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

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PANEL 2 – NRC STAFF AND INTERNATIONAL PEER REGULATOR

WILLIAM BORCHARDT, Executive Director for Operations (EDO)

MICHAEL JOHNSON, Director, Office of New Reactors (NRO)

GLENN TRACY, Director, Division of Construction Inspection and Operational Programs, NRO

JUAN PERALTA, Chief, Quality and Vendor Branch 1, NRO

JOHN NAKOSKI, Chief, Quality and Vendor Branch 2, NRO

SEBASTIEN LIMOUSIN, Head of Nuclear Pressure Equipment Department, Autorite de Surete Nucleaire, France (ANS)

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

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

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

CHAIRMAN JACZKO: Bill.

MR. BORCHARDT: Good afternoon.

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

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

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

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

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

So Slide two shows the agenda for today's Commission meeting. Mike is going to give a status update, and then Glenn and his team will go through the Vendor Inspection Program.
And I'll turn it over to Mike.

MR. JOHNSON: Good afternoon, Chairman and Commissioners.

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

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

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

Next slide.

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

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

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

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

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

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

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

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

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

MR. TRACY: Thanks, Mike.

Good afternoon, Mr. Chairman and Commissioners.

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

Next slide, please.

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

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

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

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

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

Improving and formalizing our oversight of supplier audits by the Nuclear Procurement Issues Committee, known as NUPIC, and related industry initiative, to more effectively leverage those activities. And finally, enhancing our vendor inspection program guidance, including inspection requirements and procedures to meet the challenges for increased vendor inspection activities anticipated as a result of the new reactors.

Next slide, please.

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

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

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

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

Next slide, please.

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

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

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

Secondly, among our most important and notable achievements

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

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

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

Next slide, please.

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

John Nakoski will speak first.

MR. NAKOSKI: Thank you, Glenn.

Good afternoon, Chairman, Commissioners.

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

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

Next slide, slide 13, please.

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

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

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

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

safety functions.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Using the insights gained from these activities, we are

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

MR. PERALTA: Thank you, John.

Mr. Chairman, Commissioners, good afternoon.

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

Next slide, please.

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

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

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

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

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

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

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

Next slide, please.

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

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

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

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

systems upgrades at operating reactors.

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

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

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

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

Regarding vendor inspections and ITAAC, engineer

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

Next and final slide, please.

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

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

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

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

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

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

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

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

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

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

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

And with this, that concludes my prepared remarks.

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

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

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

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

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

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

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

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

Sebastien.

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

Next slide, please.

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

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

Next slide, please.

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

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

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

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

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

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What did we learn from EPR fabrication oversight?

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

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

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

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

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

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

And finally, regulatory oversight is enhanced by sample

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

Next slide, please.

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

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

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

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

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

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

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

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

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

Next slide, please.

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

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

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

Next slide, please. The last one.

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

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

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

Thank you for your attention.

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

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

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

That completes the staff's presentation.

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

process of actually doing the work go more smoothly.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

COMMISSIONER KLEIN: Thanks.

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

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

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

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

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

As you know, mostly -- most of the key fabrication is being done overseas, but we still have some key suppliers in the United States. Many, especially AP1000, there are many new components being

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

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

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

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

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

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

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

COMMISSIONER KLEIN: Thank you.

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

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

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

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

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

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

COMMISSIONER KLEIN: Thanks.

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

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

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

inspection program going forward.

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

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

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

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

MR. PERALTA: Mostly through inspection reports.

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

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

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

needed.

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

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

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

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

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

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

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

balance that?

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

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

COMMISSIONER KLEIN: Thanks. .

CHAIRMAN JACZKO: Commissioner Svinicki?

COMMISSIONER SVINICKI: Thank you.

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

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

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

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

Do we have a projected time frame?

MR. PERALTA: It is definitely this year.

COMMISSIONER SVINICKI: Okay.

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

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

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

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

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

Has that ever been done?

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

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

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

matter.

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

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

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

MR. JOHNSON: Okay, thank you.

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

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

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

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

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

MR. BORCHARDT: I think another way to answer the

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

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

MR. BORCHARDT: They've already been engaged.

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

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

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

Thank you, Mr. Chairman.

CHAIRMAN JACZKO: Well, thank you, Commissioner Svinicki.

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

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

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

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

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

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

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

MR. JOHNSON: Well, that's such a wonderful question. We -- the -- to be quite honest, we

COMMISSIONER LYONS: I was going to ask the same question

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

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

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

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

Glenn?

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

CHAIRMAN JACZKO: Good. I appreciate that.

Commissioner. Lyons?

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

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

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

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

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

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

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

assurance.

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

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

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

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

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

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

COMMISSIONER LYONS: Oh, okay.

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

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

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

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

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

MR. MIYAKOSHI: My comment was --

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

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

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

That is my comment.

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

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

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

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

COMMISSIONER LYONS: Thank you. I appreciate it.

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

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

I think that covers my questions.

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

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

Could you talk a little bit more about that?

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

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

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

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

Do I answer your question?

COMMISSIONER KLEIN: Yeah.

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

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

COMMISSIONER KLEIN: Thanks.

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

CHAIRMAN JACZKO: Commissioner Svinicki?

Commissioner Lyons?

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

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

Thank you.

(Whereupon the proceedings were concluded)