the AP1000 and the insights that that provides for us and an
3 opportunity for them to come here and the insights that we can provide for them.

4 Those are, I think, among the most prominent that come to mind with
5 respect to our plans, but the full list is one that I would want to go to and base on a
6 fuller review of what we actually have going on. I don't know if Gary Holahan is
7 here. Gary, if you wanted to bail me out this would be a good time.

8 MR. HOLAHAN: Gary Holahan, NRO. Actually, I think you've got it
9 exactly right. We've had our inspectors in Finland for a few months and we will do
10 that again in Taiwan. We're about to work out an arrangement -- and I think Bill
11 Borchardt is going to China in April to work out next year's arrangements.

12 Our recent talks have been to have an inspector two or three months in
13 China during the AP1000 construction and do that again each year during
14 construction. And we have arrangements set up for France for Flamanville.

15 So, it basically means every example where there's an AP1000 or an EPR
16 going on in the world we'll probably have somebody there. And we have a similar
17 activity with respect to the vendor inspections and we're about to provide
18 long-term staff to France and we're arranging some support, not for construction,
19 but for helping in the technical review area with the United Kingdom.

20 COMMISSIONER LYONS: Thank you.

21 MR. BORCHARDT: In addition to these bilateral activities and
22 exchanges there's multilateral activities through the Nuclear Energy Agency that

1 looks at inspection practices both for operating reactors as well as it will evolve
2 into the new construction activities. So, it's widely shared information.

3 MR. JOHNSON: I shouldn't hesitate to mention that also there is
4 construction going on in this country -- construction small "C" -- of Watts Bar 2.
5 We had the Browns Ferry recovery. Of course, we've had opportunities to learn
6 from both of those and to leverage those insights into our construction inspection
7 activities also.

8 COMMISSIONER LYONS: I think it's very important that we utilize
9 those opportunities. If I could try one more question, Mike, for you and I don't
10 know if this should be a long or short question. At the last program brief on new
11 reactors there was some discussion about how do you maintain an ITAAC closed
12 or how do you know that an ITAAC once closed is perhaps reopened? Without
13 going into a lot of discussion is there some progress in refining how that will be
14 approached?

15 MR. JOHNSON: Yes, Commissioner. We've made I think,
16 considerable progress in terms of taking a look at that time what was NEI's draft
17 guidance on maintaining an ITAAC closed. In fact, when we briefed on the
18 construction inspection program in the October timeframe we had a copy of that
19 guidance in the background book. We have since looked at that and provided
20 comments to the industry. The industry reacted to those comments and made
21 changes.

22 We've issued a draft Reg Guide that captures now those changes. We got

1 direction from the Commission to once we -- and that draft Reg Guide is out for
2 comment -- once we incorporate those comments we've got direction from the
3 Commission to come back with a version of that for review before we issue the
4 final. We're making good progress to be able to do that.

5 I think we've worked through the substantial issues at a high level as
6 captured in NEI's guidance with respect to the process for moving forward. And,
7 of course, we continue to work the next level down and make sure there won't be
8 any surprises in implementing that guidance.

9 COMMISSIONER LYONS: Thank you.

10 CHAIRMAN KLEIN: Commissioner Svinicki?

11 COMMISSIONER SVINICKI: I just had one that I didn't get to and
12 it's kind of down in the details, but maybe you can -- we will be having a
13 Commission meeting with Darren Ash and you might be able to help me tee up an
14 issue.

15 Occasionally, I peer into regulatory guidance. I don't know what my strange
16 fascination is with it, but it's not requirements, but I think there's a tremendous
17 amount of important staff work that goes on there. Eric, I think, was talking about
18 expectation based meetings. I think that in working with the regulated community
19 on guidance is where we sometimes unearth that we were perhaps interpreting
20 something differently.

21 I think that the work on Reg Guides really builds foundational understanding
22 between the regulator and the regulated community. I noticed that I think there

1 was a statistic that 27 Reg Guides on these programs we've talked about today
2 were under revision. I had just inquired for a list of those and the reason I'm
3 getting to Darren Ash is that in getting the list of them it was indicated to me that
4 there had been an issue because there's contractor support utilized and there had
5 been an issue in getting either task orders issued or -- I'm not sure maybe you can
6 help me understand exactly what occurred there, but nearly half of them were not
7 actually being supported. I think 12 of the 27 are not actually being revised
8 because of a contracting issue.

9 Is there anything you can help me understand the situation so that when
10 Darren is here before the Commission I could try to learn more about what the
11 delay was?

12 MR. LEEDS: This is a research-led effort for the Agency where the
13 program offices are supporting Research. Since Mike Case came to the podium
14 let me turn it to Mike. Mike owns the program.

15 MR. CASE: There's not a tremendous -- the contracting process is
16 always difficult to get through. We have a good contracting group over in the
17 Office of Research. We use them to develop the technical basis for the Reg
18 Guides and then the program offices modify the Reg Guides based on that.

19 We had some issues with funding. We have plenty of funding now. We
20 have the contractor going -- both contractors going almost up to full speed. So, I
21 think the contracting process is typically slow, so that's what you're seeing in some
22 of those comments.

1 But there's not a huge problem and the folks are really gearing up in that
2 area including getting the statements of work from the program office. It's actually
3 going very well.

4 COMMISSIONER SVINICKI: Is there anything in terms of those --
5 the contracting process always being difficult -- to use your terminology. Is there
6 anything in terms of lean six Sigma or anything else we can do are we just kind of
7 reconciled to the fact that it's a challenge for us to get through?

8 MR. CASE: There's an agency effort and then there's an Office of
9 Research effort. There's an agency effort, obviously, to look at our carryover
10 situation and do better in the contracting area. That will help with the process
11 because it will bring focus to it.

12 And then in the Office of Research we also have a Lean Six Sigma review
13 going on in some of our contracting processes. So, we're hoping for some
14 progress there.

15 We also have some development of an IT tool that will help us over in the
16 Office of Research. We think good things are going to come out of the contracting
17 process as well.

18 COMMISSIONER SVINICKI: Okay. I look forward to hearing the
19 results of that. Thank you.

20 CHAIRMAN KLEIN: From my time on the Commission I think
21 contracting is much more difficult than Reg Guides. I'm not sure if we need a Lean
22 Six Sigma, or a Fat Six Sigma for the contracting because it is challenging.

1 Well, thank you very much for good presentations and good dialogue and
2 we look forward to the next briefing and we hear all the great things that you've
3 done in NRR and NRO. Thank you very much. Meeting adjourned.

4 (Whereupon, meeting was adjourned.)