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UNITED STATES NUCLEAR REGULATORY COMMISSION  
BRIEFING ON INTERNATIONAL PROGRAMS, PERFORMANCE AND PLANS

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WEDNESDAY

October 3, 2007

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The Commission convened at 2:00 p.m., Dale E. Klein, Chairman presiding.

NUCLEAR REGULATORY COMMISSION

DALE E. KLEIN, CHAIRMAN

GREGORY B. JACZKO, COMMISSIONER

PETER B. LYONS, COMMISSIONER

1 NRC STAFF

2 MARGARET DOANE, Director, Office of International Programs

3 MARTIN VIRGILIO, Deputy Executive Director of Operations for

4 Waste, Research, State, Tribal and Compliance Programs

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CHAIRMAN KLEIN: Good afternoon. We were just talking - the Commissioners like this side of the table better than the side we were on earlier today.

MS. DOANE: Then you'll probably go easy on us.

CHAIRMAN KLEIN: We're looking forward to hearing about the international programs and I think the international collaboration is certainly an important role for us. I've been impressed as I've traveled and talked to people the role that we can play in helping safety and security with other countries and also what we can learn from them. So definitely, it's a two-way street.

It's also interesting when you look worldwide that there's over 200 reactors either under construction or planned in the world. So that tells us that it's a very dynamic time in the nuclear business. It's also important to know that this is Margie's first time sitting in that new position, so congratulations.

MS. DOANE: Thank you.

CHAIRMAN KLEIN: And also congratulations on your FY06 annual report. I thought that laid out a lot of good activities that the International Programs has done. Any comments from my fellow Commissioners?

COMMISSIONER LYONS: I'll wait till later.

CHAIRMAN KLEIN: With that Margie.

MS. DOANE: With that, I'll begin. I'll begin by introducing myself. I

1 am Margie Doane, Director of the Office of International Programs. With me is  
2 Marty Virgilio, Deputy Executive Director of Operations for Waste, Research,  
3 State, Tribal and Compliance Programs.

4 The Nuclear Regulatory Commission's many and varied international  
5 activities are carried out by staff from throughout the agency and our success has  
6 resulted from a closely coordinated effort between many offices. Our goal today,  
7 both mine and Marty's, is to give you an understanding of the many efforts that we  
8 have undertaken since we have had our last briefing and to talk to you about  
9 anticipated international activities in the upcoming years.

10 As you know, like we were talking about, this is my first briefing, but I want  
11 to make sure that everybody understands that Janice Dunn Lee actually carried  
12 out a lot of the things that I will be reporting today. So I think she deserves some  
13 credit for the successes that we've reached this year; my predecessor, Janice  
14 Dunn Lee.

15 I would also like to take this opportunity to introduce my Deputy, Scott  
16 Moore, who's also new, sitting behind me. And also to recognize the Deputy  
17 Directors and Office Directors that are sitting behind me because they're the  
18 support for our program. I guess I should also take this opportunity to thank the  
19 staff that put together the briefing for me and also have -- it really is their program.  
20 With all that, I will go on to the program.

21 As you know, our international interactions, the NRC's views are actively

1 solicited and copied throughout the world. It's also true that through these  
2 interactions NRC has influenced in turn and learns from the experiences of others.  
3 The focus of this work has always begun with the premise that our international  
4 activities are of benefit to the regulatory approaches we take domestically. This  
5 important work is implemented through an agency-wide budget of \$14 million or  
6 approximately 2% of the agency's budget.

7 Our presentation today is organized into five major program areas. Let me  
8 tell you a little bit about how we developed these categories as I believe this will  
9 demonstrate the degree to which our offices are coordinated. A few years ago in  
10 2005 at our briefing, the Commission following one of those briefings expressed to  
11 us concern that our international activities seem to be stove piped without the type  
12 of coordination that would be necessary to execute bilateral and multilateral  
13 activities.

14 Essentially, we were asked whether we were using the most up-to-date  
15 information, whether we were bringing back from our individual interactions the  
16 type of information that would be useful to move the program along and also  
17 whether we were avoiding duplicative efforts. When we did our research into  
18 these issues, we got together with our program offices, the ones that we  
19 coordinate with and we found out the Commission was right. We were stove piped  
20 and it was difficult to figure out a way of reporting this back to the Commission -  
21 reporting the entire program back to the Commission because we all recorded our

1 activities differently. In fact, we had almost mini international offices throughout  
2 the agency.

3 Today, it's much different. What we did is we undertook an initiative to  
4 identify the major program areas and that's what I'm going to talk to you about  
5 today. And so, in 2006, by mid-2006, we had identified these areas and the ways  
6 in which we would record our activities across the agency. Consequently, for  
7 fiscal year 2007 for the first time all offices used these categories for time and  
8 attendance, budgeting and planning and also just for our routine interactions.

9 Program areas are conventions and treaties, export and import licensing,  
10 bilateral arrangements, cooperation, multilateral work, and cooperative research.  
11 Of course, it took more than just identifying these categories to bring our offices  
12 closer together. We also enhanced our communication efforts.

13 We started seeing, with much support from the EDO's office, we started  
14 seeing a lot more interest of staff in our routine meetings that we held and this was  
15 a benefit to all of us. Also, at the urging of Marty, we started holding Deputy  
16 routine periodic meetings with the Deputies of all the offices. So I in my Deputy  
17 role and now Scott in his Deputy roll meet periodically with all the other Deputies.  
18 This has brought our program closer together.

19 As we look out over the next three to five years, we anticipate continuation  
20 of our coordination efforts to bring successes to the many activities we can easily  
21 predict in addition to a number of potentially new and resource intensive initiatives.

1 Our vision is to prepare the groundwork for success in these program areas to  
2 position ourselves such that the challenges can be met with an array of possible  
3 solutions.

4 Let me now briefly discuss the activities we have conducted in these  
5 program areas and give you a glimpse of what we anticipate will occur within the  
6 next three to five years and our activities today that are in preparation for the  
7 future.

8 Starting with conventions and treaties. This program area encompasses  
9 those activities which the NRC conducts to ensure the United States meets its  
10 obligations under legally binding treaties and conventions. The U.S. obligations  
11 that fall to the NRC include activities to address nuclear non-proliferation, safety,  
12 physical protection, waste and spent fuel management, emergency preparedness  
13 and response and counter-terrorism.

14 In some cases the NRC has a leadership role; in others we provide  
15 technical support for other U.S. government agencies. To this end we took a  
16 leadership role at the 2007, the June 2007 technical meeting to review the IAEA  
17 safety standards for the Joint Convention on the Safety of Spent Fuel  
18 Management and Safety of Radioactive Waste Management, which is referred to  
19 as the Joint Convention.

20 The U.S. government maintains a policy that the IAEA safety standards  
21 should be considered as voluntary in implementing the invention and not as

1 mandatory. In July 2007, the NRC staff actively participated in a meeting on the  
2 Convention on Early Notification of Nuclear Accidents ensuring that the member  
3 states have internationally accepted procedures for notification in case of an  
4 accident or radiological emergency.

5 For the Convention on Nuclear Safety the staff has submitted the U.S.  
6 national report and participated two weeks ago at the organizational meeting. Our  
7 agency is set to provide leadership in the CNS review meeting in April 2008 with  
8 participation by Chairman Klein, by Luis Reyes, our Executive Director of  
9 Operations, Jim Dyer, the Director of the Office of Nuclear Reactor Regulation and  
10 other senior staff throughout the agency. For the first time, the U.S. delegation will  
11 also include representatives from INPO, the Institute of Nuclear Power Operators.

12 I'll talk about some challenges with this area of treaties and conventions.  
13 We're undergoing some resource intensive preparations for several things.  
14 There's a 2008 convention on the nuclear safety review meeting of parties that we  
15 know we're anticipating in March; the 2009 joint Convention review meeting in  
16 which we have a substantial leadership role; the 2010 Nuclear Non-Proliferation  
17 Treaty review conference and there's also a U.S. government effort to ratify the  
18 amended convention on physical protection of nuclear material and the likely entry  
19 into force of additional protocol for implementing IAEA safeguards for the U.S.

20 It would not be obvious because much of this work is behind the scenes,  
21 but the NRC staff monitor these obligations carefully. They do this on an



1 international level by actively participating in the drafting of U.S. national reports,  
2 providing technical support to other U.S. delegations and interacting with the IAEA  
3 safeguards inspectors at NRC licensed facilities.

4 On a domestic level they ensure that NRC licenses incorporate U.S.  
5 obligations such as IAEA safeguards and the staff inspects compliance with these  
6 licensing requirements. Ensuring that there continues to be a cadre of staff that  
7 are knowledgeable about these international instruments is essential to ensuring  
8 that these policies, the U.S. policies and goals for safe, secure use of nuclear and  
9 radiological materials can be advanced with safe regulatory practices. This is one  
10 of our areas that we're concentrating on because it parallels the same issue that  
11 we see in our technical offices for licensing.

12 Export/Import Licensing: In 2007, we spent a significant amount of our  
13 resources continuing to implement the Energy Policy Act and the Code of Conduct  
14 on the Safety and Security of Radioactive Sources. Two significant efforts in this  
15 regard, as you're well aware of because I think we just sent papers to you, were  
16 our efforts with the Department of State, Department of Energy and Department of  
17 Commerce to further refine our criteria for approving of Category 1 and Category 2  
18 exports.

19 We also participated in international meetings to exchange information on  
20 the U.S. experience implementing these new policies and also to hear from other  
21 nations on the progress of their programs.

1           Our relationship with our hemispheric neighbors continues to enhance our  
2 regulatory approaches to address the risks associated with sources minimizing,  
3 where appropriate, disruptions to legitimate commerce.

4           In March we signed a bilateral agreement with our counterparts at the  
5 Canadian Nuclear Safety Commission to better coordinate our respective  
6 regulation of sources.

7           Challenges that we have with the Export/Import licensing: We would point  
8 to the first thing that we have is the regulations applicable to exports and imports  
9 of nuclear and radioactive materials and components and equipment is very  
10 complex. The downside of complex regulations is that it's very difficult for the  
11 public to understand them and so they have to call in for us to interpret the  
12 regulations for them. That's resource intensive.

13           In addition, day after day, year after year, you have to make sure that that  
14 interpretation remains consistent because it's not clear in your regulations. For  
15 these reasons, over several years we've been collecting parts of the regulations  
16 that give us the most trouble or give the public the most difficulty in interpreting.  
17 And in addition we also have realized we have to make some changes for security  
18 that we've been doing on an ad hoc basis. So we're putting together a  
19 comprehensive rulemaking on 10 CFR Code of Federal Regulations Part 110 and  
20 we'll be submitting -- we have a rulemaking plan that's already gone through other  
21 offices and it will be submitted shortly to the Commission.

1 Another challenge that we have is in line with the interest in new power  
2 plants. That's also going to bring new challenges in our export/import licensing.  
3 It's challenging the working knowledge of our staff. We're preparing for an  
4 increase in import/export licensing of major component and equipment associated  
5 with these new power plant construction -- the prospect of new power plant  
6 construction in the U.S. and around world.

7 The fuel cycle is constantly evolving, raising expectations for enhanced  
8 knowledge in export/import licensing. We continually face evolving complexity in  
9 licensing areas such as Waste Management.

10 To meet these demands over the past two years, the Office of International  
11 Programs has hired new staff at entry levels and higher levels who have varied  
12 backgrounds in international affairs, regulatory licensing, and experience from  
13 work in other agencies to ensure we're positioned to revise and implement our  
14 Export/Import program.

15 Next I'll turn to bilateral assistance and cooperation activities. The work  
16 done by management and staff under the NRC's program of 39 -- I guess I should  
17 say the Commission, too -- NRC's program of 39 bilateral arrangements with 36  
18 countries and Taiwan and four more narrowly focused administrative  
19 arrangements is another core area of the agency's international activities.

20 For the purposes of this briefing, I'll cover only a few highlights that  
21 occurred in fiscal year 2007, but I'd like to take a moment to recognize the ongoing

1 work that we have with all of our partners. Through these relationships, we have  
2 developed information and we have shared with our foreign counterparts NRC --  
3 through the sharing of information with our counterparts, NRC has positioned itself  
4 to respond effectively to events such as the July 2007 earthquake in Japan; to be  
5 on the forefront of the U.S. government's nuclear safety initiatives, such as the  
6 sharing of operational experiences with Finland and France in new reactors, with  
7 Canada in training and inspection of irradiation facilities and in the forefront of the  
8 U.S. government's initiatives to develop relationships with India and China.

9         During fiscal year 2007, the staff continued bilateral efforts to assist our  
10 regulatory counterparts in adopting and implementing the code of conduct. The  
11 staff, for example, provided training to representatives of the Iraqi radioactive  
12 source regulatory authority and expanded radioactive source related assistance to  
13 include additional countries in the Commonwealth of Independent States.

14         Staff also provided key support to the Department of Homeland Security-led  
15 Security and Prosperity Partnership, the SPP, nuclear and radiological exchanges  
16 with Canada and Mexico, and a highlight of that meeting was a presentation that  
17 we did on converting U.S. reactors from high-enriched to low-enriched fuel and  
18 also presentations on regulatory approaches for security at nuclear facilities.

19         We also supported some initiatives with China including efforts they were  
20 taking with sources for the 2008 Summer Olympics in Beijing and also we  
21 developed and we are now implementing a memorandum of cooperation with our

1 counterparts covering the AP1000 reactor.

2           We expect significant increase in bilateral cooperation and assistance  
3 efforts over the next few years. This is probably where we're going to see the  
4 most growth. This encompasses safety and security issues associated with new  
5 and existing nuclear power plants, research reactors, radioactive and nuclear  
6 materials. Regulatory oversight, including licensing of the design, construction,  
7 start up and initial operation of new nuclear power plants is increasingly of interest  
8 within the international community.

9           We expect a number of countries that are either building or intend to build  
10 new nuclear power plants to continue to increase through 2015 through 2020. We  
11 are receiving requests for assistance and cooperation to support development of a  
12 nuclear power program from countries who have no nuclear power program, but  
13 aspire to build a facility; countries with existing programs that want to enhance  
14 their relationships, and countries building new nuclear reactors using U.S.  
15 technology.

16           We know that regulatory cooperation is not always a one-way street. In  
17 many instances, we expect to gain significant insight and learn from the  
18 experience of our regulatory counterparts. For example, we're working with China  
19 on the AP1000.

20           We're also working -- we've also done exchanges with Finland and we had  
21 one of our inspectors spend several months to observe construction practices at

1 the EPR and we look forward to sending others in the future.

2 Maintaining safe operation of existing nuclear power plants is a priority of  
3 regulators both domestically and internationally. Nuclear utilities around the world  
4 are looking to extend operational lifetimes of their existing facilities. NRC expects  
5 a steady stream of requests from regulatory counterparts to interact in such  
6 tropical areas as aging management and license renewal.

7 We continue to enhance regulatory oversight of high risk Soviet-designed  
8 nuclear power plants. Gaining insight and experience from our established  
9 regulatory counterparts is not limited to nuclear power plants. For example,  
10 privately owned enrichment facilities proposed to be built in the U.S. closely mirror  
11 enrichment facilities that already exist in other countries.

12 Many countries also already utilize mixed oxide fuel and commercial  
13 technologies such as fast reactors are operating in various countries. NRC will  
14 continue to interact with our international regulatory counterparts as a source from  
15 which technical knowledge on these topics can be developed. There will be  
16 continued interest in bilateral security consultations with countries that currently  
17 have nuclear power programs.

18 The Commission has requested and the staff has begun to compare and  
19 share best practices with select foreign regulatory authorities in topics relating to  
20 both reactors and materials. Next slide.

21 With support from the Commission and from Congress we are preparing to

1 significantly expand provision of bilateral assistance activities. Staff will use the  
2 expected increase in non-fee based fiscal year 2008 funding to assist counterpart  
3 regulatory authorities in enhancing their safety and security oversight of  
4 radioactive resources.

5 This work, which is consistent with the Code of Conduct, will include all  
6 countries of the Commonwealth of Independent States. This effort will draw  
7 heavily upon the experience gained providing such assistance to regulatory  
8 authorities in Armenia, Georgia, and Kazakhstan. Regulatory personnel from  
9 these countries have also agreed in turn to provide assistance to their neighbors,  
10 forging from our bilateral initiatives, a regional approach.

11 The idea here is if we help one country and then they help several others,  
12 they in turn can help several others. Our limited resources can go much further  
13 and we're seeing that happen.

14 Staff is also in the early stages of consulting with the Executive Branch to  
15 identify countries or regions of the world where NRC could offer low cost effective  
16 sources related regulatory assistance. It is likely that once efforts are well  
17 established with the Commonwealth of Independent States, Africa and the Middle  
18 East may be new areas of outreach.

19 We coordinate our assistance program with sources, reactors and other  
20 materials issues. We don't do this in a vacuum. Expansion of these activities  
21 necessitates corresponding expansion of coordination efforts with other assistance

1 providers. This would be the European Commission on Soviet-designed reactors,  
2 the International Atomic Energy Agency and with our efforts with the International  
3 Atomic Energy Agency, we will meet with them to gain insight into areas that we  
4 may move into later, as I discussed Africa and the Middle East. These insights will  
5 help us identify the radioactive source related assistance needs in these other  
6 regions.

7 Slide 10, Multilateral Activities: In the area of multilateral activities, I note  
8 the outstanding progress made in both Stages 1 and 2 of the Multinational Design  
9 Evaluation Program for which the Nuclear Energy Agency is providing essential  
10 support. Under the MDEP, the participating regulatory agencies have established  
11 working groups in expert meetings on such topics as component manufacturing,  
12 digital instrumentation and control and computer safety systems, use of  
13 probabilistic risk assessment and safety goals and quality assurance.

14 In November, the staff plans on providing the Commission with a policy  
15 paper on Stage 2. The paper will include Stage 2, Phase 1 pilot projects and will  
16 present recommendations for future NRC involvement.

17 The NEA's ongoing work in safety research and waste management  
18 contributes to the NRC's safety and effectiveness strategic goals. While the work  
19 with NEA partners focuses on cooperation, our work with the International Atomic  
20 Energy Agency has a broader scope. As a measure of our support for the  
21 International Atomic Energy Agency, it can be noted that staff participated in over



1 90 IAEA activities in fiscal year 2007 in areas as wide-ranging as assessment  
2 missions, development of international safety, security, transportation and  
3 emergency preparedness guidelines, and implementation of international  
4 safeguards at NRC licensees.

5 The NRC also co-hosted with the IAEA an international conference in fiscal  
6 year 2007 to discuss issues associated with digital instrumentation and control in  
7 nuclear power plants.

8 The NRC has provided leadership within the International Commission on  
9 Radiological Protection to encourage a dialogue with stakeholders during the  
10 development of the new set of radiological protection recommendations. We're  
11 currently awaiting publication of the new recommendations.

12 Challenges for Multilateral Cooperation: We anticipate extensive work with  
13 the NEA and IAEA and other multilateral organizations based on the assumption  
14 that there's an interest in nuclear power programs now and that this interest will  
15 continue to grow. The first step in assisting the creation of a regulatory safety,  
16 security -- the first step in assisting is the creation of a regulatory safety, security  
17 emergency preparedness safety infrastructure in countries embarking on a new  
18 program.

19 The first thing that we do is we direct them to the IAEA. This insures a  
20 basic understanding of the regulatory components. It familiarizes countries with  
21 standard terminology. It provides access to best practices through the use of their

1 guidelines and also may provide financial support and on the job training and  
2 fellowships.

3 It has been staffs' experience that countries want more than these basics  
4 however. We anticipate that requests for arrangements for exchanges of technical  
5 information for assignments at the NRC and for participation in seminars,  
6 workshops, and assessment missions will increase over the next three to five  
7 years.

8 Staff will prioritize these requests, use IAEA regional seminars and other  
9 programs to reach the widest possible audience while minimizing the burden on  
10 staff. In other words, we'll try to attend seminars that are reaching a large group  
11 rather than trying to go bilaterally, which would be more labor intensive.

12 We'll also continue to encourage U.S. industry in groups such as the  
13 Conference of Radiation Control Program Directors and INPO, the Institute of  
14 Nuclear Power Operators, to work with their international counterparts as well.

15 Of particular importance to the NRC is to improve the balance of safety and  
16 security in regulating the nuclear industry in the U.S. and achieving a consensus  
17 internationally on this issue. As the IAEA develops documents assessing the  
18 various aspects of security, from the design basis threat to insider threats and  
19 sabotage, it's essential that there be a common understanding where safety  
20 processes achieve security benefits and where initiatives to increase security may  
21 benefit safety.

1           The staff is working with the U.S. interagency and with the IAEA to find  
2 common ground. The challenge for the NRC is that when working bilaterally with  
3 other countries regulatory counterparts often do not have the responsibility for  
4 security and when working with the IAEA there's no obvious interface between the  
5 offices responsible for the two areas.

6           Over the next two to three years, staff anticipates IAEA will seek to develop  
7 or promulgate over a dozen documents relating to security and revise many of its  
8 safety documents. These processes of reviewing these documents is resource  
9 intensive for the NRC staff which is simultaneously realizing and issuing national  
10 regulations.

11           As part of their longer-term capital initiatives, offices are considering ways --  
12 human capital initiatives -- offices are considering ways to leverage staff time and  
13 to build a knowledge base such that gaps between domestic regulations and  
14 international guidelines are identified. Staff is prepared to address the differences.

15           I would now like to ask Marty Virgilio to address the other high level  
16 multinational challenges and achievements including our program of cooperative  
17 research.

18           MR. VIRGILIO: Thank you, Margie. Good afternoon. I'm going to  
19 start with slide 12, please; it's Cooperative Research Activities. I believe the  
20 Commission has been very clear and consistent in its message to the staff about  
21 taking advantage of opportunities to collaborate with our international

1 counterparts. This is for a variety of reasons.

2 International research activities ensure that our programs, NRC's programs,  
3 incorporate the results of all international research and analysis. It helps us look  
4 for emerging technologies, new issues, new safety issues and supports our efforts  
5 to verify and validate the computer codes that we use to model the nuclear reactor  
6 behavior.

7 Through over 70 agreements our Office of Research has implemented, the  
8 NRC staff has had the opportunity to participate in a number of major experimental  
9 programs using test facilities that are not available in the U.S. today. Through  
10 bilateral arrangements, the NRC obtains valuable technical experience and  
11 information on seismic issues, fuel behaviors, material science, fire modeling,  
12 LOCA experiments and many other areas. Some of those areas are listed in the  
13 report, Chairman Klein that you referred to in your opening remarks, the  
14 international activities annual report for 2007.

15 NRC also sponsors two major programs that support the development and  
16 maintenance of our computer codes. The first is the NRC's Code Application and  
17 Maintenance Program, known more commonly as the CAMP program. This  
18 program includes joint assessments of NRC's thermal hydraulic and neutronics  
19 codes, and annual meetings and periodic code workshops, with dozens of  
20 international counterparts participating.

21 The other program is NRC's Cooperative Severe Accident Research

1 Program. This program also includes joint assessments of NRC's codes. In this  
2 case, we're focused on the severe accident codes. As with the CAMP program,  
3 we have workshops, meetings, and they're conducted with dozens of international  
4 organizations participating. NRC also participates in the OECD, NEA and IAEA  
5 activities as Margie discussed earlier. Many of these are focused on research,  
6 standards development, state of the art assessments and various technical issues.

7 The NRC contributes roughly \$4 million per year to international projects  
8 here and abroad, but we believe that they provide us benefits on the order of  
9 research valued at approximately \$40 million per year. Access to the foreign test  
10 facilities expands our knowledge base, contributes to the efficiency and the  
11 effectiveness of NRC's research activities, particularly in looking at high priority  
12 safety issues. Slide 13.

13 Last year when we met with the Commission, you showed an interest in  
14 understanding how we go about prioritizing and considering international projects  
15 that are being proposed. Subsequent to the briefing, you asked and we provided  
16 you a paper that included criteria that we use. This slide highlights the seven  
17 criteria that we use when we consider opportunities presented to us by our  
18 international counterparts for participating in international projects.

19 We routinely receive these proposals from international organizations, our  
20 foreign regulatory counterparts and other organizations. They typically request  
21 that the NRC cooperatively participate in our research programs. Some of them

1 are a potential interest to the NRC and that's when this criteria comes into play.

2           Recent topics proposed by others include programs in thermal hydraulics,  
3 severe accidents, reactor vessel and piping integrity, nuclear fuel, seismic safety  
4 and plant performance issues. In implementing this criteria, again, we sought out  
5 opportunities to have access to test facilities that we do not have domestically.  
6 That would require substantial resources to duplicate in the United States.

7           In some cases, NRC staff has proposed modifications to the projects that  
8 sponsors have brought forward to us so that the proposed project can better meet  
9 our needs.

10           In summary, NRC participation in these international projects is primarily  
11 based on the premise that the project will produce information needed by the NRC  
12 and that overall the project benefits the NRC in a cost-effective way. Thank you.

13 Margie?

14           MS. DOANE: Last slide. In conclusion, as Chairman Klein and the  
15 Commission have repeatedly noted, nuclear energy is a global activity.  
16 Manufacturers and vendors operate from various countries, uranium is an  
17 internationally traded commodity, plant designs are developed by multinational  
18 corporations and plant operators and regulators are trained in educational  
19 institutions from Mumbai to Moscow, Beijing to Buenos Aires, Cape Town to  
20 Quebec.

21           The very internationality of the industry poses unique security challenges

1 revolutionizing how we approach making determination of best practices. In  
2 running through both the domestic and international scene, there is a vain of  
3 uncertainty which needs to be acknowledged even as planning goes forward. I  
4 offer the Office of International Program as a microcosm of these preparations.

5 OIP, which has lost half of its senior staff to retirement over the last several  
6 years, has hired entry-level and experienced personnel, provided training  
7 opportunities including rotational assignments within the office and in other offices  
8 within the NRC, and we've provided staff with opportunities to learn about and  
9 enhance their knowledge through meetings with foreign counterparts here and  
10 abroad.

11 We've anticipated funding needs for assistance programs which have been  
12 supported by the Commission and by the Congress. We have intensified our  
13 interaction and communication with the program offices, as I described, to better  
14 serve the international program needs. We have also improved our  
15 communication with the U.S. interagency to ensure that our programs are within  
16 the scope of U.S. policies and not duplicative of ongoing work elsewhere.

17 As a result, our small office of 32 serves the Commission and the entire  
18 agency as a portal for communication with the U.S. government and our foreign  
19 counterparts and I believe is positioned to efficiently and effectively carry out the  
20 mandate of this agency for the next three to five years. This concludes our  
21 prepared presentation.

1                   CHAIRMAN KLEIN: Thank you very much, Marty and Marge for that  
2 presentation. I guess this is the M&M crowd, right?

3                   MS. DOANE: I thought that might be trouble.

4                   CHAIRMAN KLEIN: To begin our questioning is Commissioner  
5 Lyons.

6                   COMMISSIONER LYONS: Well, first my compliments to both of you.  
7 Margie, my compliments to your staff. I have been repeatedly impressed and I've  
8 complimented you and your predecessor many, many times on the work that is  
9 done in OIP and I just view it as absolutely essential to the work that we do here at  
10 the NRC. We gain so much. We benefit so much from those interactions and  
11 both of you used the word "leveraging". I really believe that there's a tremendous  
12 amount of leveraging that goes on.

13                  As I've had opportunities to interact with international regulators, whether  
14 it's here, on occasional visits overseas, or even more recently at the IAEA General  
15 Conference, I'm just constantly impressed with how different perspectives in some  
16 cases on problems that we are also wrestling with are very, very useful to us.  
17 Whether its areas that we're benefiting from, whether we're enhancing safety in  
18 other countries who already have strong nuclear programs or whether we're  
19 working with countries that are developing programs, I think those interactions are  
20 absolutely critical and very important for the agency.

21                  In the area of cooperative research, I don't think there's any surprise that I



1 very much appreciate that. The leveraging, Marty, that you referenced \$4 million  
2 to \$40, I've seen that many, many times. Certainly, there's an increasing number  
3 of occasions where we simply don't have the facilities in this country and where  
4 there are precious few facilities remaining in the world that are capable of getting  
5 some of the answers that we need for code validation. So, very strong  
6 compliments.

7 By way of questions, let me start on slide 11, Margie, where you talked  
8 about the balanced approach to safety and security. I was going to see if you  
9 might want to expand on that a little bit and as a preface to what you might want  
10 add, I was very impressed at a number of the bilaterals at the General  
11 Conference, and certainly without naming countries, to hear regulators who truly  
12 recognized the importance of integration of the safety and security interface. And  
13 while in a number of those countries, those two are separate now.

14 I was impressed that in a number of countries I think our point of view is  
15 getting across. It's vital to integrate safety and security and that you can do really  
16 stupid things if you focus on one or the other and don't look at the integrated  
17 approach. I don't know if you'd like to add more to that. I'd be curious if you think  
18 we're making progress in getting that message out.

19 MS. DOANE: Thank you for that opportunity. I think we are getting  
20 the message out because, you're right, we did hear from -- when we raised the  
21 issue, we had very engaging conversations which show that other countries are

1 thinking about this. We've seen over the past year one country at least move to  
2 that program and that took statutory changes within the government to bring the  
3 activities under one roof.

4 In other conversations that I've had at the IAEA after the Commission had  
5 left, I stayed an extra day. I learned that technical support organizations often  
6 have this activity within the technical support organization and that if they use their  
7 guidance to their regulatory agencies the right way, they can look at these issues.  
8 So it's another way that the issue can be looked at. It doesn't necessarily have to  
9 be in the regulatory agency, perhaps; that's the discussion that I had, it can be in a  
10 technical support organization, but I think you're right the discussion is going  
11 further and it's also something that's not so difficult to understand so one would  
12 ask if it's not so difficult to understand, why is it so difficult to get the interface  
13 moving even more quickly? I think the problem with that is because the  
14 responsibility is in organizations and it has a political sense to it.

15 I think that is the struggle that we have, but I think if we just stay with the  
16 issues, just the need to look at what changes you're making in safety to ensure  
17 they're not impacting security and vice versa, I think it will move the issue forward  
18 by making it more simple.

19 MR. VIRGILIO: Margie, if I could add to that. I was pleased to see  
20 the resolution from the last General Conference that actually recognizes the need  
21 for IAEA to do more in integration of safety and security and it also looks forward

1 to the paper coming forward from and NSEG that will also address this.

2 On the domestic front I would like to put in a plug for a draft Reg Guide that  
3 we have on safety and security interface because I think that does, what Margie  
4 said, it sort of explains by example what we're talking about; how if you don't  
5 implement the security requirements properly you can in fact compromise safety.

6 COMMISSIONER LYONS: By way of another question, Margie, on  
7 your slide eight, exchanging security information. Again, I had a recent  
8 opportunity in Canada to be standing at the Darlington Plant and they pointed out  
9 to me that you could see - I think it's Nine Mile Point, I'm not sure - but it was one  
10 or two of the U.S. plants you can literally see from Darlington. It brought home to  
11 me the importance, at least certainly in my mind, of maximizing the exchange of  
12 security information with Canada. I've brought that message home to several of  
13 our colleagues here.

14 I would like to put in a plug, and I don't know if you'd like to comment on it  
15 or not, but I think that we should look towards as extensive a sharing of  
16 information as possible, particularly from the standpoint of aircraft impact that  
17 we're working with and they are also thinking about.

18 To me, it's just very important that we look toward maximizing the  
19 information sharing and to the extent possible ensuring that whatever standards  
20 we move toward here with the rule that's currently out or about to be out for  
21 comment to the extent they have similar standards, to me that would be very, very

1 important. I don't know if that's something you'd like to comment on or not.

2 MS. DOANE: I think we should comment on that because our  
3 counterparts in Canada did let me know that they may be watching. So I can tell  
4 them that we do have the new rulemaking that's coming out and the staff has  
5 coordinated very closely with us and they gave us, helped us to coordinate this  
6 effort with our international counterparts. So we're sending the proposed rule out  
7 to certain counterparts that we think may want to read it and might be able to  
8 provide us insight.

9 COMMISSIONER LYONS: I would go well beyond -- my vote is you  
10 go far beyond sharing the rule. We also work through security channels to share  
11 the rationale for the actual parameters that are under consideration.

12 MS. DOANE: We hope that that's just the first step. And so we want  
13 to tell them it's out there and then once we have this particular rule, we would like  
14 to share that and gain insights. In addition, we just had a very extensive bilateral  
15 with our Canadian counterparts on security to address many of the issues that are  
16 already, maybe not resolved, but where we have defined the parameters more  
17 closely.

18 And we're going to continue that, not only with our Canadian neighbors, but  
19 we see it just as important to share these insights with our Mexican neighbors as  
20 well. We are looking for ways to enhance this cooperation and then even beyond  
21 our direct neighbors we feel like this area is new to all of us. In a lot of ways we're

1 still working on these so we can insights from other regulatory counterparts.

2 So we're taking our steps carefully because the information, obviously, is  
3 very sensitive, but with certain governments we can go forward very quickly and  
4 we've had extensive coordination with CNS and we should continue it, especially  
5 with respect to the new rule.

6 COMMISSIONER LYONS: Thank you. You certainly have my  
7 encouragement to share as much as we can within security guidelines. Maybe  
8 one more question on my time. I noted with great interest your chart of foreign  
9 assignees. And in general -- not in general -- I very much support this; at  
10 countless bilaterals, interchanges, I learn of people who are in leadership positions  
11 and other international regulators who reference that, oh, by the way, I spent a  
12 year at NRC and it truly helped shape their view of safety.

13 But by way of a slight concern, I like these numbers a lot better than these  
14 numbers and we are fairly close to a low point; not exactly, we're fairly close to a  
15 low point in terms of number of foreign assignees here. Is that an anomaly? I  
16 realize it's a substantial investment on our part to find appropriate assignments,  
17 but can we look toward increasing those numbers?

18 MS. DOANE: I think we can look toward increasing them. We did  
19 face a bit of a challenge because of our own space and as you know I heard you  
20 this morning at the hearing we do have -- that's the problem, we're bursting at the  
21 seams, but we can certainly bring in a few foreign assignees more than what you

1 see for 2007.

2 I think what we're going to see and you know from the bilaterals that we've  
3 had recently we're going to see many, many requests. What holds them up,  
4 believe it or not, is actually now the visas and other background checks that we  
5 have to do. It takes six to eight months, sometimes up to a year. So I think we've  
6 seen a lull because those programs have extended, but once we pick up, because  
7 we'll start seeing the background checks come back, then it gets more routine. I  
8 think will see these numbers coming up.

9 I'm glad you sent this message to the staff because I think it is a lot of  
10 resources on their part. But I think if they know they have the Commissions'  
11 guidance that this is something that we want to do, I think that you will see - and  
12 we get a lot of support for the foreign assignees, but it is difficult.

13 The last thing I'll say about that is with the foreign assignee program, we  
14 have countries that have never had foreign assignees, yet we've had those  
15 assignees this year. So that's something that while this number is small, we have  
16 for example, India. The foreign assignee program is progressing.

17 COMMISSIONER LYONS: Maybe just a post script on that. Both at  
18 one of the bilaterals and one of my visits this last year I was impressed with the  
19 way a regulator in a relatively small country had gone to incredible pains through  
20 an internal competition to select the very best person from their perspective to  
21 come here. It brought home to me the value that they are placing on that degree

1 of knowledge exchange with us. Thank you.

2 CHAIRMAN KLEIN: Let me add a couple of comments along  
3 Commissioner Lyons' questioning. Let me also put a plug for the foreign  
4 assignees because I think that is extremely important. When I talk to my fellow  
5 regulators in these other countries, that role that the foreign assignees play is  
6 incredible. I realize, as Commissioner Lyons indicated, it is resource intensive and  
7 space is a problem, but it's a role that is amazingly important.

8 When I talk to my fellow regulators they oftentimes comment on what an  
9 important experience it was for them and how to help them in their regulations to  
10 get into their countries. So I would like also to put a plug in for that one to be  
11 expanded and I realize as we indicated this morning space is a problem, but I  
12 hope we can work around that.

13 On the issue of safety and security, when I talk to my fellow regulators as  
14 well, I've never talked to a single regulator that would like them separate. Those  
15 who don't have them together wish they were. I think that's very important. They  
16 understand what the issues are. A lot of times it does take a political legislation to  
17 make them combined if they are not, but I've never talked to a regulator yet that  
18 advocated them being separate, for obvious reasons.

19 I think the IAEA hopefully can play a role in encouraging other countries.  
20 Particularly, those countries that are starting to develop nuclear programs that  
21 don't have them. I think if they start with them combined, you don't have the stove

1 piping and separate issues that could lead to some challenges. I think we can  
2 help in that area as well.

3 I see Brian back here on the research side and as Commissioner Lyons  
4 indicated, it is frustrating as a researcher to look around the world and see the  
5 facilities that we do not have. So I think it's really important that we leverage that  
6 in our research capabilities because that really does play a valuable role.

7 Obviously, international programs are high on my agenda because I leave  
8 Friday for the INRA meeting. So I think that again demonstrates the kind of  
9 commitment and communication that we have that is important.

10 On specific pages, starting with number four, on your 2010  
11 Non-Proliferation Treaty that you have listed, can you tell me what the objectives  
12 of that meeting is in 2010 when they're looking at the Non-Proliferation Treaty?  
13 This is on slide four where I had seen it. What's the objective of that?

14 MS. DOANE: The objective is just to reconvene, to look at how our  
15 policies have gone forward under nuclear non-proliferation and to think about  
16 whether any changes do need to be made to mostly policy. It doesn't change the  
17 convention itself, but it's really just a reconvening of the parties to strengthen in  
18 ways that they can the Nuclear Non-Proliferation Treaty.

19 CHAIRMAN KLEIN: Are they going to talk about countries that break  
20 out and while they're signatories they kick the IAEA out on the non-proliferation  
21 side?



1 MS. DOANE: I don't know that. I have to admit I don't have that  
2 answer, but I can get it for you.

3 CHAIRMAN KLEIN: On that same page, you talked about the  
4 additional protocols that are coming. Are we ready?

5 MS. DOANE: Yes, we are. We've been preparing for many years  
6 and we have the expertise within house to handle the changes and in addition  
7 we've done some drafting and worked with our licensees anticipating that this  
8 would come along. So I think we are ready, but it will be a lot of work on the part  
9 of staff.

10 CHAIRMAN KLEIN: On page five you talked about the import/export  
11 activities. Is that increasing or decreasing or staying flat?

12 MS. DOANE: It's changing. It's increasing in a lot of areas. We  
13 hardly ever saw any kind of waste imports and this is one example of where it's  
14 increasing waste imports and exports. Since the GTRI program, the threat  
15 reduction initiative by the Department of Energy they've gone out and notified  
16 these countries that you have things that you shouldn't and you should probably  
17 be doing something with them.

18 We've started to see transporting of waste back and forth and so these  
19 issues we had not faced before in this number. They're very complex. We work  
20 closely with the States, with compacts and with our international counterparts.  
21 That's an area where it's definitely increasing.

1           We've shipped components that we haven't done in many, many years. We  
2           have an application in to ship components, reactor components. We anticipate  
3           that it definitely will pick up in areas that we haven't seen before. We think it'll  
4           probably be relatively stable. It will stabilize with respect to sources and probably  
5           radioactive material for other uses. That's why I would say.

6                   CHAIRMAN KLEIN: Thanks. On the page 10, you talked about the  
7           ICRP. Could you sort of give us an update on their flora and fauna activities? Is  
8           anything happening on that one?

9                   MR. VIRGILIO: We have commented on the last version now.  
10          They're on schedule to publish the final version sometime between November and  
11          the end of the year. The last time we saw the chapter, it had a heading and really  
12          no material in the chapter, so I'm not quite sure where they are going and what to  
13          expect.

14          We are working this not only through the ICRP now, but the next area that  
15          we focus on is the basic safety standards. The IAEA is in the process of updating  
16          the basic safety standards and within that, one area that they are going to be  
17          looking at is the environment and what more should we be doing to protect the  
18          environment. We have staff assigned to work on the committees there so we're  
19          well embedded and I think that NRC interests will at least be represented.

20                   CHAIRMAN KLEIN: I know at of one of the INRA meetings we talked  
21          about that and I'm sure that will be a subject coming up again where we're just

1 curious on where that program will go with the flora and fauna.

2 In terms of countries that we can help or that have an interest, do you have  
3 any kind of an advertising program? In other words, how would a country know for  
4 example, that doesn't have a nuclear program, that we might share information  
5 with them? Is it just word of mouth? How do you do that?

6 MS. DOANE: The way it typically happens and I think sometimes it  
7 probably is word of mouth, but I think more often what happens is when our  
8 governments are working within -- the embassies are working within a country, this  
9 happened with an African nation, for example. When our country's working within  
10 a nation and they hear something, they know to go to the U.S. Embassy and  
11 request information with these governments.

12 Then the U.S. Embassy's get it back to the State Department and the State  
13 Department gets the issues to us. That's often how a new bilateral arrangement  
14 might start. The IAEA also has outreach activities when it sees issues of concern.  
15 For example, source related issues, they'll go in and do outreach with countries  
16 with various governments and then they'll establish the relationship. And then  
17 they'll identify what are the issues in that country that need assistance and they'll  
18 go out to member countries and ask them to help with their assistance efforts.

19 So they might contact us to go on missions, or they also will help us if we  
20 say we can, for example, here we're expanding our activities; we can go to them  
21 and say which nations have you reached out to that you can't help. In fact, with

1 this nation in Africa they were many years away from getting any IAEA help  
2 because there was no political issue in that country. They were very stable. The  
3 aid that they would get and the help that they would get is many years away.

4 That's an area where the IAEA said if you could step in that would be a big  
5 help. It happens in different ways, but mostly on the ground with the embassies  
6 who routinely interact with the governments if it's completely new.

7 CHAIRMAN KLEIN: I just hope as countries start thinking about  
8 nuclear power that don't have them, they get their regulatory structure first.

9 MS. DOANE: I think so. I think our past history has always been that  
10 they have done that. Historically, they have looked at various regulatory structures  
11 and they have sought out a bilateral arrangement with us, but we also point them  
12 to the IAEA to begin with just so they can get some basic training and things like  
13 that to see whether it really is something that they want to do.

14 In that vein, we have participated in seminars that have reached numerous  
15 countries. I think there were 37 countries that had expressed an interest in new  
16 nuclear power, for example, and Bill Borchardt from our New Reactor Office  
17 attended that meeting and so they reached, like I said, 37 countries. So we're  
18 hearing from them that they do want to understand the regulatory infrastructure.

19 COMMISSIONER LYONS: I was impressed at the General  
20 Conference to see at least what was new to me; IAEA publications on exactly this  
21 subject, sort of a primer of you're a developing country, now what you do if you're

1 interested in nuclear? It's certainly included the points that that you're making,  
2 Dale. I was just glad to see that the IAEA, and I assume we contributed to it, have  
3 thought through and developed that kind of a report.

4 MS. DOANE: The milestone document, yes. We did contribute. I  
5 think other people from our nuclear reactor operations office, senior staff and SES  
6 have gone over to continue this initiative. So it is good. There are a number of  
7 initiatives at the IAEA to reach these, we call them aspiring nations. That's what  
8 they're called.

9 CHAIRMAN KLEIN: Thanks. Commissioner Jaczko?

10 COMMISSIONER JACZKO: I have a quick question. This may be a  
11 resolved issue and I may have gotten the answer before, but I'll ask you again  
12 because I'm not sure. There's been this data that we're hoping to get from the  
13 French for a long time on fuel burn up data. What is the status on that? Have we  
14 actually received that or do we no longer need it or is it still an outstanding issue?

15 MR. VIRGILIO: I'll start and I know we have Farouk Eltawila in the  
16 audience that can finish. We have been working -- let me set the stage. The  
17 issue is the use of burn up credit in storage of spent fuel and what we had realized  
18 is we can only go so far. We were able to get some data related to actinides and  
19 what we were in pursuit of was additional data to help us with fission products.  
20 Farouk?

21 MR. ELTAWILA: We are continuing working with the French to get

1 this data.

2 COMMISSIONER JACZKO: We don't have it yet?

3 MR. ELTAWILA: We don't have it yet.

4 COMMISSIONER JACZKO: As I recall the issue was originally DOE  
5 was potentially going to buy it for \$6 million or something and they decided not to.

6 MR. ELTAWILA: That's correct.

7 COMMISSIONER JACZKO: Is that still an option?

8 MR. ELTAWILA: DOE reversed their decision and now they are  
9 going to buy the data. That's the information I have. That's why we are not  
10 negotiating directly with the French right now.

11 COMMISSIONER JACZKO: Thank you. Margie, this is probably a  
12 question of you. On slide 11, there's a mention you made of about a dozen  
13 documents relating to security and many other safety documents that IAEA is  
14 going to be working on in the next two to three years. You don't have to do it now,  
15 but maybe you could just provide the Commission a list of what all those  
16 documents are.

17 I'd be interested in that and if the staff has thoughts on which of those  
18 documents are the most important ones that we need to focus on as an agency  
19 and making sure that those documents reflect programs the way we think they  
20 should be done.

21 Certainly, if you want to comment on any of those right now on the ones

1 you think right now are the most high-profile and important ones that we need to  
2 be focused on.

3 MS. DOANE: We can talk about -- there are a number of documents.  
4 I think some of the work done in security with threats, design basis threats, those  
5 kind of documents are very important to us and there is work that's being done  
6 right now. There's also work on physical protection and so documents related to  
7 security for us are very important because like I said that area is still developing in  
8 a lot of ways. We've been doing it for 30 years, but still it is changing. Those  
9 documents are very important. I'm sorry I don't have the numbers or anything like  
10 that, but I know those are areas that we're concerned about.

11 In one of our bilaterals at the General Conference we did hear from a  
12 particular country that some of the safety standards that are being considered,  
13 some of the changes to the safety standards and especially if there was a  
14 wholesale look at the safety regulations, would be of particular concern because  
15 this country thought that it would be destabilizing for a small country. So, just the  
16 comprehensive look at the regulations has raised some concern. There's no  
17 definitive answer on that, but of course it is something that we're keeping an eye  
18 on. Marty is very active on those issues. I don't know if you want to --

19 MR. VIRGILIO: I think you've touched on them. The design basis  
20 threat, the security of sources and physical protection, particularly revisions or  
21 proposed revisions to Info Cir 225

1 COMMISSIONER JACZKO: Is that for transportation?

2 MR. VIRGILIO: This is for physical security.

3 COMMISSIONER JACZKO: Where are we with transportation? Are  
4 there revisions to any IAEA documents in transportation in terms of nuclear  
5 material or for security or safety?

6 MS. DOANE: We are revising. I don't have -- the Trans Committee  
7 is meeting, I think now or next week on issues associated with packaging and  
8 security transport. So there are changes, definitely, that are being considered and  
9 we're actively involved in those meetings.

10 MR. VIRGILIO: Specific changes related to surface contamination  
11 limits have been of high importance to us and we've been trying to get a risk  
12 informed approach there for many years. Some countries have objected and have  
13 basically opposed any change because they're afraid that some relaxation would  
14 be viewed inappropriately and not received well by either the public or the  
15 manufacturers and users of these materials. So that's been an uphill battle, but  
16 we continue to try to put a risk informed approach into surface contamination  
17 limits.

18 COMMISSIONER JACZKO: Thank you. Turning to some other  
19 topics. Margie, you know I have a lot of interest in seeing that the Code of  
20 Conduct gets implemented internationally and the staff recently came back from a  
21 meeting to talk about that. I'm wondering if you can just talk a little bit about what



1 the next steps are and how we continue to focus on getting greater adoption by  
2 more countries of the Code of Conduct and ensuring that that becomes a global  
3 system for source control and protection.

4 MS. DOANE: Our best opportunity to reach countries that haven't yet  
5 implemented are through the conferences and technical meetings. And so we  
6 send high-level staff who are very engaged in the activities that we're doing  
7 domestically. We usually have someone from International Programs and people  
8 from the technical staff so that we can discuss with these other countries our  
9 experiences with the program and try to understand how they are implementing  
10 the program.

11 There will never be -- it will be consistent the way that we implement the  
12 program with other countries and the way that they implement, but it will be  
13 different because we have many sources in this country. There some countries  
14 that have very few. That's one thing that we've realized is that we have to  
15 understand those differences and we'll have greater successes in cooperating with  
16 those nations by doing that.

17 I think by going to the technical meetings, to answer your question,  
18 and also bilaterally taking advantage -- if they come in wanting information on an  
19 infrastructure for a nuclear power plant, we can take that opportunity to say what  
20 are you doing on sources. I think there will be opportunities that way, too.

21 COMMISSIONER JACZKO: Perhaps in a similar vein to the

1 documents, does the staff have a sense of what are the most important countries  
2 that staff thinks would be crucial for implementing the Code at this time. Again,  
3 you don't need to provide that right now, but if you have it, it's certainly something  
4 that I think would be important so that we know as we are engaging our  
5 counterparts which of the countries that would be most important to get Code  
6 implementation from.

7 MS. DOANE: I think the way I would approach that is we are  
8 directing -- without getting too much in detail here -- but we are approaching our  
9 assistance activities with that mind. We have engaged to the extent possible with  
10 the IAEA and we are trying to identify countries that could use our assistance in  
11 developing the type of regulatory infrastructure that would be necessary to have  
12 just the basic compliance with the Code. So yes, I would tell you we are and that's  
13 our strategy for using the money that we have for assistance.

14 COMMISSIONER JACZKO: The last question and this is perhaps  
15 more of a comment than a question. We talked in a lot in the discussion here  
16 about a lot of the International cooperation and the things we do on the reactor  
17 side. Of course, on the source side there's a lot of work as well through the Code  
18 of Conduct. One area that I'd be interested in hearing from you and perhaps from  
19 Marty as well is what are we're doing on the fuel cycle facility side.

20 Clearly, that is an area where there is anticipated growth in this country with  
21 the potential for additional fuel cycle facilities where we may have an opportunity

1 to exchange information with our foreign counterparts much in the same way that  
2 we're doing right now for reactors. I'm just wondering if you can comment on what  
3 kind of activity is going on in those areas.

4 MR. VIRGILIO: Sure. It just so happens that in this board of  
5 governors meeting that just occurred last month there was an endorsed standard  
6 on fuel cycle facilities. We've spent a lot of energy making sure that standard was  
7 developed and that we understood how it compared with our programs,  
8 particularly as we look forward to GNEP and other potential uses for that type of  
9 guidance document. So we're very well invested in that.

10 COMMISSIONER JACZKO: Thank you.

11 MS. DOANE: We've had extensive coordination with countries that  
12 already have facilities built. For example, with France at the La Hague facility,  
13 we've had another delegation just went over a few weeks ago. We've had a lot of  
14 bilateral arrangements certainly with Urenco; the same kind of technology that  
15 may be built in this country for an enrichment facility. We have sent multiple  
16 teams over and we will continue to exchange that information with those countries.

17 So we know where these facilities are and actually we have embarked on a  
18 cooperation program that mirrors what we've done with reactors.

19 COMMISSIONER JACZKO: Do we have exchanges or dialogue on  
20 the Uranium source recovery aspects as well? I know this is something I think in a  
21 meeting I had that came up as an issue and I'm wondering if that's an area where

1 we communicate with others as well.

2 MS. DOANE: I don't have specific information for you. I've heard it in  
3 conversation as well, but I don't have specifics for you in that area. Where  
4 uranium is concerned, mostly where the issues are coming up at the moment have  
5 to do with countries because of the prospects for new nuclear power there's just  
6 as much interest in the uranium. So countries are going into uranium rich  
7 countries and they're opening up mines, new mines.

8 What we're hearing is a need for establishing some kind of regulatory  
9 infrastructure like decommissioning funding and things like that. We've learned  
10 from our past experiences the problems in those areas. If you don't do it before  
11 hand, you don't have the decommissioning funding beforehand, the market then  
12 goes down, they're left with these legacy sites.

13 In the uranium area it's not so much uranium -- I have heard uranium  
14 recovery and I'm sorry I don't have specifics for you, but I can get those for you.  
15 Mostly, like I said, that the issue is trying to reach out to countries for uranium  
16 milling and mining.

17 COMMISSIONER JACZKO: Thank you.

18 CHAIRMAN KLEIN: Commissioner Lyons?

19 COMMISSIONER LYONS: Perhaps just a follow up on the question  
20 Greg was just asking. I happen to know, because I'll be at it in two weeks, is the  
21 NEA safety of fuel cycle facility workshop in Wilmington, North Carolina. I don't

1 know with the attendance will be, but that's certainly is an NEA meeting. I assume  
2 there will be significant international participation. I know we have very substantial  
3 participation from the NRC.

4 On slide 13, I guess Marty you covered that, so maybe this is just a  
5 comment. It's probably more comment than a question. But I sure wonder about  
6 suggesting one or more criteria on slide 13 on when do we consider international  
7 projects. I would wonder about criteria that would say something about support for  
8 unique facilities.

9 It goes back to some extent what we talked about earlier that in several  
10 cases now the whole world is down to maybe one facility, maybe two facilities in a  
11 certain area. I can well imagine that we can find probably other reasons in your  
12 seven criteria to help support such work, but personally I wouldn't mind seeing that  
13 as a specific criteria because even if we don't have an immediate project for a  
14 facility for which we anticipate a future need -- I'm not saying just support it for the  
15 heck of it -- but if it's a facility where we see a future need, maybe we see a future  
16 reactor type coming that will present a challenge to us, I would wonder about the  
17 criteria that at least looked at the facility uniqueness.

18 Ones that come to mind would be things like some of the facilities at  
19 Halden; some of the facilities at Cadarache, or as far as I know those are unique.  
20 They may not be. I would at least suggest that for consideration. I don't know if  
21 you want to comment or not.

1 MR. VIRGILIO: We'll take that on board as a suggestion, but Brian  
2 and I have had many discussions. He might even want to add. Oftentimes we're  
3 approached by our counterparts who want to continue to fund facilities for which  
4 we see no future need at all. There's the rub.

5 COMMISSIONER LYONS: I'm sure that's a very delicate balance.

6 MR. VIRGILIO: We agree with what you're suggesting particularly  
7 given the benefits that it provides us and the fact of not having to spend the  
8 resources here if we can get it and leverage it from somewhere else.

9 COMMISSIONER LYONS: Again, back to your 4 to 40. That's an  
10 impressive number.

11 MR. VIRGILIO: Yes. Thank you.

12 COMMISSIONER LYONS: One last question for you, Margie. You  
13 mentioned substantial staff turnover. Are you using the rehired annuitant  
14 approach? And if you are, I'm curious how you're using those individuals to try to  
15 build the skills through knowledge management of the new staff that you have.

16 MS. DOANE: Give me an opportunity to plug. We are using that and  
17 especially for our agreements program. Donna Chenier is probably in the  
18 audience and Donna was one of the primary advocates -- not advocates, but she  
19 developed this program with the Department of State and with our Office of the  
20 General Counsel. What happened over a series of just a couple of years  
21 everyone retired, including Donna; at the Department of State, in the Office of the

1 General Counsel, and in the Office of International Programs.

2 The agreements, as you can imagine, this is very complex because it's not  
3 just a cooperative arrangement. These things have foreign-policy implications as  
4 you know. This is very complicated and she delicately negotiated a lot of these  
5 agreements. Some of her insights aren't on paper, as you can imagine. So we  
6 were very lucky to have Donna, one of the few experts in this area, stay on with us  
7 and I hope she will continue as long as we can because what she's doing is she is  
8 training our new hired staff that have taken over the program.

9 But like I said, there are so many nuances to the program that it will take  
10 many years to really understand this as thoroughly as we might. So she's a huge  
11 benefit to us in that respect.

12 The other thing is what we are doing to expedite it though, just in case  
13 Donna wants to move on or we think there are other activities within the office that  
14 need to be done, Donna is also putting documents together for knowledge transfer  
15 and we're also trying to organize the data bases or the data into databases so that  
16 we can retrieve the information that's linked to different arrangements. So we are  
17 using it definitely for our arrangement program.

18 We're also for assistance because our assistance program -- like we said  
19 we're going to get this infusion if we do. That's a tremendous increase for us and  
20 the administrative burden is difficult. We're going to keep another retired -- if the  
21 person retires, so I won't mention her name, but we would like her to stay on if she

1 does retire because we can use her to help us set up the contracting for that  
2 program and to help a new hire and we do have a new hire slot for that position as  
3 well. She would work with that person as we go along.

4 We are using it, but we did not expect to have as significant a turnover as  
5 we did as quickly as we did.

6 COMMISSIONER LYONS: I'm glad you're using the program and  
7 just in general as you described using rehired annuitants in a knowledge  
8 management framework to build the next generation of experts I think is very, very  
9 appropriate. Thank you.

10 CHAIRMAN KLEIN: I don't have another question, but just a  
11 comment following up on Commissioner Jaczko's notification of things other than  
12 reactors. I think that's probably an area that will be expanding. It's not clear how  
13 GNEP will proceed, but clearly with budget constraints that we have and the  
14 technical knowledge that other countries have, I see a sharing of information  
15 resources and I see that area growing.

16 Again, we don't know how it will grow. But if you look at the numbers for  
17 DOE's GNEP budget, it's not likely that will be achieved. So they will have to  
18 leverage resources of other countries and also common approaches in the future  
19 for things like recycling.

20 Clearly, if you look at the progress Sweden and Finland have made on  
21 waste disposal and you look at some capacity at both La Hague and Sellafield that



1 it's likely that GNEP could interface with those facilities in existence. So I see that  
2 as an expanding area. Commissioner Jaczko?

3 COMMISSIONER JACZKO: I don't have any more questions.

4 CHAIRMAN KLEIN: Thank you very much for a very important and  
5 informative presentation. I noticed that you said you of a small program and it's  
6 only 2% of the budget, but it's a very important program. What's interesting, not  
7 only the technical exchange that we have, but it also has a diplomatic flavor to it  
8 because it puts a face on our program and nuclear facilities worldwide. So what  
9 you do is very important, even though it is 2% of the budget, it's a very important  
10 2%, so thank you very much. Meeting is adjourned.