

1 UNITED STATES NUCLEAR REGULATORY COMMISSION  
2 BRIEFING ON INTERNATIONAL ACTIVITIES

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4 TUESDAY

5 November 10, 2009

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7 The Commission convened at 9:30 a.m., the Honorable Gregory B.  
8 Jaczko, Chairman presiding

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10 NUCLEAR REGULATORY COMMISSION

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

1           COMMISSIONER JACZKO: Good morning everyone. We have,  
2 this morning, our briefing on the international programs  
3 activities.

4       We normally associate that with the Office of International  
5 Programs. I think Doctor Klein, last year  
6 at this meeting, you talked about the fact that OIP represents  
7 one percent of the agency's budget on international  
8 activities and we get a lot of bang for that one percent.

9 I think today we have a recognition that while OIP has the lead in  
10 coordinating all of these activities that it's an activity that involves all aspects of  
11 the agency and including certainly work on this side of the table.

12       So, it is becoming more and more of an important part of  
13 what we do as an agency, and the roles and responsibilities  
14 are getting broader and more extensive.

15       In the last year, we've certainly have seen a lot of activity.  
16 I have had the opportunity to participate in the IAEA Board  
17 of Governors meeting, and my first INRA meeting as Chairman  
18 this year.

19       It has been an exciting year, we saw the selection of a new  
20 Ambassador to the IAEA, and our own Bill Borchardt is going  
21 to serve as the Vice President on the Convention of Nuclear  
22 Safety.

1 I think that will be an important position -- an important  
2 opportunity to continue to show the rest of the world why I  
3 think we have the best regulatory program, and why I think  
4 they can continue to learn as we continue to learn from  
5 others.

6 I look forward to our briefing today.

7 This will be a very busy year for us in the international  
8 area.

9 We'll be having our first IRRS meeting -- IRRS mission from  
10 the IAEA and I think that will be a good opportunity for us  
11 us to learn internationally, and for us to share our  
12 experiences as we go forward.

13 Are there any comments from my colleagues?

14 We will begin, thanks.

15 MS. DOANE: Okay, for purposes of letting our  
16 international audience and members of the public that might be here, I want  
17 to introduce our side of the table, I know you know  
18 everyone.

19 I am Margie Doane, Director of International Programs.

20 With me is Bill Borchardt, our Executive Director of  
21 Operations.

22 Loren Plisco, Region II Deputy Regional Administrator for

1 Construction.

2 Jack Ramsey, Senior Level Advisor in the office of  
3 International Programs.

4 So, together we are going to give you a detailed discussion  
5 of our International Program.

6 Underlining our remarks today, I would note that the NRC's  
7 international program is conducted in a fast-paced and dynamic  
8 environment.

9 A key change from last year's briefing is the effect of the  
10 new administration's policy directions.

11 As President Obama stated in his speech in Prague in March  
12 2009, "we should build a new framework for civil nuclear  
13 cooperation, including an international fuel bank so that  
14 countries can access peaceful power without the risks of  
15 proliferation.

16 That must be the right of every nation that renounces  
17 nuclear weapons, especially of developing countries  
18 embarking on peaceful programs."

19 We are looking at these discussions and trying to understand  
20 what this is going to mean for our international program at  
21 the NRC.

22 To this end we have provided legal regulatory and licensing

1 expertise to support the U.S. Government's international  
2 legal obligations and initiatives.

3 Examples include supporting the Nuclear Non-Proliferation  
4 Treaty Obligation, to assist responsible NTP parties to  
5 obtain the benefits of nuclear energy, working with the U.S.  
6 Government and its allies to secure and reduce fissile  
7 material in civilian uses, and encouraging global adherence  
8 to the legal instruments that make up the international nuclear  
9 regime, such as the convention on nuclear safety, as the  
10 Chairman just mentioned.

11 Also, in support of non-proliferation norms, the NRC is the  
12 U.S. Government's export and import licensing authority for  
13 civilian uses of nuclear materials and equipment.

14 We are engaging with more than two dozen countries  
15 considering nuclear power programs for the first time, and  
16 with many more which are expanding their existing programs.  
17 Our focus has been on managing expectations arising from the  
18 growing interest in nuclear power.

19 As a key initiative in this area, in December 2009, Chairman  
20 Jaczko will chair the IAEA South Africa hosted international  
21 conference on Nuclear Regulatory Regimes.

22 We have conducted well received workshops in regulatory

1 assistance for radioactive sources and uranium recovery,  
2 piloting successful regional approaches to reach more  
3 countries more effectively.

4 We have arranged the use of NRC funds to detail NRC staff to  
5 the International Atomic Energy Agency and the Nuclear  
6 Energy Agency for the first time in NRC's history to better  
7 coordinate our various activities.

8 We've also initiated rotational assignments at counterpart  
9 regulatory agencies to learn from their operating reactor  
10 and new reactor design and construction experiences.

11 NRC's robust research program is buttressed by approximately 100  
12 multilateral agreements with 23 countries to leverage access  
13 to facilities not otherwise available in the U.S.  
14 Agency wide resources are drawn on to implement this  
15 comprehensive program.

16 When we carry out our program, our international program, we  
17 are always mindful that we have the responsibility to  
18 maintain the safety and security of the existing U.S. fleet  
19 of 104 reactors and a vast materials program.

20 Our international relationships enhance our knowledge  
21 through shared experience and best practices.

22 NRC's successful program of international activities has

1 resulted from our continuous and closely coordinated efforts  
2 across the agency and with our federal partners and with our  
3 regulatory counterparts internationally.

4 The focus of our international program begins with the  
5 premise that our international activities are of benefit to  
6 the regulatory approaches we take domestically.

7 The Office of International Programs implements this program  
8 through a budget of \$3.5 million in contract support and 36  
9 FTE.

10 Our goal today is to provide an overview of the current  
11 program and to discuss anticipated international activities  
12 in the upcoming years.

13 I want to give you an overview of our presentations today.

14 Again, as we've been doing for the last few years, we've  
15 binned our international program into five, what we call,  
16 buckets.

17 We do this for planning and also for organizing our  
18 activities.

19 We look at it as five major program areas.

20 Conventions and treaties, export and import licensing,  
21 bilateral cooperation, multilateral cooperation, and  
22 cooperative research.



1 These categories underscore our longer-term vision to  
2 advocate strong, independent national regulatory authorities  
3 through sustainable fully-funded efficient assistance,  
4 cooperation and research programs.

5 I will address issues associated with conventions, treaties,  
6 and export and import licensing.

7 Bill is going to discuss our work with multilateral organizations.  
8 Loren is going to focus on the applicability of our international  
9 cooperation to the domestic program, emphasizing licensing  
10 and inspection of new reactors.

11 Jack is going to give an overview of our assistance and cooperation  
12 program.

13 Beginning with treaties and conventions:

14 This program encompasses activities that the NRC conducts to  
15 help insure the United States meets its obligations,  
16 including nuclear non-proliferation, safety, physical  
17 protection, waste and spent fuel management, emergency  
18 preparedness and response, and counterterrorism.

19 In some cases, the NRC has a leadership role and in others,  
20 we provide technical support to other U.S. Government  
21 agencies.

22 In fiscal year 2009, we supported the U.S. Government

1 Delegation to the May 2009 Review Meeting of Contracting  
2 Parties to the Joint Convention on the Safety and Security  
3 of Spent Fuel Management and Radioactive Waste Management.  
4 At this triennial meeting, the parties identified emerging  
5 trends, including some countries willingness to look into  
6 the possibility of regional waste disposal centers.  
7 More countries emphasizing public involvement in  
8 decision-making, and former Soviet States taking ownership  
9 of legacy waste issues in their countries.

10 Just as we drew to a close on the Joint Convention, its  
11 triennial cycle, the preparations got under way for the U.S.  
12 Government's participation in the Convention on Nuclear  
13 Safety.

14 We attended the organizational meeting in September, where  
15 the Chairman has mentioned, that Bill was elected as one of  
16 two Vice Presidents.

17 The U.S. will be the representative from a nuclear power  
18 state.

19 Jack Grobe, from the Office of Nuclear Reactor Regulation,  
20 has been elected as Vice-Chairman of a country group.

21 NRC's active participation in support of these conventions  
22 demonstrates this government's commitment to continuous

1 improvement and best practices for safe uses of nuclear  
2 energy and radioactive materials globally, as well as  
3 regulatory commitments to the principles of the Conventions.

4 As the Commission is aware, President Obama is convening a  
5 Nuclear Security Summit in April 2010, at which time  
6 governments will recommit to worldwide cooperative efforts  
7 to track and detect weapons-usable materials and to  
8 safeguard against nuclear terrorism.

9 The staff is consulting with relevant U.S. Government  
10 agencies in preparation for the summit, and is providing  
11 input on the NRC's proactive national security program for  
12 reactors and materials.

13 I would also like to note the U.S. preparation for the  
14 review conference on the Treaty of Non-Proliferation of  
15 Nuclear Weapons. The staff supported the Department of  
16 State-led participation in the NTP Preparatory Committee  
17 meetings in May 2009, and has continued to provide  
18 information relative to the U.S NTP obligations for sharing  
19 of peaceful uses of nuclear energy.

20 I'll turn now to the challenges that we face in this area,  
21 looking to the future.

22 These are challenges related to conventions and treaties.

1 They include implementing the U.S IAEA additional  
2 protocol safeguards in the U.S; seeking  
3 worldwide ratification of the amended Convention on  
4 Physical Protection on Nuclear Materials, CPPNM; and meeting  
5 regulatory expectations that arise out of President Obama's  
6 Prague speech to build a new framework for civil nuclear  
7 cooperation.

8 In calendar year 2009, the staff has actively supported the  
9 preparation of the first U.S. Government declaration under  
10 the Model Protocol Additional to the Agreement between the  
11 United States and IAEA for the Application of Safeguards,  
12 known as the Additional Protocol.

13 Staff worked closely with a broad range of NRC licensees on  
14 relevant nuclear activities that are reported in the U.S.  
15 declaration and throughout this process, the NRC has  
16 coordinated closely with counterparts in the departments of  
17 State, Energy, Commerce, Defense, and the White House.

18 To support the U.S. Government's effort to seek broad  
19 adherence to the amended Convention on the Physical Protection of  
20 Nuclear Material, staff provided  
21 technical advice to the U.S. interagency which,  
22 in turn, has helped shape interactions with like-minded

1 states and ongoing discussions with the IAEA.

2 The passing of legislation to implement the amendment to the  
3 CPPNM is a priority for this administration.

4 In addition, the staff has worked with the inner agency  
5 counterparts and IAEA to revise Information Circular 225,  
6 referred to as Info-circ 225, the international guidance  
7 document on the physical protection of nuclear material and  
8 nuclear facilities to bring it into compliance with the  
9 amended convention.

10 As I noted at the outset of the briefing, President Obama has noted his  
11 interest in creating a broader framework for civil nuclear  
12 cooperation.

13 He has indicated a dialogue with a group of eight  
14 bilaterally with Russia and at the recent global nuclear  
15 energy program ministerial-level meeting in China to develop a  
16 cradle-to-grave approach to the nuclear energy fuel cycle,  
17 incorporating best practices in security and safeguards to  
18 ensure that materials and facilities are not misused.

19 NRC is supporting the interagency efforts to coordinate  
20 outreach to other countries and working with its bilateral  
21 and multilateral relationships to ensure alignment with  
22 these U.S. Government policies.

1 Much of the staff work on conventions and treaties depends  
2 on ensuring there continues to be a cadre of knowledgeable  
3 staff who know about these international instruments.

4 It is essential to ensure that the U.S. policies and goals for  
5 peaceful, safe, and secure use of nuclear and radiological  
6 materials can be advanced with safe regulatory practices.

7 As we anticipate a new wave of nuclear power plant  
8 construction around the world and the spread of peaceful  
9 uses of radioactive materials, the implementation of these  
10 duties is becoming even more essential.

11 Turning to export and import licensing.

12 The NRC licenses the export and import of production and  
13 utilization facilities, special nuclear material, source, and  
14 byproduct material.

15 We also consult with the Department of Energy on export and  
16 import matters.

17 NRC export and import licensing related actions for fiscal  
18 year 2009 were 146 applications received, 139 issued, 136  
19 licensing actions completed, 21 10-CFR Part 810 reviews  
20 completed, these are consultations with the Department of  
21 Energy, and three subsequent arrangements reviewed, also  
22 work that we do with the Department of Energy.

1 Global expansion of nuclear power combined with additional  
2 emphasis on radioactive materials could in the next five  
3 years, double NRC's import and export licensing workload.

4 In 2009, the NRC published, for public comment, a  
5 comprehensive revision to Part 110, our export/import  
6 licensing regulations.

7 The proposed rule clarifies and corrects several provisions  
8 to improve NRC's regulatory framework for the export and  
9 import of nuclear material equipment and radioactive waste.

10 It addresses regulations regarding the general license for  
11 export of byproduct material, it amends regulations  
12 governing the export and import of category 1 and category  
13 2 quantities of radioactive materials listed in Appendix  
14 P of Part 110, and it revises the definition of radioactive  
15 waste.

16 These changes will ensure the agency is prepared for  
17 licensing demands in the future.

18 Issues associated with imports and exports of radioactive  
19 waste continue to increase in number and complexity.

20 For example, as we reported in 2008, the State of Utah and a  
21 consortium of public interest groups requested a hearing on  
22 EnergySolutions' application for a license to import

1 up to approximately 20,000 tons of low-level radioactively  
2 contaminated waste from nuclear facility operations in  
3 Italy.

4 At the present time, these proceedings remain in abeyance as we  
5 continue to receive six-month status reports and monitor  
6 pertinent developments, including the case pending before  
7 the 10th Circuit Court of Appeals.

8 Finally, NRC has received more than 3,000 public comments on  
9 the license application.

10 The resources needed to address this license application  
11 will be a challenge in 2010 as it was in 2008 and 2009.

12 Most recently, on October 16th NRC testified before the  
13 Subcommittee on Energy and the Environment of the House  
14 Committee on Energy and Commerce on NRC's regulatory  
15 framework for licensing of low-level radioactive waste.

16 The NRC has also been engaged in negotiations relating to  
17 foreign obligations that will apply to various imports of  
18 nuclear reactor and fuel cycle facility equipment and to  
19 uranium fuel that will be produced in the U.S. enrichment  
20 facilities.

21 These activities will require staff resources to regulate  
22 the construction, licensing, and application of



1 international safeguards.

2 Working with the Executive Branch agencies, the staff is  
3 developing approaches which ensure the facilities are  
4 imported with a clear understanding of the responsibilities  
5 of the licensee and that they will be built safely and  
6 securely.

7 Turning to the challenges in this area.

8 A current global concern is the uninterrupted supply of  
9 radioisotopes for medical uses.

10 In May 2009, Canada announced the unplanned shutdown of the  
11 reactor which supplies approximately 60% of the U.S. supply  
12 of medical isotopes.

13 While existing suppliers have significantly ramped up  
14 production capability to fill the gap, the fact is the U.S.  
15 remains totally reliant on foreign suppliers.

16 The complexity and fragility of the international supply  
17 chain has spurred the U.S. Government to consider what  
18 additional actions may be necessary to prevent supply  
19 shortfalls.

20 Promoting alternative supplies of medical isotopes for the  
21 U.S. for either the short-term or long-term is the  
22 responsibility of the Department of Energy and the National

1 Nuclear Security Administration working with other U.S.  
2 agencies.

3 In turn, the NRC or our Agreement States would review  
4 any application for long-term or short-term supply solutions  
5 that go beyond existing operating licenses, or require new  
6 export or import authority.

7 This issue underscores the closely interwoven international  
8 and domestic activities of the NRC where global crisis has  
9 short, intermediate, or longer-term consequences with the  
10 nuclear program.

11 Another challenge for the upcoming year is the ability to  
12 effectively respond to changes in domestic and foreign  
13 nuclear industry.

14 We are preparing for an increase in export/import licensing  
15 of major equipment and components, and as I said, foreign  
16 obligations and other issues associated with proposals for  
17 nuclear power plant and fuel cycle construction in the U.S.  
18 and around the world.

19 The fuel cycle is constantly evolving, raising expectations  
20 for enhanced knowledge in export/import licensing issues. As  
21 more countries consider development of nuclear power, it's  
22 likely that more countries will seek technical

1 information exchanges with the NRC in fiscal year 2010.

2 The issues I've discussed concerning conventions and  
3 export/import licensing are only individual snapshots of the  
4 wide array of activities we engage in throughout the course  
5 of the year.

6 Another large segment of our agency's program  
7 involves support for multinational organizations. It should  
8 be clear from the presentation so far that as an agency, as  
9 the Chairman was saying, not as a single office, we  
10 contribute to a wide range of international work and so, as  
11 I did, Bill will highlight some of the NRC's many  
12 pronged efforts to participate in and learn from our  
13 worldwide counterparts in nuclear safety and security  
14 programs.

15 MR. BORCHARDT: Good morning.

16 Go to the next slide, please.

17 It's very clear that international program activities play a  
18 very important role in our domestic responsibilities.

19 They make a positive contribution in both the reactor and in  
20 the materials areas.

21 In addition, the new reactor work, the international  
22 cooperation has been very productive and has actually

1 positioned us in a place where the U.S. Construction

2 Inspection Program is ready for domestic activities.

3 That is largely because of the benefit of the international

4 interactions that we have had over the last several years.

5 NRC's views are very actively solicited around the world.

6 In fact, all of my counterparts I dare say, spend more time

7 looking at our website than I do.

8 NRC continues to cooperatively participate in research

9 programs that are of interest to the NRC.

10 This is a highly cost effective situation for us to be

11 involved with.

12 It provides access to facilities and information of

13 significant value to the U.S.,

14 The NRC's primary multinational counterparts ARE the Nuclear

15 Energy Agency and the IAEA.

16 NEA provides a forum for countries that are like-minded that

17 have well-developed nuclear programs for us to discuss

18 issues of common interest and develop what is, in my view,

19 best practices using today's latest information.

20 The IAEA activities, in general, provide a cost effective

21 way for us to develop internationally agreed-upon guidance on

22 safety and security and to promote best regulatory practices

1 both with our peers, with other countries that have nuclear  
2 power programs, but also with the emerging nations as you  
3 will hear about in a little while.

4 Next slide, please.

5 International activities in the office of Nuclear Regulatory  
6 Research ensure that the NRC's programs incorporate the  
7 results of international research and analysis. They help us  
8 look for emerging technologies and issues, and support the  
9 NRC's efforts to verify and validate computer codes used to  
10 model nuclear reactor plant behavior.

11 Through the over 100 agreements that the Office of  
12 Regulatory Research has with 23 countries and the OECD, the  
13 NRC has the opportunity to participate in some major  
14 experimental programs using test facilities that are not  
15 available in the United States.

16 Through bilateral agreements we obtain information on topics  
17 such as seismic issues, fuel behavior and material science,  
18 fire modeling, and loss of coolant accident experiments.

19 The NRC also sponsors two programs that support development  
20 and maintenance of computer codes.

21 The Office of Regulatory Research actively participates in  
22 both NEA and IAEA activities related to research, standards

1 development, and state-of-the-art assessments on various  
2 technical issues.

3 Access to the foreign test facilities expands our knowledge  
4 base and contributes to the effective and efficient use of  
5 NRC resources and doing the important work in the research  
6 field.

7 Next slide, please.

8 Active participation and leadership in NEA activities is  
9 conducted by a wide range of NRC staff people.

10 They are involved in reactor operations and research through  
11 the committees on nuclear regulatory activities and the CSNI.

12 They are also involved in areas of radiation protection, radioactive  
13 waste, and in the legal area.

14 In the new reactor area, there are really several benefits  
15 that are being derived today.

16 Of course, the one that has received the latest and the most  
17 attention recently is the Multinational Design Evaluation  
18 Program, or MDEP.

19 There is also a CNRA working group that is communicating the  
20 results of the MDEP issues to a much broader range of  
21 countries.

22 As you remember, MDEP is a program consisting of current

1 nuclear power countries, and it is confined to a rather small  
2 subset of all of the countries that have nuclear programs.  
3 The working group under the CNRA is taking that information  
4 and expanding it to all countries that are interested in the  
5 MDEP activities.

6 The benefits MDEP and the subcommittee are the working group  
7 and the CNRA is that we are deriving great benefit from  
8 cooperation on ongoing design reviews and on the current  
9 vendor inspection programs around the world.

10 Plus, as I mentioned earlier, it has enabled us to develop  
11 in a construction inspection oversight program that has  
12 enabled us to be ready for domestic responsibilities.

13 Because of the success and the active participation on MDEP,  
14 it has been extended beyond the original two-year period of  
15 the program.

16 Operational experience is widely recognized as very  
17 important around the world.

18 If only that recognition translated to active participation  
19 and timely reporting and thorough reporting of all events,  
20 we would be in an even better position than we are today.

21 While there is some good reporting, there is a good  
22 information exchange and there is a good infrastructure set

1 up, I still think as an international body, all the  
2 regulators around the world could do a better job of  
3 reporting operating experience so that we would all have the  
4 benefit of that experience.

5 Next slide, please.

6 Diverse membership and the broad scope of IAEA activities is  
7 addressed through a mix of cooperative and assistance  
8 activities.

9 Since last year's briefing, as the Chairman mentioned, Mr.  
10 Amano was elected as the new IAEA Director General.  
11 In addition, the IAEA's Office of Nuclear Security has been  
12 placed in the regular IAEA budget. This will  
13 provide much greater stability for that program.

14 We continue our role in safety programs such as the  
15 Integrated Regulatory Review Service, which I will talk in a  
16 moment about, the mission that is coming to the United  
17 States next year, the Operational Safety Assessment Review  
18 Teams, or OSART teams which is a review of the licensee  
19 activities.

20 We have very active participation in standards committees  
21 and in addition, there is a couple topics that are receiving  
22 a lot of attention and a lot of support from the NRC, and



1 that is the work going on with the emerging nations, the  
2 interest in emerging nations, and setting up a meaningful  
3 and robust regulatory system and also life extension.

4 Although most countries don't have license renewal as we use  
5 the term, they are nearly all countries evaluating extending  
6 the operating terms for their power reactors beyond the  
7 original conceived design term for those plants.

8 On the topic of security programs, a key NRC objective and  
9 participating in IAEA's nuclear safety security activities,  
10 is to ensure consistency with our domestic security  
11 regulatory program and to learn from our counterparts.

12 To this end, NRC has actively supported the development of  
13 the new four-year nuclear security plan, the strategic  
14 vision that will guide the IAEA's program.

15 The NRC ensures that its licensees comply with IAEA  
16 safeguards.

17 The NRC worked closely with licensees to ensure that the  
18 information in the U.S. Declaration under the recently  
19 ratified Additional Protocol was correct and complete.

20 NRC will also be at the forefront in the negotiations with  
21 IAEA on the application of safeguards to new nuclear  
22 construction in the U.S., including the fuel cycle

1 facilities.

2 Finally, the staff provides leadership within the U.S.

3 Government interagency committees associated with IAEA

4 safeguards activities.

5 Next slide, please.

6 As I mentioned earlier, the IAEA will be conducting an IRRS

7 mission in the United States here at the NRC in October of

8 2010.

9 The mission will consist of a peer review team of high-level

10 senior regulators from around the world and other

11 international experts selected by the IAEA.

12 They will do an assessment of the NRC's Operating Reactor

13 Program Regulatory System.

14 We just completed our self-assessment that consisted of 291

15 questions in preparation for the IRRS mission.

16 We will be providing the results of that self-assessment to

17 the Commission very early next year.

18 Just last month the team leader for the mission and the

19 deputy team leader as well as the IAEA staff support member

20 came to the NRC for the pre-mission meeting.

21 Many of the details of the mission were discussed

22 preliminary agendas and the beginning process of identifying

1 NRC staff counterparts for each of the review areas was  
2 discussed with the team.

3 The mission team will be selected in this coming January and  
4 then we will begin the clearance process for those  
5 individuals, as well as the rather intensive logistical  
6 preparation activities that go along with those missions.

7 Many of the NRC Senior Managers have participated on IRRS  
8 missions at other countries.

9 I just completed a mission in the UK where I was the team  
10 leader and it is a very resource intensive activity for the  
11 hosting regulatory system.

12 They will be here for two weeks and NRR is fully aware of  
13 the impact of this will have, but it really does have a  
14 significant impact on the entire management team within the  
15 reactor program.

16 Next slide, please.

17 The IAEA currently estimates that there are over 50 countries  
18 that are considering beginning a nuclear power program.

19 This is going to be a very significant resource demand.

20 I think there are three major activities related to this.

21 The first is that these nations need to engage the IAEA so  
22 that they can gain a general understanding of the regulatory

1 issues and that, in fact, possibly receive some assistance  
2 in the development of their programs.

3       Second, we anticipate participating with these emerging  
4 nations through IAEA regional seminars and workshops.  
5 We think this is a resource, an efficient way of  
6 communicating what we think are the strengths and the  
7 necessary elements of a regulatory system.

8       Then, third, we will engage in selective bilateral and  
9 multilateral interactions. Including hosting,  
10 as we have done for many, many years, staff  
11 from other regulatory bodies to the NRC for various periods  
12 of time.

13       In the area of safety and security, the relationship between  
14 both safety and security is finally gaining international  
15 consensus.

16       We will be continuing our participation in the standards  
17 development as well as in workshops and in technical  
18 meetings to reinforce this very important concept.

19       Of course, as Margie talked about and as I think you  
20 probably got a feel from my comments, there is an increasing  
21 demand on our resources and the need for us to actively  
22 participate in these kinds of activities and prioritizing

1 those will continue to be a challenge in which we will keep  
2 the commission fully apprised.

3 Now, I will turn the presentation over to Jack.

4 MR. RAMSEY: Good morning.

5 I would like to start by describing how the framework for  
6 our cooperative and assistance efforts has evolved over the  
7 past few years and how this impacts us.

8 I would then like to conclude by highlighting how some of  
9 our ongoing or planned cooperative and assistant  
10 activities.

11 Regarding the evolving framework, historically, the NRC's  
12 international cooperative efforts have focused on operating  
13 nuclear power plants.

14 Here in the U.S. we have over the past 40 years, developed  
15 the largest nuclear power program in the world.

16 We have 104 operating nuclear power plants out of a global  
17 total of around 435 or so.

18 Of the 300 and some that are operating outside of the United  
19 States, roughly two-thirds, two-thirds are either based on  
20 or derived from U.S. technology, or are dependent on  
21 supplies of U.S. origin fuel, equipment and other support  
22 services.

1 This generated a historical framework within which generally  
2 speaking, nuclear power experience and technology largely  
3 flowed from the United States out to the international  
4 community.

5 This also had a clear impact on how NRC engaged our  
6 international regulatory counterparts.

7 For example, our information exchange arrangements were  
8 largely developed with counterparts that have oversight of  
9 comparable nuclear power plant technology.

10 That is with countries that have technology comparable to  
11 that, that we use in the United States.

12 Today, the world is very different.

13 Many nations now have mature nuclear power programs.

14 The next generation of nuclear power plants are being  
15 designed by interconnected computers in North America, Asia,  
16 Europe, and Africa.

17 A market is emerging for small and medium-sized nuclear  
18 power plants.

19 Nuclear power plants planned for construction in the United  
20 States will first be built and operated outside of the  
21 United States.

22 Major components for some of these facilities will also be

1 manufactured outside of the United States.

2 This creates a framework where, speaking very generally, as  
3 much nuclear power, experience, and technologies is flowing into  
4 the United States as is flowing out from the United States.

5 At the same time and in parallel, safety and security of  
6 radioactive materials has become a high priority, both  
7 domestically and for the international community.

8 The impact of this evolving framework is two-fold.

9 First, we expect continued international engagement on  
10 issues associated with large commercial nuclear power  
11 plants.

12 Second, we expect a significant increase, significant  
13 increase in international engagement on radioactive  
14 materials and on small and medium-sized nuclear power  
15 plants.

16 Within this context, I would first like to discuss our  
17 program of cooperative activities, then turn to our assistance  
18 activities.

19 Today, we conduct reciprocal information exchange with 38  
20 countries and Taiwan.

21 These activities primarily focus on safety and security  
22 issues with existing and new nuclear power plants.

1 It should be noted that, particularly with countries that have  
2 mature nuclear power programs, information exchange is a  
3 two-way street.

4 We learn from the experience of our regulatory counterparts;  
5 thus helping to effectively leverage our own resources.

6 In addition to what Bill has highlighted, I would note that  
7 our cooperative activities typically included such things  
8 as information exchange on safety and security issues,  
9 information exchange on first of a kind construction of  
10 nuclear power plants, construction that is occurring outside  
11 of the United States, and hosting international assignees  
12 here at NRC as Bill mentioned, and also, as equally as  
13 important, placing NRC staff to work with our international  
14 regulatory counterparts.

15 We expect that over the next few years, cooperative efforts  
16 involving existing nuclear power plants will increase  
17 slightly as a result of continued interests in bilateral  
18 security consultations.

19 We also expect a significant increase, significant increase  
20 in cooperative efforts involving new nuclear power plants.  
21 Especially issues involving small and medium-sized reactors.

22 I would now like to touch on our assistance related



1 activities.

2 We have seen a tremendous growth, tremendous growth over the  
3 past few years in requests for provision of regulatory safety  
4 and security assistance.

5 This has primarily involved oversight of radioactive  
6 materials, operating nuclear power plants, and new nuclear  
7 power plants.

8 In the area of radioactive sources, the goal of our  
9 assistance efforts is to enhance, consistent with the IAEA  
10 sponsored Code of Conduct on the Safety and Security of  
11 Radioactive Sources, our regulatory counterparts' oversight of  
12 such material.

13 This effort, which we actually began in 2002, has focused on  
14 countries of the Commonwealth of Independent States that is  
15 recently expanded to include pilot projects in Africa, the  
16 Middle East, and Latin America.

17 Examples of the kind of assistance that we have provided  
18 include, development of the national registry, strengthening  
19 their legal and technical bases, and enhancing day-to-day  
20 oversight.

21 As part of this overall effort, we have also provided  
22 technical experts to support Code of Conduct-related

1 workshops actually sponsored by the IAEA.

2 In the area of operating nuclear power plants, the goal of  
3 our assistance efforts is to enhance safety and security  
4 oversight of such reactors by our regulatory counterparts.

5 For example, we continue to engage with our counterparts in  
6 countries that operate Soviet-designed reactors.

7 Examples of the kind of assistance that we have provided in  
8 this area include strengthening the legal basis, training on  
9 analytical tools, things such as computer codes, use of PRA,  
10 and inspection practices.

11 In the area of new nuclear power plants we have, since early  
12 2007, received requests from approximately 25 countries, 25  
13 countries that currently do not have a nuclear power program,  
14 but would like regulatory assistance from us in case they  
15 should decide to pursue one.

16 In response, we have developed and are currently  
17 implementing an integrated strategy for managing such  
18 requests.

19 We have, for example, developed several pilot regulatory  
20 infrastructure development projects, projects that help  
21 identify and develop the critical regulatory infrastructure  
22 needed for a safe and secure nuclear power program.

1 This includes such topics as the legal framework, the  
2 organizational infrastructure and structure of the  
3 regulatory authority, the regulatory program or the  
4 technical activities, things such as requirements for  
5 siting and regulatory training qualification programs.

6 How do you obtain and maintain your technical abilities in  
7 your staff?

8 Initial efforts in this area have largely focused on select  
9 countries of the Commonwealth of Independent States and of  
10 Asia that are currently being expanded to included select  
11 countries of Africa and the Middle East.

12 The evolving framework that I highlighted has also  
13 impacted our international assignees program.

14 We've always had personnel from countries with established  
15 nuclear power programs detailed to work in NRC.

16 Countries such as France, Germany, Japan, South Korea,  
17 Taiwan, et cetera, this continues.

18 We have also seen an increase over the past few years in  
19 requests for assignees from countries considering  
20 pursuing a nuclear power program.

21 For example, requests from Vietnam and Thailand, and from  
22 countries interested in enhancing their regulatory oversight

1 of radioactive sources. Iraq for

2 example.

3 We also expect, over the next few years, a significant

4 increase, yet another significant increase in requests for

5 assignees from countries interested in small and

6 medium-sized nuclear power plants.

7 I would like to close by assuring the Commission that our

8 assistance efforts are closely coordinated with other

9 assistance providers.

10 Examples of the entities that we work very closely with

11 include multilateral organizations like the IAEA and the

12 NEA, other parts of the U.S. Government, including the

13 Department of State and the Department of Energy, foreign

14 governments and even non-governmental entities.

15 These coordination efforts are an important and integral

16 part of our efforts to ensure effective utilization of staff

17 resources.

18 I would like to turn it over to Loren. The NRC has always

19 used its international activities as a way of improving its

20 Domestic Regulatory Program. To this end,

21 Loren will address how NRC through its center

22 for excellence in Region II, is learning from international

1 construction experience.

2 MR. PLISCO: Good morning.

3 Priority activities of the Center for Construction

4 Inspection in Region II has been learning from recent

5 construction experience in other countries.

6 Although my discussion will focus on Region II efforts, our

7 activities are a subset of a larger group of activities

8 being sponsored by the Office of New Reactors.

9 There are different categories of lessons. There are

10 technical lessons, lessons about regulatory oversight,

11 lessons about licensee oversight, other project and there

12 are lessons about how to manage a large project efficiently

13 and effectively. We are obviously

14 focused on the first three of these

15 categories.

16 Since the center was established in 2006, our construction

17 inspection staff have participated in technical exchanges

18 in Finland, Taiwan, and France.

19 In 2007, one construction inspector spent two months in

20 Finland with their regulatory colleagues at STUK and at the

21 Olkiluoto 3 site.

22 In 2008, one construction inspector spent a month with a

1 Taiwan Atomic Energy Council at the Lungmen site.

2 Last month the two construction inspectors spent a week in  
3 France with the Nuclear Safety Authority, ASN, and visited  
4 the Flammanville site.

5 One construction inspector is currently on a three month  
6 assignment in Finland.

7 Region II managers have also visited Finland, China, and  
8 Japan, and I will be back in Finland on Saturday to visit  
9 our inspector that is over there now for an official debrief  
10 with him.

11 Region II has also hosted our regulatory counterparts from  
12 Taiwan and Finland, and we will be hosting a Chinese  
13 inspector early next year.

14 We are planning additional inspector visits in the next  
15 several years to Finland, France, China, and Taiwan.

16 Our primary focus is on gaining experience with the AP 1000  
17 in China, the Advance Boiling Water Reactor in Taiwan and  
18 Japan, and the Evolutionary Power Reactor in Finland and  
19 France.

20 My boss, Luis Reyes, has already directed me to ensure that  
21 our first resident inspectors at Vogtle and Summer visit  
22 China in the next several years to learn more about construction

1 on the AP 1000.

2 Although the technical exchanges have provided valuable  
3 experience to our staff, we have gained some important  
4 insights involving regulatory oversight and licensee  
5 oversight of site activities.

6 Some of the primary insights that we have gained in these  
7 exchanges include the need for strong regulatory oversight  
8 of construction and fabrication activities. Our colleagues  
9 continued to find significant issues that need to be  
10 addressed during construction.

11 Inspect early; our colleagues find that there is often  
12 much optimism about the capabilities of the contractors  
13 and the utility under estimates the amount of oversight  
14 needed to ensure satisfactory construction.

15 Later, the owners finds that there is insufficient project  
16 resources and experience, and have to play catch-up.

17 Inspect important processes.

18 Even if they are tried and true processes, or considered  
19 routine, our colleagues have identified problems with even  
20 basic welding and pouring of concrete in some of the  
21 construction overseas.

22 Safety culture:

1 It is imperative that all of the workers understand the  
2 importance of nuclear work and the need to follow procedures  
3 and drawings, and the owners need to ensure that the workforce  
4 is trained and are sensitive to working in the nuclear world,  
5 what I term, respect for the hazard.

6 Design completion:

7 If the design is not sufficiently complete when construction  
8 begins, there are many problems and complications that can  
9 and will occur.

10 These technical exchanges have been very valuable to us,  
11 providing our staff with practical experience in the new  
12 designs, current construction techniques, and insights into  
13 recent technical issues.

14 Most of our construction staff was not around during the  
15 previous construction period and these exchanges are  
16 helping us prepare for construction in the United States.

17 Our colleagues have been very open with us in sharing their  
18 experiences with us, and we certainly appreciate the support  
19 provided by the Office of International Programs in  
20 facilitating these visits and providing the needed  
21 resources.

22 Thank you.



1 MS. DOANE: So, our small office of 36, I'm  
2 talking about the Office of International Programs of  
3 36 soon-to-be 37, I'm sorry, soon-to-be 38 staff serves the  
4 Commission and the entire agency as a portal for  
5 communication with the U.S. Government and our foreign  
6 counterparts.

7 I believe this positions us to efficiently and effectively carry  
8 out the mandate of the agency for the next three to five  
9 years.

10 We are very pleased that we've received the support for  
11 additional staff and funding to essentially double our  
12 assistance program to countries, and to meet the growing  
13 demand for regulatory exchanges that are coming from our  
14 domestic programs need to benefit from international work.

15 Before I move on, I want to take this opportunity to  
16 recognize the efforts of Karen Henderson who organized all  
17 of us on this side of the table, which is quite an effort,  
18 to prepare the briefing today, and the members of OIP and the  
19 technical staff who assisted her including Clarence Breskovic and  
20 Kirk Foggie who are in the booth right now moving the slides along.  
21 I also want to recognize the contributions of those sitting  
22 behind us, the directors, deputy directors, and the Deputy

1 Executive Director of Operations that are sitting behind me  
2 because they provided significant support to the  
3 international program over the last year with the number of  
4 changes that we have gone through, because we have really,  
5 over the last few years, completely reworked this program.  
6 The program offices led by EDO have positioned themselves to  
7 actively and productively engage with our international  
8 counterparts to better leverage the benefits of our  
9 knowledge, as in the development of the IAEA security  
10 guidance document, cooperative research, and operating  
11 experience, and to learn from others as in the IRRS and  
12 joint inspection activities overseas.

13 With these remarks this concludes our prepared presentation  
14 and we look forward to questions.

15 CHAIRMAN JACZKO: Thank you, Margie and I think it  
16 was a very good and thorough presentation.

17 Again, I think it shows the work and the coordination that  
18 goes on among all the different offices led, obviously, by  
19 the work that your staff does to coordinate all of the  
20 different travel and all the different activities  
21 internationally.

22 We will start our questions with Commissioner Svinicki.

1 COMMISSIONER SVINICKI: Thank you.

2 I thank all of you for the presentations and I have

3 listened very carefully.

4 I am not going to not pose any questions this morning.

5 I do have one comment that I want to make.

6 I think it has actually been interwoven through all of your

7 presentations and that has to do with the fact that this is

8 an area where the needs have, and will continue to perhaps on an

9 accelerated basis, outpace the resources available and that

10 is not just the OIP resources as Margie has emphasized.

11 This is an agency-wide effort to support these activities

12 and it does, in your benefit, back to our domestic

13 regulatory activities. But as I think the Chairman began

14 with and Margie acknowledged, are public health and safety

15 security oversight, of course, is mission one and that has

16 to come first.

17 We have seen, and I think, although it is leveling off from

18 the very hectic pace of recent years, an increase in

19 domestic licensing activities which again has to be job two, if

20 you want to call it that.

21 What we have to do then as we look, not just for NRC but

22 government-wide, at years of perhaps flat budgets, at least in

1 real terms.

2 We are going to have to make some difficult choices and I  
3 think that that is just a fact of life.

4 The Chairman, the Commission, and the Agency are going to  
5 have to look at these activities again where we can see beneficial  
6 involvement and work for us to do.

7 We are going to have more things that we see as a beneficial  
8 activity than we are going to have resources to apply  
9 against it.

10 That is going to challenge all of us to really do our best  
11 thinking about what are the activities that are essential.

12 Some of that can be a strength which I didn't mention, of  
13 the U.S. Government approach that has been talked about by  
14 number of you, is that this is an integrated U.S. Government  
15 initiative where we work with the State Department and the  
16 DOE.

17 I would presume what we will need to look at is where we  
18 bring something unique and essential that only we can bring  
19 to these activities.

20 That would obviously have to be a priority.

21 Then, I think, we will have to see what others are doing.

22 That is both a domestic and internationally.

1 Mr. Borchardt talked about some of the coordinated  
2 international activities. Maybe it will be a case of, if you  
3 can assist these countries we could take these other  
4 countries.

5 The situation that NRC will face will not be unique to this  
6 agency and, I think, our regulatory peers around the globe  
7 will find the same constraints.

8 So it is an area where we all have a lot at stake. We are going  
9 be challenged to try to figure out how to team up and  
10 break down the work so that we can get the most bang, for the  
11 resource. You didn't say for the buck, Mr. Chairman, earlier, but  
12 clearly that has been an overriding theme with these  
13 activities as we are trying to make two and two add up to  
14 five.

15 We clearly see that in the research activities.  
16 We are going it alone, it is a very expensive endeavor.  
17 We have to look at research investments and collaborate and  
18 join with other countries on that.

19 This will get challenging.

20 I think as Margie said, we have looked, restructured, and  
21 reoriented the program and it is impressive when you look in  
22 the rearview mirror, but the challenges are going to

1 continue in the years to come.

2 If any of you would like to react to that, you are welcome  
3 to do so, but like I said, I think you had that  
4 interwoven throughout all of your remarks and I appreciate  
5 the presentations. Thank you.

6 MR. BORCHARDT: I would just make one comment.  
7 Using OIP's initiative, sorry Margie. She identified -- the  
8 Office of International Programs identified the benefit of  
9 having some NRC staff located on an interim basis in both  
10 IAEA and NEA to help facilitate the coordination of the  
11 emerging nations issues, and we have been able to place  
12 those people there.

13 That will be a real strong benefit over the next year or two  
14 to help us gather information on where best to spend our  
15 resources.

16 MS. DOANE: I will just further the comment that  
17 we have always been working on somewhat of a shoestring  
18 budget in this regard.

19 Our practices have been looking at leveraging resources of  
20 the interagency and of other countries and of our staff.  
21 Now, using some of our rehired annuitants and contractors,  
22 and we have always been in a position of really relative to

1 the interagency of having a very small budget for a very,  
2 what I think, is an extremely successful program long before  
3 I got here.

4 And so I think that we can use those same ideas and lessons learned  
5 to move the program forward even if we are faced with budget  
6 constraints, and I have no doubt that we will be able to use  
7 timelines, time horizons to move things out that are not necessary for  
8 right at that time to be carried through.

9 I think we do have a very resourceful staff in this regard, and  
10 in some ways, more resourceful than in other program areas.

11 In that way, I think we will be well poised for the future  
12 and like I said, I think we understand we are gaining a  
13 better understanding of what the future will hold for us by  
14 sending cost-free experts to the IAEA and the NEA.

15 So, we are really thinking in exactly those terms that the  
16 demand will outpace what we can do.

17 We want to use our resources effectively.

18 COMMISSIONER SVINICKI: Thank you.

19 CHAIRMAN JACZKO: This is a question maybe for  
20 you Jack, or anyone else who wants to respond.

21 You touched a little bit on the Code of Conduct. Maybe you  
22 can provide a little more information about where we stand

1 right now with the Code of Conduct and where you see that  
2 developing and where, I think Commissioner Svinicki's comments  
3 in mind and Margie and Bill's remarks, about using our resources  
4 effectively.

5 Where can we be most effective in trying to continue to  
6 encourage adoption of the Code and perhaps take things to  
7 the next step beyond the Code, whatever that may be?

8 MR. RAMSEY: Sure, in fact, perhaps two parts to  
9 that answer.

10 I think I can answer the first part and then, perhaps,  
11 Margie can answer the second part.

12 The first part, I would say through our assistance programs,  
13 promotion of both adoption and implementation of the Code of  
14 Conduct is our priority.

15 It is one of the highest priorities that we have.

16 The challenge that we have faced is where do you start in  
17 the world, because there are so many needs.

18 The focus on the Commonwealth of Independent States, at  
19 least initial focus, was based upon a review we did a number  
20 of years ago where we identified a loss of regulatory  
21 oversight and control in many of those countries.

22 We elected to start there first, primarily because that is



1 where the biggest needs were.

2 The needs that were identified were actually fairly,

3 technologically very simple.

4 Things like they didn't have a registry of sources, they did

5 not know where the radioactive material was in their

6 country.

7 By starting on very simple things, we have been able to

8 accomplish a lot, we have been helping the countries develop

9 their registry of sources, we have branched off into other

10 areas like legal basis and technical regulations.

11 As we made progress in the Commonwealth of Independent

12 States, we were looking for another part of the world to

13 engage.

14 We didn't necessarily have the experience or the insight

15 necessary to identify where is the next place to go.

16 We consulted with the IAEA, they had significant experience,

17 and they suggested that we start in Africa.

18 So, we have started a small effort to engage countries in

19 Africa in a very similar way that we have done with the

20 countries of the Commonwealth of Independent States.

21 From an assistance perspective, that's what I could offer on

22 the Code of Conduct.

1 Margie, for things like import/export licensing and other  
2 things.

3 MS. DOANE: Also in the assistance route, I guess we  
4 should mention that we have a first-time visit right now to  
5 Thailand and Singapore.

6 That is part of this initiative to understand how countries  
7 are implementing the Code of Conduct.

8 So, we are very pleased about that because we identified a  
9 number of nations where many of our exports are going.

10 We've identified the countries that are receiving the  
11 greatest number of exports, and we have now sent a mission  
12 and we hope to do at least two missions a year if resources  
13 permit to give us a better.

14 idea of how the code is being  
15 implemented.

16 There are more than 89 countries who have committed to  
17 follow the Code now.

18 That is extraordinary for an international activity, the  
19 Department of State has worked very hard to try to get  
20 countries to sign up.

21 This is a very successful initiative, but we are continuing  
22 to identify issues in this area, and at the General

1 Conference this year we focused on other questions that are  
2 being raised with sources including the issue of what to do  
3 with orphan sources -- once they no longer have a viable  
4 commercial life.

5 There are many areas that we have to keep focusing on, but I  
6 think are well poised for the future.

7 CHAIRMAN JACZKO: I certainly think it is an  
8 important one and one that potentially has impact  
9 domestically, ultimately the idea is to ensure that sources  
10 are well controlled throughout the world, because if they are  
11 not then, ultimately, they could find themselves back in the  
12 United States in ways that we haven't controlled or ensured  
13 the safety and security of them when that would happen.  
14 It is good to hear a lot of progress has been made and that  
15 that is a big focus of the assistance activities.

16 I think it is an area where we have been able to maximize  
17 our efforts to really help overall with a lot of safety and  
18 security.

19 Bill, you touched on an issue of operational experience  
20 and that that is an important issue, or an important  
21 challenge.

22 Do you have ideas, or anyone, Margie or Jack or Loren about how we

1 can improve that issue, how we can improve the communication  
2 and the sharing of operational experience internationally?

3 MR. BORCHARDT: I think, in general, the  
4 infrastructure exists. There are programs through  
5 both NEA and IAEA.

6 What we need to do is to continue to encourage active  
7 participation and to have countries report the events in a  
8 timely manner.

9 The vehicles for doing that are the bilateral exchanges that  
10 we have and also the Convention on Nuclear Safety.  
11 Which it is discussed but it hasn't been for the last  
12 several review meetings a primary focus area, and it may be  
13 one of the ones that we will be looking at for the next  
14 review meeting that we can focus on.

15 CHAIRMAN JACZKO: Well, I certainly think that would be  
16 a good forum to raise and I think, also, we have our IRRS  
17 mission that will be a topic of discussion there too.  
18 As well as the potential to continue to reinforce the  
19 importance internally that we place on that and then as well  
20 as sharing internationally.

21 Loren, you touched on a topic that is certainly an important issue for  
22 us domestically and one that appears important

1 internationally, and that's in the area of safety culture.

2 In particular, how it impacts vendors and the manufacturers in  
3 a variety of different areas.

4 I just would offer the opportunity if you have thoughts or,  
5 again, if anyone has any thoughts, about ways that we can  
6 continue to improve and enhance effectiveness in that area,  
7 in particular with component manufacturing and other  
8 construction activities.

9 MR. PLISCO: It is certainly an important area for  
10 us and we have had a lot of interactions with our foreign  
11 counterparts to look at the safety culture area.

12 It is important that the workers understand the importance  
13 of nuclear work and they need to follow procedures and  
14 drawings and that the owners need to ensure that the  
15 workforce is trained and sensitive to working what I call,  
16 the nuclear world and have respect for the hazard, what I  
17 call respect for the hazard.

18 CHAIRMAN JACZKO: As you have been on visits, do  
19 you see that is there, or is there more work to be done in  
20 that area?

21 What is your sense, or the folks who have gone out and done  
22 vendor inspections and other international activities, are

1 you getting feedback from them that would lead you to think  
2 one way or another about safety culture being implemented?

3 MR. BORCHARDT: I think that one of the striking  
4 lessons learned through the international construction  
5 experiences, is the importance of the role of the licensee.  
6 They clearly understand the nuclear work ethic and safety  
7 culture, but what is happening in many of these facilities  
8 is they are bringing workers in that don't come from the  
9 nuclear industry.

10 They might come from a shipyard or some other facility and  
11 lacking very strong and close oversight of the licensee,  
12 there is nothing to drive them towards the nuclear safety  
13 culture.

14 That, I think, is being learned, I'm glad it's being learned  
15 somewhere other than in the United States, but we have the  
16 same challenge here when we begin construction.  
17 It will need to be very closely monitored.

18 On the general area of safety culture, there are some  
19 regulatory bodies that have been very proactive in assessing  
20 safety culture and management structure, things that we  
21 don't do nearly as much.

22 I don't know that that is where we should drive,

1 necessarily, but we are certainly paying attention to see if  
2 there are things that we could learn from it and incorporate  
3 into our program.

4 CHAIRMAN JACZKO: We have the draft policy  
5 statement on the safety culture has gone out for public  
6 comment.

7 That maybe something that we'll want going forward, to see  
8 if there may be some feedback we can get from the  
9 international community about that direction and, again, it  
10 may be a tool that we can use internationally to help  
11 document where we are and what our approach is.

12 MR. BORCHARDT: I would expect the mission, a year  
13 from now, to focus on that topic. Maybe not a  
14 specific focus, but they will look at that and  
15 have a view on it, I'm sure.

16 MS. DOANE: I would add that both the IAEA and the  
17 NEA have active programs to look at safety culture, and I  
18 think we will be interested in new thoughts that we have on  
19 the issue.

20 CHAIRMAN JACZKO: Jack, maybe this is a question  
21 for you.

22 You touched on the, Margie you touched on the Additional

1 Protocol, are there any issues we are seeing right now, or  
2 any challenges as we prepare for the potential of new fuel  
3 cycle facilities and how we will deal with challenges under  
4 the Additional Protocol?

5 MS. DOANE: I think we have to give this credit to  
6 NMSS we were very well-prepared, our licensees were  
7 very well-prepared.

8 So, now it is just more rolling the program out.  
9 I don't see specific challenges to meeting the obligations.  
10 Like I said, I think we were well-prepared.

11 CHAIRMAN JACZKO: I will end on that note, then  
12 and turn it over to Dr. Klein for questions.

13 COMMISSIONER KLEIN: Thank you for a good  
14 presentation.

15 As you know I've been a strong supporter of the  
16 international program for a number of years.  
17 I think what's important is it goes beyond either your 37  
18 or 38 employees, whichever that you have, because you do cut  
19 across all of the areas, and I think as Commissioner Svinicki  
20 said in the research area is one in which we really need  
21 to work a lot together because there are facilities that we  
22 no longer have in the U.S. that we can leverage other



1 countries.

2 We tend to look a lot, I think, in terms of the operations  
3 side, but also on the materials side is an area that we can  
4 learn as well, as Loren knows.

5 Now, we're moving into the international construction arena and  
6 learning from their activities.

7 It is pretty broad.

8 What I was impressed with at the INPO CEO conference,  
9 the focus that even INPO is talking about in terms of  
10 global involvement.

11 And so it goes even beyond the work that we do as a regulator.  
12 I think there is a lot of acknowledged area.

13 I should point out that you mentioned Karen.

14 If Karen can organize the group on that side of the table,  
15 she is really due for a merit increase.

16 As usual, I have my questions in order of presentation so  
17 Margie, I will start the questions with you.

18 On your Slide 3, you talked about the conventions and the  
19 treaties, and you had mentioned waste disposal strategies  
20 that were being discussed, contemplated by several countries,  
21 and then you also talked about the President's interest in  
22 creating a broader framework, on Slide 4, in the civilian

1 cooperation.

2 There were also waste strategies looking at regional  
3 disposal activities.

4 Could you just comment on what has been the international  
5 response and considerations of the Administrations views on  
6 Yucca and not proceeding and how that has been viewed  
7 in terms of looking at an integrated  
8 waste disposal, regional disposal facilities?

9 How has the international community commented in that  
10 regard?

11 MS. DOANE: I think, mostly what we have seen on  
12 our side of the table are a lot of questions about what the  
13 Administration's policies are and trying to understand how  
14 these issues will go forward within the United States, but I  
15 think what we have heard from the countries that are leaders  
16 in this area, Finland and Sweden, have told us that, and  
17 this is interesting, that the political decisions that are  
18 being made in the United States, with respect to Yucca  
19 Mountain, really aren't having any effect on their programs  
20 going forward.

21 The regional issues for waste disposal really are something  
22 different.

1 They are stemming from the idea that not every single  
2 country, when you are looking at the geographic nature of  
3 let's say Europe and other countries, that there isn't a  
4 need for a facility in every country.

5 That is leading to them deciding whether or not to have  
6 regional facilities, but, like I said, our domestic politics  
7 are not influencing as far as we can tell with our  
8 counterparts.

9 COMMISSIONER KLEIN: So, your international waste  
10 disposal activities are continuing in a normal mode?

11 MS. DOANE: Yes.  
12 Yes, and definitely our interactions, yes.

13 COMMISSIONER KLEIN: On your Slide 5, you talked  
14 about the challenges in the import/export area, that  
15 certainly is an important area, and I think one in which is  
16 going to be growing with the new entrants that are examining  
17 the technology that a lot of the import/export activities  
18 will be increasing.

19 How are you doing on staffing in that area?

20 MS. DOANE: I think right now because, like I  
21 said, we are very pleased.

22 We've increased the staff over the last few years and it is

1 modest because it's a small staff, but it is what is needed.

2 I don't think that we have any issues there right now, but

3 we are, we have a number of open positions.

4 That's why it's 36, 37, 38 depending on the day, but we do

5 have a number of positions.

6 I think when we have all of those filled we will be well

7 poised.

8 The other thing, one thing that isn't probably obvious is

9 that we have a lot of, we are reviewing a lot of

10 applications because of the new activities that are going on

11 internationally.

12 In addition, we are no longer the supplier nation we were a

13 few decades ago.

14 Supplies that are coming into the United States and

15 materials that are coming into the United States are

16 carrying obligations that we were putting on other countries

17 so that these materials had to be tracked, equipment had to

18 be tracked, no transfers could take place.

19 It is our licensees who will have to carry out those

20 obligations.

21 There is really a shift in how this is going to affect the

22 United States beyond just exports and imports, but also with

1 U.S. obligations.

2 I think our staff is actually in a very good position to do  
3 that.

4 COMMISSIONER KLEIN: How would you describe our  
5 relationship with other senior regulatory bodies on the  
6 import/export; is that going well?

7 MS. DOANE: Yes, it is going well, but in  
8 import/export is very different than we have had  
9 traditionally.

10 Traditionally, we have been working with senior regulators  
11 that have mature regulatory programs, mostly for nuclear  
12 power and then with large materials programs.

13 What we are seeing now is the organizations that we are  
14 dealing with are not those same organizations.

15 For export/import licensing, sometimes they are customs in  
16 other countries.

17 So, we have to do more outreach and, like I said, we have  
18 identified the countries where we are doing the greater  
19 number of exports and, where we are getting larger imports  
20 of material.

21 We do need to do more work in that area.

22 COMMISSIONER KLEIN: Bill, in your Slide 12 you

1 talked about the challenges and integrating, basically, in  
2 balancing safety and security.

3 One of the things that is interesting when I recently  
4 visited Italy, the language issue where safety and security  
5 is the same word.

6 So that creates a lot of challenges and cultural discussions  
7 that go along with that, but one of the things that I  
8 thought was the most fascinating was at Malcolm Gladwell's  
9 discussion at the INPO CEO conference talking  
10 about different cultures. Based on you hearing his comments  
11 and so forth, what changes should we or are we making in  
12 terms of addressing different cultures that Gladwell  
13 talked about in his presentation in terms of how do we deal with  
14 other countries, other regulators?

15

16 MR. BORCHARDT: In the international interactions,  
17 I think we are very sensitive and we are learning every day  
18 through all of these interactions about the way things are  
19 perceived.

20 Efficiency and effectiveness in some languages are the same  
21 word as well.

22 I remember working on a CNRA working group and we met for a

1 day and a half before we figured out why we couldn't make  
2 points to each other, because in another language it was the  
3 same word.

4 They could not understand the subtleties that we were trying  
5 to explain.

6 I think amongst the regulators, they tend not to be shy, timid  
7 people in the first place.

8 We have enough years of personal interaction that there is  
9 no discomfort whatsoever of stopping someone and asking for  
10 an explanation, and I think the reason we have gotten to  
11 that point is that we have some continuity of some very key  
12 people from our side, meeting with  
13 the same people from the other the regulatory  
14 bodies.

15 To an awful large degree, at least in my experience, it  
16 comes down to individual personalities and relationships and  
17 being able to move forward.

18 I think that is what has allowed us to make progress on that  
19 area and others.

20 COMMISSIONER KLEIN: We haven't seen any examples  
21 in the regulatory agencies like the examples he talked about  
22 the pilots and copilots.

1 MR. BORCHARDT: Not that I'm aware of.

2 COMMISSIONER KLEIN: That was a fascinating discussion.

3 Loren, I noticed on your slide that you are talking about learning

4 from the international experience on your Slide 15.

5 You had mentioned Finland, Taiwan, and France as areas that

6 we have had technical changes.

7 I was surprised that you did not have China listed down

8 there as well, because we have had exchanges with China and

9 I was curious on why it was missing.

10 MS. DOANE: I think where we are with our program

11 with the Chinese what we were talking about with exchanges

12 in those situations were more longer-term, for a month or

13 more with those countries, and we are working toward that

14 with the Chinese and we are just getting there on

15 construction and inspection.

16 We have actually been doing a lot of work with China on

17 training and other areas.

18 Now, we are poised to put staff --

19 COMMISSIONER KLEIN: I was just surprised when he

20 listed the three countries that China was not listed,

21 because I think we have all been there and had exchanges, and

22 I was just wondering why it was not there.



1 I did notice that you obviously are going to be sending some  
2 inspection members there in the near future for their plant.  
3 Could you talk about how that is going?

4 MR. BORCHARDT: Your question has to do with how  
5 they exchange with China.

6 It is actually been going very well.

7 The Office of New Reactors has been on the forefront of much  
8 of that.

9 A lot of it is centered on, as Margie alluded to, providing  
10 explanations for how we came to the safety conclusions on  
11 the SER for the AP 1000 to the Chinese Regulator.

12 The other piece that is developing very quickly has to do  
13 with inspector exchanges so that we can witness AP 1000  
14 construction activities and then the vendor piece, which there  
15 is going to be a fair number of components being fabricated in  
16 China for the AP 1000, as well as in other parts of Asia,  
17 which the Chinese Regulator is participating in that as  
18 well.

19 We are still, we are moving very quickly, that's probably  
20 area where there is the most dynamic, the most evolving  
21 cooperation between ourselves and another country.

22 MS. DOANE: The only thing I would mention in

1 addition, is that we are also going to be receiving several

2 staff from China at the NRC in January.

3 We have two people that just arrived yesterday.

4 It is very active, as Bill said.

5 COMMISSIONER KLEIN: When you look at staffing in

6 the international arena and where we should be heading, any

7 big issues that we should be concerned about?

8 MR. BORCHARDT: Skill sets you are talking about.

9 I think we have it pretty well identified, I'm not aware of

10 there being any particular skill set that exists in another

11 regulatory agency that we don't have.

12 If anything, it works the other way around.

13 We are probably the only agency that covers the full breadth

14 of responsibilities.

15 As you are aware, many regulatory bodies around the world

16 don't have an Office of Regulatory Research, they use a

17 whole separate organization.

18 They accomplish the function within the country, but not

19 within the regulatory body.

20 We are probably the more complete across-the-board.

21 Regarding reactor oversight, I am not aware of any

22 particular skill set. As Loren mentioned, we are going to

1 have to be on a steep learning curve for construction  
2 inspection experience, since it is very limited right now,  
3 but it is very limited almost every where in the world  
4 except for Japan and a few other Asian countries.

5           COMMISSIONER KLEIN: Well, thank you very much.

6           CHAIRMAN JACZKO: Thank you for a good, and I think  
7 important presentation and discussion as the nuclear  
8 industry becomes more and more of a global industry,  
9 we will have more and more international interactions and  
10 more and more work to do in the international arena, and  
11 probably fewer or the same amount of resources we have now.  
12 The ideas of prioritization and focus will be important as  
13 we go forward, and I appreciate all the hard work that you  
14 have put in to the program so far.  
15 Thanks.

16           (Whereupon the briefing was concluded)

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