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UNITED STATES NUCLEAR REGULATORY COMMISSION  
BRIEFING ON NEW REACTOR ISSUES –  
COMPONENT FABRICATION AND OVERSIGHT - PART 2

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WEDNESDAY

June 3, 2009

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The Commission convened at 1:30 p.m., the Honorable Gregory B. Jaczko,  
Chairman presiding.

NUCLEAR REGULATORY COMMISSION

GREGORY B. JACZKO, CHAIRMAN

PETER B. LYONS, COMMISSIONER

DALE E. KLEIN, COMMISSIONER

KRISTINE L. SVINICKI, COMMISSIONER

- 1 PANEL 2 – NRC STAFF AND INTERNATIONAL PEER REGULATOR
- 2 WILLIAM BORCHARDT, Executive Director for Operations (EDO)
- 3 MICHAEL JOHNSON, Director, Office of New Reactors (NRO)
- 4 GLENN TRACY, Director, Division of Construction Inspection and
- 5 Operational Programs, NRO
- 6 JUAN PERALTA, Chief, Quality and Vendor Branch 1, NRO
- 7 JOHN NAKOSKI, Chief, Quality and Vendor Branch 2, NRO
- 8 SEBASTIEN LIMOUSIN, Head of Nuclear Pressure Equipment
- 9 Department, Autorite de Surete Nucleaire, France (ANS)

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

2 CHAIRMAN JACZKO: Well, good afternoon everybody.  
3 We have the second half of our discussion on the Construction  
4 Inspection Program. This is the third meeting on this topic. Certainly  
5 an important area and one that is a new area for the agency, and so I  
6 think it's been a good approach that we've had these series of  
7 meetings. I think we had a good discussion this morning, raised a lot  
8 of important issues.

9 I think we have a unique afternoon session. We are joined by  
10 one of our regulatory counterparts from ASN and I think that shows the  
11 work that we been doing to collaborate on these issues and one of the  
12 things we certainly heard this morning is this is a global activity now  
13 and it's no longer just domestic activity for us.. So we appreciate your  
14 participation and your ability to be here. I think it will make for a very  
15 interesting discussion this afternoon.

16 CHAIRMAN JACZKO: Bill.

17 MR. BORCHARDT: Good afternoon.

18 You know, even though we're more than a year away from  
19 issuing the first combined license, both the vendor inspection program  
20 and the construction inspection program, it's obviously very closely  
21 related, are today issues.

22 The work that we are doing on the vendor inspection program  
23 has a direct relevance to the plants that will be built in the near future

1 and it's vitally important that we establish the framework and the  
2 qualified inspection staff to carry out inspections on sites and at the  
3 remote locations where these modules are going to be built in the very  
4 near future.

5 Glenn Tracy and his team have put together a program that  
6 takes full advantage of the worldwide operating experience. Our own  
7 vendor inspection programs that were historical programs, as well as  
8 extensive international cooperation to develop and implement an  
9 inspection program that accommodates the new construction  
10 techniques that are going to be seen for this next generation, the  
11 global supply chain that we heard about this morning, and the new  
12 licensing and operational authorization process under Part 52. Many  
13 of these elements have never been done before in this country. So we  
14 have a lot challenges.

15 We are doing as much upfront early work and raising issues to  
16 the Commission as we can so we can make timely decisions and then  
17 get ourselves positioned for success.

18 So Slide two shows the agenda for today's Commission  
19 meeting. Mike is going to give a status update, and then Glenn and  
20 his team will go through the Vendor Inspection Program.

21 And I'll turn it over to Mike.

22 MR. JOHNSON: Good afternoon, Chairman and  
23 Commissioners.

1           Since our last briefing on new reactors, a major focus has  
2 continued to be conducting reviews of license applications. The staff  
3 has completed the early site permit for the Vogtle site and it's currently  
4 in the hearing stage. We have three design certifications and one  
5 design cert -- amendment under review. We have 17 combined  
6 license applications in-house for 12 of those we've issued schedules,  
7 and those are under active review. For three the reviews have been  
8 suspended as a result of requests by the applicant and their changing  
9 technologies, two review schedules are being developed and will be  
10 issued in the coming weeks.

11           We are making good progress on all of our reviews. We've  
12 completed phase one of a six phase safety review process for five  
13 combined license applications and two of the design certification  
14 applications.

15           We've completed phase one of the four phase environmental  
16 review for six combined license applications. And of course, we are  
17 continuing to make progress and readying the construction inspection  
18 program, including the inspection test analyses and acceptance  
19 criteria, closer guidance and the construction assessment process.

20           Next slide.

21           Along with licensing activities, as Bill indicated, the Construction  
22 Inspection Program plays a major role in ensuring that new reactors  
23 are designed, constructed and ultimately operated in a manner that  
24 provides for adequate protection of the public health and safety and

1 the environment. It provides for common defense and security. And  
2 of course, the Construction Inspection Program has many  
3 facets, including ESP inspections that focus on geotechnical and site  
4 characterization activities to ensure that those activities are governed  
5 by an adequate QA program, quality assurance and engineering  
6 inspections that focus on QA program implementation by the  
7 applicants and for design translation activities.

8 Vendor inspections, ITAAC inspections, non-ITAAC inspections  
9 or problematic inspections, of those programs that are going to be  
10 necessary to support construction, and subsequent facility operation.

11 And an assessment process that will evaluate licensee  
12 performance and adjust our oversight as appropriate based on that  
13 performance.

14 Of course, all aspects of the Construction Inspection Program  
15 are important. Today our focus, as we've indicated, is going to be on  
16 the Vendor Inspection Program.

17 I want to note that we do plan to provide three items to the  
18 Commission later on this year related to the Construction Inspection  
19 Program. One in response to Commission direction, we will provide a  
20 Commission paper on policy options as a result of our reconsidering  
21 the construction assessment process.

22 We will also provide the Commission an opportunity to review  
23 industry guidance related to ITAAC closure process, NEI 08-01,

1 before we reach a decision to endorse it, also in response to  
2 Commission direction. And we will provide an annual update on the  
3 ITAAC issues.

4 Now, I'll turn over to Glenn Tracy who is the Director of the  
5 Division of Construction Inspection and Operational Programs to begin  
6 our presentation on the Vendor Inspection Program.

7 MR. TRACY: Thanks, Mike.

8 Good afternoon, Mr. Chairman and Commissioners.

9 I want to begin our presentation on the status of new reactor  
10 component fabrication and oversight, with a brief background and  
11 overview of the program, and mention some of the key messages my  
12 colleagues and I will address with you today.

13 Next slide, please.

14 Beginning with the Commission direction, in early 2001, the staff  
15 has been identifying enhancements needed to ensure the agency is  
16 prepared for the construction of new nuclear power plants.

17 In two SECYs, from January and July of 2004, the staff  
18 described the potential need to broaden oversight of nuclear  
19 component suppliers in response to new plant construction.

20 In the months following the establishment of the Office of New  
21 Reactors, the staff developed SECY-07-0105 which expanded on the  
22 idea of broadening oversight and identified specific enhancements to  
23 the new reactor Vendor Inspection Program necessary for continued  
24 oversight and evaluation of component suppliers. These

1 enhancements, which we are implementing, you will hear more about  
2 today, include:

3           Broadening the scope of the vendor inspection program to  
4 account for the entry of new suppliers, particularly foreign suppliers.  
5 The likelihood of off-site modular construction activities; the need to  
6 verify the completion of ITAAC, and the extensive use of contractors  
7 by most applicants.

8           Improving and formalizing our oversight of supplier audits by the  
9 Nuclear Procurement Issues Committee, known as NUPIC, and  
10 related industry initiative, to more effectively leverage those activities.

11 And finally, enhancing our vendor inspection program guidance,  
12 including inspection requirements and procedures to meet the  
13 challenges for increased vendor inspection activities anticipated as a  
14 result of the new reactors.

15           Next slide, please.

16           We conduct our vendor inspections, both domestically and  
17 internationally, with a clear focus on assuring the integrity of the global  
18 supply chain.

19           By that I mean doing what we can to ensure that the global  
20 supply chain will reliably supply high quality nuclear components for  
21 our new reactors. Using inspection manual Chapter 2507 and the  
22 associated inspection procedures, we perform a minimum of ten  
23 routine and reactive vendor inspections per year. These inspections

1 address both Appendix B to 10 CFR Part 50 regarding quality  
2 assurance and 10 CFR Part 21, which addresses the reporting of  
3 defects and noncompliances.

4 In addition, we observe NUPIC audits of vendor Part 50  
5 Appendix B compliance and perform our own independent Part 21  
6 inspections at the same time.

7 Next slide, please.

8 The oversight of vendors does not rest with the NRC alone, or  
9 even primarily with the agency. It is a shared responsibility among  
10 licensees who have, for example, resident inspectors at the  
11 component manufacturers, and fabricators overseas, industry  
12 third-party auditors, such as NUPIC, standards organizations, such as  
13 ASME, and the NRC.

14 It is important to emphasize that the ultimate responsibility for  
15 assuring the quality of components and equipment from our vendors  
16 lies with the NRC's licensees.

17 Next slide, please.

18 Today's presentation seeks to convey key messages about  
19 activities, including: We have enhanced our vendor oversight program  
20 to support new reactor constructor. We have built on the existing NRR  
21 program and continue to partner effectively with our colleagues in  
22 NRR, NMSS and Region II.

23 Secondly, among our most important and notable achievements

1 since 2007 is our enhanced program has achieved unprecedented  
2 levels of international cooperation.

3 Lessons Learned and broad international experience continue  
4 to be incorporated. And you will hear this afternoon from our  
5 colleague, Sebastien Limousin, from our French Regulatory Authority,  
6 ASN.

7 And finally, our proactive stance is key to the outcomes we are  
8 achieving. The integrity of the global supply chain must be  
9 maintained.

10 Next slide, please.

11 John Nakoski and Juan Peralta, our two quality and vendor  
12 branch chiefs in NRO will now provide you with a detailed presentation  
13 on a number of key topics related to the component fabrication and  
14 oversight. They will be followed by our colleague, Sebastien Limousin,  
15 the head of the nuclear pressure equipment division at the French  
16 Regulatory Authority. He will provide his valuable perspective on  
17 international cooperation and vendor oversight.

18 John Nakoski will speak first.

19 MR. NAKOSKI: Thank you, Glenn.

20 Good afternoon, Chairman, Commissioners.

21 Today I will be discussing issues identified as a result of our  
22 vendor inspections and interactions with our external stakeholders.  
23 Also, I will briefly discuss ongoing activities related to counterfeit,

1 fraudulent and substandard items. Finally, I will be discussing some of  
2 the lessons we have learned as we have implemented the enhanced  
3 vendor inspector program in support of new reactors.

4 Next slide, slide 13, please.

5 As Glenn mentioned, we have enhanced our vendor inspection  
6 program and increased our interactions with the industry in support of  
7 new reactors.

8 From the vendor inspections performed by the Offices of New  
9 Reactors and Nuclear Reactor Regulation, and through our  
10 interactions with the industry, we have identified a number of issues  
11 that we will continue to emphasize with our industry stakeholders to  
12 assure the quality of parts and services used for new and operating  
13 reactors are commensurate with their safety significance.

14 While the inspection findings individually have not challenged  
15 the capability of the supplied components to perform their safety  
16 functions, collectively they are an indicator that the understanding and  
17 the implementation of NRC's quality assurance and reporting  
18 requirements needs to be improved.

19 In the area of commercial grade dedication, the process through  
20 which an item that was made following normal commercial practices  
21 can be demonstrated to be suitable for safety-related use. We have  
22 identified concerns with vendors' capability to identify and verify the  
23 critical attributes of an item to demonstrate it can perform required

1 safety functions.

2 Concerns with the ineffective application of proven methods for  
3 conducting commercial grade dedication activities, and concerns with  
4 commercial grade dedication implementing procedures that are  
5 inconsistent with the requirements provided in 10 CFR Part 21.

6 We have identified issues with vendor nonconformance and  
7 corrective action programs in that there are instances where corrective  
8 action reports should have been issued but were not.

9 For example, repetitive nonconformance or customers' feedback  
10 on product quality in cases where there was not clearly documented  
11 evidence demonstrating that the nonconforming condition was  
12 corrected.

13 As an element of the Vendors Quality Assurance Program, we  
14 have found instances where independent verification and validation of  
15 design calculations important to design control have not been  
16 performed and examples where design changes and design review  
17 conclusions were not adequately documented. The vendors' ability to  
18 maintain design control could affect the licensees' ability to  
19 demonstrate that the plant was constructed as designed and licensed.

20 And we have found instances where inappropriate measuring  
21 and test equipment was used by a vendor to conduct a test. For  
22 example, a pressure gauge that was used during a hydrostatic test of  
23 a valve. The gauge was properly calibrated but the measurement

1 range was significantly higher than the pressure at which the valve  
2 was being tested. As a result, we found that the valve was not tested  
3 at the pressure required by the ASME code.

4 Next slide, please.

5 The requirements of 10 CFR Part 21 cover the reporting of  
6 defects and failures to comply that can be associated with a  
7 substantial safety hazard. These requirements apply to any entity  
8 providing a basic component, essentially any safety-related item or  
9 service.

10 As a result of our inspections, we have identified that vendor  
11 implementing procedures have not consistently addressed all of the  
12 requirements for the timeliness of reporting information to the NRC,  
13 that the guidance and vendor procedures on evaluating deviations  
14 from technical or quality requirements was inadequate and that  
15 the requirements of 10 CFR Part 21 are not clearly specified in  
16 procurement documents to suppliers and sub-tier suppliers.

17 Juan will discuss some of our initiatives related to 10 CFR Part  
18 21 during his presentation.

19 An important element to effectively implementing a quality  
20 assurance program is having instructions, procedures and drawings in  
21 place to control the activities important to safety. In this area, we have  
22 found instances where procedures should have been developed but  
23 were not. We have found cases where the procedures were  
24 developed but not followed.

1           Finally, we have identified concerns with the control of  
2           purchased material and equipment and services, specifically where  
3           there was insufficient objective evidence that an approved sub-supplier  
4           has the appropriate quality assurance and Part 21 programs in place  
5           to support the scope of supply. Essentially, the purchasers did not  
6           adequately know their supplier and it was not evident that there was  
7           reasonable assurance of product quality.

8           In addition to addressing these issues through the enforcement  
9           policy with the individual vendors as we find them, NRO and NRR  
10          have worked with the industry, specifically NUPIC and NEI, to ensure  
11          these issues will be addressed more thoroughly by the industry as they  
12          approve suppliers.

13          Our staff routinely attends the vendor meetings sponsored by  
14          NUPIC to provide feedback directly to the vendors and the NUPIC  
15          auditors on the results of our inspection, emphasizing the areas  
16          requiring increased focus.

17          In addition, in December 2008, in coordination with NRR and  
18          NMSS, we sponsored a vendor workshop to facilitate an open  
19          discussion and to present insights and Lessons Learned as the results  
20          of the vendor inspections we have conducted. More than 500  
21          individuals attended this workshop, including representatives of  
22          vendors, new plant applicants, current licensees, reactor design  
23          companies, construction companies, other U.S. Government

1 organizations, foreign regulators, fuel supply organizations, and news  
2 organizations.

3 More than 300 written questions were received during the  
4 workshop for which the majority of the responses have been provided  
5 on our web site.

6 We are continuing the effort to address the issues we identified  
7 through our interactions with the industry.

8 For example, we will be discussing counterfeit, fraudulent and  
9 substandard parts during the NUPIC meeting the week of June 15th.  
10 And we are in the early planning phases for another vendor workshop  
11 in fiscal year 2010.

12 In summary, our inspections are finding issues with the effective  
13 implementation by vendors of NRC quality assurance and Part 21  
14 reporting requirements. Enforcement actions have been taken for  
15 each of the individual findings.

16 The issues identified have not affected public health and safety.  
17 However, the findings emphasize the need for continued staff efforts to  
18 independently assess vendor adherence to provide reasonable  
19 assurance, especially as demand increases, that the parts and  
20 services provided for new reactors remain of the quality  
21 commensurate with our safety significance.

22 Next slide, please.

23 As I mentioned, we will be discussing counterfeit, fraudulent and

1 substandard items during the NUPIC vendor meeting later this month.  
2 While there have not been significant issues with these types of items  
3 at nuclear power plants recently, there has been a history of  
4 counterfeit items being supplied in the past. We have not forgotten the  
5 Lessons Learned from the past and are applying them as we move  
6 forward in this area today. Given the increasing demand for parts  
7 globally, the potential for this to be an issue for new reactor  
8 construction in the U.S. increases. Counterfeiting has become far  
9 more sophisticated requiring continued efforts to improve the ability to  
10 identify counterfeit items and prevent their use.

11 We have been working to enhance our inspection program  
12 procedures and training through interactions with internal and external  
13 stakeholders. For example, one of our vendor inspectors attended the  
14 pilot course developed by an interagency working group to train law  
15 enforcement personnel, including NRC investigators, on the  
16 techniques for identifying and investigating counterfeit items.

17 In addition, several of our vendor inspectors recently attended  
18 training that was tailored specifically to the NRC's Office of  
19 Investigations Staff related to counterfeit item investigations.

20 Also, members of our staff routinely assess current operating  
21 and construction experience and discuss counterfeiting techniques  
22 and advances with other federal and industry organizations to keep  
23 informed as new information becomes available.

24 Using the insights gained from these activities, we are

1 evaluating what guidance and training to provide our vendor inspectors  
2 to assure an efficient and effective interface between our inspection  
3 activities, during which we may suspect a part is counterfeit, and the  
4 investigations that may need to be conducted by the Office of  
5 Investigations.

6 In working with our external stakeholders, such as the Electric  
7 Power Research Institute, NUPIC and NEI, we are determining what  
8 the industry is doing to identify counterfeit parts to assure they are not  
9 used in safety-related applications.

10 While we have a role, we continue to hold licensees accountable  
11 for the quality of the parts used, including the identification of and use  
12 of counterfeit items in the construction of new reactors and the  
13 maintenance of operating reactors.

14 Next slide, please.

15 As an example of how we are keeping the industry aware of our  
16 concerns with this issue, we issued Information Notice 2008-04 in  
17 which we documented examples of counterfeit items that were either  
18 used at a nuclear power plant or could have been used.

19 Since this information was noticed or issued, there have been  
20 other instances where counterfeit parts have been identified by the  
21 nuclear industry. However, so far, the parts or components that have  
22 been identified were not intended for safety-related use.

23 As the increase in demand for parts and services grows in  
24 response to new reactor construction, the entire community needs to

1 work together to assure that counterfeit parts are identified and  
2 removed from the supply chain. Within the NRC, we are developing  
3 an internal community with representatives from NRR, NRO, NMSS  
4 and the Offices of Investigation, General Counsel and Enforcement  
5 with the goal of improving the sharing of operational and construction  
6 experience information and enhancing our collective ability to identify  
7 and prevent the use of counterfeit items.

8 In a similar manner, we are interacting with the broader federal  
9 community. The Departments of Commerce, Energy, Defense,  
10 Homeland Security and others, to identify the best practices used by  
11 these agencies to identify counterfeit items and to share information.

12 Finally, on this topic, we have encouraged the nuclear industry  
13 to develop its own community with representatives from the NRC,  
14 licensees and vendors, both big and small, to identify best practices  
15 that can be used to prevent counterfeit items from being used in  
16 safety-related applications.

17 EPRI, in coordination with NEI and NUPIC, has taken on the  
18 role of leading the industry's efforts to develop its community.  
19 Recently, EPRI sponsored a meeting at which representatives from a  
20 number of federal agencies met with the nuclear power industry on  
21 current activities in other industries to address this concern.

22 Moving forward with new reactor construction will require the  
23 NRC internal community, the broader federal community and the

1 industry community to work together to share best practices and to --  
2 and information to prevent counterfeit items from being used in  
3 safety-related applications at U.S. power reactors.

4 Next slide, please.

5 As we have interacted with our stakeholders, internal and  
6 external in implementing the Vendor Inspection Program for new  
7 reactors, we have learned several key lessons that we are  
8 incorporating into our program. The Vendor Inspection Program relies  
9 both on in-depth process review and direct inspection of fabrication or  
10 other quality-related activities to assess the implementation of the  
11 processes we have reviewed.

12 Early on, we relied on the skills and abilities of our inspectors to  
13 conduct both the process and technical aspects of our vendor  
14 inspections with limited support from specialized technical staff.

15 Building on the insights gained through interactions within our  
16 international peers and our own experiences, we recognize that having  
17 the right technical expert on the inspection team enhances the  
18 effectiveness of our assessment of vendor performance.

19 You might think the second bullet on this slide is self-evident.  
20 Of course, the timing of inspections is critical. However, what we have  
21 found is that there needs to be effective two-way and more often than  
22 not three-way communication between the NRC and its applicants and

1 our vendors, to ensure the vendor inspections conducted are timed  
2 and appropriately staffed to maximize the effectiveness of the  
3 resources the NRC has dedicated for vendor inspections.

4 By appropriately timing vendor inspections, we can best support  
5 the findings that will ultimately support ITAAC closure. That the  
6 translation of licensing and design requirements are being conducted  
7 in a way that assures the as-built plant will meet the design and  
8 licensing basis, and that the quality of the parts and services provided  
9 for new reactor construction are commensurate with their safety  
10 significance.

11 Another lesson we have learned is that the new reactor vendor  
12 inspection program is stronger by using the insights gained from the  
13 implementation of the vendor inspection programs in NRR and NMSS.

14 The new reactor vendor inspection program was built upon the  
15 operating reactor, vendor inspection program being implemented by  
16 NRR. We share many of the same inspection procedures and the  
17 results of both of our inspection programs are typically applicable to  
18 operating and new reactors.

19 Experiences gained through interactions with NMSS as the  
20 MOX and LES fuel facilities are being constructed, have reinforced the  
21 importance of an effective vendor oversight and strong quality  
22 assurance programs to correct conditions adverse to quality before  
23 they impact construction.

1           Finally, as the supply chain has become more global, we are  
2 challenged with getting our staff to the right places at the right time.

3           The logistics for inspecting a vendor in a foreign country are, by  
4 themselves, challenging. We are challenged by the need to establish  
5 relationship with new vendors with differ languages, cultural  
6 backgrounds and regulatory frameworks. And we are challenged to  
7 understand the different regulatory frameworks and approaches to  
8 vendor oversight used by our peer regulators so that we can determine  
9 how best to take advantage of insights from their programs.

10           You will hear more on this later from Juan. And from a slightly  
11 different perspective, from our French colleague, Sebastien.

12           This concludes my portion of the presentation. And I will turn it  
13 over to Juan.

14                       MR. PERALTA: Thank you, John.

15           Mr. Chairman, Commissioners, good afternoon.

16           I will give you a brief overview regarding our consensus  
17 standards activities and how they relate to oversight of vendors. I will  
18 describe current topics of interest in vendor oversight and future  
19 initiatives. And finally, I will summarize our progress to date on our  
20 international regulatory cooperation efforts under the Multi-national  
21 Design Evaluation Program or IMDEP umbrella.

22           Next slide, please.

23           Consistent with OMB Circular A-119, on further participation in

1 the development and use of consensus standards, the NRC staff  
2 actively participates in the development and endorsement of  
3 consensus standards. Adherence to the standards, primarily  
4 American Society of Mechanical Engineers, or ASME, NQA-1 for  
5 quality assurance, and International Institute of Electrical and  
6 Electronic Engineers or IEEE standards for digital instrumentation and  
7 control, including software, constitute the primary vehicle by which the  
8 NRC vendor inspection staff establish that a given supplier conforms  
9 with the requisite technical and quality requirements in the regulations.

10       Once we are satisfied that the standards meet the applicable  
11 regulations, we endorse their use via regulatory guides.

12       Next slide, please.

13       The staff participates very actively in several ASME committees  
14 and working groups. One specific example, the key consensus  
15 standard with broad application by vendors and licensees is ASME  
16 and NQA-1, for quality assurance.

17       This QA standard is being used by all combined license and  
18 design certification applicants as a vehicle to meet Appendix B to 10  
19 CFR Part 50 requirements during the design and construction phase.  
20 This same standards is imposed on all vendors that supply ASME  
21 Code components in accordance with the requirements in 10 CFR  
22 50.55a (codes and standards).

23       The staff is currently planning to endorse the 2008 version of  
24 NQA-1, via Regulatory Guide 128, as one method that we find

1 acceptable for meeting the quality assurance requirements in  
2 Appendix B to 10 CFR Part 50 again during the design construction  
3 phase, including fabrication.

4 Next slide, please.

5 IEEE standards are the cornerstone of our regulatory process  
6 relative to digital instrumentation and controls, both hardware and  
7 software. The Standard Review Plan relies extensively on several  
8 IEEE standards for providing the necessary guidance to the staff in its  
9 licensing review of computer-based applications in nuclear power  
10 plants. These same standards are also imposed by licensees and  
11 applicants on digital I&C suppliers through procurement specifications.

12 Our inspection activities focus primarily on the processes used  
13 by vendors to demonstrate adherence of the guidance and the  
14 standards as a way to meet applicable regulations.

15 Once again, staff from NRO, NRR and the Office of Nuclear  
16 Regulatory Research are actively engaged, supporting IEEE  
17 committees and working groups. We also maintain very close  
18 coordination with the Office of Nuclear Reactor Regulation to make  
19 sure that licensing decisions and vendor oversight receive consistent  
20 treatment under both Part 50 and Part 52 regulatory frameworks.

21 For example, we have worked very closely with NRR in vendor  
22 oversight activities to support the licensing review of a digital  
23 platform that was submitted for NRC review and approval as a topical  
24 report and intended for both new reactor applications and for control

1 systems upgrades at operating reactors.

2 Next slide, please.

3 Vendors are subject to our regulations once they supply a basic  
4 component to our licensees, in accordance with the requirements in  
5 Appendix B to 10 CFR Part 50 and 10 CFR Part 21.

6 There are limitations to our jurisdiction in foreign countries  
7 relative to the requirements in 10 CFR 50.5, "Deliberate Misconduct"  
8 and 10 CFR 50.7, "Employee Protection." However, we have the  
9 necessary regulatory tools to ensure that any safety issue identified at  
10 a vendor, regardless of location, can be effectively addressed either  
11 through the licensee or the key vendor supplier in the United States.

12 The requirements in 10 CFR Part 21 have been evolving since  
13 inception 1977. Originally promulgated to address the reporting of  
14 defects and failures to comply with provisions in the Energy  
15 Reorganization Act of 1974, this regulation is crucial to our oversight of  
16 vendors as it defines the process for Commercial Grade Dedication  
17 and grants the NRC inspection staff access to any vendors subject to  
18 its requirements.

19 Inspection experience to date indicates that further clarification  
20 of its requirements would serve all stakeholders. Toward this end, we  
21 are considering options to enhance regulatory guidance and  
22 contemplating a future recommendation to undertake rulemaking.

23 Regarding vendor inspections and ITAAC, engineer

1 procurement, constructor EPC's entities are very actively engaged with  
2 COL applicants in defining ITAAC-related activities during fabrication  
3 of major components. We are in the process of coordinating with  
4 EPCs and Region II to better define the appropriate NRC oversight  
5 during this phase of the procurement cycle. We currently anticipate  
6 that these activities will be factored into existing vendor inspection  
7 framework.

8 Next and final slide, please.

9 The Vendor Inspection Cooperation Working Group was formed  
10 under the auspices of MDEP and the first meeting was held in April  
11 2008.

12 The working group identified two key objectives, one to improve  
13 the effectiveness and efficiency of vendor inspections by building on  
14 the work done by other regulators. And two, sharing the results of  
15 vendor inspections to allow the participating countries to take into  
16 account the insights from vendor inspections conducted by others.

17 The working group is chaired by Mr. Sebastien Limousin, of the  
18 French regulatory authority, ASN, who will be sharing his perspectives  
19 on vendor oversight with you today.

20 There are currently ten countries participating in the working  
21 group, Canada, China, France, Finland, Japan, the Russian  
22 Federation, South Korea, South Africa, the United Kingdom and the  
23 United States.

1           As you will hear later on from our colleague, Sebastien, the  
2 Vendor Inspection Cooperation Working Group has made significant  
3 progress in improving our understanding of the practices and the  
4 regulatory framework under which vendor oversight is conducted  
5 worldwide. We have also undertaken significant bilateral and  
6 multi-lateral efforts that resulted in an unprecedented level  
7 international cooperation and knowledge sharing on inspections.

8           For example, we conducted first of a kind vendor inspection of a  
9 Korean-based vendor in parallel with Korean authority or Korean  
10 Institute for Nuclear Safety, KINS, and have participated as an  
11 observer on several vendor inspections conducted by Korea and  
12 France. We have also observed the United Kingdom Nuclear  
13 Installation Inspectorate, NII), and Environmental Agency, EA,  
14 interactions with GE and Westinghouse regarding reactor designs.

15           Regulatory authorities from Korea, France and Canada have  
16 observed several of our vendor inspections as well.

17           The member countries have begun to exchange information by  
18 sharing a list of currently scheduled vendor inspections, samples of  
19 recent inspection reports, experiences and Lessons Learned. The  
20 working group is currently conducting an assessment of the impact of  
21 different quality assurance regulatory frameworks and the differences  
22 in oversight practices to build a common understanding of key  
23 regulatory requirements with a nexus to vendor oversight.

1           The next meeting of the working group is scheduled for the fall  
2 and we have offered to host it in the Washington, D.C. area.

3           This summer we are conducting an inspection in Japan Steel  
4 Works, in Japan, that will be observed by representatives from the  
5 Japanese Regulatory Authority, JNES, and we are also participating  
6 as observers on a QA audit by ASN, at Mitsubishi Heavy Industries,  
7 also in Japan, next week.

8           Lastly, we are in the process of finalizing our plans to send an  
9 NRC vendor inspector to work with Sebastien at ASN for a one-year  
10 time frame.

11           And with this, that concludes my prepared remarks.

12                       MR. JOHNSON: I feel as though we really built  
13 expectations for Sebastien's presentation.

14           But before we go to Sebastien, I just want to touch on -- by way  
15 of summary, a couple of points.

16           One is, that we really do feel that we have enhanced the  
17 Vendor Inspection Program for new reactor construction and it's being  
18 effectively implemented.

19           The approach that we have talked about today, outlined for you,  
20 really built on insights from international cooperation, incorporation of  
21 Lessons Learned, and thus far we believe it's been a success in  
22 accomplishing our objectives.

23           But certainly, as discussed by this morning's panel, I think the

1 challenge that remains for us is to remain vigilant in assuring product  
2 quality. We have been proactive as an agency in terms of hiring and  
3 training staff, to have the skills and the abilities that we need to  
4 effectively carry out our responsibilities for oversight of our licensees  
5 and vendors.

6           However, there are over 800 potential vendors for new power  
7 plant components, and we are only able to sample a targeted, a  
8 very limited target sample, and so it's critical that licensees and their  
9 contractors and industry organizations provide effective oversight for  
10 vendors for the vendors they use. And it's the extent to which that  
11 oversight is effective that will really impact the pace and success, one  
12 of the things that will impact the pace and success in new reactor  
13 construction activities. Those are the key points in the summary, and  
14 hopefully those came across in the presentation.

15           And now, at this time, I would finally like to turn it over to  
16 Sebastien Limousin from ASN, to give us some French regulatory  
17 perspective and experience on vendor inspection.

18           Sebastien.

19           MR. LIMOUSIN: Good afternoon. I'm Sebastien  
20 Limousin from ASN, the French Nuclear Safety Authority. I'm also the  
21 chairman of one of the MDEP working group on vendor inspection.

22           Next slide, please.

23           Well, to start with, I'm going to present ASN component

1 manufacturing oversight and Lessons Learned. And after that, I plan  
2 to cover international and bilateral cooperation.

3 Next slide, please.

4 So currently, in France, one EPR is under construction. The  
5 manufacturing of components started end of 2005, so three or four  
6 years ago. And steam generators are currently under construction,  
7 they are manufactured either by AREVA or by Mitsubishi.

8 Last year, ASN performed 15 inspections. A typical inspection  
9 lasts one day. So our inspections are shorter than U.S. NRC  
10 inspections.

11 Next slide, please.

12 ASN carries out three types of inspections. First of all, what we  
13 call indirect inspections. We check that the licensee performs an  
14 appropriate surveillance of the vendor.

15 Most regulatory agencies in the world perform such inspections.  
16 We also perform QA audits once every three years. They are major  
17 audits.

18 Finally, we perform simple technical inspections. Most of our  
19 inspections are technical inspections.

20 Next slide, please.

21 What did we learn from EPR fabrication oversight?

22 First of all, subcontractors should be carefully monitored by the  
23 vendor and the licensee.

1           Now, for instance, ASN refused a component because of the  
2 insufficient level of subcontractor QA program. So, this is a very  
3 important point.

4           And secondly, our schedule is more and more taken into  
5 account by vendors, and regulators have to make sure that safety and  
6 quality always go first and not after the schedule.

7           And competent manufacturing requires a high level of know. It  
8 is still not easy to manufacture high quality components. It is still a  
9 challenge.

10           For instance, some parts were rejected by the manufacturer  
11 itself because the parts did not pass the test. So it's still a challenge to  
12 reach the required quality.

13           Next slide, please.

14           Vendor competence is shared with key subcontractors. The  
15 vendor doesn't have all the skills to manufacture, has the competence.  
16 They rely on key subcontractors. For instance, forging companies.  
17 This is an important point. The forging of big components is a key step  
18 in manufacturing. In new reactors forged parts are bigger than they  
19 used be. They are bigger, so they are harder to manufacture. And the  
20 forging process has to be carefully monitored. And this is very  
21 important. And forged parts are different from what they used to be,  
22 so this process is a key point in their manufacturing.

23           And finally, regulatory oversight is enhanced by sample

1 technical inspections. Technical inspections are very useful. As I  
2 said, ASN refused a component because of QA non-conformity. We  
3 discovered this nonconformity of a QA due to a technical inspection.  
4 So technical inspections are quite important.

5 Next slide, please.

6 Let's move on to international cooperation. Almost everything  
7 was said about these working groups but -- anyway.

8 So I'm the chairman of the MDEP working group on vendor  
9 inspection. This working group has two objectives. The first one is  
10 improving the efficiency of vendor inspection by sharing information,  
11 among regulators by sharing inspection findings and by sharing good  
12 practices.

13 And the second objective is to be able one day to take into  
14 account vendor inspections performed by other regulators.

15 The final objective is to be able to rely on other regulators'  
16 inspections. This is an ambitious objective. So far we performed a  
17 good regulatory practice comparison, thanks to STUK, and we  
18 performed several joint inspections last year and we are planning to  
19 perform several inspections, at least 8 inspections this year together.

20 Next slide, please.

21 What could be the next steps of this working group? We tried to  
22 organize multi-national QA audits.

23 QA is the main area of similarities among regulators. We have

1 basically the same requirements. So maybe one day it would be  
2 possible to organize multi-national QA audits. That will be a QA led by  
3 one country but with the participation with other countries. So this is  
4 one of our objectives.

5 Similarly, we tried to have bilateral agreement on technical  
6 inspections. And it will not be possible to have agreement with all  
7 countries because some countries do not perform any technical  
8 inspections, so we try to have bilateral agreement in this area.

9 And finally, this year we discovered a new area of cooperation  
10 about long-lead items. For instance, forged parts, forged component,  
11 could be manufactured without knowing the final destination because  
12 first part are manufactured a long time before the beginning, so  
13 sometimes our manufacturer, without knowing the final  
14 destination, so this could be a good area for cooperation among  
15 regulators.

16 Next slide, please.

17 And I finish with bilateral cooperation between ASN and U.S.  
18 NRC. ASN and U.S. NRC have historical close relationships. And this  
19 is true about vendor inspection. We had many exchanges about the  
20 EPR, and we still have exchanges. We organize technical exchanges  
21 about vendor inspection and staff exchanges. An ASN engineer is  
22 working for U.S. NRC currently. She's working for U.S. NRC for three  
23 years. And someone from U.S. NRC is expected to join ASN this

1 summer for one year. So we are going -- staff exchanges, this is a  
2 good way to know our practices.

3 And last year, we organized several joint inspections in France,  
4 in Korea, in Canada. And we are beginning to organize several  
5 inspections this year, one in Japan this month, another one in France  
6 in July.

7 Next slide, please. The last one.

8 What did we learn? There are many similarities in vendor  
9 inspection practices. Of course, the codes, the designing codes, are  
10 different. For U.S. parts, ASME code is used for French components  
11 RCCM, the French code is used, but it's not really a problem for our  
12 cooperation.

13 But the scope of inspections and their frequency are different.  
14 ASN carries out many short inspections around 15 inspections a year.  
15 Whereas the U.S. NRC performs longer inspection but less  
16 comparison.

17 What could be the next steps for the middle term? We could be  
18 able one day to organize common QA audits. Our requirements are  
19 not so different. French requirements are not very different from 10  
20 CFR 50 Appendix B. So maybe one day we could be able to organize  
21 common QA audits. And it could be possible one day to use other -- to  
22 use technical inspections performed by the other regulator. So this  
23 could be a good area of cooperation.

24 Thank you for your attention.

1                   MR. BORCHARDT: I would like to thank Sebastien for  
2 participating in this afternoon's Commission meeting and to thank all of  
3 the countries that were mentioned earlier today for, I think, continuing  
4 an unprecedented degree and intensity of international cooperation, at  
5 least in my NRC experience, I have never seen any cooperation this  
6 broad and this sustained as we are seeing in the new reactor field.

7                   I would like to acknowledge that Loren Plisco is in the audience,  
8 the Deputy Regional Administrator from Region II. Loren's in charge of  
9 the Construction Inspection Center of Excellence.

10                  Then finally, I would just like to thank Mike and Glenn and,  
11 really, the whole NRO team for taking an exceptionally proactive  
12 approach to this area. We have never done this kind of thing before. I  
13 think they've done a remarkable job of identifying issues early, working  
14 with the industry and all the stakeholders to come up with a productive  
15 way of moving forward.

16                  That completes the staff's presentation.

17                  CHAIRMAN JACZKO: Well, thanks, Bill. And I certainly  
18 would second that in particular on the effort to proactively looking at  
19 issues and addressing issues, because this is -- very quickly we could  
20 find ourselves in the middle of doing ITAAC inspections and other  
21 work, potentially during construction. And it is important, I think, that  
22 we can resolve as many of these issues ahead of time to make that

1 process of actually doing the work go more smoothly.

2 So I think we will start our questions with Dr. Klein.

3 COMMISSIONER KLEIN: Well, thanks. Thanks for a  
4 very good presentation. And Sebastien, it is good to see you here as  
5 well.

6 I think this is a great area for international cooperation. And as  
7 we talked this morning about the supply chain being global, and so this  
8 is really a good example and you are complimented for all those  
9 activities.

10 I know that you volunteered to spend a year in France but we  
11 need to keep you here a little bit longer Bill.

12 In terms of -- you know, if you look forward, and Sebastien  
13 commented on this on, where we might go for additional international  
14 cooperation; what do you see from your perspective, Bill, that we might  
15 look at more efficiencies and communications in this inspection  
16 program for international activities on a global supply chain?

17 MR. BORCHARDT: Well, I think we have very strong  
18 relationships with the ten countries that were listed. Obviously, very  
19 active with Finland and France right now because of the construction  
20 activities that are ongoing.

21 One area that we are going to see an uptake in the level of  
22 intensity, I think, is with China. As you know, they have begun  
23 construction on the first AP1000. In fact, we have a steering  
24 committee meeting -- I hope it will be held this month. It's being

1 scheduled now to further the agreements on inspector exchanges and  
2 that kind of activity. So that's moving very forward.

3 I think Sebastien outlined some of the stretch goals, if you will,  
4 about getting to the point where we can actually reference or rely on  
5 an inspection activity from a fellow regulator. We are moving in that  
6 direction, and I think the more activities that we do together and  
7 provide oversight of each other, the higher the comfort level. We learn  
8 from each other and everybody is getting better as we continue on that  
9 activity.

10 Of course, we will retain that one requirement of having to have  
11 a public record of the basis for why we find things acceptable or when  
12 we find issues that need to be addressed.

13 But I really don't see any barriers for continuing on the direction  
14 we are headed.

15 COMMISSIONER KLEIN: I know that Loren certainly is  
16 interested in construction inspection, and this is primarily looking at  
17 some of the vendors.

18 But, Sebastien, did you have any inspectors at Olkiluoto to help  
19 get ready for Flamanville?

20 MR. LIMOUSIN: ASN had many technical exchanges  
21 with STUK, the Finish regulator. We organized joint inspections with  
22 them at Flamanville and at Olkiluoto 3 but we don't have any  
23 permanent resident in Finland.

1                   COMMISSIONER KLEIN: Thanks.

2                   Well, Glenn, obviously, you talked about being unable to inspect  
3 everything all the time.

4                   So the question is, how do you go through your target selection  
5 in order to get the confidence that a vendor is doing high quality work?

6                   MR. TRACY: Juan and John actually provide a  
7 recommendation list and I'll turn to them in a second in terms of their  
8 thought processes. But the overall content of that is not only being  
9 aware of issues as a result of our sharing that we have tried to convey  
10 today, but then looking at the list of reactors that are likely to be built,  
11 and from that, looking at the best target set, and then being lastly  
12 informed by the NMSS and the NRR operating side as well.

13                  Juan and John, would you like to add to that?

14                  MR. PERALTA: Well, there's several factors. I mean,  
15 we have been working, ever since we issued the lists to all the future  
16 applicants trying to identify which vendors were going to be selected  
17 and so forth. We also have a very close relationship with the key  
18 procurement contractors. I'm trying to gather information from them as  
19 to which are the critical suppliers, when they are fabricating, so we can  
20 factor in our planning for inspections.

21                  As you know, mostly -- most of the key fabrication is being done  
22 overseas, but we still have some key suppliers in the United States.

23                  Many, especially AP1000, there are many new components being

1 qualified. So there is a lot of activities that we are undertaking and  
2 trying to organize with not only – within the division but also across the  
3 office, including all the offices, because we need technical expertise.  
4 And I'm including Region II to bring them on board with respect to how  
5 those issues are going to be characterized in the inspection space.

6           So I mean, the key is information. We also participate  
7 extensively with NUPIC. It's not only the existing -- I mean, the  
8 vendors, there are certain vendors primarily focused on the new  
9 reactors, but for the most part, they are the same vendor. So NUPIC  
10 is a great venue for us to understand what's going in the industry to  
11 have a pulse or where the key problem areas are. That interaction  
12 continues.

13           Again NRR, they have a very strong program with respect to  
14 allegations. This continues also.

15           But, as far as targeting, I think it is a matter of when the  
16 fabrication is happening and which -- where the schedules  
17 are with respect to the fabrication and where the key components are.  
18 That's why we ended up going to Doosan sooner than we expected  
19 because of all the activity over there. And it's importance to the  
20 AP1000.

21           MR. TRACY: Chairman, I would add that the applicants  
22 have been very cooperative, both with Region II and Loren's staff as  
23 well Juan and John to give us insights in terms of where parts are

1 being manufactured at what point in time for the procurement so that  
2 Juan and John could identify the right time, which is key to John  
3 Nakoski's slide about the timing of the inspection.

4 MR. NAKOSKI: I might just add on what Glenn and Juan  
5 said, we work closely under the larger umbrella of the Construction  
6 Inspection Program, what are the right target sets, so that we can  
7 support the decisions we need to make about the design and  
8 construction of the facility.

9 COMMISSIONER KLEIN: Thank you.

10 Well, Bill, obviously, we've got 104 reactors are running and  
11 we've got some that hopefully are planning to be construction soon.

12 How do you balance between, you know, balancing NRR needs  
13 and NRO, and how do you communicate between the two?

14 MR. BORCHARDT: Well, the balancing is -- there's a  
15 very clear priority and that's to operating reactors. So, it's not that  
16 NRR gets everything they want, but we make sure that the reactor  
17 oversight program is fully funded. Including the vendor inspection  
18 activities related to operating the reactors, so that we can do all we  
19 can to assure public health and safety for the 104 operating reactors.

20 There is -- we are still reaping the benefits, I think, from just  
21 about everybody, while I think both Juan and John came from NRR.  
22 There is a very close personal relationship that remains with every  
23 staff member at NRO with their NRR counterparts. So there's both

1 formal interactions at organizational levels as well as the more  
2 valuable informal personal relationships that exist.

3 So, we have -- NRO has not existed so long now that there is  
4 any kind of a wall or a barrier between the two organizations, so  
5 there's very good constant communication between the two  
6 organizations.

7 COMMISSIONER KLEIN: Thanks.

8 And Mike, as you start looking at your needs in the NRO area,  
9 how do you determine the number of inspectors that you need?

10 MR. JOHNSON: We -- thank you. We work very  
11 carefully, first of all, with Region II with a close pulse on what actual  
12 plans are for construction. We have a program that we -- Glenn's  
13 division has responsibility for, which has taken a look at, again, with  
14 Region II, in terms of scoping the overall size of that program so we  
15 know how much inspection we will need to do at each of these  
16 applicant, licensee actually, facilities once they've been licensed. And  
17 so it's just a matter of factoring that in.

18 And I guess I'm making it sound a little bit simpler than it is  
19 because there is uncertainty about when folks will actually construct  
20 what we've actually been able to go and work through and build what I  
21 think is a reasonable estimate about what resources we need, again,  
22 based on all of the work that we have do in terms of the construction

1 inspection program going forward.

2 COMMISSIONER KLEIN: And I'm sure that Region II is  
3 not shy about saying what they need.

4 MR. JOHNSON: I wish they would be a little bit more  
5 shy actually.

6 COMMISSIONER KLEIN: On Part 21 -- I guess this  
7 could be both a John and a Juan question.

8 How do you communicate your findings throughout the industry  
9 when Part 21 issues come up?

10 MR. PERALTA: Mostly through inspection reports.

11 We also communicate it through information notices. Recently,  
12 there was one that was issued a year ago. But we have several  
13 findings of about the same nature so it was a trend that was identified,  
14 so that was communicated. We are actually in the process of working  
15 on another RIS to bring clarity with respect to Part 21 requirements  
16 and design applications -- design certification applicants.

17 So the primary vehicle is typically the inspection reports  
18 themselves, which are posted on a web site.

19 MR. NAKOSKI: I also would like to add that that was one of the  
20 main topics at our workshop that we conducted in December, was to  
21 help provide some clarity on what Part 21 requires, what our  
22 expectations are, what the specific issues were that we were finding to  
23 -- because we recognize that it is an area where improvement is

1 needed.

2 COMMISSIONER KLEIN: I had asked a question this  
3 morning about counterfeit and fraudulent parts.

4 From your perspective, are you seeing any increase, decrease,  
5 stable?

6 MR. NAKOSKI: I wouldn't say we're seeing it -- not an  
7 increase. I think it's -- we are seeing precursors.

8 You know, there is a couple of examples where components  
9 were actually used in non-safety related applications at a U.S. power  
10 reactor. Not sure that that's something we are comfortable with, but it  
11 was -- it met our regulations, it didn't affect public health and safety,  
12 but it is a precursor to, the potential exists.

13 We're doing -- one of my staff is looking into what is being done  
14 in other industries and there is substantial -- maybe -- I don't know if  
15 it's a continuing stable trend -- or pattern of counterfeit parts being  
16 used in other industries where there are high quality standards.

17 And we just want to stay ahead of that curve, to make sure we  
18 are aware, make sure the community is aware, make sure that we take  
19 a fairly aggressive posture ourselves and encourage the industry to do  
20 the same.

21 COMMISSIONER KLEIN: Well, Sebastien, for ASN, how  
22 do you balance your quality assurance look between the contractors,  
23 subcontractors and going down the supply chain? How do you

1 balance that?

2 MR. LIMOUSIN: We perform QA audits only on the main  
3 vendors basically MHI and AREVA for France.

4 For subcontractors, we don't perform any QA audits. We rely on  
5 the licensee's surveillance and on the vender's surveillance of them.  
6 But we perform technical inspections in subcontractors shops, facilities  
7 and thanks to these technical inspections, we can find QA  
8 non-conformity. So we can go to the -- we can have an idea of the QA  
9 program of the subcontractors thanks to our technical inspections.

10 COMMISSIONER KLEIN: Thanks. .

11 CHAIRMAN JACZKO: Commissioner Svinicki?

12 COMMISSIONER SVINICKI: Thank you.

13 Well, I would like to echo what Chairman Jaczko said, when he  
14 seconded what Bill said about this is an area where I think we've been  
15 very forward looking. And it isn't -- reflecting on this morning, it isn't a  
16 notion that we have defined everything and solved every question. But  
17 I think the amount of outreach has been really -- I'll call it --  
18 unprecedented. And I don't have as many years as some others at the  
19 table to say that something is unprecedented but for example, I had  
20 made reference to the questions and answers posted as an outcome  
21 of the vendor workshop.

22 And, John, you talked about this is, as well. In looking through  
23 it, I think this is a wealth of information, if I were a vendor. And not  
24 every varied situational question is answered, but still, there's just a

1 tremendous amount of -- it really advances, I think, a lot of dialogue  
2 with communities of interest. And so, I compliment everyone in NRO.  
3 So I certainly join Bill in commending those activities.

4 This may be a question for Juan, and I'd noticed it was in one of  
5 those questions and answers, that NRC plans to endorse the 2008  
6 NQA-1. I think that's via an update to a Reg Guide but I've not seen a  
7 time frame for that.

8 Do we have a projected time frame?

9 MR. PERALTA: It is definitely this year.

10 COMMISSIONER SVINICKI: Okay.

11 MR. PERALTA: We're working right now with Research.  
12 I believe NRO, both NRR and NRO have concurred of our version, and  
13 NNMS also. So it should be about to be published for public comment.

14 COMMISSIONER SVINICKI: Okay. Okay, thank you for  
15 that.

16 And I wanted to return to something that Dr. Klein had talked  
17 about and, Sebastien, it was in your presentation about -- Bill used the  
18 term a "stretch goal," of saying could a regulatory authority rely upon,  
19 at least in the area of quality assurance, where we said between  
20 France and the United States, there is not so many differences in  
21 requirements; could one regulatory authority rely upon the inspection  
22 results of another country's regulatory authority?

23 And I'm just curious in my own mind about some of the

1 ultimate -- if there is legal implications there, when I think about the  
2 findings that must ultimately be made under Part 52 and I'm thinking  
3 are there any legal implications or indemnification implications to the  
4 U.S. regulator saying in somewhat a foundational to our finding is  
5 relying upon the inspection results of the regulatory authority of  
6 another country.

7 Has that ever been done?

8 MR. GRAY: It has not been done, that I know of, and would be  
9 some legal -- have to be able to satisfy ourselves that findings were  
10 made to our standards, and verified. And we would have to vouch for  
11 those, basically making them our own findings. So that there -- there  
12 are implications -- simply relying on someone else, not clear that we  
13 can -- we can do that in a straightforward manner.

14 COMMISSIONER SVINICKI: Okay. And I just want to  
15 clarify, I don't -- that's, again, my intellectual curiosity. And I don't raise  
16 that in any way to suggest that that should chill or hold back any of our  
17 international cooperation.

18 It is just a matter that we would obviously need to think through  
19 very carefully. And I think there are many advantages to the  
20 coordination cooperation, even in the absence of a one for one ability  
21 to rely upon someone else's findings. So we certainly want to continue  
22 these activities. That's just me indulging my curiosity on that particular

1 matter.

2 But I think I turned to -- we did begin this panel with an overview  
3 of new reactor activities, Mike that you had given. And I wanted to turn  
4 to something, that since it was in the trade press this morning, it's on  
5 my mind and I thought this might be an opportunity to explore it.

6 But recently, we -- the Commission transmitted to our  
7 congressional oversight committees a routine report that we do on  
8 licensing activities. And in there, regarding, in the attachment to the  
9 transmittal, regarding new reactor activities, there was a statement  
10 about NRC sequencing its work to focus on those applications with  
11 strong near-term construction intentions and the necessary supporting  
12 activities.

13 So the question I would pose to you, Mike, if I'm a COL  
14 applicant and I have an application right now that the review was  
15 underway with NRO, what should I conclude from that statement? For  
16 example, should I expect that it would be communicated to me or  
17 perhaps I would already know if I had signed an EPC, that I was one of  
18 these areas that was going to be focused on? And if I'm not one of  
19 those applicants, should I conclude that there is something about the  
20 schedule that I've already worked with NRC on that would be  
21 revisited? So what should they interpret that statement to mean?

22 MR. JOHNSON: Okay, thank you.

23 They should, first of all, interpret that statement to mean that

1 where we've established schedules, we are going to be able to honor  
2 those schedules. We are going to continue to work those reviews.

3 Where those schedules and those applicants' intentions have  
4 indicated that they are going to be constructing in the near term, 2016,  
5 2017, we've also communicated with those applicants that we are not  
6 going to impede their progress. And so, really, what you see in the  
7 trade press is my communication, our communication to the staff  
8 consistent with the Commission's guidance, which says we are going  
9 to do our work.

10 If we have to make choices about this person's supporting an  
11 application that is going to be in the later years, let's say beyond 2016  
12 and '17, or working today on something to support the on-time delivery  
13 of our work to support the near-term license approval, we are going to  
14 sequence that review for the longer term such that we don't impede  
15 the near term. That's where the communication is -- it's primarily a  
16 communication internally, incidentally.

17 But I really think it's going to have minimal impact on applicants.  
18 And we are simply implementing a process that's consistent with what  
19 they told us about their plans for actually when they would want the  
20 license and when they would actually intend to go to construction once  
21 they have that license.

22 MR. BORCHARDT: I think another way to answer the

1 question is, that the licensees, the applicants don't need to read  
2 anything into the statement because they will be contacted if there is  
3 going to be a change in the schedule.

4 COMMISSIONER SVINICKI: Should they be awaiting  
5 that though if they're not one of the ones --

6 MR. BORCHARDT: They've already been engaged.

7 COMMISSIONER SVINICKI: Okay. And so -- and I was  
8 going to ask that in terms of, you said it's more an -- something that  
9 would be more noticeable internally then externally. So it is really the  
10 dynamic resourcing and workflow inside of NRO, and then as NRO  
11 has connections and pulls work out of other offices here at the NRC.  
12 So this is not meant to transmit anything at the very high-level, such as  
13 the '09 budget or the FY-10 budget, which was just sent to the Hill  
14 where it talks about supporting a certain number of COLs? This is not  
15 meant to be a departure from any of that?

16 MR. JOHNSON: No. It is meant to be consistent with  
17 the guidance the Commissioners have given us, and it's -- it is meant  
18 to convey a sense of, we are not going to impede those who would be  
19 first. So to the extent that message is taken, I'm happy for that.

20 COMMISSIONER SVINICKI: Okay, thank you. That's  
21 very helpful clarification.

22 Thank you, Mr. Chairman.

1                   CHAIRMAN JACZKO: Well, thank you, Commissioner  
2 Svinicki.

3                   And I too try to indulge my intellectual curiosity on the legal  
4 matters and always, I think, to the chagrin of --

5                   COMMISSIONER SVINICKI: Isn't it -- it's a horrible thing  
6 about people who came from the Hill, because it's that classic, I'm not  
7 a lawyer but I played one on Capitol Hill.

8                   CHAIRMAN JACZKO: We got to write the laws and we  
9 think we know what they mean, I think at some point so -- or help write  
10 the laws, I should say. We didn't actually get to do that ourselves. But  
11 I certainly think there are some interesting questions that we would,  
12 you know, as we move forward, on trying to greater rely on  
13 international inspection activities, that certainly we have issues that we  
14 would have to work through.

15                  And I always think back to our obligations under hearings and  
16 how we would conduct hearings if we were relying on information  
17 that's coming from other countries and how the public can have access  
18 to that and all those kinds of thing. But I certainly agree with you, that  
19 that's not intended to impede efforts to try and harmonize these  
20 activities because I think, Mike, as you said, with 800 potential  
21 suppliers and vendors and ten inspections a year, we are not covering  
22 a large number of those suppliers. So I certainly think it's worth

1 pursuing these activities. But there may be realities that at some point  
2 we'll have to address.

3 One of the things, Mike, along those lines, we heard a little bit  
4 this morning, and I think as Commissioner Lyons and I both  
5 referenced, in the back of the material there, are the summary letters  
6 on the inspection reports on the ten that have been done each year so  
7 far. And certainly I think my impression was that I was surprised to  
8 see the level of findings that there were.

9 Given that we've seen that, is the staff considering  
10 increasing the number of this 800 that we would do inspections for? I  
11 mean, we -- should we have more resources dedicated to this based  
12 on what we've see or is the number about right at this point? I think  
13 that's the first time I've ever seen a pause from the staff.

14 MR. JOHNSON: Well, that's such a wonderful question.

15 We -- the -- to be quite honest, we

16 COMMISSIONER LYONS: I was going to ask the same  
17 question

18 MR. JOHNSON: -- in fact, Glenn and I talked about this  
19 at length, so Glenn, feel free to chime in.

20 We really do think that -- we certainly wouldn't want to do fewer  
21 than ten inspections, I don't think, but something higher than ten could  
22 certainly benefit us. And as we've sort of alluded to, should we get in a  
23 situation where are having to react based on the need to follow-up on

1 inspection findings, or based on the need to respond to allegation, we  
2 could be well beyond ten and we'll have to figure out how to resource  
3 that.

4 Having said that, whether it's ten or it's 20, again, the total  
5 number -- if the total number is 800, we really are going to have to  
6 make sure that the folks who have primary responsibility for quality  
7 and for oversight of vendors, are exercising that responsibility. And so  
8 that's really where our thrust has been. And I know I haven't answered  
9 your question directly, but I think -- I think that's my answer I would  
10 offer up.

11 Glenn?

12 MR. TRACY: I would just add that we respect the budget  
13 process, but I would point that for Juan and John's actual inspectors  
14 they are the same people who are trying to increase the awareness  
15 and address the 300 questions and make good workshops and then  
16 build generic communication, so for -- depending upon how the results  
17 of improvement and awareness go as we continue to monitor this  
18 activity, I then have to balance Juan and John's staffs and their  
19 utilization for those awareness activities and the types of products in  
20 order to make sure that the industry understands the types  
21 of things we're finding.

22 CHAIRMAN JACZKO: Well, I appreciate the answers,  
23 and I think that certainly it seems it's an open question as we go

1 forward and wanted, I certainly get the sense that you're keeping an  
2 eye on that. I would certainly encourage you to do that because we do  
3 -- and I think one of the lessons that I really took from this morning is  
4 that -- and I think we discussed a little bit here, is that many of these  
5 components, I think -- Mr. Limousin, I think you said, made the point  
6 that the -- you know, when a large components is fabricated, it's not  
7 clear when it's fabricated who it's intended for.

8           And so, that certainly is important that we're getting out there  
9 and seeing as many folks as we can. And if it -- if we identify the QA  
10 problems late -- it sometimes may be past the point of which we  
11 wanted to. I think, as you said, you had to reject some parts because  
12 of problems with the Q&A program. And so, I certainly appreciate that  
13 folks are continuing to keep an eye on it, and it's one that I will  
14 certainly continue to take a look at and make sure we're putting the  
15 right resources there, if we do need them or if we need more, it  
16 certainly is an area I think that's important to put them to.

17           Along those lines, John, I think I had a similar question perhaps  
18 for you, only slightly different, in that in your slides you made a  
19 comment that, in the issue of counterfeit parts -- and I guess there's  
20 two questions that I'm asking if anyone wants to comment on this.

21           First, just specifically on the counterfeit parts, you said that  
22 where we found counterfeit parts, it was not in safety-related areas.

1 I'm wondering if you have a sense where you can say that's by design  
2 or that's by accident; and namely -- is the reason why we're not seeing  
3 it in safety-related because our programs are good enough to make  
4 sure that we would catch it and identify it before it could happen there?

5 MR. NAKOSKI: I think that's a major element of it. I  
6 think that quality assurance programs we have related to under  
7 Appendix B, the receipt inspections, the oversights that are conducted  
8 of our vendors, I think it's very -- it's robust. It serves our needs today.  
9 But as we increase the demand on our supply system -- you know, in  
10 the past, during construction we saw problems.

11 So I think today it's strong enough, we just need to maintain our  
12 vigilance going forward, that they stay robust. I like the term  
13 safety-mind from this morning. You know, the safety culture aspect of  
14 it. We need to get that spread out. And I think that would be a key to  
15 keeping it robust. To keeping that from happening. But I think by  
16 design, they aren't getting into safety-related applications.

17 Could I conclude that it's impossible? No. Those systems aren't  
18 perfect. But I think it's by design that they're not getting in.

19 CHAIRMAN JACZKO: Well, that's good and it's good to  
20 hear. And I think sometimes we don't -- you know, you don't  
21 necessarily know the bad things you prevent from happening, but I  
22 think I would certainly take from your comments that this is an area  
23 where we think we've -- you know, we've done it and we've got some

1 good programs in place to do it. So the idea, perhaps, along the lines  
2 of what Mike said earlier, is to make sure that we keep the resources  
3 then synced up in the right way so we continue to be able to say that  
4 or to be close to that perfection as we can in going forward.

5 As a general question of everyone, I asked it this morning as  
6 well, whether really the issue going forward is more -- the concern is  
7 more along the lines of deficiencies or counterfeit parts, and I think  
8 what I heard from the panel this morning was that they think  
9 counterfeiting is perhaps not as much of an issue that just the issue  
10 with defective parts or quality problems, there's really more of a  
11 concern going forward. I just raise that. If anyone has any comments  
12 if they think that's about the right mix too, and if any thoughts about  
13 that.

14 MR. TRACY: We spoke about that during lunch, and we  
15 concur the position that was provided, and in fact, Sebastien had a  
16 view.

17 MR. LIMOUSIN: Counterfeit parts are not the major  
18 issue in France. Human error, for instance, is more important than  
19 counterfeit parts. As far as I know, we did not discover any counterfeit  
20 parts recently.

21 MR. BORCHARDT: I wasn't in on the conversation, so I  
22 apologize. But I think the counterfeit part issue follows money. We  
23 may not have seen the biggest expenditure of money on the parts that

1 are subject to that, so I think we need to stay as vigilant as we possibly  
2 can in that area. Just because we're not seeing problems today  
3 doesn't mean we won't see them two years from now.

4 CHAIRMAN JACZKO: Okay. Well, I think that's a good  
5 -- that's a good reminder, Bill, and I think -- I'm sure your staff will heed  
6 that well, and -- as we go forward. I also didn't realize we had -- we  
7 had many people work over lunch too, but that's good to hear, folks  
8 are looking at these things.

9 The last question I would just comment on and perhaps it's more  
10 of a comment than a question is, that we have not -- we didn't talk  
11 specifically about the ITAAC process here. Mike, you touched on a  
12 little bit in your discussion, and one of the issues we've talked about in  
13 the past, is really the ITAAC closure process. And, of course, that's  
14 going to have a tremendous interaction with all of these issues that  
15 we've talked about with the construction inspection and vendor  
16 inspection, ultimately the QA programs, and our ability then to have a  
17 good paper trail to close out issues. And so I certainly look forward,  
18 Mike, to the paper.

19 I think that -- or the information that you will be providing the  
20 Commission later on, on the NEI guidance on a process to make sure  
21 that we have a closeout process that works. Glenn we were talking  
22 yesterday about your experiences in Japan and some of the work that  
23 they have done in their construction of facilities, which was also

1 Mitsubishi, and I think, how they had closed down areas and closed  
2 down construction in a way that would probably be very useful, I think  
3 in this country for our regulatory purposes in doing the anti-closure  
4 process.

5 So that certainly is one that I think will be important as we go  
6 forward and one that I certainly look forward to hearing the staff insight  
7 on that as we go forward.

8 The last point I would make, I think the discussion on safety  
9 culture, I think, has been very interesting and the Commission is in the  
10 process right now of working on a safety culture policy statement.

11 And I think perhaps it was not an area we specifically  
12 addressed, but as we go forward with that initiative, I think what we've  
13 been hearing here and certainly heard this morning about the  
14 importance of that area for the vendors and the supply chain as well, in  
15 particular with a policy statement, not necessarily with a regulatory  
16 requirement there, but with a policy statement in particular, that we  
17 may want to make sure that we're targeting that audience as well with  
18 that policy statement to help re-enforce these ideas of safety culture in  
19 that area.

20 MR. TRACY: Yes, sir, we'll continue to look at that.

21 During the large workshop we had, we did a specific element of  
22 our presentation on safety culture and its importance for that vendor  
23 group, encourage them to attend the all -- large vendor workshop -- I

1 mean, excuse me, the safety culture workshop. I'd only also point out  
2 that the policy statement, prepared the paper, does encourage  
3 licensees to ensure they're overseeing their vendors in the essence of  
4 safety culture. So we're going to look at it for the next step that you  
5 just guided.

6 CHAIRMAN JACZKO: Good. I appreciate that.  
7 Commissioner. Lyons?

8 COMMISSIONER LYONS: Well, certainly, I want to  
9 compliment the staff for excellent presentations and the special  
10 appreciation to Sebastien and ASN for participating. And I think,  
11 certainly, the afternoon session, taken together with the morning  
12 session, really does reflect very favorably on the importance of this  
13 issue and, certainly, a very, very important issue for all of us to  
14 continue to emphasize.

15 Since I'm going last in questions, it is hard to be original and I  
16 won't be original.

17 Greg already asked one of the key issues I wanted to get into,  
18 and I would just like to share a few comments to see if you want to add  
19 anything to it. But, as Greg did, I -- as I read through the various  
20 reports on audits and inspections that we've participated in, I too was  
21 struck by the number of non-conformances. And I hope you do think  
22 very carefully as to about whether this is telling us something about the  
23 need to increase that number of ten per year.

1           Certainly, the licensees are responsible. I understand that, and  
2 I'm not suggesting that that should change. But I do think when we are  
3 seeing as many non-conformances or concerns raised in the audits,  
4 we really should be asking ourselves whether we need to increase that  
5 sampling. And unless somebody wants to add to it, I think, Greg,  
6 you've already explored it enough, but certainly -- I also would favor  
7 continued consideration of increasing that number.

8           By way of other questions. John, I very much appreciated your  
9 comments on including technical expertise on the inspections. I think  
10 that is a very, very good idea. And also, I appreciated your comment  
11 about looking towards additional vendor oversight, working workshops  
12 or working groups. I think that's very positive.

13           I was just curious if, as you look across the range of questions  
14 that came in from participants in that workshop, are there one or two  
15 overarching themes, or is it a bunch of random questions in a hundred  
16 different areas?

17           MR. NAKOSKI: Well, I think the primary areas related to  
18 understanding of 10 CFR Part 21 and then understanding commercial  
19 grade dedication and what it means and how do you verify, how do  
20 you identify critical attributes or critical characteristics and then how do  
21 you verify them to achieve the same level of assurance that you would  
22 under an Appendix B Program. Because that's one of the goals of the  
23 commercial grade dedication process, is to achieve that same level of

1 assurance.

2 Those are the primary areas where we saw from the workshop  
3 that the issues that were identified. Now, the workshop was tailored  
4 specifically to look at part 21 in commercial grade dedication, so that  
5 kind of was a natural outcome. But in interacting with the industry  
6 through other forums, like the NUPIC vendor workshop, or vendor  
7 meetings, that's really where a lot of the issues are in Part 21,  
8 understanding that and then understanding commercial grade  
9 dedication.

10 I think the mature vendors in the industry understand the  
11 Appendix B requirements fairly well and most of them understand the  
12 ASME NQA-1 requirements. So I'm not surprised to see that that's  
13 where the main thrust of the issues are.

14 COMMISSIONER LYONS: Well, to the extent you -- you  
15 do see any focal points for the questions: Number one, I guess I  
16 appreciate that the workshop was already covering those. But if you  
17 see opportunities to provide -- there may be additional focused  
18 information in those areas to participants, perhaps that is one way you  
19 can use that type of an insight.

20 A question for Juan: You talked about the importance of NQA-1.  
21 But Mr. Miyakoshi, in his comments this morning, expressed some  
22 concern whether NQA-1 is, I guess, sufficient.

23 MR. PERALTA: I wanted to make a correction. But I

1 think he meant ISO. I think he was talking about ISO 9000 not NQA-1.

2 COMMISSIONER LYONS: Oh, okay.

3 MR. PERALTA: When he spoke in his slide. So  
4 maybe -- I think that was a misunderstanding. I think he meant ISO  
5 9001 versus NQA-1.

6 COMMISSIONER LYONS: So it is your feeling NQA-1 is  
7 --

8 MR. PERALTA: One vehicle that is acceptable to NRC  
9 staff. I mean, it's one method. It's the predominate method that's  
10 chosen by the industry, the design construction aspects of QA, not  
11 operations. That's another phase. But it is mostly design construction.

12 COMMISSIONER LYONS: Mr. Miyakoshi, I don't know if  
13 you want to comment or not. That's putting you on the spot.

14 Do you want to comment at the mic on that or did I  
15 misunderstand? I thought you referred to NQA-1.

16 MR. MIYAKOSHI: My comment was --

17 CHAIRMAN JACZKO: Could you use the mike though,  
18 please.

19 MR. MIYAKOSHI: My comment was, it's a matter of  
20 expression, I guess. But, I think NQA-1 it's almost perfect  
21 requirement. But -- but, what I would like to say is ISO -- in the case of  
22 ISO 9000, their expression is -- include the supporting system.

1 Meaning, NQA-1 requires -- how can I say -- the whole requirement.  
2 But the expression about the supporting system, such as resource  
3 management or sometimes process-oriented or management-oriented  
4 concept is not so clear compared with ISO 9000. So, I think there is  
5 some room to improve.

6 That is my comment.

7 COMMISSIONER LYONS: Thank you. And I'll leave it  
8 to the two of you to continue to discuss that.

9 And maybe by way of a final question, Sebastien, or anyone  
10 else that would like to comment, the Chairman already mentioned  
11 safety culture and safety mind that came up this morning. And I too  
12 found those comments very interesting, again, from Mr. Miyakoshi.

13 Has the ASN talked about safety culture as applied to the  
14 vendor population?

15 MR. LIMOUSIN: We did discover a lack of safety culture  
16 at some contractors so it is very important to pick, and we are  
17 concerned about that. We intend to perform several inspections on  
18 this topic at the vendor facility and at the subcontractors too, so we,  
19 ASN, share U.S. NRC point of view on this topic.

20 COMMISSIONER LYONS: Thank you. I appreciate it.

21 Glenn, your comments on that, in response to Greg a few  
22 minutes ago, even though I think that the Commission has not focused  
23 on safety culture with regard to the vendor population, I also concur

1 that it's a very appropriate area for some emphasis and it will be a  
2 challenge to do the further you go down the vendor chain. But I think  
3 there's a lot to be gained from doing it.

4 I think that covers my questions.

5 CHAIRMAN JACZKO: Dr. Klein, do you any more  
6 questions?

7 COMMISSIONER KLEIN: I just had one question for  
8 Sebastien following up. I thought your comments on MDEP were good  
9 about the working group on vendor inspections and so forth. And  
10 when we started that MDEP program, I didn't know we really thought  
11 about going down into this area but it sounds like you had a good  
12 discussion among the participants on vendor inspections from a  
13 variety of principals.

14 Could you talk a little bit more about that?

15 Obviously, from your perspective, you found it very helpful. Is  
16 that your perception of the other countries, as well?

17 MR. LIMOUSIN: You mean do other countries share my  
18 point of view?

19 COMMISSIONER KLEIN: Yeah, your point of view for  
20 the value of the Vendor Inspection Program. In other words, have you  
21 all shared a lot of comments and information on the Vendor Inspection  
22 Program?

1                   MR. LIMOUSIN: Most of the countries have similar  
2 requirements about QA, so there is no discussion on this topic and  
3 everybody agrees on going out in this area. And it could be different  
4 on other areas. That's why I said that, for instance, on technical  
5 inspections we could only have bilateral agreements and not mutual  
6 agreements.

7                   Do I answer your question?

8                   COMMISSIONER KLEIN: Yeah.

9                   And in terms of the working group that you chair on the vendor  
10 inspection activities, has it been a pretty active group?

11                  MR. LIMOUSIN: Yes. Ten countries are participating in  
12 this working group. It's not the case, I think, in other working groups,  
13 so it's working very well. And if anybody is interested in this working  
14 group, we admitting with the industry too, so it's working very well. I'm  
15 pleased to be the Chairman of it.

16                  COMMISSIONER KLEIN: Thanks.

17                  Bill, I thought your comment about, you know, being attentive to  
18 counterfeit parts was certainly a good idea. I'm always amazed when I  
19 travel in various countries -- and I don't think utilities buy their products  
20 from street vendors. But I'm always surprised when I travel in other  
21 countries and you see purses and watches that may not be original in  
22 manufacturing. And so I think it is good just to be attentive to that and  
23 keep alert. Thanks.

1                   CHAIRMAN JACZKO: Commissioner Svinicki?

2                   Commissioner Lyons?

3                   COMMISSIONER LYONS: Well, again, I want to thank  
4 the staff -- I thank our staff as well as the ASN staff for a very good  
5 discussion, and I think a lot of important issues were talked about here  
6 today and heard this morning, I think some very good ideas, I think, as  
7 Dr. Klein said and Bill said that vigilance is important in this area.

8                   And I certainly encourage the staff to keep the Commission  
9 informed if we do need to make changes as we go forward, if the  
10 inspection frequencies aren't right and we need to change resources to  
11 accommodate that, certainly, I think the Commission would want to  
12 hear about that and ponder it and decide if we need to make some  
13 changes. So, again, I appreciate the presentations. I think it was a  
14 very good briefing today.

15                  Thank you.

16                  (Whereupon the proceedings were concluded)

17

18