

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22

UNITED STATES NUCLEAR REGULATORY COMMISSION
BRIEFING ON NEW REACTOR ISSUES - PART 2

+++++

WEDNESDAY

OCTOBER 22, 2008

+++++

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 2: NRC STAFF

2 WILLIAM BORCHARDT, Executive Director for Operations

3 MICHAEL R. JOHNSON, Director, Office of New Reactors

4 GLENN M. TRACY, Director, Division of Construction Inspection and

5 Operational Programs

6 ROBERT LUKES, Team Leader, Inspection Program Team,

7 Construction Inspection and Allegations Branch

8 RICHARD LAURA, Team Leader, Construction Oversight Team,

9 Construction Inspection and Allegations Branch

10 ROBERT PASCARELLI, Team Leader, Assessment, Enforcement &

11 Allegations Team, Construction Inspection and Allegations Branch

12 LUIS REYES, Regional Administrator, Region II

13

14

15

16

17

18

19

20

21

22

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

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

CHAIRMAN KLEIN: Well, good afternoon. We heard from the industry this morning, so we get to hear from the staff this afternoon. I'd like to compliment the staff for all their hard work. Clearly, the new reactors has been very dynamic and very exciting.

I should probably also note that this is the first time that Luis has been back and not sitting directly across from me. So, if he tries to take your chair --

MR. BORCHARDT: I offered it to him several times and he refused to take it.

CHAIRMAN KLEIN: Any comments from my fellow Commissioners? Bill, would you like to start?

MR. BORCHARDT: Thank you. Good afternoon. Slide two shows the agenda for this afternoon's briefing. I'd just like to make a few points before I turn it over to Mike Johnson.

The importance of the 2010 budget cannot be overstated as relating to our ability to be prepared for the inspection and oversight of construction activities. It takes a while to hire and to train the inspection staff and it's in the 2010 time frame that we really have no choice but to hire and begin training that new inspection staff.

You heard from the industry today that there's a high degree of certainty that there will be some number of current applicants that will begin construction in the 2012 time frame and in order to support that we need the infrastructure and

1 the inspection program and the inspectors to be able to carry that out.

2 Relating to the budget just for another second beyond 2011 it gets very
3 unclear what the future holds. We do not have a very good picture of how many
4 combined licenses there could possibly be out over that 2010 horizon and, of
5 course, we have the NGNP activities as well as the Gen IV designs, which are all
6 in kind of pre-application review activities. But there's just a high degree of
7 uncertainty.

8 Following up on a few points from this morning's discussion, I think the
9 international experience that we are learning today is invaluable for the nation's
10 ability to succeed in this next Renaissance. If there is three major lessons that I
11 think we're learning today and that the industry needs to seriously take on board is
12 the one that you, the Commission, emphasized very much this morning is the
13 need to have detailed and complete design before they begin construction.
14 Everyone recognizes it. It's easier to recognize it then to implement it, though.

15 The second is the importance of maintaining a quality global supply chain.
16 Yeah, there is an increase in the number of U.S. domestic suppliers, but even
17 those suppliers many of them have had their QA programs sit on the shelf largely
18 inactive for a number of years. There's a desire to reactivate it, but it's a lot more
19 difficult to do than it is to say. Again, it's all about the implementation on those
20 programs.

21 And the third is that you cannot overstate the importance of the licensees,
22 the eventual operators' oversight, management oversight and quality assurance

1 during construction.

2 My personal belief is that a turnkey operation is not possible to have a
3 quality project. And so I think those are the three major international lessons that
4 are being learned today.

5 I would like to congratulate both the Headquarters and the Region II staff for
6 their proactive and cooperative approach towards dealing with the issues that
7 you're going to hear about this afternoon. These aren't urgent issues in that
8 they're not pressing on us today, but they are very important.

9 They are giving serious and very detailed thought to issues that are going to
10 be urgent two, three years from now and I think the work that they're doing now
11 and raising the kinds of issues to the Commission will be very valuable as we
12 move forward.

13 So with that, I'll turn to Mike Johnson.

14 MR. JOHNSON: Thank you, Bill. Next slide. Next slide, please.

15 Good afternoon Chairman, Commissioners. Since the June Commission meeting
16 we, I say "we" I'm not just talking about the Office of New Reactors, I'm talking
17 about our partners across the program including Region II, including the Office of
18 General Counsel, the Office of Nuclear Regulatory Research, the Office of Nuclear
19 Security and Incident Response and all of the other offices that support us in
20 meeting the agency's mission with respect to licensing new reactors.

21 We have made significant progress since that June Commission meeting.
22 We have completed the acceptance reviews for the Levy County and Summer

1 applications. On August 15th the staff delivered the Vogtle early site permit Final
2 Environmental Impact Statement to the Atomic Safety and Licensing Board and
3 also to the Environmental Protection Agency. With that notice of availability which
4 appeared on August 22nd we met the deadline that we established for ourselves
5 on the external web page.

6 In a joint effort that was led by -- joint with and led by the Office of Research
7 we worked with DOE to develop and deliver on time the Next Generation Nuclear
8 Plant licensing strategy. Next slide, please.

9 On September -- continuing with accomplishments on September 23rd,
10 2008, we revised our Memorandum of Understanding with the U.S. Army Corps of
11 Engineers regarding environmental reviews for proposed nuclear power plants and
12 also for significant actions at existing plants.

13 That MOU establishes a framework by which we participate and coordinate
14 early on to ensure that our respective responsibilities under the National
15 Environmental Policy Act are met efficiently and effectively. So, a significant
16 accomplishment.

17 On October 15th we provided to the Commission a draft final rule on
18 consideration of aircraft impacts on new nuclear power reactors. And, of course,
19 last but not least on this particular slide important to getting all the work done is
20 using our resources including contract resources.

21 And now I'm reaching back beyond the time since the most recent
22 Commission briefing and actually I am talking specifically about the office. We

1 started out with \$695,000 worth of contract resources. Over the course of the year
2 we've executed 341 task orders for new reactor work and infrastructure
3 development to a tune of \$75 million in commitments and obligations. So, we've
4 committed a significant amount of money to get the work to support us in our
5 reviews that are on our plate. Next slide, please.

6 Just a real brief mention of the status of reviews regarding the design
7 certification amendment AP1000. We received Rev. 17 on September 22nd of this
8 year. As indicated earlier the Final Environmental Impact Statement was issued in
9 August of 2008.

10 Earlier this month we received the Bell Bend COL application, combined
11 license application. With that application that brings to a total of eight since we
12 last briefed you and we now have 17 applications in-house. That's 17. That's the
13 last one that we'll get this calendar year and the bulk of the applications that we'll
14 get in this first wave.

15 Finally, we have completed 10 acceptance reviews and we're making
16 progress on reviewing the applications that have been docketed.

17 Now, if I can just turn to the topic that is central to this briefing, the
18 construction inspection program. As you'll hear the staff has made significant
19 progress in developing the construction inspection program since we last briefed
20 you on this topic a year ago.

21 Glenn Tracy, who was the Director of the Division of Construction
22 Inspection and Operating Programs will lead discussion on that progress including

1 indicating areas where we have continued work. Glenn?

2 MR. TRACY: Thanks, Mike. Good afternoon, Mr. Chairman,
3 Commissioners. I want to begin our presentation on the status of the new reactor
4 construction inspection program with a quick overview of the themes my
5 colleagues and I will address in detail with you today. Next slide, please.

6 Almost exactly one year ago Loren Plisco and I sat before you to discuss
7 the range of activities we had under way and other activities we still had to tackle.
8 Today I'm pleased report we've made substantial progress since that time.

9 I can also report that our regular contacts with industry confirm that they are
10 making plans that move them towards construction.

11 In addition, I assure you that the construction inspection program will be
12 ready to support the oversight of new plant construction as it unfolds in the coming
13 years. Next slide, please.

14 We are not pursuing these activities in a vacuum and I want to share any
15 credit for the progress we've made with our active and engaged program
16 stakeholders as well as our international colleagues.

17 In the fiscal year that just ended we conducted 11 well-attended public
18 meetings and workshops with agency stakeholders making presentations and
19 obtaining their feedback on a wide range of construction inspection program
20 developmental activities, including our program procedures, ITAAC closure, and
21 the assessment and enforcement processes.

22 Internationally, following our successful construction inspector rotation to

1 Finland last year we just completed a similar but shorter inspector rotation that
2 also included a construction inspection program manager and an operator
3 licensing examiner at the Lungmen facility under construction in Taiwan.

4 Beyond our formal MDEP issues we also continue to have an effective
5 bilateral interface with our Japanese, Korean, French and Finnish regulatory
6 colleagues. Just last month we conducted a week-long exchange with our Finnish
7 regulator in Region II.

8 In June I led two panels at the International Congress on advances in
9 nuclear power plants, which included the colleagues from Japan, Korea and
10 France. We openly discussed construction and vendor inspection practices as
11 well as experience.

12 Currently, we have someone from Japan's nuclear and industrial safety
13 agency on a one-year rotation to NRO as part of our efforts to share experience
14 with licensing and the inspection of new reactors.

15 In May, we conducted a first of a kind simultaneous parallel vendor
16 inspection with our Korean regulatory colleagues at Doosan, observed at the same
17 time by our French colleagues.

18 And finally in early 2009 we expect to initiate a technical exchange with
19 China's nuclear regulatory authority to observe ongoing reactor construction
20 activity, exchange information on our respective regulatory regimes, assist in the
21 development of a vendor oversight program and participate in an international
22 cooperative effort related to vendor oversight for those vendors providing parts

1 and services to the U.S. market in the future.

2 All of these exchanges provide key insights into each country's methods of
3 oversight and enable us to build a foundation of trust and a rapport for
4 communicating and sharing information effectively in the new global market.

5 I now would like to introduce the three team leaders in our Construction
6 Inspection and Allegations Branch who will present to you our activities on their
7 individual areas of responsibility. Bob Lukes, Rich Laura and Bob Pascarelli bring
8 a combined 40 plus years of experience to their activities in NRO in their
9 backgrounds as resident inspectors, senior resident inspectors as well as
10 participation and actual development of the ROP and managing the ROP
11 assessment process. Next slide, please.

12 First up will be Bob Lukes who heads the Inspection Program Team.

13 MR. LUKES: Thank you. Good afternoon. I lead the Inspection
14 Program Team which has the responsibility for inspection infrastructure
15 development, construction manual chapter development and inspection procedure
16 development for the New Reactor Construction Inspection Program. This
17 afternoon I plan to update you on our many activities in the area since our briefing
18 to you last October. Next slide, please.

19 NRO staff will have all inspection procedures, manual chapters and
20 infrastructure in place to meet the agency's responsibilities for construction
21 oversight of new reactors.

22 During the past year with the help of Regional staff we successfully

1 completed two manual chapters that are critical to the inspection process: Manual
2 Chapter 0613 titled "Documenting Construction Inspection Reports" and
3 Inspection Manual Chapter 2505, "Periodic Assessment of Construction Inspection
4 Program Results".

5 Both manual chapters were developed with stakeholders at 11 public
6 meetings and workshops to ensure that the broad insights were considered and
7 concerns were openly discussed.

8 Additionally, 27 inspection procedures were completed last fiscal year to
9 support future construction inspection activities. Inspection Manual Chapters
10 2501, "Early Site Permit", 2502 "Precombined License Phase" and 2507, "Vendor
11 Inspections" are currently in place and have been effectively implemented during
12 the past 18 months. Lessons learned during the use of these procedures are
13 being incorporated into future revisions.

14 We have started to move away from program development towards
15 program refinement. We are looking at the body of work that we have now
16 completed and evaluating the need for improvement of the existing inspection
17 manual documents.

18 We want to ensure that the program as developed includes the insights that
19 we continue to gain regarding the Part 52 process as well as lessons learned from
20 our substantial interactions with the international community.

21 As an example, this fiscal year we have started a multi office review of
22 Inspection Manual Chapter 2504, "The Non-ITAAC Inspections". These are the

1 programmatic inspections supporting construction and operational readiness not
2 directly related to ITAAC, such as quality assurance program implementation,
3 radiation protection, operational readiness and many others.

4 We are coordinating working group meetings that include members of the
5 Office of Nuclear Safety and Incident Response, the Regions and other NRO
6 divisions with the intent to review the content of this manual chapter.

7 These procedure reviews will verify that all programmatic areas include the
8 insights gained by all agency staff. This fine-tuning of the Inspection Manual
9 Chapter 2504 demonstrates our desire to be proactive and insure that the
10 guidance documents remain both relative, relevant and up-to-date. Next slide,
11 please.

12 NRO has undertaken a significant evaluation of our inspection program
13 infrastructure. Last fiscal year we formed an Information Technology Working
14 Group to complete this task. The purpose of this working group is to conduct a
15 high level assessment of the construction program information technology needs,
16 such as inspection documentation, inspection scheduling, fee billing and ITAAC
17 closure verification tracking.

18 Our goal is to ensure that these IT systems are effective and streamlined
19 from the beginning to the end of construction and support the smooth transition to
20 operation and the Reactor Oversight Process.

21 As an example over the last year we have invested a significant amount of
22 time and effort in the area of inspection scheduling. A scheduling working group

1 comprised of Headquarters and Regional staff is tackling this task.

2 Inspection scheduling is complex because the construction environment will
3 be fast paced and we have to make sure that we have the right inspector at the
4 right place at the right time so we capture as many opportunities to inspect
5 licensee activities as possible to support ITAAC closure verification.

6 One technical challenge involves software connectivity. Licensees use
7 scheduling software that is different from the NRC's Project Management Platform.
8 This working group in just a short time has made great strides in identifying these
9 difficulties and developing proposed resolutions.

10 NRO along with our regional partners continue to work toward
11 modernization in the area of inspection reporting while considering the needs of
12 our stakeholders. Lessons learned from the past have illustrated the need for the
13 NRC to improve our communication to the public and to ensure that the generic
14 issues that are occurring at multiple sites are captured and communicated across
15 the industry and to inspection staff.

16 We're continuing to develop a more effective way not only to communicate
17 these inspection results to the public but enhance connectivity between inspectors
18 and construction projects.

19 The need for detailed and accurate tracking of ITAAC inspections as well as
20 the desire for enhanced transparency has led to development of the Construction
21 Inspection Program Information Management System called CIPIMS.

22 CIPIMS is a database that is designed to collect the results from

1 construction and vendor inspections and sort the data in a way that supports
2 ITAAC closure verification.

3 CIPIMS will ultimately allow for a paperless inspection reporting system that
4 will communicate inspection program results more quickly and provide greater
5 transparency to all stakeholders.

6 Due to significant work during the past year, which includes completion of
7 three beta tests, CIPIMS will be ready for a pilot test this fiscal year.

8 Additional work left to perform on CIPIMS is the transfer to Enterprise
9 Project Management from its existing test platform. Our goal is to have inspection
10 scheduling, inspection reporting and ITAAC closure verification all on the same
11 platform. Next slide, please.

12 While the agency's enhanced vendor inspection program is implemented
13 out of Headquarters construction inspections will be led by Regions II's Center for
14 Construction Inspection. Our initial inspection effort estimates are 35,000 hours
15 over the life of the construction project.

16 This number includes 15,000 hours for ITAAC closure inspections, 10,000
17 hours for non-ITAAC inspections, the programmatic and operational readiness
18 inspections, 5,000 hours for reactive inspections above the baseline program in
19 response to licensee performance issues and allegations, 5,000 hours for
20 engineering design verification and technical support for ITAAC closure. Next
21 slide, please.

22 At this time I would like to turn it over to Rich Laura for more discussion

1 about ITAAC.

2 MR. LAURA: Thank you, Bob. I will now provide you an update on
3 the activity and results of the ITAAC closure working group. Next slide, please.

4 During the period of actual construction work NRC will inspect a sample of
5 ITAAC activities. After the licensees complete construction work for equipment
6 related to ITAAC they will close each ITAAC and submit a closure letter. Then
7 NRC will perform a review called ITAAC Closure Verification. This includes the
8 receipt and review of the closure letter, the NRC inspection record, allegations and
9 the Headquarters' engineering reviews if needed.

10 If no problems are identified then the NRC staff will publish a Federal
11 Register Notice announcing its determination. At the end of the process the
12 Commission makes a finding whether all acceptance criteria in the license are
13 met. By finding that all acceptance criteria are met the Commission authorizes
14 operation of the facility. Another important area I will discuss is our review of
15 international construction lessons learned and related operating experience. Next
16 slide, please.

17 While reviewing the AP1000 and ABWR ITAAC we recognize that ITAAC
18 had several areas warranting continued refinement. In February 2008 we issued a
19 regulatory issue summary to external stakeholders with feedback to improve the
20 quality and format of ITAAC. Subsequently, the vendor for AP1000 made changes
21 to the ITAAC to incorporate this guidance.

22 In another case the NRC staff met with the vendor for ESBWR and

1 provided specific feedback. These interactions were positive and should increase
2 the efficiency and effectiveness of the ITAAC closure and closure verification
3 processes.

4 Additionally, all combined licenses and design control documents are being
5 reviewed to assess the quality of ITAAC. Where appropriate, requests for
6 additional information have been issued and/or meetings held directly with the
7 vendor. Regarding future actions the staff will continue reviewing design control
8 documents and combined licenses to enhance the structure and format of ITAAC.
9 Next slide, please.

10 Overall, we've made significant progress in the area of ITAAC inspection.
11 We have developed generic ITAAC inspection schedules for AP1000 and ABWR
12 which are detailed and include inspection sample sizes for each ITAAC with
13 estimated resource requirements.

14 They were used to validate the budgeting model for the number of
15 inspection hours and have also been used by Region II in their development of
16 Inspection Strategy documents. The schedules were developed by two former
17 NRC construction inspectors with extensive construction experience.

18 This effort validated the current estimate of 35,000 inspection hours per
19 new reactor that Bob Lukes previously mentioned. The development of the
20 inspection strategy documents is a significant effort being performed by NRC
21 Region II. The strategy documents provide insights on the different ITAAC
22 families, integrate the related inspection procedures, inspection sample size and

1 resource requirements.

2 These documents are the most detailed estimate of inspection resource
3 requirements and provide specific inspection guidance.

4 To ensure the availability of NRO engineering support the staff has
5 developed lists of targeted ITAAC that will require NRO Engineering resources to
6 support ITAAC closure. These lists were generated for AP1000 and ABWR and
7 coordinated between NRC Region II and NRO engineering divisions.

8 In a related effort the Engineering Design Verification Inspections will
9 review the translation of the design into detailed construction and procurement
10 documents.

11 The staff currently plans to inspect approximately 35% of the ITAAC for
12 AP1000. It is important to note that the targeted ITAAC sample can be expanded
13 due to inspection findings. This will be discussed further by Bob Pascarelli.

14 The staff will inspect all Security and Emergency Preparedness ITAAC due
15 to the low number of related ITAAC and also due to the high relative worth. We
16 made the targeted ITAAC inspection list publicly available. Releasing this
17 information to the public was based on openness, inspection effectiveness and
18 process efficiency. This approach does not compromise the inspection program.

19 Future actions include continuing development of the Inspection Strategy
20 documents. The staff is continuing to consolidate its approach for the Engineering
21 Design Verification Inspections.

22 Lastly, and worthy to note it is important that the agency obtain detailed

1 construction and fabrication schedules from the industry. Next slide, please.

2 Licensees submit ITAAC closure letters for each ITAAC. These letters
3 must have sufficient detail to allow a reasonable person to understand the basis
4 for closure.

5 Since the last Commission briefing we have continued to have extensive
6 interaction with agency stakeholders during 11 public meetings and workshops.
7 These interactions have been vital in obtaining valuable stakeholder feedback.

8 Additionally, the ITAAC closure working group has been effective in
9 developing an interoffice consensus for key issues within the agency. The working
10 group is comprised of members from all NRO divisions, Region II and from the
11 Offices of the General Counsel and the Nuclear Security and Incident Response.

12 Significant progress has been made in developing 25 different ITAAC
13 closure letters with industry which serve as templates. These letters form the
14 basis for defining the level of detail that is required and are attached to an industry
15 guidance document which has been fully developed. These efforts represent
16 substantial progress in defining how to implement the second half of Part 52.

17 Regarding future actions we plan to issue a draft NRC Regulatory Guide
18 which endorses the detailed industry guidance document by the end of this year.
19 Next slide, please.

20 As mentioned by Bob Lukes we have designed a process and are working
21 with the agency's information technology staff to build the necessary infrastructure
22 to support the processing of a large number of ITAAC closure letters for multiple

1 projects.

2 The formal ITAAC closure verification process will be performed here in
3 Headquarters in coordination with Region II. The output is a Federal Register
4 Notice informing the public of the results of the NRC review of the licensee's
5 activities and closure letter.

6 Regarding future actions the staff will evaluate the implications of a possible
7 surge in ITAAC closure notification letters near the end of the construction project.
8 The staff also plans to develop its resource estimates and staffing needs to
9 implement the ITAAC closure verification. Next slide, please.

10 The staff has developed the process of the implementation of ITAAC
11 closure notifications and the Commission finding. At the Commission finding all
12 acceptance criteria must be met. If the Commission approves operation of the
13 facility, plant technical specifications and license conditions will govern system
14 operability requirements and the ITAAC have no further legal standing.

15 The maintenance of closed ITAAC is necessary since some ITAAC may be
16 closed early in the project. It is expected that some maintenance, testing or
17 modification of equipment related to a completed ITAAC may be needed. In order
18 to assure the acceptance criteria are met the licensee will use enhanced problem
19 identification and resolution, quality assurance, maintenance and engineering
20 design change programs.

21 If these activities are planned and not significant the process allows the
22 licensee to perform the work followed by a post work test to verify that the ITAAC

1 acceptance criteria are met. This process is similar to the limiting conditions for
2 operations and technical specifications which allow licensees to remove
3 equipment from service under a controlled process.

4 NRC efforts are in progress to have the licensees notify the NRC for
5 emerging issues that are significant and affect a closed ITAAC. Future actions
6 include evaluating the need for a specific reporting requirement regarding closed
7 ITAAC. Also the staff plans to develop template letters for notification from the
8 EDO to the Commission and from the Commission to the licensee authorizing
9 operations. Next slide, please.

10 We have a number of ongoing activity and results in the construction
11 experience area. First, between August 2007 and August 2008, 82 domestic and
12 international events were collected, screened and evaluated using the newly
13 developed construction experience process.

14 Five events warrant the issuance of a generic communication. Seven
15 events warrant communication to internal NRC technical branches and external
16 stakeholders.

17 Second, since the last Commission meeting the staff has developed several
18 generic communications including issues associated with counterfeit parts,
19 deficient concrete and rebar and ITAAC lessons learned.

20 Third, last month the staff facilitated its second formal construction
21 inspector rotation. Mike Cain in Region II, James Kellum and I from NRO
22 participated directly in exchanges with the Taiwan Atomic Energy Agency during

1 tours of the Lungmen construction site.

2 The staff has also had significant interaction with counterparts in Korea,
3 Japan, France and Finland. For example, regarding the Finnish nuclear regulator
4 STUK three NRC inspection program managers met at STUK, toured Olkiluoto 3
5 and a formal one week exchange was conducted in NRC Region II last month.

6 Forth, requested by the NRC a new working group called the Working
7 Group on Regulation of New Reactors was established at the Nuclear Energy
8 Agency. The first meeting was held in April 2008. The next meeting is scheduled
9 for later this month. The agenda includes a discussion on the best methods to
10 share construction inspection practices and experience amongst international
11 partners.

12 Fifth, the staff updated an NRC INPO Memorandum of Agreement to
13 include new reactor construction. Future actions include the staff plans to issue
14 the office instruction for construction experience and continue to support
15 international activities such as inspector exchanges and lessons learned
16 initiatives. Next slide, please.

17 That concludes my prepared remarks and with that I'll turn it over to my
18 colleague, Bob Pascarelli for discussion of assessment and enforcement.

19 MR. PASCARELLI: Thanks, Rich and good afternoon
20 Commissioners. As Glenn has previously mentioned I'm the lead for the
21 development of the assessment, enforcement and allegations program for new
22 reactors license underneath 10 CFR Part 52. Next slide, please.

1 When the staff began developing the assessment and enforcement
2 programs for new reactors we reviewed both current and historical information.
3 The staff evaluated lessons learned from domestic construction experience as
4 discussed in NUREG 1055 as well as the lessons learned and challenges to our
5 international regulatory counterparts who are currently overseeing nuclear
6 construction activities.

7 NUREG 1055 was developed with the direction of Congress and focused
8 on the causes of significant quality related problems that had occurred during the
9 construction of nuclear power plants in the 1970's and early 1980's.

10 Information Notice 2007-04 was recently issued to remind licensees of
11 those lessons learned in this report as well as current quality related issues with
12 the construction of four nuclear power plants.

13 The staff also reviewed the Reactor Oversight Program and subsequent
14 revisions over the past eight and a half years and evaluated those programmatic
15 aspects that could be translated to a construction environment.

16 Over the past year and half the staff has regularly engaged our external
17 stakeholders in 11 public meetings and workshops to discuss staff proposals and
18 actively solicit their input.

19 We first sought to establish relationships between the inspection
20 assessment and enforcement programs. Once these relationships were
21 established we then began more detailed discussions on the individual elements
22 of these programs.

1 Some of the key concepts as discussed in SECY 08-0155 are: a graded
2 approach will be utilized in the evaluation of inspection findings and the NRC's
3 response to overall licensee performance; inspection findings will be dispositioned
4 as construction finding, ITAAC related construction findings or ITAAC findings
5 depending upon predefined criteria; a traditional enforcement approach will be
6 utilized for construction; a construction response table will provide a predictable
7 NRC response for a given level of overall licensee performance; construction
8 safety focus issues will be used to identify crosscutting issues in areas important
9 to safety culture during construction. Next slide, please.

10 The construction assessment process will begin after the NRC has issued a
11 Limited Work Authorization or a combined license and there has been sufficient
12 construction activity for an assessment to be meaningful.

13 While informed by the ROP the construction assessment program does not
14 include a significance determination process or performance indicators. The
15 expected relatively short construction periods make it likely that performance
16 indicators would not have time to develop meaningful insights.

17 Additionally, risk insights have been incorporated into the ITAAC selection
18 process for NRC inspections and the significance of escalated enforcement
19 actions taken by the agency.

20 The construction response table, or CRT, will be used to develop a
21 predictable NRC response to overall licensee performance. Inputs to the CRT will
22 include escalated enforcement actions and construction safety focus issues.

1 Construction safety focus issues represent a number of violations that have
2 a common cause and are representative of weaknesses in areas important to
3 safety culture.

4 Construction safety focus issues are envisioned to be similar in concept to
5 the ROP substantive crosscutting issues in order to address the agency's review
6 of these areas. However, the final details regarding our review of these areas
7 have not been fully developed to date.

8 While the staff has discuss proposed approaches that include consideration
9 of areas important to safety culture in the assessment process during public
10 meetings with stakeholders the staff is continuing to monitor implementation of
11 crosscutting issues and safety culture within the framework of the ROP and to
12 engage with industry and other public stakeholders to discuss proposed
13 approaches for evaluating areas important to safety culture in the context of the
14 construction assessment process.

15 Informed by these ongoing ROP initiatives the final inputs to construction
16 safety focus issues will continue to be developed with stakeholders during the
17 conduct of future public meetings.

18 Significant areas for future staff work include the development of
19 components and aspects associated with inspection findings, thresholds for
20 identifying a construction safety focus issue and appropriate NRC follow-up
21 actions.

22 Based upon a given number of escalating enforcement actions and

1 construction safety focus issues the NRC will take certain predefined actions.
2 These actions include expanding the baseline inspection program in the areas of
3 concern or to inspect previously non-targeted ITAAC in the area of concern.

4 Additional NRC actions for each call to the construction response table may
5 include increased NRC management interaction with licensee management and
6 other actions such as the issuance of confirmatory action letters, demand for
7 information or orders.

8 The construction assessment process will consist of a formal NRC review of
9 licensee performance on a semi-annual basis as well as a less formal review in
10 the interim periods between semi-annual assessments.

11 The semi-annual performance assessment will review inspection findings,
12 enforcement, allegations, safety culture and the results of NRC program
13 inspections.

14 During these reviews violations applicable to the assessment period will be
15 evaluated to determine if a construction safety focus issue exists by determining if
16 the violations had a common cause warranting additional licensee and/or NRC
17 attention.

18 Performance assessment letters will be sent to all licensees after the
19 completion of the semi-annual performance reviews and will be available to the
20 public. As is done with operating plants, plants under construction with significant
21 performance weaknesses will be discussed at the Agency Action Review Meeting
22 to confirm the appropriateness of agency actions.

1 The Commission will be briefed on the results of the Agency Action Review
2 Meeting. Additionally, on a yearly basis an annual public meeting will be held in
3 the vicinity of the new reactor site. The purpose of the annual public meeting is to
4 provide an opportunity for the public to engage in a dialogue with the NRC
5 regarding the performance of the licensee that is building a nuclear power plant in
6 their community. Next slide, please.

7 Violations identified during construction inspections will be dispositioned
8 utilizing a traditional enforcement approach. The staff has concluded that
9 traditional enforcement is most appropriate for this application. The use of
10 traditional enforcement is well-established and was effectively used to address
11 issues identified by inspectors during the Browns Ferry Unit 1 recovery project.

12 Traditional enforcement is also being used for Watts Bar Unit 2 reactivation.
13 A proposed revision of the enforcement policy was published in the Federal
14 Register on September 15th, 2008 for public comment. The proposed revision
15 contains examples of violations including construction to reflect the 10 CFR Part
16 52 licensing process and lessons learned.

17 Violations that do not meet this criteria of severity Level I, II, III and IV
18 violations would be considered minor and as in the ROP would not typically be
19 documented by NRC inspectors.

20 The use of non-cited violations would also be considered as describing the
21 enforcement policy following NRC's assessment of the licensee's corrective action
22 program. The use of non-cited violations as part of the enforcement process is

1 predicated on the licensee having an effective corrective action program into which
2 identified issues are entered and are resolved in a timely manner.

3 Since its conception NRC regional experience has demonstrated the
4 importance of maintaining agency awareness of the licensee's corrective action
5 program effectiveness.

6 Initially it is anticipated that the licensee and the construction work force
7 may have limited experience with the implementation of the site corrective action
8 program; therefore, near the beginning of construction for each plant problem
9 identification and resolution inspections will be conducted to assess the licensees
10 implementation of their corrective action program for the purpose of making a
11 determination regarding the use of non-cited violations.

12 This inspection will occur in two parts: a program review and an
13 effectiveness review. The industry continues to develop a standardized corrective
14 action program which the NRC will review and intends to endorse if found
15 acceptable. This should allow the NRC to inspect against an established program
16 before construction activity begins.

17 The NRC will conduct the effectiveness portion of the inspection when
18 sufficient CAP activity has occurred to make the inspection more meaningful. The
19 results of resident and other inspections, vendor remote module fabricators,
20 specialist's inspections, et cetera will be considered along with the results of
21 problem identification and resolution inspections in formulating the NRC's
22 assessment.

1 Once the NRC has satisfactorily completed this inspection, subsequent
2 severe Level IV violations will be issued as non-cited violations provided the
3 criteria and the enforcement policies have been met.

4 The use of non-cited violations is desirable for both the NRC and licensees
5 as the resources required for the licensee to respond in writing to every low-level
6 violation and the NRC to review each of these responses would be more
7 effectively utilized in other aspects of our programs.

8 Subsequently, the NRC will assess the effectiveness of the corrective
9 action program by having resident inspectors screen issues on a daily basis, by
10 performing semiannual trend reviews, by reviewing the disposition of NRC
11 identified issues and by performing periodic problem identification and resolution
12 team inspections.

13 In summary, the objective of the agency's oversight of new reactor
14 construction activities is to ensure that these activities will be completed in
15 accordance with the design and will lead to safe operation.

16 This objective will be accomplished by encouraging licensees and their
17 contractors and vendors to detect and correct problems in a manner that ensures
18 that quality and safety are top priorities. We believe that the program that we have
19 described is the best way to achieve this objective. Next slide, please.

20 That concludes my prepared remarks. With that, I'll turn it over to
21 Mr. Reyes.

22 MR. REYES: Thanks, Bob. Chairman, Commissioners it is indeed a

1 pleasure to be back here to brief you on the status of the Center for Construction
2 Inspection. It's really a pleasure that I'm sitting to the right of Bill and he gets all
3 the action items.

4 Let me just talk a little bit about the Center and where we are. I'm glad to
5 report the Center is fully staffed per the budget allocations you have given us. The
6 Center is led by three very experienced executives that are dedicated to monitor
7 and manage the Center's inspection activities.

8 We have been very active in working with the Office of New Reactors in
9 program development and very active in recruiting and staffing the organization.
10 But very little known is that we're doing a lot of construction inspection already.

11 We have the inspection effort for the LES fuel facility. It's from the Center.
12 We have the inspection of the mixed oxide fuel facility. The construction resident
13 inspector for that facility is run out of that office.

14 And, of course, the reactivation of Watts Bar Unit 2 which also has a
15 construction resident inspector office. So, the Center is fully staffed, very active
16 and actually doing construction inspection and partnering with NRO on program
17 development.

18 Now, you heard the numbers regarding the inspection hours or the
19 inspection effort that we're expecting to conduct. Under our program most of that
20 would be conducted by the construction office with the resident inspectors that are
21 going to be assigned to that facility.

22 Originally, we were triggering the pouring or safety related concrete

1 activities to be our trigger point. You heard this morning from the industry where
2 there's going to be a lot of activity in terms of modular construction that precedes
3 the COL, therefore precedes safety related concrete.

4 And also we have learned with our experiences at LES and at MOX and
5 previously at Browns Ferry Unit 1, that early identification of issues by the NRC is
6 an important contribution to safety and also an important contribution to schedule
7 certainty.

8 Based on all that information we expect now to open the first construction
9 resident inspector offices at several projects in fiscal year 2010. Now, I want to
10 thank the Commission because in the budget for 2010 you gave us the resources
11 for infrastructure. We have the monies to open those offices, buy the equipment
12 and establish that.

13 We have used the establishment of the resident inspector office at Watts
14 Bar Unit 2 as the model. We captured some lessons learned from that effort that
15 would be similar to what we'll be doing in the new reactors, so we have estimates
16 on the time it takes to put the office together, the equipment, et cetera, et cetera.
17 We feel comfortable that in fiscal year 2010 will be able to do that.

18 Now, we're going to have a lot of inspection going on at the same time in
19 multiple projects. The first thing is you know that Region II is going to be moving
20 to another location. We thank you for your support on that.

21 One of the features of the new location is we're going to have a room which
22 we haven't labeled it yet, but its nicknamed "The War Room" in terms of the

1 architect. We're going to have a war room where we're going to be able to have a
2 facility to manage all these activities in multiple projects.

3 Now, the key to being efficient and effective in our inspection program is to
4 have the right person with the right skills at the right place at the right time. In the
5 previous effort that was pretty easy. If we have our inspector work for us at the
6 site there was a good chance that any change in schedules and activities would be
7 caught because we would be physically there.

8 Now, we have a dispersed approach to construction and have module
9 construction at remote locations; module construction maybe nearby to the site
10 and at the site. So, planning and scheduling is a big significant and important
11 issue for us.

12 Now, we have partnered with the Office of New Reactors and we're using
13 their technology in terms of software and we've been meeting with the different
14 projects. And I am glad to report that we have successfully made arrangements to
15 import the information from their schedule to our software. They're going to
16 designate certain activities with a particular nomenclature so we only need to
17 extract what is relevant to us. And we'll be able to import that information to us
18 very frequently. In fact, it could be on a daily basis if needed to be.

19 The idea would be that we can do that with all the projects and be able to
20 manage our resources in such a way so impacts and changes on different
21 schedules and different projects we can still monitor all our activities and be
22 efficient and effective using our resources.

1 Now, talking about resources, we do have some uncertainties in our
2 budgeting for resources. The reason is that we need to understand what the
3 activity is going to be, where it's going to be and how the projects are going to go
4 forward.

5 To that extent both NRO and Region II have been meeting with all the
6 projects at the sites to get a better understanding of what their planning and
7 scheduling is. We have that information now and it will be updated. And we're
8 going to use that intelligence to get back to you into discussions on fiscal year
9 2010 budget if there's any, but definitely for 2011 by then.

10 What we owe you is a bigger clarity in the activity level that we expect in
11 terms of resources for all these projects. There's an issue that sometimes the
12 communication is not as clear in that in the old days vendor inspections were
13 things that were done in preparation where components were being built, et
14 cetera, et cetera and construction inspection was pretty much defined for the
15 activity on site.

16 You can imagine now we can have construction inspection type of activity
17 on a module that's being built in Lake Charles, Louisiana like you heard this
18 morning which is basically a construction activity that's preceding the COL but all
19 intent is to keep the custody of that ITAAC and those activities into the future.

20 So, we are meeting with every project. We are trying to clarify those
21 uncertainties of resources and we'll be providing that to you to make sure we are
22 ready for all these activities.

1 That concludes my remarks in terms of the Center and I'll turn it over to
2 Glenn for a summary.

3 MR. TRACY: Next slide, please. So in summary, we've achieved a
4 number of important program milestones this past year and are prepared to fulfill
5 our responsibilities for program oversight as they arise in the coming years.

6 We've done so, we believe, with effective coordination and important
7 contributions from the industry and from our other program stakeholders. In
8 addition, we've had substantial real learning from our interactions from our
9 international colleagues. Next slide.

10 Going forward we have identified several key areas of focus for fiscal year
11 2009 and to highlight a few.

12 First, conducting and refining the engineering design verification inspections
13 which are intended to verify the accurate translation of the design requirements
14 and the certified designs into applicable documents by the Engineer Procurement
15 Constructor or EPC entities. Specifically, we have planned a pilot inspection of
16 Westinghouse's AP1000 at Westinghouse next week.

17 Next, developing with stakeholders both the components comprising
18 construction safety focus issues as well as the specific assessment methodologies
19 in the area of safety culture and the entire assessment process that Bob Pascarelli
20 described.

21 Third, planning as Luis said for the inspection of those module vendors who
22 are expected to conduct both vendor and ITAAC field inspection including the

1 potential and realistic likelihood of resident inspectors.

2 Fourth, evaluating the details of the transition of a new reactor from the
3 construction inspection program to the Reactor Oversight Process or ROP and
4 from Region II to the host region.

5 And finally, the piloting of CIPIMS, developing over 100 detailed inspection
6 strategy documents and incorporating and reviewing revised and additional and
7 new ITAAC for the newer designs will keep the headquarters and the Region
8 2 staffs in the construction program fully employed.

9 We appreciate this opportunity and look forward to responding to your
10 questions.

11 MR. BORCHARDT: That completes the staff's presentation. Thank
12 you.

13 CHAIRMAN KLEIN: Thanks. It's clear that you've been busy since
14 the last briefing and that you are looking at life beyond the COL stage activities.
15 We'll start with Commissioner Jaczko.

16 COMMISSIONER JACZKO: Thank you, Mr. Chairman. I have a
17 variety of questions. Probably a lot of them will focus on ITAAC because I think
18 there's a lot of interesting issues there. I was going through and I made one little
19 quick calculation here. This may not be accurate, but we talk about the 35,000
20 hours of inspections that we're going to do.

21 If you just make in assumption about -- and this is a rough assumption
22 about how many hours of work will go on on the licensee side, I assumed we

1 heard earlier peak work force could be around 4,000 people. So I assume, let's
2 say construction takes four years. I think that's a very conservative estimate
3 because we talked about all the modular work and all those other kind of things.
4 And just being conservative say an average about 1,000 workers for four years.

5 You get about 4,000 year worker units, I guess. And say on average a
6 person works 40 hours a week. That's 2,000 hours a year. It gets you at about -- I
7 think if I did right -- 8 million kind of construction hours.

8 So, when we talk about 35,000 hours that comes out almost -- again,
9 assuming all of those 35,000 hours are in kind of construction oversight, which
10 5,000 of them are in engineering design and verification. We're talking about
11 inspecting one-half of 1% of the work that goes on.

12 So, there is a lot that we don't inspect and I think it's important to keep in
13 mind sometimes we talk about these large number of hours of inspections, but
14 sometimes I think those numbers are a little bit misleading in terms of the real
15 magnitude, in fact, of what we're doing which really in my mind hits home to one of
16 the most important pieces of all of this and what so much of this is going to come
17 down to which is the QA programs.

18 Bill -- this is probably an opportunity, Luis, where you're happy not to be
19 sitting in Bill's seat. Bill, you talked about the QA programs as one of your --
20 quality assurance during construction as one of the three key issues for
21 international lessons learned. We heard about it this morning as well, I think, from
22 the panel this morning about the importance of QA and how that works.

1 Now, obviously, QA is a requirement that we have imposed on licensees.
2 So, I'm wondering -- this is kind of a general question, but just if you could touch a
3 little bit on how we're going to make sure the QA programs are right in that they
4 work because as I see it that is so much of what really enforces or insures
5 oversight of the construction activity is that they have a good QA program.

6 Can you highlight that a little bit about some of the QA issues, Glenn or
7 whoever?

8 MR. TRACY: Well, I'll try to provide an overview and let the experts
9 that I have at the table acknowledge. If you could put up the overall oversight
10 construction program slide quickly, but I just want to assure you that we're already
11 starting.

12 I have two branches under John Nakoski and Juan Peralta called the
13 Quality Assurance and Vendor Branch. So, what they're doing is they're working
14 with our licensing experts to validate that the quality programs that they're
15 promising in the COLs are actually being utilized in the development of the DCDs
16 and licensees.

17 We then -- the next step is when they start implementing that into this next
18 week's design certification -- engineering design verification inspection. We're
19 going to validate that the translation of that design cert has been appropriately put
20 into actual blueprints and procurement documents and that there's a real QA
21 meeting our NQA standards as well as any of the codes for the actual fabrication.

22 Then on site we'll have specific quality assurance inspections, not only

1 done by headquarters for program, but more so by Loren and Luis's staff in
2 Region II actually conducting quality assurance. And lastly, I'd point out that all
3 throughout our inspection procedures and we can show you is the quality
4 assurance aspects are an actual part of how we actually conduct on a specific
5 procedure.

6 And so what I would point out to you is not only throughout construction, but
7 in terms of the procurement and the translation of design and through the design
8 our agency has in and of itself tried to make sure that oversight is key. And I
9 would only lastly add that that's part of the reason why we have posters
10 everywhere reminding us of what happened in the '70s and '80s about 1055. So,
11 that's the bottom line.

12 MR. REYES: If I can supplement with that. And then in the
13 execution on the site in addition to all that Glenn mentioned whenever we have a
14 finding one of the key questions is in addition to resolving the issue is how come
15 QA did not identify were there other opportunities where QA could have identified
16 later on in the program?

17 Those issues are dealt with every time we have a finding. So, we have not
18 only programmatic review, but as it gets implemented we have a daily check that
19 in fact is being properly executed. We just -- critical. The programs are always
20 good, but when you get into the field and you have 4,000 people doing activities
21 then that execution becomes critical.

22 COMMISSIONER JACZKO: It sounds like you have a focus on it.

1 As I said, I think that is a crucial piece and one we have to make sure we put the
2 resources towards ensuring the right kind of oversight and inspection.

3 The next question I wanted to ask is a little bit more on ITAAC. I had a very
4 good briefing from the staff prior to this to talk a little bit about what we're doing in
5 the ITAAC arena. I would certainly echo the comments of the Chairman that this
6 is a very timely meeting now because it does give us the opportunity to look at
7 issues in advance with sufficient time to make corrections if we need to or really
8 emphasize places or things that are working well in our construction inspection
9 program.

10 One of the interesting things -- and when I had this briefing one of the
11 things that really hit home in a way that I don't think had was the dynamic nature of
12 the ITAAC. I guess the dynamic nature of construction. You read the Atomic
13 Energy Act. You read Part 52. It's as if these ITAAC or these kind of monolithic
14 timeless entities that seal in stone so to speak certain portions of the plant and
15 never get touched and then all of a sudden they load fuel and everything is
16 magically brought back to life or something like that. And obviously, that's not the
17 case.

18 So, there's a real balance, I think, and a real challenge here with making
19 sure that we maintain a good understanding of how plant and construction
20 development is affecting the status of the ITAAC. I think the staff in the briefing
21 that I had talked a little bit about approaches for doing that. It seems like there's a
22 good discussion right now in that area.

1 The question that I have and this is something that we discussed a little bit
2 in the briefing was really the notification requirements that licensees or applicant --
3 well, I guess they'd be licensees at that point would have to notify us when
4 changes have been made to equipment that invalidates the ITAAC. I don't know if
5 you want to comment on that, Rich.

6 MR. LAURA: Could I have backup slide 3, please? Basically, this
7 flow chart was our best efforts of trying to take the regulation and practically how
8 to implement it. It combines actually 52.99 and 103G. And one of those boxes, I
9 think it's block 13, and I'm not going to try to point at it. It's kind of small.

10 COMMISSIONER JACZKO: High resolution.

11 MR. LAURA: That is exactly where you're talking about that we will
12 be in the situation where early on in the project maybe during the first year they
13 may close several ITAAC and those ITAAC, they will submit a letter to us. We
14 may even review them and close them then subsequently in a year or two years
15 later something may occur that causes the licensee to go back to that equipment.

16 What we try to do is come up with a process that handles that. There may
17 be some situations where it's relatively minor impacts where they do maybe
18 change the oil on a pump or adjust the packing in a valve; something that's
19 controlled by enhanced programs. That's the key that we're looking for is some
20 additional controls in the QA, the engineering, the maintenance. And then when
21 that activity is completed that the acceptance criteria is met. That's the key.

22 Now, there may be some activities that occur that are fairly significant and

1 emergent and/or emergent that we would want to know about. In those cases we
2 are working openly with industry in our workshops -- and this was a discussion last
3 month and we have another one scheduled for next week where we're looking
4 hard at the reporting requirements and trying to make sure that our thoughts and
5 expectations will be met.

6 For example, if there was some heavy equipment in the plant and it
7 bumped into some real important safety related switch gear and caused extensive
8 damage we would want to know about that. Regardless of closed ITAAC or not
9 we would have the Region II staff there and we're comfortable that there would be
10 notification to the NRC.

11 They would have to update their letter to us and we would have to evaluate
12 if we've already issued a Federal Register Notice that we need to update that.

13 So, we're looking at a process that's efficient and effective and kind of
14 draws the line as to where what's planned and controlled and relatively minor
15 which there'll be a lot of that, frankly, as opposed to something that's significant
16 where we do need to know and where we will let the public be aware of that.

17 MR. REYES: I think of it in two levels. One is activities that are no
18 different than when the plant is already running and you do modifications and you
19 replace components and monitor that. There are others that are different and
20 could challenge the ITAAC conclusions.

21 But then think about it in two levels again. When we're at the site with our
22 construction inspection and work force we go every day to the planning meeting to

1 the discussion meeting. So, you get this informal notification where if it's on site, a
2 heavy piece of equipment that damaged something we'll be there and we'll know
3 about it. That's the informal level.

4 And then you have to decide on the formal level on how to process the
5 licensing aspect of it.

6 COMMISSIONER JACZKO: Certainly from my perspective I think
7 some of the things that you said, Rich, I think I'm generally comfortable with. I
8 think if they're minor and kind of planned maintenance activities that those
9 wouldn't necessarily invalidate or require notification.

10 But certainly I'm not sure the analogy to a maintenance program or if an
11 operating plant is the same I think because it is a very different threshold and
12 standard with the ITAAC. I certainly wouldn't want an ITAAC to be certified early
13 in the process and then there be a major modification or swap out of that piece of
14 equipment and that not receive notification.

15 That is to me something that would need -- I'm assuming that when I'm
16 making a finding about an ITAAC that it's the same piece of equipment that the
17 ITAAC finding was originally made for. There may be some -- I think it's going to
18 be a difficult issue to work out the details of, but I certainly would err on the side of
19 more notification.

20 I don't think we can be overly stingy in that area or expansive, I guess,
21 depending on how you want to look at it. I think having an understanding of what
22 the state of the plant is and how it does comply with the license conditions is

1 crucial given the important nature of the ITAAC and ultimately really the finding
2 that the Commission has to make.

3 That is ultimately how we decide to issue a notification about fuel load is on
4 the ITAAC. I think having that good clarity is important. I have several other
5 questions, but perhaps we'll do a second round.

6 CHAIRMAN KLEIN: I think there'll be several rounds.
7 Commissioner Lyons?

8 COMMISSIONER LYONS: Well, I thank all of you for a good
9 presentation. As the Chairman said I'm very happy to see Luis back here and Bill.
10 You already noted you're happy, too. And also a special compliment to the team
11 leaders who are here. I think that's a very, very important addition to the overall
12 meeting format and I appreciate your contributions.

13 By way of questions both Luis and Glenn talked about some of the
14 challenges associated with the modular construction sites and the challenges of
15 inspecting at modular construction sites. One or both of you mentioned the
16 possibility of even considering resident inspectors.

17 I can see how that works with what Shaw told us this morning with the Lake
18 Charles facility, I see how the resident inspector idea might work. It might work
19 very well there. I don't know if other vendors are planning on that degree of
20 centralization of their modular construction.

21 I was just wondering how or if you would see the use of a resident inspector
22 going into some of these other situations?

1 MR. REYES: We have particular in these meetings with the different
2 projects. The AP1000 family approach is slightly different than the other
3 technologies. What we know today we would not specifically think about putting a
4 resident inspector in the other approaches because it doesn't appear to be as
5 efficient. What we're looking for is efficiency of our resources.

6 In the Lake Charles facility the plan is to do all the modules for all the
7 AP1000s; extensive amount of work even before the COLs are received. So, you
8 can envision a significant amount of work concurrently ongoing on modules for
9 three or four projects and so our flying back and forth et cetera, et cetera has to be
10 balanced. That's a discussion we have had with them.

11 We have detailed knowledge of the schedule of that facility. We're planning
12 to have another meeting with them at the facility next year to try to formalize
13 what's the best way to approach it.

14 Now, the other dimension to the discussion is to what extent if any there'll
15 be ITAAC activity at that facility where the intention to keep the custody of that
16 work and translate it to the final ITAAC that is going to occur on site. That's still a
17 discussion that's not finalized and therefore we haven't been able to make a final
18 decision on that.

19 But as an active consideration as Glenn mentioned that we have been
20 discussing and as soon as we have a recommendation we'll notify you.

21 MR. BORCHARDT: I think the other fact that argues against having
22 a resident inspector at some of those sites is I know many of you have gone to

1 fabrication facilities overseas. The workload tends not too be evenly distributed
2 from day to day.

3 It goes -- there's a chunk of a few days where they'll work on a module or a
4 major component and then it sits for weeks and then it gets worked again. It's a
5 different way of operating the workload at these fabrication facilities then what you
6 would normally assume, I think.

7 COMMISSIONER LYONS: I had planned in my questions to go into
8 a fair bit of detail on the issue of how ITAACs are maintained, how it might be
9 necessary to reopen them. I was very pleased that Commissioner Jaczko I think
10 already explored that in great detail with you. I do regard that as a very, very
11 important issue and I was very happy to listen to the discussion. I think you
12 covered it well. Obviously, an important area.

13 A question for Bob Lukes. You mentioned -- I think you were the first to
14 mention the 35,000 hours of inspection. I was searching back in my memory as to
15 what the number was for Browns Ferry. I was thinking it was much higher than
16 that. Maybe I'm remembering wrong, but that also was a very different situation.

17 I was just curious if you or any of you could contrast that number to Browns
18 Ferry as well as contrast any differences. I was remembering numbers more like
19 two to three times the 35,000 at Browns Ferry, but maybe I'm wrong.

20 MR. LUKES: I don't have that data.

21 MR. LAURA: I think there's a lot of differences, too, when you make
22 those comparisons like, for example, Browns Ferry is under Part 50 and we're

1 going to look at Part 52 which gives us these ITAACs which are very definite
2 specific points that --

3 COMMISSIONER LYONS: That's an important point.

4 MR. TRACY: Just to respond, we'll take that as a lookup, quite
5 frankly, but what we have validated against was Seabrook and the actual hours
6 and the history of Seabrook inspection in our previous validation. In fact, one of
7 the former construction inspectors who we currently utilize was at Seabrook and
8 did this historical analysis for us, Commissioner.

9 COMMISSIONER LYONS: I also wanted to address a question of
10 safety culture. Bob Pascarelli and Glenn you both referred to safety culture in the
11 construction process. I was just curious if you could talk a little bit more about how
12 you see safety culture in that type of an environment?

13 It's easier for me to understand how safety culture -- I can understand how
14 it's important in all these different arenas, but I can imagine that it may be a little
15 bit easier to measure or document safety culture in the reactor oversight process
16 for an operating reactor.

17 I'm just curious if you can share thinking at this point on how safety culture
18 might be validated in the construction environment? I don't know to whom I should
19 be addressing that.

20 MR. PASCARELLI: Commissioner, one of the things we know is
21 from our domestic and international experiences those insights that we gather in
22 areas of important to safety culture is important information for the agency to

1 gather. And also from an efficiency standpoint recognize that again it's more
2 efficient for us to gather those insights during our routine inspections rather than
3 go out and do a dedicated safety culture inspection at every site.

4 Having said that, we recognize there's a lot of work that we need to do. We
5 need to figure out how we're going to get to the point where we would roll it up as
6 what we've talked about as a construction safety focus issue. How do we get
7 there? How do we help the inspectors? How do we provide guidance so the
8 inspectors can identify and document that correctly so that that evaluation can be
9 made?

10 And then we also have to look at what would be the appropriate NRC follow
11 up and expected licensee actions in certain circumstances? So, again, the
12 message is we've done some work in that area, but we have a lot more work to do
13 in that realm to figure out what our program is going to look like. But these
14 discussions will happen in a public forum as our previously public meetings have
15 occurred as well.

16 MR. TRACY: I would just add that I had listened to Mr. Thornberry
17 this morning and I heard him mention culture several times and I heard him
18 mention safety conscious work involvement. I heard him mention problem
19 identification and resolution and quality programs. Those are the same three that
20 I've had discussions with our NEI colleagues on general concepts.

21 And lastly, during that session Lawrence and my staff had with Petteri
22 Tiippana from Olkiluoto 3 and STUK. He defines and it's his own slides from a

1 week ago a strict respect on the design criteria, the inspection requirements and
2 the quality requirements which is all involved into those three elements. So, I think
3 Mr. Thornberry had it right and I think we'll take his comments and move on from
4 there in the next public meetings.

5 MR. JOHNSON: If I could just add we are mindful of the
6 Commission's direction on safety culture. We are also mindful that the work that
7 NRR is doing on operating reactors in the area of safety culture and we are joined
8 at the hip with them in terms of watching that unfold and then figuring how to factor
9 that into the process that we have. So again, we've done a lot. There's a lot more
10 to do. We'll make sure that we engage all the stakeholders.

11 COMMISSIONER LYONS: I think at least two of you referenced that
12 this is the subject of ongoing discussions with stakeholders, which I think is also
13 very important to continue with a full set of ideas as we refine this. Mike, I was
14 very interested and Mr. Thornberry did mention that this morning.

15 MR. BORCHARDT: It's become one of the top topics of interest
16 internationally as well. The IAEA is developing some protocols for evaluating
17 safety culture. Our Office of Enforcement which has the agency lead in the safety
18 culture area is working with that interaction. The whole world is trying to figure out
19 how best to approach this area and no one has the answer.

20 COMMISSIONER LYONS: By way of one last question this might go
21 to Mike. You talked about the importance of the MOU with the Army Corps of
22 Engineers. I wonder if you can just perhaps share a little bit more about what

1 some of the benefits of that MOU will be and how it may streamline or better
2 address some of the related issues?

3 MR. JOHNSON: I think the primary benefit perhaps is that one of
4 the features of this MOU is it provides for us to work concurrently with the Army
5 Corps as we go through that environmental impact statement development such
6 that we are more efficient as opposed to them, for example, completing our work
7 and then them beginning their work.

8 So, we work alongside of them -- them as a cooperating agency, us as a
9 lead agency. We develop -- if there are questions we share those so that from an
10 applicant perspective they're seeing one federal interface as opposed to having to
11 interface with us separately. I think that's primarily a major benefit or the primary
12 benefit I would say of the MOU.

13 I would also say the MOU provides flexibility. We recognize that the
14 districts are working with applicants. This MOU doesn't foreclose that possibility,
15 so it's an opportunity for us all to work and coordinate earlier and to work better
16 together and not restrictive. I think those are the major benefits.

17 MR. REYES: If I could give you some practical examples. Several
18 projects have issues of wetlands they have to deal with. Through the MOU what
19 could happen and what it appears will happen is that as soon as our
20 environmental work is done the licensees can work through the Corp and the state
21 and within 30 days in theory move on to something they have already discussed
22 and worked through how to resolve that matter in that there was a lot a parallel

1 effort that went along as the environmental reviews were being done.

2 That is a significant lessening of the impact that would have gone through
3 the project otherwise if we would have done it in series. So, I was taken aback of
4 how much of an improvement it was viewed by the applicant in terms of being able
5 to have this working relationship between the two federal agencies as a practical
6 reduction of the potential impact on moving on with construction.

7 MR. JOHNSON: And did I forget to mention -- my boss reminded
8 me. A primary benefit, actually, is that we're issuing one Environmental Impact
9 Statement as opposed to two. That's perfectly consistent with NEPA. So again, a
10 lot of benefits from that MOU. Thanks, Bruce.

11 COMMISSIONER LYONS: Thank you.

12 CHAIRMAN KLEIN: Commissioner Svinicki?

13 COMMISSIONER SVINICKI: Thank you, Mr. Chairman and thank
14 you everyone for the presentations. I have to publicly acknowledge and thank
15 Commissioner Jaczko because ITAAC was one of the topics that he alerted me to
16 early. I'm not sure if he remembers this. It seemed kind of an exotic thing at the
17 time the first few weeks in a job to have him bring this up. But I did, I followed up
18 on it and it was one of the early briefings that I got was on ITAAC development
19 and tracking and closure.

20 And, of course, Commissioner Jaczko has mentioned that the reason for --
21 on our side of the table this has a special significance because it is the predicate
22 for a very important finding that the Commission will be asked to make in the

1 public interest under Part 52. So, this is a very important topic for us.

2 And even in the six months I've been here so that was an early briefing I
3 got. When I think about the status that we got on some of the slides today on 16
4 and 17. I mean, by anyone's measure this is a very impressive amount of work
5 and I think the readiness, the posture of the agency's staff that is indicated here is
6 very impressive. I just have to compliment that because I think that everyone is
7 really leaning into this issue and not for lack of trying will we be in the best
8 possible standing that we can be when it comes time to invoke these processes.

9 I hate to -- well, maybe it's a sign of how much good work's been done that
10 I'm going to ask a very specific question. This morning when it came up with the
11 industry panel they talked about -- what was it -- flow mapping or flow charting. I
12 didn't know what the term was, but I said it's this great choreography.

13 But I knew Luis got it at the time because out of the corner of my eye I
14 could see him nodding his head this morning and he mentioned it today. It's the
15 right person with the right expertise at the right place at the right time. And that's
16 not a trivial task. I think, Luis, you telegraphed a little of that.

17 You said that you are trying to integrate schedules so that even daily you
18 can be getting a status update that will at least give us the best chance of having
19 that person where we need him or her on any given day.

20 I did notice one other thing though, that there is this very -- I guess I learned
21 something today. You're pronouncing this acronym "CIPIMS"? This is the
22 Program Information Management System for Construction Inspection. I did

1 notice, so this is my very detailed question.

2 For inspectors in the inspection manual chapter they are instructed that
3 there's not a word processing capability in CIPIMS so they have to write their
4 inspection reports in a word processing system and they have to cut and paste
5 into this. That just struck me -- is there no way that they could actually enter their
6 input into this system?

7 MR. LUKES: Actually, that's one of the things we're addressing with
8 the transition of CIPIMS. Originally we started with CIPIMS because we had the
9 infrastructure in place to develop it kind of in the RPS type platform. That platform
10 doesn't allow spell checking and that type of stuff. So, inspectors being -- wanting
11 to have the highest quality they want to spell check their work before they put it out
12 in the public.

13 Our next step is to transition that CIPIMS after we beta test it and we've got
14 the structure set. It's what we've been told is a pretty easy transition into EPM and
15 then they will have spell check capability.

16 COMMISSIONER SVINICKI: Okay. And again, because I just think
17 over time that could become a bit of an irritant. I mean, again, you've got to cut
18 and paste. You're not sure that you've captured all the text and that could
19 introduce new things that would be you'd need to do fact checking and error
20 checking there. So, if we can eliminate those steps.

21 Again, this will be a complicated orchestration of having people working on
22 multiple reports at one time. So, I appreciate your focus on that. I think we can at

1 least try to take things and make them as straight forward as possible for our
2 inspectors. So, I appreciate you looking at that.

3 I did notice also that you talked about the industry guidance document. I
4 think we may have heard mention of that this morning that there's 16, I think they
5 said, although this says 25 different ITAAC closure letters that have been
6 developed. That's another thing I want to compliment in terms of if NRC can at
7 least receive notification of the readiness for closure of an ITAAC with a standard
8 template I think that will make it that much more understandable.

9 I did have a question. It talks about -- you discussed endorsing -- perhaps
10 endorsing the industry guidance by the end of the year. Would you be endorsing
11 that with exceptions? Or do you think you'll be able to endorse that --

12 MR. TRACY: We do not believe at this time -- although Rich can
13 provide the specifics, but we've had substantial discussions of the actual
14 development of this during the public workshops, so as a result many of those
15 issues have been openly addressed. So, it is unlikely at this time, but we are
16 going through the final review and we'll go through the formal agency Reg Guide
17 process, so that could allow. But our current vision is not.

18 COMMISSIONER SVINICKI: Okay.

19 COMMISSIONER JACZKO: I'm sorry, not modifications?

20 MR. TRACY: That is not at this point in time, Commissioner. Again,
21 we just received the final last version. In fact, we were just discussing and
22 although there may be some edits or some other aspects that my staff will identify

1 it will then go through the formal regulatory guide process which allows for
2 commenting. At this point I wanted to answer directly I did not anticipate us
3 requiring any edits at this point in time.

4 COMMISSIONER SVINICKI: Okay. And acknowledging, of course,
5 as you go through that process that there may be things introduced. I was trying
6 to calibrate on how closely the industry guidance might. And again, you know, to
7 be clear that's not an accident, of course. You have been working with
8 stakeholders and doing a very public process here. So, that's why it sounds like a
9 very good alignment.

10 MR. TRACY: Each of the templates -- I just want to make sure I
11 answer you -- came and through a public process editing occurred and then they
12 came back the next meeting with another version of the template. So, that would
13 be the explanation.

14 COMMISSIONER SVINICKI: Okay. Sure. And so, I've been
15 focused on ITAAC in preparation for this meeting, but the other important topic
16 we're talking about today and candidly this was my first exposure to the
17 development of the Construction Assessment Program. And so, one of the other
18 first things that you have to do when you become a Commissioner is become
19 immersed and seeped in the ROP history and why it's better than its
20 predecessors.

21 And in preparation for the AARM meeting and at the AARM -- the
22 Commission AARM briefing I asked a lot of questions about the ROP being mature

1 and why it was an enhancement over what we had had before and things like that.

2 So, as I come to study the Construction Assessment Program I'm looking at
3 some of the development in the SECY paper that came up this week and it talks
4 about drawing from the Reactor Oversight Process. So, I think I approach this
5 with a thought that there would be a strong parallelism between the ROP and the
6 Construction Assessment Program.

7 And so when I read that there would not be performance indicators or a
8 significance determination process with the Construction Assessment Program
9 again those are two elements that in learning about the ROP were described to
10 me as the real strengths of the ROP and the reason that it is an enhancement over
11 SALP or other things that preceded the ROP.

12 I think the way it was explained to me is that performance indicators are the
13 real injection of objectivity into what had been a more subjective process
14 historically and the significance determination process is a strong element of how
15 we risk inform what we do under the ROP.

16 So again, in learning about the Construction Assessment Program and
17 seeing that the decision had been made by staff and again they've laid out
18 discussion as to why, but I would be interested in hearing more about how this
19 decision was made that PIs will not be developed and that there's no significance
20 determination process.

21 I know that we have mimicry or parallelism of a system of columns where
22 we would place applicants or licensees depending on what we're finding I think

1 more in an inspection and traditional enforcement process, but beyond that if you
2 haven't harvested what, again, in my six months have been described to me as
3 the great strengths of the ROP, do you have real pedigree to the ROP or do you
4 have something that's kind of a hollow imitation of it?

5 So, if that's something and we've got a lot of experience on this side of the
6 table -- the other side of the table, so, if any of you want to chime in on that. And
7 to be fair I want to knowledge we've heard today that you're working on developing
8 some of this stuff so it's evolving and I'm certain the Commission would want to
9 stay informed.

10 My understanding is for ROP they were involved along the way and I think
11 that we do bring things to this process that are perspectives that the Commission
12 brings and that's why their involvement is often an enhancement. It may take
13 additional time, but it does add something to the development.

14 So, if any of you want to talk ROP or construction assessment; compare
15 ,contrast.

16 MR. JOHNSON: Well, I wasn't going to necessarily want to go first,
17 but I'm sure I'll get lots of help. Because I was involved in the ROP many years
18 ago one of the things -- one of the strengths and you seized on it with respect to
19 the ROP or two the strengths actually were PIs and significance determination
20 process.

21 We'll talk about -- these guys will talk about PIs and what really was in our
22 decision not to go forward with PIs. With respect to the significance determination

1 process it is true that's one of the strengths of the ROP.

2 The strength of the significance determination process is that you have a
3 clear way, a predictable way to evaluate the performance -- the existence of a
4 finding -- the significance of a finding and then a way then to then factor that into
5 the assessment process.

6 With respect to the construction inspection program I would say actually I
7 know the Commission paper says that we don't have a significance determination
8 progress. I would say it a different way, actually and I did concur on the paper. I
9 would say that we have a significance determination process that is different from
10 the ROP's significance determination process in that it is not risk informed that is
11 based on a PRA.

12 What we have in terms of what makes that significance determination
13 process work under the construction inspection program or I'll say our
14 determination of the significance findings, what makes that work is we've actually
15 looked at in the supplement in the traditional enforcement program, again, what is
16 -- starting with a finding -- what are increasing levels of significance?

17 It's a challenge because they tend to be more subjective because they're
18 not easily tied to something that you could measure using a PRA with respect to
19 significance.

20 It takes more work to make sure that we are clearly executing those
21 supplements, those examples about the significance and the traditional
22 enforcement process, but there is at the end of the day I would say a method, if

1 you will, to evaluate individual findings, to grade them based on their significance,
2 traditional enforcement, and then factor those in. So, there is, I would say,
3 commonality from that perspective with respect to the ROP.

4 And I guess the last parallel I'll draw is the other clear lesson that we
5 learned with respect to the ROP was early and frequent engagement with
6 stakeholders. You're seeing that. You've seen that in the presentation. That's a
7 lesson that we've learned that these guys actually implemented -- these guys and
8 gals implemented before I got to the office.

9 For a long period of time we've been interacting with stakeholders. And so,
10 I think that actually also is a strong parallel to the ROP. More like ROP than not,
11 actually.

12 MR. TRACY: I turned to Bob and I don't want to take up your time,
13 Commissioner, in your response, but I did want to make sure that you understood
14 that even in the early -- over two years ago we wanted to take the best elements
15 of the Reactor Oversight Process, but not be exactly as the ROP for the reasons
16 that we saw it different at a construction site than an operational site.

17 Those discussions that occurred over many hour-long meetings tried to
18 articulate what are the aspects, transparencies, scrutability? That's why you're
19 seeing a construction response table so people will know why we believe certain
20 significant things are causing us to have greater attention or in fact additional
21 inspection.

22 So, I call it more of a hybrid trying to take traditional approaches of the past

1 combined with the elements we believed were warranted as well as our industry
2 and our other stakeholders at these public meetings; action matrix type of activity.

3 So, in the bottom line of all this those discussions specifically about the
4 SDP, the chain of command here is full of the development of the ROP as well as
5 the enforcement program both have led and I think we've tried to inform it with the
6 best aspects of both.

7 Bob, who has been in not only the development of the ROP, but actually the
8 management of it at NRR, I would just turn to you not to use up all the
9 Commissioner's time.

10 MR. PASCARELLI: Right. And not to reiterate what Michael or
11 Glenn said, but we looked at the construction response table. It provides a lot of
12 those same elements that the action matrix does for the ROP; that objective
13 predictable NRC response for given level inputs. We incorporated those concepts.

14 We didn't as a blanket statement take everything from the ROP and copy it
15 over. We looked at those things that would be translated the best and we could
16 move over into construction.

17 Additionally, I'd like to mention -- if I could pop up backup slide 4. I'm not
18 going to go through this slide, but basically this is where we started. Basically,
19 what it is is a flow chart that looked at the relationship between the inspection
20 assessment and enforcement program and we put this together over the course of
21 at least three or four public meetings as a first step.

22 Through that flow chart there differentiates between the significance of

1 certain findings, whether they be construction findings, ITAAC related construction
2 findings and ITAAC findings with subsequent follow-up actions and the relationship
3 with the enforcement program as you can see there. So, we've done a lot of work
4 in that area with our public stakeholders.

5 COMMISSIONER SVINICKI: I appreciate that feedback. I would
6 characterize whether people disagree or agree that the evolution on ITAAC
7 closure is actually probably a bit more mature than the construction assessment
8 program. I think we're still in evolution on both, but I think that the CAP is probably
9 lagging.

10 I do anticipate that this will continue to be a discussion between the staff
11 and the Commission and I think it's important that we have today's meeting and
12 we're moving this forward. I think I would just say that for the ROP when I
13 consider what's settled and what there continues to be push and pull on with
14 stakeholders, what there continues to be push and pull on are the elements that
15 have been drawn into the construction assessment program and what many
16 people say are the greatest strengths and the most settled issues which are the
17 Pls.

18 I know we're still on the Holy Grail for the perfect leading indicators I've
19 heard, but those and the SDP are not going to be incorporated. So, I think this will
20 be a subject that we will continue to iterate on. Thank you.

21 CHAIRMAN KLEIN: Well, I guess -- I think every presentation
22 mentioned ITAAC and so we'll -- I'll probably have a few of those questions, but

1 first I want talk about design certification. Mike, on your slide six I think you talked
2 about three of the design certs were in process. Could you just sort of give us an
3 update of how they're doing?

4 MR. JOHNSON: They are progressing. I would say each of those
5 designs we have issues that we're working. We've talked about some of those
6 issues in previous meetings. For example, the recirculation sump issue and other
7 issues. That issue comes with all designs, so I'll mention it, but there are other
8 issues specific to those individual designs.

9 Of course, those reviews are I would say probably the most important work
10 that we do because we -- again, the references are incorporating -- the reference
11 COLs are incorporating by reference or subsequent incorporating that. So, we
12 really want to make sure that we get it right. So, we are progressing on those
13 reviews.

14 We are essentially in Phase I which is the early part of the licensing review
15 for each of those design certification reviews. And we are raising issues as we
16 find them with designs and there are working groups and others that get those
17 issues resolved.

18 I guess I would add -- should quickly add that one of the things that is
19 painfully clear to us is that the design certifications will be pacing, could become
20 pacing to folks' ability to get a Combined Operating License -- a combined license
21 from us.

22 And so, we've raised that issue. We continually watch those and we'll keep

1 the Commission informed as we go.

2 CHAIRMAN KLEIN: I thought it was interesting a lot of the
3 discussion this morning talked about making sure the designs were complete
4 before the construction is started. That would certainly help the design
5 certification as well.

6 MR. JOHNSON: Absolutely.

7 CHAIRMAN KLEIN: Glenn, we are in a global market in terms of we
8 have an opportunity to watch as you indicated Finland, France and Taiwan. Could
9 you talk a little bit about how rigorous you think their inspectors are?

10 MR. TRACY: Yes, sir. Certainly, we've had firsthand ability to
11 interact with them. What I've best noticed is there's a different -- they don't
12 necessarily write inspection procedures and they don't use inspection procedures
13 as one notable difference. Our friends at Finland are asking us for the means to
14 which we develop our procedures and how we actually document.

15 So, first and foremost they're very talented, very technical and very capable
16 and are very knowledgeable of their plant. That's all factual. But there are
17 different styles in terms of not only training. They're very interested in our
18 inspector training program and joined Loren and I at TTC, the procedures, as I've
19 stated in documentation.

20 In Japan, we are noting a substantial difference in terms of methods, but yet
21 they're highly technical and when we're there at a vendor or a fabricator clearly
22 incredibly capable at NDE and the very specifics relying very heavily on the

1 oversight of the actual vendor, but they have joined us on our vendor inspections
2 and in fact have seen us undertake a programmatic methodology of validating a
3 process.

4 We're very similar in some sense to what the Koreans and folks have done
5 in terms of their general process. They have taken on many of the processes that
6 we undertake.

7 So, a long winded answer, sir, simply that we have gained, for example,
8 seeing their technical capability while they inspect. We have certain tweaks we
9 would like to make to our own programs in terms of how much process we should
10 look at as compared to how much specific fabrication methodology or component
11 detail we should look at.

12 And so, I think we're learning from each other in a very good sense. We're
13 tweaking our procedures. They're asking for ours. There's good and bad in both
14 and I think it's a very open discussion. I'll tell you, there's a tremendous amount of
15 sharing.

16 CHAIRMAN KLEIN: Good.

17 MR. REYES: Chairman, if I could add something. Globally -- if you
18 answer the question globally, we have more inspectors. We put in more hours.
19 So, we are more intrusive. Part of it is culture, part of it is we have large size
20 regulator organizations. We have the resources.

21 I don't think it's an issue with the technical skills as much, but as a culture,
22 as a process, as amount of resources, we clearly are more intrusive in the amount

1 of inspection hours we give to this project is significantly higher.

2 CHAIRMAN KLEIN: I think, Bill, you mentioned the days of turnkey
3 are not likely to exist. When we were at Finland and Olkiluoto I was -- my
4 impression was that STUK was more active in the inspection than the actual utility.
5 Could you comment on what you see maybe in France and Taiwan?

6 MR. TRACY: In fact, I'll let Rich discuss Taiwan because he was just
7 there. Rich, why don't you.

8 MR. LAURA: Okay, thanks. It is very different. First, my
9 impressions were they're much smaller, fewer resources. One fundamental issue,
10 I think, is the AEC is a government agency and so is the constructor. They're also
11 a government agency. So, it's a whole different set up than like what we have
12 where we're fairly independent. We're government, but typically most of the
13 constructors are private. That was a big difference.

14 I think they lack some of the tools that we have in our tool bag. I think
15 they're very sharp. They find issues. They independently found some very good
16 issues while we were there, but I think as far as what they do with those and how
17 they present those is different than what we would do here.

18 MR. TRACY: We have a very open and transparent process in
19 terms of the documentation and availability and I think our colleagues note that as
20 well as the resources we obviously have, sir. As a result of that what I'm thrilled
21 about is they're actually asking for copies of our manual chapters and our
22 inspection procedures and we're sharing.

1 That's going on next week when all vendor inspections -- everyone's
2 looking exactly how you're conducting oversight to the Nth degree and coming up
3 with all the detailed differences. It's valuable learning.

4 CHAIRMAN KLEIN: On the subject of ITAACs when I first joined
5 and probably Commissioner Svinicki pointed out that ITAACs were an issue that
6 we learned very quickly in our careers here. There was a lot of nervousness on
7 the industry standpoint about the ITAAC and ITAAC process.

8 I don't know if this is a Bill question or a Glenn question, but how is that
9 merging coming together? Are there still differences?

10 MR. BORCHARDT: I'd say that any differences are quickly closing.
11 I think we've taken advantage of the opportunity that was presented to us to deal
12 with these early before they got to be emotional last minute issues.

13 As long as we stay focused on what we're trying to accomplish through our
14 collective programs we've been able to arrive at a mutually agreeable position.

15 I don't think either side and there's many sides to this because we've had
16 significant public involvement. We've had the industry and the NRC and nobody
17 was right 100% going in. I think we're developing a consensus of a very solid
18 defensible position.

19 CHAIRMAN KLEIN: Bob, you talked a little bit about the construction
20 allegations activities. Do other countries have similar activities? In other words,
21 do they have a formal process if there's construction issues that they have a
22 formal allegation process? Have you seen that in other countries?

1 MR. PASCARELLI: I don't have --

2 MR. TRACY: I could help you, Bob, perhaps. I would just point out
3 that one of the reasons Petteri came over to visit with Loren and our staff was in
4 fact to gain insights and actually witness an Allegation Review Board and learn our
5 allegations process.

6 And so, our friends at Finland, for example, as a specific example Chairman
7 are looking into exactly how we conduct allegations, what the Office of
8 Investigation is. In fact, A to Z in terms of process and actually participating.

9 They're also extremely interested in safety culture as I previously mentioned
10 in terms of a response and safety conscious work environment. So, they're taking
11 all of those documents.

12 I'm not as familiar and not aware in terms of what I had seen in Korea for
13 there to be a similar type of program in Korea.

14 CHAIRMAN KLEIN: In terms of the numbers of inspectors at a plant
15 when it's under construction -- this is probably a Luis question. As the plant is
16 heavily in construction activities how many inspectors would the utility have and
17 how many is it likely we would have?

18 MR. REYES: Well, I can't speak for the utility, but in terms of the
19 NRC for a two-unit site we had to make some assumptions in terms of how the
20 second unit is going to be staged with the first unit. There are some reasons to do
21 the second unit within a given amount of time of the first unit for construction
22 efficiency purposes because you have the cranes, the equipment, the people, et

1 cetera, et cetera.

2 But when the second unit gets constructed it's more defined by the Public
3 Utility Commission in that the cost and when the power would be needed, et
4 cetera, et cetera. But assuming there's a two-unit site and they're going to do it as
5 close as they can, which is within a year or so from the previous unit, we're talking
6 about a resident inspector staff of up to seven inspectors - technical - six or seven
7 inspectors with a lot of supplemental inspections from the Region that will do some
8 team inspections, et cetera, et cetera.

9 So, it's a sizable work force now. That comes directly out of our lessons
10 learned from NUREG 1055 because this is a different approach than what we did
11 in the early '70s and '80s. In fact, if you look at our strategy now, our strategy is to
12 do our observations of activities as soon as possible when a product comes out of
13 the assembly line.

14 That has proved to be very good for safety and good for predictability of
15 schedules. We experienced that at Browns Ferry Unit 1. We took the same
16 strategy there. If you look at the findings we had an LES at the MOX facility. The
17 staff found those issues very, very early. It was fortunate we were there. The
18 issue with the rebar and the concrete, but the fact that the staff found them early
19 had a lesser impact on safety and on schedule.

20 So, it was six to seven technical people on the resident -- construction
21 resident inspector office and that ramp -- we won't open the office with seven.
22 That ramp up and down is a function of the scheduled activity for the first unit, the

1 overlap of the second and first unit.

2 CHAIRMAN KLEIN: How many would you expect the utility --
3 obviously, the utility will not be like what we probably saw at TVA. I would expect
4 that the operator will also have a team there as well.

5 MR. REYES: They typically have a large number of quality control
6 people who verify and have checkpoints and holds, et cetera, et cetera.

7 MR. BORCHARDT: It's been a long time, but I was at Hope Creek at
8 the final stages -- and Limerick I -- at the final stages of construction for both of
9 those projects. For some reason I'm thinking 40 to 50 QA/QC inspectors were on
10 site at that time. That's a fairly active time. You're doing pre-op testing, start up
11 testing. So, there's a lot of verification work to be done.

12 The one big difference, again, like we've been saying is not only will they
13 have the same nuclear inspector requirements, so the same QA/QC requirements
14 for construction, but they'll also have the ITAAC verification aspect. If anything, I
15 think the number will be a little bit higher for this next generation of plants.

16 MR. REYES: And the fact that the construction schedule is much,
17 much limited so the activity index is much, much higher. I think Bill is right. The
18 number will be higher.

19 CHAIRMAN KLEIN: Thanks. Commissioner Jaczko?

20 COMMISSIONER JACZKO: I have a couple comments and then a
21 couple questions. I certainly appreciate Commissioner Svinicki's comments about
22 the construction assessment process and making sure that the Commission is fully

1 aware of the decision the staff is making.

2 One of the things that would probably be helpful is that the staff can provide
3 the construction response table to the Commission in a memo so we can look at
4 that. That seems as I'm understanding the discussion to be --

5 COMMISSIONER SVINICKI: It is in the background materials that
6 we received. It's attached to one of the draft Inspection Manual chapters.

7 COMMISSIONER JACZKO: Thank you. Well, that is solved. I'll
8 move on to another issue, the Limited Work Authorization issue. We didn't really
9 discuss it, but it came up in the context of the MOU. I guess I'm a little bit
10 confused by the discussion on the MOU.

11 My understanding that the issue with the Army Corps and the MOU had to
12 do fundamentally with Limited Work Authorization and the ability of the Army
13 Corps to do activities -- or for licensees to do activities that would fall into the
14 Corps area of jurisdiction, namely dredging and other activities for construction of
15 barge facilities and things like that.

16 I guess as I heard the discussion I just want to be clear. I think the MOU is
17 for them to participate in the EIS on the COL activity, not necessarily on Limited
18 Work Authorization environmental impact statement. Is that correct or am I
19 misunderstanding that issue.

20 MR. JOHNSON: I think you have the understanding of the issue. Of
21 course, for those permitting decisions that the Corps has to make they told us they
22 need an environmental impact statement to be able to do that. So, they're going

1 to participate with us and so they'll -- basically once we've issued the final
2 environmental impact statement within 30 days it's their expectation that they can
3 turn that around and do their permitting decision.

4 COMMISSIONER JACZKO: So, that would be based on the EIS for
5 the COLA? From a timing perspective, if we issued a Limited Work Authorization
6 the Corps wouldn't be able to issue their permit until after the EIS? Essentially,
7 presumably around the time of when our COL is issued essentially?

8 MR. BORCHARDT: I think part of the confusion was -- I mean, this
9 went through a lot of permutations, but at one point the idea was that for a Limited
10 Work Authorization the NRC -- the Corps could have done their own
11 environmental impact statement. That turned out not to be a practical approach,
12 so the agreement with the Corps is that they will be a contributor to our
13 environmental impact statement and will rely on that for federal action.

14 COMMISSIONER JACZKO: Okay. I think that's consistent with how
15 I had understood that. A couple other issues.

16 One of the background documents -- and I know this is something I think
17 we've seen a little bit before, but the issue of the publication of the ITAAC that will
18 be inspected. I know that there was some disagreement, I think, among the staff
19 about whether or not that should be done.

20 I wonder if you can talk a little bit more about what the issues were. I have
21 a specific question. When the Commission asked the staff to have the ACRS
22 review the ITAAC inspection process did ACRS comment on that specific issue

1 about publication of that?

2 MR. LAURA: No. This is an issue that surfaced during our public
3 workshops. It came up. As scheduling efforts in the region, we were trying to
4 figure out the interface and how could we identify the targets that we're going to
5 inspect. And then it came up in a public meeting as well. Can those lists become
6 public?

7 Initially, most inspectors say, "No, you can't do that." But then as we looked
8 at it and realized that ITAAC are different and we had a memo with a number of
9 issues. For example, Point One would be openness and transparency of our
10 process. Point Two would be it's generally consistent with NRC practices under
11 ROP. Three, it promotes fairness because if Plant 1 is going to build a plant and
12 they don't know the targeted ITAAC, Plants 2, 3 and 4 would probably know. So,
13 it's a relative fairness issue.

14 Also and probably more importantly one ITAAC can have multiple
15 components. Let's say, for example, welds. There could be 120 welds under one
16 ITAAC. Now, our inspection approach may be to sample 10% of those. The
17 licensee won't exactly know which 10 we plan to inspect and when, so there's still
18 an element of surprise.

19 And also, which was a big issue, is the second part of the program which is
20 non-ITAAC which sort of overlays all of the ITAAC has elements of randomness.
21 We inspect all the construction processes, all of the programs and it's up to the
22 Region and the inspectors to select their sample and those aren't predefined.

1 So, we have numerous elements of objectivity in there. So, when we
2 looked at that all together generally we went up and had a big discussion and we
3 concluded it was the right thing to do.

4 COMMISSIONER JACZKO: Okay. I guess I'm more interested in
5 why an inspector said that's not something we can do. I guess the idea being that
6 we would eliminate that element of surprise. I guess to some extent that's moot
7 anyways because we've already indicated we won't be inspecting all ITAAC to
8 begin with. So, there will certainly be lots of ITAAC we won't inspect. I'm not quite
9 so sure of the approach.

10 MR. TRACY: I just want to add a comment. I just want to share I
11 was one of those inspectors that wasn't so sure. And frankly the process was so
12 open --

13 COMMISSIONER JACZKO: Why were you -- what were you
14 concerned about?

15 MR. TRACY: I was concerned about, and it wasn't correct, but the
16 general concept of an individual giving a test to a student and you had just gone
17 over the test and so you now you know what to study.

18 That's not the case when you actually examine the bottom line of these
19 multiple ITAAC and the entire program and the ability of Region II to select within a
20 family various ITAAC. And then the totality of the program.

21 So, it's a simplistic concept of someone telling you that idea and maybe a
22 pool of individuals that have been founded in NRC training for some time and then

1 you look at the totality of the answer, err it, and then it was a very open discussion.

2 So, I was very comfortable, but I was one of them.

3 COMMISSIONER JACZKO: I want to turn to a couple other things.

4 As I was going through the Reg Guide or the NEI draft version of the Reg Guide, a
5 couple areas that I had questions about. Most of these go to the sections that deal
6 again with ITAAC closure because I think those are areas where in particular the
7 NRC -- or the Commission itself will have some more direct involvement. This was
8 on page 7.

9 There was a comment here that "NRC staff recognizes that there may be
10 programmatic QA/QC deficiencies that are not relevant to one or more aspects of
11 a given ITAAC under review and therefore should not be relevant to considering
12 the NRC's determination as to whether that ITAAC has been successfully
13 completed." What does that mean exactly?

14 MR. LAURA: Generally, when you have an ITAAC it's very difficult to
15 strip away other issues that are in the periphery. Generally, we have to make a
16 clear distinction which issues directly impact the closure of an ITAAC and its
17 acceptance criteria and those words in the acceptance criteria are really the
18 bottom line.

19 You can always say in general this program has a little weakness. We
20 have to be very careful in Bob's program to define what is an ITAAC finding, what
21 is an ITAAC related finding and what is a construction finding.

22 And so, we went through a lot of discussion over several meetings. I don't

1 know if Bob would like to talk a little more about those different types of findings?

2 MR. PASCARELLI: In that flow chart that I had shown up there
3 previously some of the key decision points are whether the issues of that point in
4 the flow chart there would be findings or associated with the ITAAC acceptance
5 criteria or more significantly material to the ITAAC acceptance criteria.

6 Another key decision point was whether the licensee had sent in their
7 notification letter yet. And so, based upon those three different decision points or
8 three different paths in the road they would be determined whether it would be
9 construction findings, ITAAC related construction findings, or ITAAC findings and
10 take appropriate actions per the flow chart and the enforcement policy.

11 COMMISSIONER JACZKO: Okay. I'm not necessarily sure how this
12 language given that, Glenn, you said the staff largely signed off on this language.
13 I'm not sure that this language captures that.

14 I guess again I'm not -- if the ITAAC are satisfied, the ITAAC are satisfied
15 and we can make that finding.

16 MR. BORCHARDT: Let me take one try. It means that we don't
17 expect perfection out of the QA/QC program and that any small deficiency cannot
18 be extended to invalidate the ITAAC conclusions or test results or observations
19 that are made.

20 COMMISSIONER JACZKO: How do we know when a finding in the
21 QA program does affect an ITAAC?

22 MR. BORCHARDT: I think that's largely the role of Luis and the

1 inspection management to put into context the findings and the pervasiveness of
2 deficiencies if they're identified and not just -- but not say just one small defect
3 invalidates the 1,000 ITAACs for that facility.

4 MR. REYES: A good example would be the procurement receipt
5 inspection of the site. The number of commodities that come to a project like this
6 is a huge number. Undoubtedly there'll be something that won't be properly
7 received and inspected, but that doesn't mean that a particular ITAAC has to be
8 invalidated and we'll have to make a judgment on the finding on the receiving end.

9 COMMISSIONER JACZKO: I guess I'm presuming this is for ITAAC
10 for which we don't inspect? If we've inspected -- I guess I'm failing to understand
11 how that situation you would fail to satisfy an acceptance criteria. So, this is when
12 we're doing our review of an ITAAC we have not inspected and we're relying
13 heavily on the QA program in order to be certain that when they say they've ran X
14 test that we have confidence that they in fact ran X test and got Y result.

15 MR. REYES: You could -- the extreme example I gave you. You
16 could say, "Well, they missed one receiving inspection or one piece of cable over
17 here. I'm going to connect it to this ITAAC." Well, we have to make a judgment.

18 COMMISSIONER JACZKO: Doesn't the ITAAC itself delimit it in
19 such a way that you couldn't do that?

20 MR. REYES: It should. It should.

21 COMMISSIONER JACZKO: I guess that was perhaps where my
22 confusion was. I have a couple of issues on this, but I'll just raise one more

1 because I'm using up a lot of time here, I think.

2 Perhaps we'll look at another way to address in particular some of these
3 issues in here that I think speak specifically to the Commission and Commission
4 kind of actions. It's always good to learn what we approved after we've done it.

5 Karen, this may be something that you have more knowledge of. One of
6 the statements in here that I guess I wasn't completely familiar with, but it rang a
7 bell somewhere was that under the Administrative Procedures Act there's an
8 exemption for formal and informal hearing requirements for inspections and tests.

9 We have a reference in here in Section 554(a)(3) of the APA "May give the
10 Commission the option of excluding certain ITAAC from litigation, the ITAAC
11 hearing regardless of whether hearing procedures are formal or informal. In this
12 APA exemption applicable to the matters in which decisions 'rest solely on
13 inspections tests and elections could preclude the need to adjudicate contentions
14 when compliance with an ITAAC can be decided solely on the basis of inspections
15 or test results'."

16 Do we have any greater guidance on how we intend to apply that or not
17 apply that at this point? I don't know how that wouldn't --

18 MS. CYR: I think it will apply in the sense if it will be self-evident. If
19 the test is the pump has to run for 45 minutes at a flow and they come in and they
20 show you that, you either do it or you don't do it. It's those kind of things where
21 you're going to have -- that's the kind of thing under the APA would be the basis
22 for it to be excluded.

1 COMMISSIONER JACZKO: How is that different from the Atomic
2 Energy Act requirements that the ITAAC or the Part 52 requirements to really be a
3 prima facie showing that an ITAAC has not been met as kind of the threshold for a
4 hearing? I would think that that would cover that. You have to be able to say the
5 test wasn't what --

6 MS. CYR: I agree. I think if you're trying to say up front which ones
7 get excluded would be those kinds; otherwise, it's the same thing. If there's a
8 basis somebody would have come in and if they couldn't have a basis they'd have
9 to show somehow either they didn't do that and so therefore it was or if it's there's
10 one that somewhat more qualitative and I don't have a good example.

11 MR. REYES: They falsified records. Either falsified the records or
12 never did the test. Clearly, outside of that could be an example.

13 COMMISSIONER JACZKO: The question though, I guess, is it's the
14 matters in which decisions rest solely on inspections, tests and elections. So, the
15 question is then that says if there's an APA exemption.

16 MS. CYR: Well, I have a disagreement with the industry on this one.
17 I think we've already taken that step by in fact instituting the ITAAC.

18 COMMISSIONER JACZKO: Okay, so ITAAC is --

19 MS. CYR: The whole ITAAC is in fact the implementation of that
20 provision of the APA.

21 COMMISSIONER JACZKO: Well, I guess if we're going to endorse
22 this I would want to see some clarification on that particular point at a minimum.

1 Again, it seems to me that it's kind of indirect.

2 MS. CYR: If I took that to the extreme the fact that I have all ITAAC
3 should be exempt.

4 COMMISSIONER JACZKO: Right. Exactly. That was my
5 conclusion. It seems that that's in conflict with the Atomic Energy Act which says
6 we're going to do this through ITAAC. The second hearing will be based on the
7 ITAAC.

8 MS. CYR: Part 52 as originally dubbed by the Commission was our
9 attempt to use that provision of the APA to set up a process which allowed us to
10 do a one step process. That was the guidance back in 1982 when we said how
11 can I make this process more front end loaded and basically make the decisions
12 up front?

13 They said the APA gives us a guidance. It says if you have decisions that
14 are based on inspections, tests and analysis essentially their objective outcomes
15 you don't have to have a hearing on them.

16 So, if I can make -- do all my reviews up front and come up with an
17 acceptance criteria for what's been decided there then I don't have to have a
18 hearing at the end because the APA says I can follow this process and I don't
19 have to have a hearing on those issues because I've defined up front an objective
20 acceptance criteria for the outcome -- for the determination that you've done what I
21 said you were going to do and therefore I have a hearing up front to establish what
22 those are and I don't have to have a hearing at the end.

1 That's the theory which was the whole idea of the APA and that's what we
2 tried to do under Part 52. And then subsequently when Congress enacted the
3 amendments to the Atomic Energy Act in 1992 and essentially they said, "Okay."
4 But because of the way the Atomic Energy Act was written and it provided for
5 opportunities for hearing on the NOL, we in a sense created an outlet for ourselves
6 in case there was one.

7 If somebody could show there wasn't one we'll have an opportunity for a
8 hearing at the end. Not that we expected there would be, but because the statute
9 said I was going to have this opportunity for second hearing and I had to have a
10 way that I was still in compliance with my underlying statutory authority. I created
11 an opportunity for a hearing, not expecting that there would be one.

12 If I was able to execute the theory of the APA in the Part 52 process I
13 wouldn't have one of those, but I created that process. Then when Congress in
14 1992 codified what I had written they just codified my process. They didn't really
15 go back and in a sense sort of say, "Well, you don't need to do that second
16 hearing." They just codified what we'd done under our existing process.

17 So, theoretically if everybody on the staff and everybody done this great
18 work and they continue to modify what they need to as they work through these
19 ITAACs I shouldn't have many of those.

20 COMMISSIONER SVINICKI: Glenn, I think I know a comment you're
21 going to get when your draft Reg Guide goes through OGC.

22 MR. TRACY: I understand.

1 COMMISSIONER JACZKO: I do as I said hope that -- there are
2 other areas in here, too, as I said that I think go really to what the Commission will
3 do and to hearing opportunities. I certainly would want to see those before we
4 make any final decisions because those do go beyond, I think, staff actions and
5 we're really talking about Commission actions as in that. We're talking about
6 fundamentally a Commission action about what we're doing with potential issues
7 on ITAAC closure.

8 So, there are other things, but it appears this is going through additional
9 revisions. I've taken probably far too much time. So, thank you.

10 CHAIRMAN KLEIN: I think if you have additional questions you
11 probably know where they live.

12 COMMISSIONER JACZKO: I don't know where they live, but I know
13 where they work.

14 MS. CYR: Same thing.

15 CHAIRMAN KLEIN: Work and living is probably the same.

16 COMMISSIONER LYONS: A question probably for Bill. You talked
17 a little bit about the impact of Continuing Resolution on budgets in general and
18 budget uncertainty, as did Luis.

19 I just wondered if you go into a little bit more detail on the impact of a year
20 long CR on our ability to adequately staff the construction inspection program on
21 the time lines that I think it was Luis mentioned are essential -- or maybe you did
22 Bill, but certainly we do have real demands on that program in the relatively near

1 future.

2 MR. BORCHARDT: Well, regarding the CR, of course, that's for this
3 fiscal year '09. The impact of a six month CR is relatively modest. A 12 month CR
4 is pretty significant and would curtail our detailed design reviews of a number of
5 combined license applications. I'll let Luis talk about the impact on Region II.

6 I think to a large extent the developmental activities that you heard about
7 this afternoon would continue as far as developing the infrastructure to get ready
8 for the inspection programs. Regarding inspector training I'll turn to Luis.

9 MR. REYES: I tried to address uncertainties in fiscal year 2010 and
10 beyond. Let me give you a set of numbers and maybe put this in context. The
11 Center staffing came 45% from Region II, 20% from the rest of the NRC and 35%
12 from the outside. We're very concerned on impacting the operating fleet and all
13 the other activities.

14 So, as resource needs are identified we're most likely going to try to come
15 from the outside in terms of getting those resources. There comes the issue with
16 the training and qualification process. So, when you're bringing somebody on
17 board in 2010 or 2011 it's not to do the work there, it's to do the work two years
18 down the road. Here comes the uncertainty and the need to be able to bring
19 people from the outside and put them into our training and qualification program.

20 It's hard to visualize that you're bringing somebody in 2010 for work that's
21 going to be done in 2011 and 2012. That's the uncertainty message that I was
22 trying to give you that we're trying to get as much intelligence as we can to

1 ascertain what our resource needs are in order to feed it back into the budget
2 model.

3 COMMISSIONER LYONS: I was anticipating at least some of that
4 hiring would be in the second half of fiscal year '09 and that that could be impacted
5 with a yearlong CR.

6 MR. REYES: We have some concerns with the 2010 budget, but it's
7 a problem because we have some uncertainties that we can only resolve with the
8 licensees detailed information.

9 Our plan was originally to start hiring in '09 for 2010 and 2010 for 2011, but
10 that's only true as much as the model in the budget is true, it has no uncertainties.
11 So, we have some question marks there that we're trying to resolve and that's
12 where we're meeting with each project to have very detailed understanding of
13 what their activities are and then go back to the original comment that Bill
14 mentioned about fiscal year 2010 and 2011 and budgeting issues for human
15 resources. Not for infrastructure.

16 We feel pretty comfortable. Thank you for what you gave us there to set up
17 the resident inspector offices and all that. It's a human resource question that we
18 are wrestling with.

19 COMMISSIONER LYONS: I think if we do find ourselves looking at
20 the year long CR though it's going to be very important for the Commission to
21 understand the impact of that on the staffing that you need to be doing looking
22 toward 2010 as well as all the other impacts you mentioned, Bill. That was all I

1 had, sir.

2 CHAIRMAN KLEIN: Commissioner Svinicki?

3 COMMISSIONER SVINICKI: Thank you. Commissioner Jaczko, I
4 have a correction. I piped up to say that the construction response table was in a
5 draft document. It is actually -- this document was approved on the 25th of
6 September of this year. It's Inspection Manual Chapter 2505, but it is in the
7 background materials that we received.

8 I did have one question that follows on what Commissioner Lyons was
9 talking about with resourcing. Luis, as you plan for future activities this does
10 indicate -- the staff's presentation says, "The construction assessment process will
11 begin after the NRC has issued a Limited Work Authorization or a combined
12 license and there has been sufficient construction activity for an assessment to be
13 meaningful."

14 By your planning, what is the earliest that all those conditions could be met?
15 You'll don't have to name a predicted site, but just what quarter and what year are
16 you planning for?

17 MR. REYES: We have an LWA. It's public knowledge. We have an
18 LWA scheduled next year for the Vogtle site with the early site permit. So, that
19 dictates that one.

20 COMMISSIONER SVINICKI: Is this a logical "and" then in this
21 statement? It says, "And there has been sufficient construction activity for an
22 assessment to be meaningful?"

1 MR. REYES: Yes. Just because you issued the LWA doesn't mean
2 they execute it.

3 COMMISSIONER SVINICKI: Okay.

4 MR. REYES: If the economics are not there they may delay their
5 original plans.

6 COMMISSIONER SVINICKI: Okay.

7 MR. REYES: So, we have to have enough activity --

8 COMMISSIONER SVINICKI: So, when would Vogtle meet this
9 meaningfulness criterion?

10 MR. REYES: I think if you ask them it would be very, very soon.

11 MR. BORCHARDT: The second half '09.

12 MR. REYES: In the latter part of '09. In fact, when I mentioned that
13 we were planning to open the resident inspectors offices for construction in fiscal
14 year 2010, which means in the latter part of '09 will be the posting and all that that
15 was one of the projects that I had in mind. I didn't list them, but that's inclusive
16 there.

17 COMMISSIONER SVINICKI: Okay. Thank you. Thank you,
18 Mr. Chairman.

19 CHAIRMAN KLEIN: Other than budgets do you have your training
20 program pretty well in hand for both the construction inspection and vendor
21 inspections.

22 MR. REYES: Yes. We always had a construction inspector

1 qualification program from the early days. We have revamped it and improved it.

2 What we're looking now is can we streamline it without sacrificing the quality.

3 We're hiring external people who have very good technical skills.

4 The question is how to become a regulator, how to process -- understand
5 our processes and all that. So, what we're looking at now is how we can expedite
6 that to make these resources effective much sooner.

7 I don't have an answer for you on that, but the staff is taking a hard look at
8 that. We have established qualifications processes, training processes to do that.
9 Part of the question on resources is depending how many new people we bring on
10 board, of course, has an impact on the training department and their needs, et
11 cetera, et cetera. So, we'll have to work that in conjunction with our budget
12 preparations for 2011.

13 CHAIRMAN KLEIN: Well, since I think our time has expired I'd like
14 to thank all of you for your presentations. Very informative. Clearly, you've done a
15 lot of work since the last meeting. A lot of challenges are still before us, but we
16 have confidence in your abilities and we look forward to the next meeting. Meeting
17 adjourned.

18

19 (Whereupon, meeting was adjourned.)