

NUCLEAR REGULATORY COMMISSION

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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COMMISSIONERS MEETING

BRIEFING ON INTERNATIONAL ACTIVITIES

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TUESDAY

AUGUST 14, 2001

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ROCKVILLE, MARYLAND

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The Nuclear Regulatory Commission met at the Nuclear Regulatory Commission, One White Flint North, Commissioners' Conference Room, 11545 Rockville Pike, at 9:33 a.m., DR. RICHARD MESERVE, Chairman, presiding.

COMMISSION MEMBERS:

- DR. RICHARD MESERVE, Chairman
- DR. GRETA J. DICUS, Member
- MR. JEFFREY S. MERRIFIELD, Member
- DR. EDWARD MCGAFFIGAN, JR., Member

COMMISSION STAFF:

- KAREN D. CYR, ESQ., General Counsel
- ANNETTE L. VIETTI-COOK, Secretary

1 NRC INTERNATIONAL ACTIVITIES STAFF PRESENT:

2 MS. JANICE DUNN LEE, Director, OIP

3 MR. SAMUEL COLLINS, Director, NRR

4 MR. ASHOK THADANI, Director, RES

5 DR. WILLIAM TRAVERS, Director, EDO

6 MARTIN VIRGILIO, Director, NMSS

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I-N-D-E-X

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

(9:30 a.m.)

1
2
3 CHAIRMAN MESERVE: Good morning. This
4 morning is the first of our annual briefings on
5 various of the NRC's arena activities, and this
6 briefing today will focus on our international
7 activities.

8 As I think everyone in the room knows that
9 the international activities are ones that are of --
10 are ones that provide a great advantage to the NRC,
11 and further the advancement of our mission, and enable
12 us to provide health and safety information and
13 assistance to other countries.

14 And which enhances global nuclear
15 security. They enable us to leverage research dollars
16 and programs through joint cooperative activities.
17 They enable us to keep abreast of regulatory
18 activities abroad, which could impact and improve the
19 U.S. program.

20 And, of course, they also provide us with
21 an access to information and data, and people who are
22 abroad who can provide insight into our own reactors
23 that would be helpful to us in fulfilling our
24 regulatory mission.

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1 So although this is not a very expensive
2 program for the NRC, it is one that is of singular
3 importance to us. The Commission has spent some time
4 over the last year in looking how we are performing in
5 the international area, and has worked with the staff
6 on various administrative and organizational
7 activities, which I think reflects the significance
8 that we attach to the area.

9 And we much look forward to your briefing
10 this morning. Let me turn to my colleagues and see if
11 they have any opening comments to make.

12 COMMISSIONER DICUS: No.

13 CHAIRMAN MESERVE: If not, you may
14 proceed.

15 MS. LEE: Thank you. Chairman Meserve and
16 Members of the Commission, I am pleased to be here
17 today for the third annual international activities
18 briefing to the Commission.

19 We have had a year marked by significant
20 change in the conduct of our international programs.
21 This is largely a result of demonstrated interest on
22 the part of the Commission.

23 You have clearly expressed your
24 expectations for the outcome of our international

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1 programs, and we are slowing, but surely, rising to
2 this challenge.

3 In preparation for this briefing, I have
4 had the occasion to reflect positively on
5 accomplishments of the past year, several of which
6 will be highlighted today, and also take note of the
7 challenges that lie ahead.

8 While much of what we do is familiar, the
9 ways in which we do them is different. We are
10 thinking more broadly about why we do international
11 activities; who is conducting them; what benefits the
12 activities bring to the Commission; what manner in
13 which the activities are conducted, and how we report
14 these activities to the Commission.

15 The goal is to have a more structured and
16 integrated program, a more knowledgeable and sensitive
17 staff, and a more informed and involved Commission.
18 We are making progress.

19 I am pleased to have at the table with me
20 the EDO and representatives of the major program
21 offices which support and conduct the agency's
22 international activities.

23 With me are Dr. William Travers, Executive
24 Director for Operations; Mr. Ashok Thadani, Director,
25 Office of Nuclear Regulatory Research; Mr. Samuel

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1 Collins, Director, Office of Nuclear Reactor
2 Regulation; and Mr. Martin Virgillo, Director, Office
3 of Nuclear Material, Safety, and Safeguards.

4 This year's annual briefing will not be a
5 tutorial about what NRC does in the international
6 arena. It will not be about the goals and strategies
7 of our strategic plan, and why we perform
8 international activities. You are already very
9 familiar with them.

10 I am going to focus on the changes that
11 have occurred in the conduct of our activities, and
12 why these changes have occurred. I will also address
13 communication efforts which have contributed to these
14 changes.

15 You will hear from my colleagues, and
16 their presentations will be focused on several key
17 sample activities which their offices have been
18 involved over the past year; what was accomplished;
19 how did it benefit the NRC; did others benefit; what
20 are the challenges that lie ahead in carrying out
21 their international programmatic responsibilities.
22 So if there are no immediate questions, I will
23 proceed.

24 We cover a wide range of important
25 activities in the international nuclear safety support

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1 arena. I have divided them into four major categories
2 before you. We license U.S. exports and imports of
3 nuclear materials and equipment, and we help implement
4 U.S. legal commitments.

5 These include the nuclear non-
6 proliferation treaty, U.S. bilateral agreements for
7 cooperation, U.S. agreements with the International
8 Atomic Energy Agency, and a whole host of conventions
9 which I will note later.

10 We also helped to implement NRC's
11 regulatory information and general cooperation
12 arrangements with safety agencies of some 35 countries
13 and Taiwan.

14 We support nuclear safety and safeguards
15 assistance to Russia, Ukraine, and others, and we
16 implement NRC's nuclear safety research agreements and
17 contracts with agencies and institutes of other
18 countries.

19 The technical information exchange and
20 cooperative safety research activities directly
21 support and enhance the domestic program. The safety
22 assistance and non-proliferation support activities
23 are more externally focused.

24 We play a significant role in these
25 because of our technical expertise, and because of our

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1 independence from the executive branch. All of our
2 international activities are aligned with our
3 strategic goal, which is to support U.S. interests in
4 the safe and secure use of nuclear materials and in
5 nuclear non-proliferation.

6 I would be remiss if I did not start my
7 presentation without noting our first and foremost
8 responsibility in the export and import licensing
9 area. This is a statutorily mandated activity.

10 We have had a productive year in the
11 review of license applications, and I would like to
12 spend a moment and highlight some of the major cases
13 which the Commission has reviewed this past year.

14 These include exports of ATU to The
15 Netherlands and Canada, a first-time export of
16 material to the Ukraine under the new agreement for
17 cooperation; exports of LEU to Japan for the Fugan
18 advance reactor; component licenses to Australia for
19 the Silex enrichment experiments; and a component
20 license to China for a field fabrication facility.

21 Why do we do international work. This
22 slide attempts to define some of the reasons. We
23 derive many benefits from our work in international
24 activities. We improve the quality and effectiveness
25 of nuclear safety regulation in the U.S.

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1 We influence international and nuclear
2 safety, and safeguards recommendations and
3 requirements. We enhance nuclear regulation abroad,
4 and we straighten relations with national and
5 international partners.

6 We conduct our international work in a
7 variety of forums. Many of our important exchanges
8 are conducted one-on-one. This covers visits here and
9 abroad for individual Commissioners, and includes
10 regular staff exchanges.

11 The Office of Nuclear Reactor Regulation
12 has routine annual bilateral meetings, which they will
13 discuss in more detail. The Office of Nuclear
14 Regulatory Research has numerous bilateral research
15 exchanges.

16 They also participate -- we also
17 participate in a variety of government-to-government
18 exchanges, and in response to a recent Commission
19 directive, we are beginning to organize a tri-lateral
20 initiative with our neighbors in Canada and Mexico.

21 Our first meeting will focus on materials
22 issues, including lost sources and devices, and will
23 occur sometime around the first of the year.

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1 This year the NRC has hosted seven foreign
2 assignees from France, Japan, The Philippines, South
3 Korea, Switzerland, Turkey, and the United Kingdom.

4 And in response to Commission interest, we
5 had the opportunity to send two senior staff abroad on
6 short-term assignments to France and Switzerland.

7 These assignments had a duration of three
8 months or less, and were arranged to gain regulatory
9 experience in MOX utilization and probabilistic risk
10 assessment. My colleagues will speak more directly to
11 several of these assignments.

12 Let me note that our foreign assignees
13 continue to benefit from their experiences here at the
14 NRC. I think many of them are sitting in the audience
15 today, the ones that are here.

16 One recent assignee from China, who spent
17 a year with us working in the area of events
18 assessment, returned to a very senior level position
19 in the National Nuclear Safety Administration, which
20 is China's regulatory body.

21 The assignee program is an excellent
22 mechanism for developing top quality and long lasting
23 relationships with key personnel in foreign regulatory
24 agencies.

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1 A large part of our international work is
2 focused on receiving foreign visitors, many with our
3 bilateral partner countries, and many from those
4 countries where we have safety assistance programs,
5 and many from heads and senior staff of international
6 nuclear organizations.

7 In the last year, we have received about
8 a hundred foreign visits, and this number is fairly
9 consistent from year to year. I would like to note
10 that these visits require significant staff time for
11 planning and preparation, as well as actual
12 implementation.

13 We work with embassy staff on logistical
14 arrangements, and commission, and EDO staff in
15 development of agendas and discussion topics. Visits
16 often require coordination with regional offices,
17 including State and local officials.

18 We have had increasing interest in foreign
19 participation in emergency planning exercises, and
20 operational safety response evaluation exercises.

21 This year, we hosted individuals from
22 China, Spain, and Japan at a recent emergency planning
23 exercise, and we plan to receive individuals later
24 this fall from Mexico and Brazil.

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1 The Nuclear Energy Agency and the
2 International Atomic Energy Agency, are two primary
3 multilateral organizations where the NRC plays a
4 significant role.

5 Let me speak first about the NEA, where we
6 have lots of management and technical staff
7 involvement. The NEA is an organization of
8 committees, and several NRC senior staff -- in fact,
9 two at this table -- occupy leadership positions in
10 committees, with most relevance to NRC.

11 They will be highlighting some of their
12 committee work this year. In addition, and in
13 response to Commission directive, we are developing an
14 annual report to the Commission which will include the
15 progress and status of work in individual committees
16 in the NEA and the IAEA.

17 The next slide attempts to capture some of
18 the work that is of interest to the NRC. As you can
19 tell, the work is wide and varied. NEA's program of
20 work is highly focused, and areas of particular
21 strength includes safety and regulation, waste
22 management, law, and liability, and economic aspects.

23 The homogeneity of NEA membership makes
24 possible a like-minded approach to problems, a climate

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1 for collaboration, the full exchange of experience,
2 and frank assessments of issues.

3 By pooling expertise of members, the NEA
4 provides each access to substantial R&D effort and
5 experience of other member countries. Moving on to
6 the IAEA. We also have a lead role on a wide range of
7 activities in connection to the International Atomic
8 Energy Agency.

9 The program of work is broader than the
10 NEA as it includes safeguards, physical security, and
11 assistance to developing countries. While the NRC has
12 both safety and safeguard interests in the IAEA, it
13 has a vested resource in the coordination of
14 activities supported by the nuclear safety attache
15 position at the U.S. Mission in Vienna.

16 Jim Blaha, our current and third nuclear
17 safety attache, plays a key role in coordinating U.S.
18 policy regarding nuclear safety, technical
19 cooperation, staffing, and budgetary issues.

20 NRC participates in several safety
21 services provided by the IAEA Department of Nuclear
22 Safety. These include OSARTs, IRRTs, and IPPAS
23 missions. I have listed those countries where NRC
24 participated in individual missions.

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1 And in response to the Commission
2 direction the conduct of these activities is closely
3 coordinated, not just with the IAEA, but among NRC
4 staff. In particular, in the Office of International
5 Programs, we are playing a more active role in
6 providing general country information, and
7 familiarization with the purpose and process of these
8 safety missions.

9 The NRC participates in a number of
10 advisory and support committees of the IAEA. In our
11 planned annual report to the Commission, we will
12 attempt to identify not only the topics, but the cycle
13 or process to accomplish the work, whether it be
14 standard setting, action plans, and overall
15 developmental activities.

16 A major area of work of primary interest
17 to NRC includes the subject of clearance. We have had
18 high level participation by the NRC staff, including
19 Commissioner Dicus, on this subject.

20 NRC participation is critical at this
21 initial phase of planning for international clearance
22 criteria. There are considerable challenges facing
23 the IAEA today dealing with budgets and staffing, and
24 in general doing more with less.

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1 Because there has been no increase in the
2 U.S. contribution to the IAEA budget, and none in the
3 foreseeable future, it leaves the matter of
4 prioritization all the more important.

5 We are actively considering the staffing
6 of key positions at the IAEA with U.S. individuals,
7 and we judiciously review activities related to safety
8 and safeguards through the various subcommittees
9 chaired by the NRC staff.

10 In addition, we are mindful of the need to
11 avoid duplication of effort between the IAEA and the
12 NEA, and they are making some strides in early
13 identification of potential for duplication.

14 The next slide lists some conventions
15 which are administered by the IAEA, in which the U.S.
16 is involved, and the NRC has some supporting roles.
17 The NRC, of course, has the lead for the convention on
18 nuclear safety, and we are currently engaged in
19 developing the U.S. national report.

20 An organizational meeting is coming up in
21 September, where the details of the next review
22 meeting will take place. At that time the country
23 groupings will be proposed and procedures and
24 expectations will be discussed.

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1 This will be our first time to be a full
2 player in this activity. We will report the results
3 of the September meeting and propose a course of
4 action to the Commission for the April 2002 review
5 meeting. This will include representation and
6 resources necessary to support U.S. participation.

7 Moving on to talk about our assistance to
8 the former Soviet Union and Central and Eastern Europe
9 countries, we have been involved in this program since
10 1992, and we have seen a number of changes occur
11 through the past 10 years, and are at a crossroads
12 with some.

13 In Russia, we are entering a period of
14 significant change. Russian first-generation reactors
15 are soon to expire, and not unexpectedly the Russians
16 are starting to look at the issue of plant life
17 extension.

18 This has been a serious issue for the
19 G-7, and it has been our policy, as it has been our
20 policy not to work on life extension issues,
21 particularly for the RBMK reactors.

22 We have seen a year of turmoil for
23 Gozatomnadzur, the Russian regular, with proposed
24 legislation that could strip them of their licensing

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1 authority. That issue has subsided for the moment,
2 due in large part to pressure from the West.

3 We have also seen a significant proposal
4 from Russia for the import of spent fuel for
5 reprocessing, and/or disposal. This creates policy
6 issues which are being reviewed by the executive
7 branch.

8 In the Ukraine, many important activities
9 are planned or are under way, including Chernobyl
10 closure, and the shelter implementation plan,
11 completion of two new reactors, the R4 and K2, and the
12 safe operation of 13 existing commercial reactors.
13 This is a huge burden to place on a regulatory
14 organization of approximately 75 people.

15 As I noted earlier, this has been a year
16 of significant change for the Commission itself in its
17 interests and involvement in international activities.
18 You challenged us in the conduct of our activities.

19 You posed five questions which form the
20 basis for structure and reform in carrying out our
21 program. Earlier this year, you asked what is the
22 basis for individual international activities,
23 including travel.

24 How are individuals selected to
25 participate in these activities. What kinds of

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1 guidance are provided to individuals in the conduct of
2 their international work.

3 How is the Commission brought into the
4 development of agency positions; and what is the
5 outcome, and how is that conveyed to others, including
6 the Commission.

7 We and the staff have taken these
8 questions to heart. I can assure you that each
9 program office is working on process and procedures
10 that require thought and discipline to our
11 international work. It is not business as usual.

12 We are attempting to standardize
13 notification and reporting requirements, and even
14 selection criteria for individuals designated to carry
15 out our international activities.

16 We are mindful of the need for a
17 Commission engagement before and after major
18 activities are conducted. We are developing guidance
19 to managers to impart clear understanding of issues,
20 agency positions, and policy implications, of actions
21 for individuals representing NRC.

22 We are emphasizing the need for trip
23 reports to be crisp, high quality, and timely.
24 Distribution issues are being sorted out in the Office
25 of International Programs.

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1 And we have established a set of
2 procedures for incoming trip reports, distribution to
3 desk officers for review and comment, and
4 recommendations, and as a result, desk officers are
5 more informed about staff activities, and can in-turn
6 be helpful to travelers and to Commissioners.

7 NRC's international activities span the
8 agency. Because of this, a critical element to our
9 success is how well we are able to integrate and
10 harmonize our activities.

11 A key to this is communications, and this
12 has been the current buzz word in the Commission for
13 the recent months. We are already seeing the results
14 of approved communications with the Commission and the
15 EDO among offices, within staff, and between agencies.

16 An example of our efforts to enhance
17 communications with our stakeholders is the attached
18 list of abbreviations and acronyms included in this
19 briefing package.

20 As the Director of the Office of
21 International Programs, I organized efforts to
22 establish the international council as a forum for NRC
23 senior managers to communicate on issues related to
24 international activities.

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1 We have been meeting quarterly, and the
2 goal is to maintain a focused, integrated program for
3 the Commission. In addition to my periodic meetings
4 with individual Commissioners and the EDO, I am now
5 meeting periodically with individual program office
6 directors, where we can discuss directly issues
7 impacting their immediate programs.

8 I am pleased to note that the staff has
9 been in more frequent contact with myself and my
10 staff, where they seek guidance and consultation on
11 how best to proceed on international issues.

12 I believe that the record demonstrates
13 this. The paper flow has increased in recent months,
14 and I believe that the staff and the Commission are
15 more connected to our international work.

16 My last slide depicts the crossroads that
17 lay ahead for us in the international area. Several
18 of the topics, such as the DPRK safety cooperation,
19 and future Russian activities, have been the subject
20 of major reevaluations by the new administration.

21 We look to the results of these to help us
22 in our decision-making process. Certainly the
23 interest in the non-white water reactor technology has
24 international ramifications.

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1 The pebble bed modular reactor design has
2 turned our staff in the directions of South Africa,
3 China, Germany, and the U.K., for information and
4 experience.

5 Will future relations with India and
6 Pakistan include possible nuclear safety discussions,
7 and on what basis, two questions of interest to the
8 NRC.

9 IAEA safeguards represents another
10 challenge as we delve further into the work of
11 integrated safeguards. Our challenge here is melting
12 traditional methods with new approaches. Can we do
13 this and maintain the necessary confidence that no
14 theft or diversion of materials has occurred in
15 countries of concern.

16 Nuclear waste disposal is another area
17 with wide international interests, and then like
18 others, I, too, face the challenge of an aging staff.

19 In my small office of 25, seven
20 individuals, including myself, are eligible for
21 retirement in the next five years. I am concerned,
22 and we are addressing this issue now with an action
23 plan to hire the next generation of desk and licensing
24 officers.

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1 Well, this concludes my portion of the
2 briefing. I am pleased to answer any pressing
3 questions before I turn to my colleagues for their
4 presentations, but I ask otherwise that you hold your
5 questions until the end.

6 We have about 45 minutes set aside to
7 answer you in full, and if there are no questions, I
8 would like to turn the briefing over now to Dr.
9 Travers.

10 DR. TRAVERS: Thanks, Janice. I will be
11 brief, but I would like to reinforce the message that
12 we are working within the staff, and certainly with
13 the Office of International Programs to enhance the
14 integration and the effectiveness of our international
15 activities.

16 And to better ensure that the program is
17 in fact structured to be fully consistent with our
18 strategic goals as they are outlined in the strategic
19 plan.

20 Janice mentioned the international
21 council, and I would have to say that I am
22 particularly pleased with the formation of that
23 relatively new entity, and I think it has been -- and
24 hopefully will continue to be -- an effective
25 mechanism for helping us to integrate, coordinate, and

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1 be fully consistent across program offices, in the
2 context of carrying out our international activities.

3 I think from what you are going to hear
4 from the office directors is that that is paying off.
5 It is paying dividends as we move forward. And we are
6 going to continue to look for opportunities to make
7 that part of how we do business, and assure the sort
8 of consistency and response to international
9 activities that the Commission has tasked us recently
10 to do.

11 So, with that brief intro, let me turn to
12 Ashok, who is going to talk about the Office of
13 Research and Activities.

14 MR. THADANI: Thank you, Bill. Good
15 morning. May I have chart number 17, please. My
16 focus will be on the value of international program
17 and the outlook for future interactions received by
18 the international community.

19 International cooperation is not only
20 desirable, but it is necessary for the Office of
21 Nuclear Regulatory Research to be effective and
22 efficient. Efficiency is achieved by sharing costs
23 with other countries to develop information on issues
24 of mutual interest.

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1 Effectiveness is enhanced through access
2 to facilities and world-class expertise that might not
3 be available otherwise; through a sharing of
4 experience, and better understanding of safety
5 concerns, and the needed technical foundation to
6 address those concerns. Next viewgraph, please.

7 We have continued to expand our
8 cooperation with domestic and international
9 organizations, and with international organizations in
10 1999, we had 64 agreements. In 2000, we had 78
11 agreements, and now we have 88 bilateral or
12 multilateral agreements.

13 Research management and staff are active
14 participants in OECD, U.N., and IAEA activities. We
15 are particularly active in the CSNI, the Committee for
16 Safety of Nuclear Installation of a Nuclear Energy
17 Agency.

18 Their work, which includes six major
19 working groups, covering all aspects of safety, from
20 physics, fuels, thermohydraulics, severe accidents,
21 components, structural integrity, risk assessment,
22 human factors, and evaluation of operational
23 experience.

24 CSNI also provides an excellent platform
25 for international cooperation. Currently, we are

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1 participating in eight research programs that are
2 coordinated by the Committee for Safety of Nuclear
3 Installations.

4 At research, we have three assignees
5 currently; one from Switzerland, one from France, and
6 one from Taiwan. And we are expecting one more to
7 join us from Korea later this month. Next chart,
8 please.

9 This chart shows you really the scope, the
10 rather broad scope of the types of international
11 agreements and arrangements that we have. I believe
12 it covers all aspects of safety. Next chart, please.

13 Let me say a few words about some of the
14 recent outcomes that have been invaluable to us in our
15 activities. These are just some examples. There are
16 many other areas as well.

17 Code application and maintenance programs,
18 there are 23 countries that participate in this
19 program. It leads each country to exercise thermal
20 hydraulic codes in a wide range of conditions, and
21 these codes are assessed against a much broader
22 dataset.

23 This results in improvements, as well as
24 leads to more accurate calculational capability. And
25 that is particular important as we move more and more

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1 towards realistic analysis of transients and
2 accidents, which is then used in terms of risk-
3 informing regulations, such as pressurized thermal
4 shock and the DCCS requirements.

5 The environmental effects program provides
6 expanded database and better analytical models. The
7 information on cracking data and crack initiation
8 growth, as well as interactions with the international
9 experts, were in fact used in evaluating recent cracks
10 in piping at V.C. Summer, as well as the cracking
11 observed in the vessel head penetrations.

12 The international group on radiation
13 damage mechanisms, this is an area where we
14 participate through a work-in-kind arrangement, and
15 information gained from this program has been very
16 helpful to us to better model the embrittlement of a
17 reactor pressure vessel, which has been subsequently
18 used assessing the capability of the vessel to
19 withstand thermal shock.

20 Severe accident research program and fuels
21 work have similarly provided important safety
22 information. In fact, all severe accident test
23 programs are conducted entirely through international
24 cooperation.

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1 One of the programs, the lower head
2 failure program, which generates data to understand
3 impact on containment integrity, will be sunset at the
4 end of this year. Next chart, please.

5 As I look ahead, I see increasing value in
6 continuing to participate in international activities.
7 Over 80 percent of the reactors worldwide are based on
8 U.S. light water reactor technology.

9 So it is not surprising that many safety
10 issues are similar, and sharing costs and using
11 worldwide expertise will continue to be important to
12 us.

13 I want to emphasize particularly that it
14 is critical to us to maintain the interaction with
15 various experts in different technical disciplines
16 across the world and that benefits us greatly. Next
17 chart, please.

18 Again, as we look ahead, certainly we are
19 going to increase our cooperation and networking, and
20 this chart lists some of the areas where we are going
21 to be increasing our interaction with the
22 international community. Next chart, please.

23 But having said that, nevertheless, there
24 are some significant challenges that do lie ahead.
25 The issue of availability of facilities and nuclear

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1 education remain as significant concerns. Recent CSNI
2 study have systematically looked at facilities and
3 programs at risk, and in fact I have a copy of that
4 report here.

5 This is a particularly important report in
6 my view, because it is going to require continuing
7 attention and focus from us to look at the facilities
8 which may be at risk of being shut down, and the
9 potential implication of non-availability of those
10 facilities.

11 And I believe that CSNI provides the
12 appropriate focus and platform for us to debate and
13 address some of these issues. The next slide is major
14 challenges to organize advanced reactors, particularly
15 the GASCO (phonetic) technology international research
16 program.

17 The Commission, in its staff requirements
18 memorandum, recommended that the staff should consider
19 an integrated international research program with
20 respect to gas reactors that would reduce costs,
21 leverage facilities in various countries, and get
22 information in a more timely fashion.

23 The staff have been visiting countries
24 which have been or which are active in the high
25 temperature gas cooled technology. The purpose of the

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1 trips has been mostly information gathering regarding
2 safety and technology issues, as well as the available
3 capability in those countries.

4 We are currently forming an international
5 experts group. It includes the countries that Janice
6 mentioned, and in addition to the four countries, we
7 expect participation from Russia, Japan, IAEA, and the
8 European Union as well.

9 We are planning a meeting in Washington
10 with this expert group from the international
11 community, as well as those experts in this country,
12 in early October.

13 And they will be here in Washington. The
14 idea is to identify important safety issues, ongoing
15 research, and any necessary additional research. We
16 intend to establish bilateral agreements where
17 appropriate to join ongoing research programs.

18 And we expect to utilize CSNI also to
19 organize multilateral cooperative research, if that is
20 necessary. CSNI is planning to hold a workshop in
21 early 2002 on high temperature gas cooled technology.

22 And we have also initiated a dialogue with
23 IAEA to participate in activities related to high
24 temperature gas cooled reactors. Finally, there
25 remains a continuing challenge to enhance cooperation

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1 among different international organizations, and that
2 briefly summarizes some of the ongoing activities, and
3 the future direction.

4 Next, Sam will cover the NRR activities.

5 MR. COLLINS: Good morning, Chairman, and
6 Commissioners. My goal in the next 10 minutes with
7 eight slides is to overview the scope of international
8 activities, giving specific examples on where we focus
9 our resources, and why, and what the return on the
10 investment is.

11 To be responsive to the Commission
12 direction, as far as refining our procedures and
13 process, and our coordination in measuring our
14 outcomes.

15 The NRR role and activities, as aligned
16 with the strategic plan, not only with the reactor
17 safety arena, but also with the international program
18 arena.

19 As Ashok mentioned, there is approximately
20 350 nuclear reactors operating outside the U.S., and
21 at any particular point in time there is three times
22 as much operating experience occurring outside the
23 geographic borders of the United States as there is
24 internally, and we have to tap that as a resource.

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1 We presently have four FTE in our budget
2 for international activities. We are spending a
3 little above that rate on the third quarter operating
4 report. They are broken down into three FTE direct
5 support, one indirect, which is our international
6 coordinator; and we have a maximum of two FTE, which
7 is dedicated towards reimbursable, Russia and the
8 Ukraine.

9 And that is broken out into meeting
10 supporting, mission support, international assignees,
11 documentation of reviews, and support to OIP on
12 assistance activities.

13 I am going to cover the NRR topics as
14 listed on slide 26, and I am going to focus on the
15 bilateral technical exchanges, because we believe as
16 far as a return on the investment, that is our primary
17 achievement.

18 As far as multilateral working groups is
19 concerned, we focus primarily on the formal group of
20 the CRNA, which is a subset of the NEA activities that
21 Ashok mentioned.

22 And right now we are focusing on
23 inspection practices as the formal working group. We
24 have many tasking groups which are less formal, and
25 which we use to provide for the development of

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1 activities, and if necessary, they are formalized into
2 working groups.

3 Slide 26 talks about the focused bilateral
4 technical exchanges, and again I think that is the
5 best example of where we spend our resources. In
6 France, we begin with MOX fuel license renewal, safety
7 impact, and economic deregulation, which are currently
8 challenges for the European Union.

9 In many of these instances that I will
10 mention, similar to a Ashok's experience in research,
11 it is a two-way street so to speak. Not only do we
12 gain from the international experience, but we spend
13 a good part of our time also sharing U.S. experience.

14 And in some cases at least our programs
15 are looked at for adoption into international
16 activities, particularly in the revised oversight
17 process, measuring of plant performance, and then our
18 business practices within the NRC.

19 The best example in China, I believe, in
20 concert with our partners in research, looking at the
21 PBMR, we have been able to obtain the SAR or SER for
22 the 10 megawatt PBMR, and that currently has been
23 translated into English, and we are undergoing a quick
24 look review of that product, not only to aid our
25 partners in China on the scope and content of that

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1 document, but also to facilitate the assessment of the
2 proposed design for the United States.

3 In Taiwan, one of the important benefits
4 for us is the use of the regulatory division of the
5 regulator to support the NRC's standard review plan,
6 Chapter 7, on digital INC, for reviewing acceptance of
7 the Lungman (phonetic) INC system.

8 So we actually have an application of an
9 NRC regulatory review product in a proofing sense with
10 our partners in Taiwan. And South Korea, as you know,
11 the standard plan in South Korea is a CE System A
12 Plus, and they are very interested in a revised
13 oversight program, as well as our inspection programs.

14 And in Finland, they have a very
15 aggressive program for performance indicators, and
16 they also are looking closely at the accident sequence
17 precursor analysis that our partners in the Office of
18 Research perform for the NRC, and we are sharing our
19 experience in that regard.

20 The U.K. regulatory self-assessment,
21 including business practices, is a very specific topic
22 that we are focusing on with our partners in NII, and
23 in Japan, we are continuing with license renewal,
24 accident management, and security and safeguards.

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1 We have initiatives over the past two
2 years to increase our exchange with our Canadian
3 counterparts to the north, and also with our Mexican
4 counterparts to the south, including acknowledging the
5 role that regions play in that part, and including
6 regions in the exchange.

7 Slide 28. To get into the multilateral
8 missions, these are of course broader in context, and
9 tend to operate at a little higher level. I mentioned
10 NEA, which is the Committee on Nuclear Regulatory
11 Activities, which compliments our partners in
12 research, and we do exchange information.

13 And typically at every meeting, we have a
14 presentation by the complimentary group to ensure that
15 the activities of the CSNI and the SNRA are
16 coordinated.

17 As was mentioned by Janus, we are very
18 conscious of overlap between IAEA and NEA activities.
19 Rick Newhouse, from the IAEA, attends every CNRA
20 meeting, and represents the product line for IAEA, and
21 we engage him typically off-line to ensure that what
22 is being proposed by CNRA is not duplicative of an
23 IAEA initiative, and he is very cooperative in that
24 sense.

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1 In IAEA, we look at specific missions, and
2 those run the alphabet soup as you know, from OSARTs,
3 the IRRT, and the asset missions. We contribute
4 directly to those by providing staff, and that is
5 coordinated through the organization itself, in
6 concert with the Office of International programs and
7 through Bill as the EDO, and the arena managers to
8 ensure that we have qualified individuals, and we are
9 providing the balance between supporting NRC programs
10 and the expertise and experience that is afforded by
11 the international missions.

12 Additionally, the Convention on Nuclear
13 Safety is primary lead responsibility of the Office of
14 Nuclear Reactor Regulation, and that report as you
15 know is in draft, and is being commented on.

16 And the next slide, Slide 29, is a more
17 specific breakdown of CNRA activities. There are a
18 number of outcomes that I would like to mention. We
19 do have specific outcomes that are published for the
20 international community, to be utilized by developing
21 countries, which is primarily the focus of CNRA.

22 And those include many issues that are
23 also of interest to the NRC, such as promoting and
24 evaluating safety culture, regulatory response
25 strategies for safety culture, and improving nuclear

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1 regulatory effectiveness, the inspection program as I
2 mentioned, and also we have a performance indicator
3 initiative, taking advantage of international
4 experience in that area.

5 As far as the focus program areas, we are
6 working with our counterparts in countries to look at
7 regulatory self-assessment. The United Kingdom,
8 Switzerland, and Canada, are particularly aggressive
9 in these areas.

10 As Janice mentioned, we did have the
11 opportunity for a manager from NRR to participate in
12 a three month exchange with our counterparts in
13 Switzerland, HSK Regulator.

14 That exchange focused on the understanding
15 of the regulatory review team, which is a part of the
16 IAEA initiatives, which is a review of the regulator
17 and the effectiveness of the regulator.

18 On the regulatory processes in
19 Switzerland, which are -- the processes are very risk-
20 informed, and they are steeped in the cutting edge
21 aspect of the regulatory process. In fact, their
22 statutory mandate is to use the latest design, state
23 of the art, in regulating their power plants.

24 Also, in PSA applications, each plant in
25 Switzerland has a specific PSA, not only that is

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1 originated by the operator, but the regulator also has
2 a stand-alone independent PSA performed for each
3 plant.

4 In the U.K., we are exchanging information
5 on Part 52 PSA applications for the industry in the
6 U.K., and as you know, the Sizewell
7 plant is of particular interest to us, and we have had
8 many exchanges during the construction, start-up, and
9 operation of that plant.

10 And they are moving ahead with the U.S.
11 type of technical specifications, and we are
12 cooperating with risk-informing of those technical
13 specifications.

14 Canada also is going through regulatory
15 transitions, much like the United States, looking at
16 self-assessments, international standards, and
17 conducting business processes as a regulator.

18 The next slide continues to focused
19 program areas. I mentioned China and the PBMR. We
20 are cooperating with research on the trips to China to
21 ensure that we don't duplicate the technical exchanges
22 and the regulatory overview.

23 And I understand Ashok's need to move
24 forward with technical information on the PBMR, and
25 his upcoming trip, which we will participate in and

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1 send a technical individual, while Ashok's staff
2 provides for the lead for the PBMR review in the
3 upcoming months.

4 And, Taiwan, of course, they have the
5 operating advanced boiling water reactor, which is
6 U.S. certified designed, and we are very interested in
7 the operating experience in that plant.

8 And in the United Kingdom, they have
9 experience with HTGR type of reactors, and we have an
10 individual who is currently on staff, and he is here
11 today from the U.K. regulator, who is participating in
12 the pre-certification review of the AP1000 plant.

13
14 As far as the NRC reactor oversight
15 program, there is a continued high level of interest
16 in our use of performance indicators to create
17 regulatory thresholds and regulatory response.

18 And the international community is
19 continuing their close monitoring of that program and
20 our experience. John Johnson, the deputy director of
21 NRR, is on his way this afternoon for an international
22 trip, and one of the primary areas is performance
23 indicators in the revised oversight process.

24 I mentioned the Convention of Nuclear
25 Safety Initiatives. And lastly on Slide 32, let me

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1 break out for you the international assignees. We
2 have 6 to 7 assignees per year, and we limit ourselves
3 to about four assignees at one time.

4 Those assignments range anywhere up to 18
5 months, to a minimum typically of 4 months, and they
6 do range in the topics that are indicated on this
7 slide. So they are very diverse.

8 An example, I think, of the cooperation is
9 where there is currently an individual who spent 7
10 months in NRR, and who is now with the research
11 organization from France, who is actually going a loop
12 program if you will through the NRC.

13 I would like to indicate that this is not
14 what I believe to be an exothermic type of exercise
15 for us. We do gain knowledge from the individuals,
16 and particularly in the case of the reviews that we
17 are receiving on the certification and
18 precertification of some of their plants.

19 The knowledge base that is brought into us
20 adds value to the staff, while exporting if you will
21 an understanding of our regulatory processes. So that
22 concludes my formal presentation, and I would like to
23 turn the microphone over to Marty Virgilio, Office
24 Director of Nuclear Materials and Safeguards.

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1 MR. VIRGILLO: Thank you, Sam. Good
2 morning. NMS supports the agency goals of the safe
3 and secure use of nuclear materials, non-proliferation
4 of nuclear materials, and honoring our treaties, and
5 discharging our international obligations.

6 To accomplish these goals, NMS has
7 identified some specific objectives, and as you turn
8 to the next slide, Slide 34, we list those objectives
9 with regard to international obligations, export
10 licensing, exchange and use of information, and
11 encouraging appropriate standards and policies.

12 The Office of International Programs, and
13 as Janice has already spoken about export licensing,
14 and so in the remainder of the time allotted, I will
15 provide some examples of the activities and
16 accomplishes for the remaining three objectives.

17 And if you will turn to the next slide,
18 Slide 35. NMS is committed to ensuring NRC honors all
19 applicable treaties and faithfully discharges its
20 international obligations.

21 With respect to the implementation of the
22 U.S.-IAEA safeguards agreement, we have made
23 significant progress this year in implementing a
24 unique IAEA safeguards approach at BWXT for a down-

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1 blending operation, which included the resolution of
2 numerous safeguards, implementations, and challenges.

3 On international transportation standards,
4 NRC transportation requirements are embodied in 10 CFR
5 Part 71. This has been approved by the Commission for
6 release for public comment, and will be published in
7 the fall concurrent with DOT's regulations in this
8 area.

9 Our proposed Rule, Part 71, would bring
10 our requirements in compliance with IAEA
11 transportation standards, and promote safe
12 transportation and facilitate international nuclear
13 commerce.

14 With respect to agreements for
15 cooperation, we have made significant progress working
16 with DOE and State on upgrading national nuclear
17 materials information systems to more effectively and
18 efficiently track foreign origin material.

19 This will also reduce unnecessary
20 regulatory burden on the U.S. licensees. And if you
21 turn to the next slide, Slide 36, information
22 exchanges in safeguards information is accomplished in
23 the context of bilateral meetings, and through
24 participation in IAEA and NEA programs.

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1 This chart lists some of the
2 accomplishments resulting from these exchanges, and I
3 will highlight a few for you. In Panama, we
4 participated extensively with IAEA, and were able to
5 obtain timely access to late breaking news of a
6 medical overexposure event that occurred there just
7 several weeks ago.

8 And we were able to share critical
9 information, and learn from this event with the FDA
10 and our licensees as a result of these information
11 exchanges.

12 Regarding high level waste disposal, the
13 NRC staff is participating in the NEA forum on
14 stakeholder confidence with 15 other countries to
15 better understand factors which influence stakeholder
16 confidence related to long term management and
17 disposal of radioactive waste.

18 On MOX fuel fabrication, we have had our
19 MOX fuel fabrication project manager on a 3 month
20 assignment in France gaining detailed understanding of
21 the processes used at Malox and La Hague, and how they
22 would be applicable to licensing a facility here in
23 the United States.

24 Working with the French regulator, he also
25 gained a detailed understanding of the technical

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1 issues associated with those processes and other
2 processes at French facilities.

3 This information, together with a
4 continuing good working relationship that this staff
5 member has established, will facilitate a more
6 efficient and effective review of a MOX fuel
7 fabrication facility here in the United States.

8 His trip report was just recently provided
9 to the Commission. If you would turn to the next
10 slide, please, Slide 37, our accomplishments in
11 international standards, and policies, and procedures.

12 We do encourage appropriate international
13 standards, and policies, and practices, and we
14 accomplish that primarily through our interactions in
15 the IAEA and NEA activities. This chart lists some of
16 the accomplishments resulting from this participation,
17 and I will just touch on a few of them.

18 With regard to recommendations for
19 disposal of long-term radioactive waste, senior
20 representatives from NMSS and research have
21 participated in the international commission on
22 radiation protection, and this contributed to a major
23 update of international guidance on dose constraints
24 associated with high level waste proposals.

25

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1 This background and information helped us
2 in formulating the proposed Part 33 that we have
3 recommended for the Commission as a final standard.
4 With regard to clearance, and Janice mentioned that
5 earlier, the Commission and the Office of the EDO,
6 along with several NMSS and research senior staff
7 members have participated in shaping IAEA efforts, and
8 the international criteria for exemptions for
9 exclusion and for clearance, and for commodities.

10 And with regard to physical protection the
11 NRC staff have participated as part of the U.S.
12 delegation in the international working group and
13 expert group meetings, which have resulted in
14 substantial progress in finding a common ground as to
15 how the physical protection convention might be
16 revised to broaden its scope.

17 I have provided just some examples in the
18 time allocated. There is many more NRC international
19 accomplishments, and although we have participated in
20 numerous international activities, we limit our
21 participation to those that contribute the most to our
22 performance goals and strategies.

23 And I would have to say that that is our
24 challenge, amongst all the opportunities that we have
25 before us, and identifying those that will have the

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1 most impact externally and internally, and deciding
2 how best to participate in those.

3 As Janis mentioned, we are evolving, but
4 we are clearly committed to carefully selecting the
5 staff that we have participating in our international
6 activities, and ensuring that the staff that we select
7 are properly aligned to NRC's objectives.

8 And interacting with the Commission on
9 matters of policy, and factoring the feedback from our
10 international activities into our programs. I believe
11 we have made significant progress in meeting these
12 commitments, and we continue to strive to improve in
13 this area.

14 This completes my portion of this
15 presentation, and I will now turn this back over to
16 Janice.

17 DR. TRAVERS: I mentioned to Janis that I
18 wanted to mention just one quick thing if I may, and
19 that is that it strikes me that we have made reference
20 to the international council on a number of occasions.

21 All of the people at this table
22 participate in that, and so it is a rather senior
23 level group. John Craig, from my office, is a
24 participant as well. So it is comprised of the people

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1 at the table, plus John Craig. And with that, I will
2 turn back over to Janice.

3 MS. LEE: Well, I don't really have much
4 more to add other than to make close to say that I
5 think as we work these issues through -- some are new
6 and some have been around for a while -- we are really
7 seeing the value of international as you have heard
8 from my colleagues.

9 I think a lot is driven by the interest
10 and support by the Commission. You have really
11 engaged us. I think I see a lot more management
12 involvement. I think that has been tremendous.

13 I think that these public meetings are of
14 value to help the public understand why we do
15 international. So I thank you for your interest and
16 your support. And we are happy to answer questions.

17 CHAIRMAN MESERVE: Good. Thank you very
18 much. Let me just say that standing back from the
19 specifics, that the array of activities that you have
20 described today are truly impressive.

21 This is a very substantial commitment that
22 we have in the international area, which from I think
23 we are obtaining great benefit. Let me turn first to
24 Commissioner Dicus.

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1 COMMISSIONER DICUS: Thank you. As I have
2 said in the past, I do strongly support our
3 international programs, and the more that I am
4 involved here at the Commission, I recognize their
5 importance and the job that is done.

6 And I also want to point out that on
7 several occasions -- and I think Commissioner
8 Merrifield has brought it up, and I know that I have
9 brought it up more than once, but when you have
10 acronyms, please give us a list of them because
11 sometimes we don't remember.

12 Now, I know what EDO is, and EDA, and
13 LOCA, and LWR, but I did notice that you did give me
14 a list of acronyms. So, thank you. Now, a comment
15 has been made as the Chairman said, and as you
16 mentioned, to our international council.

17 And as you well know in a memo that I
18 wrote to you in March, I asked some questions which I
19 had asked previously about how do we select people who
20 attend our international meetings, or may go and work
21 for 3 months or whatever in another country on a
22 particular issue?

23 And I know that the IC is looking at this
24 issue, but how close are we to getting an answer to
25 some of the questions that I raised in my memo?

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1 MS. LEE: We are actually very close to
2 answering the questions that were raised back in
3 March, and as a result of the Commission SRM, which
4 was issued in April.

5 We are right on the verge of responding to
6 the Commission request for how we are going to
7 document and identify procedures and processes for
8 which we select individuals, and the things that I
9 have mentioned earlier.

10 The due date for that part of the SRM is
11 the end of this month, and I think we are going to
12 meet it, and if not, several days before. We are
13 really close. We have been working on it.

14 And I think it addresses what each
15 individual office is doing, and we are trying to
16 provide consistency and standardization. So that we
17 are in line and aligned with one another.

18 COMMISSIONER DICUS: And I think at the
19 time I raised some questions, and that different
20 offices were doing this in different ways.

21 MS. LEE: Correct.

22 COMMISSIONER DICUS: I wasn't sure that
23 was a bad thing, but just that it wasn't clear how it
24 was being done.

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1 DR. TRAVERS: And I will just a quick
2 comment. I don't think they are substantially
3 different ways. I mean, principal elements of the way
4 that the offices and I look to the appropriate staff
5 are who has the expertise, and their availability, and
6 factors of that sort that you might expect would be
7 principal elements of identifying the right person or
8 persons to attend that sort of interaction.

9 MR. THADANI: The only thing I would add
10 is that for our cooperative efforts, sometimes they
11 are not only technical groups, but management boards
12 as well. And so management does participate as well
13 in those interactions.

14 MR. COLLINS: In a formal sense, each of
15 the offices are formulating a procedure, which builds
16 on the overall procedure, which will be approved by
17 Janice and the EDO that will delegate the framework
18 for these types of decisions.

19 We have our procedure in draft, and that
20 does specify how the decisions will be made, and
21 getting to Janice's human capital challenge, this
22 procedure was drafted by a summer intern, who is in a
23 graduate program downtown.

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1 He did an excellent job, and
2 unfortunately, I think he is going to go to work for
3 Marty.

4 COMMISSIONER DICUS: Or me maybe.

5 MR. VIRGILLO: If we play our cards right
6 anyway.

7 COMMISSIONER DICUS: Well, at least he is
8 going to be working for the NRC.

9 MR. VIRGILLO: I was just about to say
10 that.

11 MR. COLLINS: That is fortunate, yes.

12 COMMISSIONER DICUS: I think the next
13 point that I would bring up is when we do get trip
14 reports from when we have sent people to a meeting, or
15 when they have been participating in some activity,
16 are we dealing with what that trip report should
17 really say?

18 I mean, I have been there, done there, did
19 this, but when it raises a policy issue, or when it
20 raises a technical issue, that should be brought
21 certainly to the senior management, and if not to the
22 Commission. Help me a little bit with that.

23 MS. LEE: Well, I don't think you have
24 seen that yet. That is exactly what we are working on
25 in the international council. And as you know, each

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1 office has a little bit different way of addressing
2 those kinds of things.

3 We are trying to standardize and address
4 those issues itself in every program office. I think
5 certainly the senior staff is aware of this. It
6 hasn't gotten into a real consistent implication phase
7 yet because the procedures are still being developed,
8 but we are getting close.

9 And I think that it takes some time for
10 the message to impart to the staff for it to actually
11 translate into a report that is going to have all the
12 elements that will help that and the Commission
13 identify what is important in that trip.

14 COMMISSIONER DICUS: Because for us to
15 really deal with what we support, and what we do in
16 international programs, since we have those that say
17 we should not have an international program.

18 MS. LEE: Sure.

19 COMMISSIONER DICUS: Because we are fee-
20 based, et cetera, and I can understand that. But we
21 need to come back and say this is why this is
22 important. And I am not sure in our reports that we
23 are seeing that.

24 MR. COLLINS: And, Commissioner, we are in
25 the transition of the draft procedure, which I think

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1 is in line with the other offices, and again we will
2 provide you a copy.

3 It talks about the after action mission
4 report, and how to measure outputs and incomes, and
5 specifically under 4.2, and Section 2, Identification
6 of Policy Matters that need to be brought to the
7 Commission, and/or management's attention, is a line
8 item in the report that will be provided in the
9 future.

10 And we are in a transition process now of
11 going to this format.

12 MS. LEE: Let me just say that the first
13 step was really to get what we thought the major
14 reports were to the Commission, and that has in and of
15 itself been an effort.

16 So we need to sort of go step-by-step and
17 transition our way into as I said timely, quality,
18 crisp reports.

19 MR. VIRGILLO: An example of how we are
20 trying to change is that commission paper that we just
21 sent up on control of radioactive sources. The NRR
22 staff attended a meeting, where policy issues were
23 raised with regard to international --

24 COMMISSIONER DICUS: Exactly.

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1 MR. VIRGILLO: And whether we were going
2 to have labeling of sources, or we were going to
3 establish programs for return of unwanted
4 solicitations to manufacturers. These were
5 significant policy issues for the Commission.

6 And so we took the trip report, and put a
7 very brief commission paper on top of that, and sent
8 it forward. I think that may be more of a model than
9 identifying these, per se, in the trip reports by
10 individual staff members.

11 But highlighting these and Commission
12 papers to allow you an opportunity to work with us.

13 COMMISSIONER DICUS: So is that where we
14 are having to do this?

15 MS. LEE: Well, don't forget that there
16 are 350 trips that are taken by the NRC staff. That
17 is 350 individuals riding per year. And that is a lot
18 to bring uniformity and consistently, and
19 standardization, and so we have to give it time.

20 COMMISSIONER DICUS: Well, I appreciate
21 that, and I am not one to belabor the point, but I
22 think we need to be sure that we can --

23 MS. LEE: Well, I think Marty's
24 recommendation is rally the way to go, and we are

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1 getting closer to implementing these kinds of
2 thoughts.

3 MR. VIRGILLO: I would say that we would
4 have trip reports like the trip report that we had
5 from Jude Persaina (phometric) about his tenure in
6 France, which didn't raise any policy issues.

7 That is separate from this Commission
8 paper and trip report combined that has policy issues
9 that we want to engage the Commission on. So that may
10 be a model on how to proceed in the future so that you
11 are not trying to culp through 350 reports and
12 identify the policy.

13 COMMISSIONER DICUS: We don't want to do
14 that.

15 MS. LEE: The timeliness aspect is really
16 critical. You know, sometimes to put the right
17 context, it takes management time to do that, and it
18 is not always given in the raw report, and it takes
19 time.

20 And by the time it works its way to the
21 Commission, it could be several months, and I think we
22 are trying to avoid that.

23 MR. THADANI: I think if I may just add,
24 going back to the point that Sam was making, and I
25 think it is also important to increase the sensitivity

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1 of the staff to the needs of this information to flow
2 upward.

3 And that's why we are talking about trying
4 to develop some standard approach for each individual
5 who travels abroad, or who has a meeting here, will be
6 asked to make sure and address if there are major
7 technical or policy issues that need to be
8 highlighted, and what decisions need to be made, and
9 when.

10 And we are trying to standardize that so
11 that the information would be more easily called by
12 IP, and provided to the Commission.

13 COMMISSIONER DICUS: Okay. Thank you. I
14 will stop for me.

15 CHAIRMAN MESERVE: Commissioner
16 McGaffigan.

17 COMMISSIONER MCGAFFIGAN: Well, thank you,
18 Mr. Chairman. I do want to start off by complimenting
19 the staff. I think we are seeing progress. The
20 quality of trip reports has gone up, and the
21 timeliness of trip reports has gone up, and I think
22 you are on the right path.

23 I think there is more to go as you all
24 know, but let me start with that one of the papers
25 that we are going to get soon -- and I forget the date

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1 -- is a strategy document for approaches for IAEA and
2 NEA meetings.

3 And as you were describing it earlier, you
4 used different words, Janice, but what I was hoping
5 that we were going to get is here is our strategy in
6 the different committees with regard to these topics.

7 I will start with the one that Marty just
8 mentioned. I think it is a success in some sense that
9 we got that memo pointing out that the two disconnects
10 between our framework and the framework that is not
11 binding, but is going to be recommended to the Board
12 of Governors to be adopted at the meeting in
13 September, the manufacturer -- a return to the
14 manufacturing issue and the labeling issue.

15 And substance is also not so much of a
16 success because it depends on whether we think this is
17 a good idea or not. The two issues where we are going
18 to be a little off this suggestion that could have
19 been brought to us earlier by the staff who were
20 involved and developing this document over the past
21 couple of years.

22 And we could have perhaps given
23 instructions as to this is something that we think we
24 should be doing, or shouldn't be doing, as the case
25 may be.

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1 I remember in the transport regulations,
2 at least the famous EDO memo, the Mr. Taylor memo from
3 1996, that told the IAEA that we were likely to
4 disagree with them on a couple of issues. It is not
5 clear that we are going to disagree with them in the
6 final Part 71. That is open for discussion as that
7 rule goes forward.

8 And the staff's views changed was some of
9 the comment, and one of the issues was the exemption
10 value, and they made some accommodation for natural
11 orders that went some way towards meeting Mr. Taylor's
12 concerns.

13 But the question I have is that you are
14 going to try and find a way to get the Commission
15 involved early enough in the process so that we can
16 help get the outcome different, and I will give you an
17 example.

18 I mean, we have a trip report and it came
19 to us, and it looked like it was drafted earlier, and
20 I gave Mr. Reimer and Wes Patrick compliments for it,
21 but they drafted a trip report. Nuclear Fuels
22 actually beat them to writing up the meeting in terms
23 of it getting to me, because this got to us on August
24 10th, and the Nuclear Fuels got it to us on August
25 3rd, I believe, or August 6th.

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1 But the meeting -- you know, the IAEA in
2 the Way Subcommittee is developing with EPA, DOE, and
3 NRC involvement, a standard for waste repositories.

4 And in the trip report at the end, it says
5 succeeding drafts of the proposed safety standards
6 should be carefully reviewed and timely comments
7 provided to the IAEA. Careful coordination and flow
8 of information through M. Bell, Jim Blaha, and others,
9 should continue.

10 We can't be involved as a Commission in
11 every aspect of the comments that are going to be
12 made, but we probably need to have a strategy. And
13 maybe -- I don't know, but you may want to even think
14 about whether written comments that are provided to
15 the IAEA on this or other safety standards that are
16 being developed at least get copied to us.

17
18 We may not all read them, but our staff
19 may read them, or somebody may read them. But if we
20 are making formal written comments saying we disagree
21 with the proposed safety standard for repositories
22 because we suggest X instead, I am sure that our
23 strategy would be that that be consistent with what
24 our Part 63 and what the EPA standard looks like,
25 since that is the law.

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1 But if we are getting defeated, and if the
2 international community, heaven forbid, were to decide
3 that they didn't like ground water MCLs in their
4 standard, and somehow we were defeated on that, tears
5 would not shed from this side of the table.

6
7 They might shed over at EPA, but I am
8 trying to get to my question. Are we going to get to
9 the point where you can involve the Commission early
10 enough so that we can affect the outcomes of some of
11 these standards that get developed?

12 MS. LEE: Well, that certainly is an
13 objective. Whether we get there or not sort of
14 remains to be seen. We know that we have to do the
15 annual report. There isn't a lot of guidance in the
16 SRM.

17 We have to -- we have talked about what
18 should go in this report, and how do we involve the
19 Commission, and what should be the strategy. And
20 don't forget that there are many, many committees that
21 we participate in, both in the IAEA front, and the NEA
22 front.

23 So we are talking about quite a bit of
24 staff --

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1 COMMISSIONER MCGAFFIGAN: Well, I will
2 tell you what -- well, since this came out of the
3 Commission, this Commissioner is less concerned about
4 whether Research Topic A or B, and an NEA committee is
5 going to be selected.

6 We are unlikely to second-guess your
7 judgment that our research topics should be pursued,
8 as opposed to another research topic.

9 MS. LEE: We just want to know what your
10 interest is.

11 COMMISSIONER MCGAFFIGAN: If you are
12 developing waste standards, and if you are developing
13 standards for orphan sources, and if you are
14 developing standards for clearance in the IAEA space,
15 and if you are developing standards for transportation
16 that we by law have to adopt, then I think that sort
17 of reeks of policy all the way through.

18 And those are the ones that we are -- you
19 know, it is the major standards committees that --
20 well, that I think that this Commissioner is most
21 interested in. I will defer to Commissioner
22 Merrifield, but --

23 COMMISSIONER MERRIFIELD: If I may make a
24 comment. I think what Commissioner McGaffigan is
25 suggesting perhaps is an engagement between our staff,

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1 our assistance, and the IC through you to see if we
2 can identify some areas where there is particular
3 Commission interest, and where we can create a
4 mechanism to engage more in preparation for the
5 report, and even providing to us from the IC.

6 COMMISSIONER MCGAFFIGAN: If there is
7 enough time left. If it is due next month, we really
8 can't do it.

9 MS. LEE: No, it is not due next month.
10 In fact, there is no due date.

11 COMMISSIONER MCGAFFIGAN: Well, it is
12 supposed to be annual, and so I presume it is within
13 a year. I won't pursue that more, but I do think we
14 have to think about getting the folks -- and I will
15 even go to this point.

16 I was once a foreign service officer, and
17 dealt with either -- participated in delegations to
18 meetings, or dealt with delegations visiting Russia.

19 And one of the things that I think can
20 happen to people when they go to an IAEA meeting is
21 that they may not be fully instructed, and they may be
22 in a meeting, and the meeting is starting to get off
23 into areas where they don't have a lot of guidance.

24 And so the staffer who we sent there can
25 either -- you know, try to work her way or his way

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1 through this, or they can actually get guidance from
2 Washington.

3 You know, they could go to Blaha's office
4 and send an E-mail back to us, and if it is
5 appropriate to handle it at your level, you handle it.
6 It is very hard to get a Commission to act in very
7 short time periods, although the Congress used to make
8 us do that occasionally when we have to answer a
9 Congressional question and answer.

10 But some sort of mechanism so that the
11 person could get guidance in the course of the meeting
12 as to whether they should say X or Y. I mean, we do
13 that.

14 You know, immediates or NIAC immediates
15 come into Washington, and the next morning you have an
16 answer, and you go out and tell the Russians what they
17 told you to tell them.

18 We maybe don't need to get to that stage,
19 but it is something that you could conceivably do for
20 important meetings if somebody gets there and they
21 don't feel adequately supported. I do want to put in
22 a pitch for -- well, I have read both Scott Newberry's
23 and Drew Sancos (phonetic) trip reports, and I have
24 met with Mr. Newberry. I think there is real value in
25 these longer term exchanges.

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1 I suspect that the Chairman will be
2 approaches when he is in Europe next month by at least
3 Mr. LaCrosse, and perhaps others, about whether we can
4 do more of that.

5 But there is one issue that comes up in
6 Mr. Newberry's trip report in passing that I just
7 raised with you. Switzerland had real benefit in
8 having an IRRT.

9 Have we ever thought about subjecting us
10 to an IRRT, and whether there would be benefit to such
11 a thing and show we are open to the world?

12 Because apparently these are done in
13 advanced countries, like Switzerland, and they are not
14 just done in the Ukraine or whatever.

15 MR. COLLINS: That's correct. Scott's
16 trip report really contains an attachment which goes
17 through the experience of the IRRT by HSK, and it
18 acknowledges for their regulators the risk value, and
19 it projects back generally into the NRC's alignment
20 with the type of values that the IRRT is meant to
21 exhibit.

22 The direct answer to your question is have
23 we thought about it? Yes. I think we have the guide,
24 and it affects not only reactor programs, but it cuts

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1 across the other programs, particularly waste
2 coordination.

3 COMMISSIONER MCGAFFIGAN: Right.

4 MR. COLLINS: And with research activities
5 and materials areas. It took HSK about one FTE, one
6 full term equivalent, to prepare. Their organization
7 is about 90 people. So if you look at that, that is
8 about one percent of their total organization that it
9 took to prepare it.

10 There is 11 individuals to come on board,
11 and it is a six week activity, not including the
12 preparation time. So it is a fairly heavy investment.
13 It is being looked at for revision.

14 Right now the IRRT is in a lessons learned
15 stage, where they are looking to align the process
16 more to outcomes and performance criteria.

17 So I think the process itself is in transition.

18 Ultimately, I believe, it would be
19 recommended through the EDO and it would be a
20 Commission decision on whether to participate.
21 Certainly the staff is knowledgeable of the process to
22 participate.

23 COMMISSIONER MCGAFFIGAN: And it is a
24 matter of timing.

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1 MR. COLLINS: And it is a matter of
2 timing. Yes, we have participated. In fact, one of
3 the IRRT -- our leader is actually an NRC employee who
4 is on assignment at IAEA from region one.

5 COMMISSIONER MCGAFFIGAN: I would just be
6 interested over time as to whether you develop a
7 recommendation, and are licensees then submitted to an
8 OSART, and I think there is a follow-up of an OSART
9 this fall.

10 So we have our licensees participating in
11 these international peer reviews, and the question is
12 whether you can make a judgment as to whether it would
13 be worthwhile for us, this group, the Commission, to
14 participate in an IRRT, and whether we would get
15 benefit from it.

16 I wouldn't want to divert my resources
17 from the Ukraine or some other country, but if the
18 U.K., and France, and Switzerland, have all gone
19 through this, and I don't know whether the U.K. and
20 France have, and for us to be one not to might start
21 standing out.

22 DR. TRAVERS: I don't think that the U.K.
23 and France has. As you know, Commissioner, these
24 IRRTs are invited by the host country, and of course
25 we have not invited that sort of interaction.

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1 COMMISSIONER MCGAFFIGAN: Right.

2 DR. TRAVERS: There is a lead time, and I
3 think there is a few -- a fairly fair number of years.
4 So we have not made it a priority, and if that is
5 something --

6 COMMISSIONER MCGAFFIGAN: No, I just
7 thought I would raise the question.

8 DR. TRAVERS: And we have not made it a
9 priority at this point, but it is certainly something
10 that we have thought about a little bit.

11 MR. COLLINS: I think part of the values
12 of the NRC in looking for improving the organization
13 and continually raising the threshold of performance,
14 there is intrinsic value to this international review.

15 Additionally, there is a standing issue.
16 I think Janice can probably explain this better than
17 I can. But there is a view that when we participate
18 in the international arena, whether the larger
19 developed countries with fairly large programs would
20 participate in this process, and therefore legitimize
21 themselves against the developing countries and
22 provide for that continuity of approach.

23 COMMISSIONER MCGAFFIGAN: Another issue
24 that comes up from Mr. Newberry's trip report, and

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1 this will be my last question, but it is a policy
2 issue that we are dealing with.

3 There is a striking contrast between our
4 policy and hydrogen combustion, and the Swiss, French,
5 Belgian policy. And you mentioned earlier how risk
6 informed these folks were in Switzerland, and how they
7 had PSAs at both of the plants, and with the
8 regulator.

9 We have a 5.044 rule that is going to be
10 coming our way that basically is going to say that it
11 is not necessarily a burden to maintain the hydrogen
12 combustion in the capabilities that we have to prevent
13 hydrogen combustion in large space containments.

14 And France, Switzerland, and Belgium are
15 off requiring licensees to do more than we currently
16 do, which almost surely would not pass a back fit test
17 here as I understand it.

18 But can you explain briefly why there
19 would be this difference between us and our European
20 colleagues? I understand the difference with France,
21 but if Switzerland is doing the same thing, how does
22 this pass muster in a risk informed space?

23 MR. THADANI: In the case of many
24 countries in Europe, risk informed really ought to be
25 looked at in terms of do we have the capability to

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1 deal with certain challenges, particularly in the case
2 of containment integrity under severe accidents.

3 You might note that there are other areas
4 of differences. If we are focusing on a hydrogen
5 issue, the types of modifications that they are
6 proposing in France, they have already made those
7 changes in Germany with their containments, and
8 Belgium.

9 And as you said, the Swiss and the French
10 are doing that as well. The rationale there is to
11 deal with fairly low probability and severe accidents.

12 Even though we believe that the
13 conditional probability of containment failure is
14 fairly low, even in the presence of those severe
15 accidents, nevertheless, there is some possibility
16 that containments could lose their integrity.

17 And it is that component, a fairly low
18 probability of the event itself, and fairly low
19 conditional probability that the containment failure
20 itself is yet an important issue to them for a variety
21 of reasons.

22 And one of which is of course the
23 closeness of various countries, and some of the
24 policies that influence them. But we couldn't
25 possibly based on our knowledge of these severe

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1 accidents, it would be very difficult for us to
2 justify these changes.

3 But I might note that the kinds of changes
4 that they are making, the recombinants that they are
5 talking about, are not the type of recombinants that we
6 have in our containments.

7 COMMISSIONER MCGAFFIGAN: I just think you
8 may in the 5.044 paper or whatever what to suggest why
9 we are doing something different from what the
10 Europeans are doing, because it just sort of leaps out
11 at you as you read the media that the two trains are
12 crossing.

13 And I think there is a good technical
14 explanation for it, but we just need to provide it.

15 DR. TRAVERS: This has been a longstanding
16 -- I think land contamination concerns have dominated
17 some of the thinking, in terms of using filtered
18 vents, and other strategies that reinforce or perhaps
19 go beyond the source of strategies that are included
20 in the U.S. for very low probability.

21 COMMISSIONER MCGAFFIGAN: But they would
22 not pass cost benefit in this country.

23 DR. TRAVERS: They would not in all
24 probability.

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1 CHAIRMAN MESERVE: Commissioner
2 Merrifield.

3 COMMISSIONER MERRIFIELD: Thank you, Mr.
4 Chairman. I want to underscore the comments that
5 Commissioner McGaffigan made, in terms of the reports
6 being provided.

7 Those are very useful, and I think as you
8 can see today, I think that the Commissioners are
9 reading the reports of the staff, and any further
10 enhancements, in terms of our interaction with the
11 individuals that we send abroad, is helpful, and I
12 look forward to the recommendations that are going to
13 be made by the group.

14 I note just for clarity in the audience
15 today, that we have Carl Stoyberger, who is our former
16 director of international programs, and I want to
17 greet him this morning.

18 We talked a little bit, Janice -- you
19 mentioned the need not to go into all of the
20 justifications for our international programs, and I
21 think the presentation today certainly did that.

22 Nonetheless, I do want to continue to
23 underscore in one respect the international programs
24 office has for many years been what I would call a
25 poster child for fee issues.

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1 Hopefully how that Congress has taken
2 action to allow us over a series of years to have 10
3 percent of our fees taken out of general revenues that
4 that status will change.

5 I underscore the importance of
6 international programs by a visit that I had a couple
7 of years ago -- and I may have mentioned this in
8 public before, but if not, I will mention it again.

9 We say as an axiom around here that an
10 accident anywhere in the world is an accident here as
11 well. I was reminded not only today of the fact that
12 80 percent of the reactors in the world come from the
13 U.S., but our international activities and the
14 involvement of our staff with our international
15 counterparts makes a significant contribution to the
16 safety actions of our international hatreds.

17 The example that I would use is that of
18 Miraslav Gorgorich, who is the director of the
19 civilian nuclear safety administration, and in a visit
20 that I had with him two summers ago, I had the
21 occasion when I was a young Commissioner and didn't
22 know better to have him quote to me verbatim on
23 portions of Reg Guide 1.174.

24 I think it underscored in further
25 discussions that we had during that visit, that it

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1 underscored the fact that our regulations and the work
2 that we do internationally are in many cases taken
3 verbatim by our international counterparts, and those
4 efforts do contribute significantly to the enhancement
5 of safety of reactors abroad.

6 Janice, I know -- and I am going to first
7 point a question at you. We had had various instances
8 in the past in which our communications with our
9 inter-agency counterparts have not been as productive
10 as they could be, and perhaps a lack of understanding
11 on their part about the things that we do.

12 I would note on Slide 14 that you
13 mentioned that it is one of the activities in which
14 you want to enhance communications. Is there any
15 thought to, or are you going to have any further
16 efforts in this regard, any ideas of perhaps hosting
17 some training sessions for other agency counterparts
18 here, or reaching out to someone which we don't
19 normally have a significant amount of interaction,
20 such as our Treasury Department, Commerce,
21 Agriculture, some of those? Are there any thoughts in
22 that respect?

23 MS. LEE: Well, we always welcome the
24 opportunities that are available to educate our sister

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1 agencies, and the public, about what we do in the
2 international area.

3 Recently, I was invited to participate in
4 training for foreign service officers about what is
5 NRC, and why do we go abroad, and I thought that was
6 a very useful exchange for future embassy staff.

7 These were people who were going to be
8 posted all over the world, and where we would not
9 frequent, and they learned a lot about the NRC, and I
10 thought that was very useful.

11 We are invited to lecture and give
12 seminars at courses that are designed by the
13 Department of Energy in the nuclear non-proliferation
14 area, and from time to time I am asked to speak on
15 panels, and I welcome those opportunities.

16 And there are also instances where I have
17 -- and I thank Sam for the opportunity during the
18 regulatory information conference, where we have a
19 special international panel session on international
20 activities. And I think that this helps to further
21 enhance what we do.

22 COMMISSIONER MERRIFIELD: Well, as I said,
23 I mentioned a few agencies which you didn't get to,
24 and perhaps -- and this is not focused solely on IP.
25 I think there is a general reference to the other

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1 program offices of enhancing that communication so
2 that we avoid conflicts.

3 MS. LEE: And I have one -- another really
4 good example. Recently on this trilateral initiative
5 that the Commission is interested in the staff
6 initiating, we learned recently that the Department of
7 Energy was going to be hosting a similar kind of
8 initiative, the Southwest Border initiative.

9 And they are going to be talking about
10 sealed sources and devices, and our relations with
11 Mexico primarily, and we engaged fairly quickly on
12 that, and they have invited us to participate in that
13 seminar in New Mexico.

14 So I think that is another good
15 opportunity for us to familiarize others with what we
16 do.

17 COMMISSIONER DICUS: Could I interject for
18 a moment, Commissioner Merrifield. I am glad we did,
19 because I was a little surprised to hear about it,
20 although I know that the sources may ultimately wind
21 up with DOE.

22 But they unfortunately, and something just
23 to pass on to you, did not contact the States, and
24 they didn't know anything about it. So that is maybe
25 a little something they should know. Thank you.

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1 COMMISSIONER MERRIFIELD: Janice, I
2 appreciate you mentioning the trilateral issue, and I
3 appreciate the support of my colleagues. That was a
4 column I had authored late last year, which would call
5 for us to meet with our Canadian and Mexican
6 counterparts to try to reach out, particularly in
7 material areas, to enhance our efforts, and hopefully
8 enhance safety.

9 I had a question directed at Marty. I
10 didn't know whether he might be able to expand a
11 little bit on some of the planning toward that
12 particular meeting, and some of the thinking of you
13 and your counterparts with Mexico, and in terms of how
14 that may proceed.

15 MR. VIRGILLO: Within the next couple of
16 weeks, we will be having our first planning meeting.
17 As Janice said earlier, we are looking to have the
18 meetings right around the first of the year.

19 Not only are we looking at discussing
20 sources right now, but we are looking at other topics
21 that we might put on the agenda, including areas of
22 waste disposal activities, is one of the issues that
23 has been brought forward by the staff.

24 I think this first planning meeting that
25 is coming up in the next few weeks will start to lay

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1 out other topical areas where we might want to explore
2 with the Canadians and Mexicans, agenda items for this
3 first meeting.

4 COMMISSIONER MERRIFIELD: That's terrific.
5 I note that a mention was made about our interaction
6 with the Mexicans. That came out of a
7 -- Ellis Murshoff had attended that trip that I made
8 to Mexico, and had during that trip invited our
9 Mexican counterparts, the inspectors, to come up and
10 meet with his folks in Region 4, his inspectors in
11 Region 4.

12 And I am curious. It struck me in the
13 meeting today whether we have made a similar outreach
14 with our counterparts in Canada, some of the residents
15 up there, and invited them down to, say, a Region 3 or
16 a Region 1 meeting, and I didn't know, Sam, if you
17 wanted to comment on that briefly.

18 MR. COLLINS: We have had that outreach,
19 and we have had an exchange at the management and the
20 supervisory level. The offer is standing for the
21 exchange at the inspector level.

22 I don't recall whether that has been
23 implemented in Region 3. I know that Jim Dwyer is
24 here in the office this week, and I would have to ask

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1 him specifically, but we have made that offer, and I
2 have visited the sites there.

3 They are structured a little different
4 than ours, and so their hierarchy is quite different.
5 But there is an advantage to understanding the
6 programs. I don't know whether Jim is in the
7 audience.

8 MR. DYER: I am Jim Dywer, regional
9 administrator for Region 3. We have made the offer,
10 but we have not had any takers on coming down to
11 Region 3 meetings, but we are going to continue.

12 COMMISSIONER MERRIFIELD: Okay. Great.
13 The final question goes towards Ashok. There has been
14 a lot of effort toward enhancing our research efforts
15 with our international counterparts in order to get
16 the value there.

17 I guess this is part of a 2-part question
18 that I have got for you. First, are you comfortable
19 that we have done as much as we can to identify
20 opportunities where we can interact internationally in
21 research, and utilize the services of our counterparts
22 to further some of the things that we are doing.

23 And on the flip side, have we done -- and
24 we talked a little bit about university research

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1 programs, and U.S. research reactors having
2 difficulties.

3 Have we done as much as we could do
4 perhaps in providing opportunities for our
5 international counterparts to understand opportunities
6 here, and to direct some of their efforts towards some
7 of our U.S. reactors and research reactors that may
8 use some additional assistance in that respect?

9 MR. THADANI: I think in terms of the
10 comfort zone, I indicated that I believe that there
11 are other areas that we need to perhaps expand our
12 cooperation with the international community.

13 Probably the most important one currently
14 is the high temperature, gas-cooled technology, where
15 it is very clear that we can learn a great deal from
16 other countries, and that is our plan.

17 And I identified a few other areas, such
18 as digital technology and so on, but I think we can do
19 more than what we have been doing up to now. We have
20 utilized not necessarily I would say research reactors
21 in this country.

22 But some of the facilities we were able to
23 maintain by leveraging international resources. I
24 mentioned one earlier, for example, and it seems to me
25 that we can do more, and the way that we are trying to

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1 go about getting this sensitivity of losing our
2 facilities to other countries is through this report
3 that I actually talked about.

4 This is a CSNI report with 27 countries
5 participating in it, and identifying in each country
6 what capability exists, and what is at risk. And the
7 weakness that I see with this report is that it
8 doesn't look far enough ahead.

9 It only has looked at the next 2 to 3
10 years, and I think that is a real weakness. I think
11 this is probably the best vehicle for us to get
12 introduced to us areas of concern for to us about our
13 facilities in this country.

14 COMMISSIONER MERRIFIELD: Well, I
15 appreciate that, and I do think that we ought to be
16 thinking in terms of it being a two-way street. Are
17 there areas out there where we can get the benefit of
18 our international counterparts, and similarly, are
19 there areas in the U.S. where we can inform our
20 international counterparts, and they can help maintain
21 the ability that we have to do the research here in
22 the U.S.

23 MR. THADANI: And if I may, in fact there
24 are a number of cases where we are getting

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1 international support to maintain some facilities
2 here.

3 COMMISSIONER MERRIFIELD: Well, I
4 recognized that, but just making sure that we further
5 -- that we dig as deeply as we can in order to
6 identify that.

7 The last thing is, and just to make a
8 closing comment, and that is that I know that there is
9 -- and as I read in the paper -- interest within the
10 Bush Administration to reassess our policies perhaps
11 towards India and Pakistan, in terms of our level of
12 engagement.

13 There is obviously an impact on this
14 agency. For a long time, our policies towards India
15 and Pakistan were obviously and understandably drive
16 toward non-proliferation concerns in the explosion of
17 devices by both of those countries.

18 One of the downsides of that is that we
19 have not been able as an agency to engage with them on
20 nuclear safety, and both of those countries obviously
21 have reactors, and in the case of India, having a
22 significant number of reactors.

23 As a country, and as the Bush
24 Administration continues to reassess that policy, I

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1 think that is clearly an area that I would encourage
2 further research into.

3 I think there is concern, and I have heard
4 it among many of our international counterparts about
5 the level of safety concern in that part of the world,
6 and certainly I think that we, along with our
7 international counterparts, and through IAEA,
8 indirectly should be continuing to assess that. Thank
9 you, Mr. Chairman.

10 MR. COLLINS: Commissioner Merrifield, if
11 I can -- as I reflect, amend the record. I do recall
12 that at the last regulatory information conference
13 that we had at least one senior inspector from a site
14 participate in the entire regulatory information
15 conference, including the regional breakout sessions.

16 The woman was a senior inspector at the
17 most far eastern site, and she participated quite
18 vigorously in the session. I held a separate meeting
19 with her, and we are continuing to exchange site
20 specific information.

21 MR. THADANI: Commissioner, if I may
22 comment on that.

23 CHAIRMAN MESERVE: Yes.

24 MR. THADANI: Until 1998, and in fact just
25 before the explosion in India, there was an NRC group

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1 in India focusing on certain safety issues,
2 particularly with the light water reactors that they
3 have in India.

4 And we had identified -- I was a member of
5 that group, and we had identified certain select areas
6 where we thought that India could really benefit, in
7 terms of enhancing safety, particularly of the light
8 water reactors.

9 CHAIRMAN MESERVE: Thank you. I have just
10 a few questions, and this has been a very informative
11 briefing. I would like to follow up on a question
12 that Commissioner Dicus had raised, and that she was
13 interested in whether the trip reports that we were
14 pulling out, and the policy implications, and those
15 were being raised.

16 There is another aspect that occurs to me,
17 and as I think back on the briefing of this issue, I
18 wonder whether we are extracting all the benefit that
19 we can from our international activities.

20 You all have in your briefings have
21 emphasized that we have foreign assignees here. I
22 know that many of them are in the room. We presumably
23 get the benefit of their skills, and their technical
24 skills, while they are here, and hopefully they get
25 some benefit from the interaction from us.

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1 But it occurs to me that these are people
2 who as a result of their stay here have a great deal
3 of knowledge about how the NRC really operates, and
4 have a capacity for judging it from the perspective
5 that they have come from a different regulatory
6 regime, and can look at how we are -- well, have a
7 basis for comparison basically.

8 I am curious as to whether, number one,
9 these people prepare any kind of a document or
10 assessment of their experience here that could be
11 useful to us; and whether we debrief them in this area
12 when they leave.

13 And whether we are getting the insights
14 that we could get from some very intelligent people
15 who come here to spend time with us, and whether this
16 is another opportunity -- and maybe you can educate me
17 -- that we are in fact taking advantage of.

18 And if we aren't, whether we can take
19 advantage of a broader set of perspectives from these
20 people than we may be getting today.

21 MS. LEE: I can start to answer that
22 question, and maybe Sam might add something that I
23 miss, but yes, there is a dialogue that goes on with
24 the foreign assignees before, during, and after their
25 assignment.

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1 We are very interested in the feedback.
2 There is a questionnaire, and questions that we pose,
3 and they answer it. I schedule a meeting towards the
4 end of their term here to talk about the value, and
5 what they gain, and what they learned.

6 From time to time, there have been reports
7 forwarded to the Commission. I know that when we had
8 our long-term, three year assignee from France, there
9 was quite a bit of documentation about that
10 experience, and we did transmit that to the
11 Commission.

12 But, yes, I agree with you completely that
13 we have a lot to gain by an exchange with them, and
14 certainly after their experience here.

15 MR. COLLINS: Yes, each assignee is
16 provided a work plan, with specific goals, and there
17 is a trip report that is formulated at the conclusion
18 against those criteria, including any recommendations
19 for the NRC, including usually a perspective that
20 mirrors the two programs, and how they may compliment
21 each other, or how they may be separate, with an
22 analysis of why.

23 I think the best example of that is the
24 most recent extended exchange that we had with our
25 French counterparts, and in that report there was a

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1 fairly rigorous look at our emergency preparedness
2 program, and contrasting that with the French program
3 as an example.

4 CHAIRMAN MESERVE: Do any of these rise to
5 the level, or would they be appropriate to forward to
6 the Commission? I mean, are there things or insights
7 that we are getting that we ought to be considering at
8 the policy level?

9 MS. LEE: I think with respect to the
10 French one, we did forward it to the Commission. Not
11 every one gets forwarded. But the ones that we think
12 are valuable, we certainly would forward.

13 MR. COLLINS: There is really no reason
14 not to.

15 MS. LEE: And there really is no reason
16 not to.

17 CHAIRMAN MESERVE: Sure. I mean, it just
18 seems to me that there are people who are from a
19 different perspective, and who know us well, and that
20 this would be very valuable for us to get the benefit
21 of that at a couple of different levels; not only a
22 technical level, but also at the policy level.

23 I would like to reinforce another point
24 that Commissioner McGaffigan made that I think that as
25 you are -- that all of you on your side of the table

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1 are more fully aware, that we have become increasingly
2 interested in the positions that the staff are taking
3 at international meetings.

4 With the concern -- and I am sure that the
5 staff are trying to do a capable job, but the concern
6 is that we may be missing so
7 me opportunities to be able to shape
8 recommendations that come from abroad, and that in the
9 absence of Commission guidance, that there is a
10 concern that staff may going abroad take a cautious
11 approach in their participation in a meeting, and at
12 a time when if the Commission had been consulted there
13 might be a more aggressive stance that we would like
14 to take early on and try to shape the deliberations
15 turn.

16 And I think you have seen that
17 Commissioner McGaffigan raised a number of issues
18 which I think are ones that are of -- well, certainly
19 are not an exclusive list, but sort of raised things
20 that we are aware of that are going on that we were
21 very conscious of the fact, and that there are things
22 that may happen abroad that affect us that we ought to
23 be working on very diligently.

24 It seems to reinforce to me the importance
25 of this annual report that we talked about, and I

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1 would be interested in knowing. I think we slipped
2 over the date as to when you thought that would be
3 coming, and what your plans are. I mean, this does
4 seem to me to have an increasing significance to us.

5 MS. LEE: Yes. We have not missed the
6 date. We in fact don't have a date.

7 CHAIRMAN MESERVE: Well, you made that
8 point. That's why I asked the question.

9 MS. LEE: But I think our target is to try
10 to do it in the January time frame. We are working on
11 it. I have a staff person who is thinking through the
12 format of this report, and what is going to be
13 included.

14 It is going to be one that is going to
15 require a little bit of evolution. It is not going to
16 capture everything that everybody wants. We have to
17 start somewhere, and there is a lot of topics out
18 there, and the topics are wide and varied as you have
19 indicated here.

20 One Commissioner may have a certain
21 interest in certain things, and another may have
22 interest in other things. And we are going to be as
23 complete as we can, and as constructive as we can.
24 But it is not -- it will take some time to get a good
25 report.

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1 And I don't want to diminish the
2 importance of the report, but I do have to say that
3 the report isn't going to capture everything that
4 comes up.

5 There are a lot of things, and I can give
6 you a couple of examples, where the Commission has
7 spoken. You have played a role in decisions that
8 involve international participation, and I will
9 mention two of them here.

10 And it is not going to happen in an annual
11 report. It is going to happen because we have
12 communicated that an event has come up, and that we
13 have been asked to participate, and we want your
14 guidance should we do it.

15 We have an invitation to participate in a
16 safety mission related to the DPRK not too long ago.
17 The Commission was very involved in thinking that
18 through.

19 Another example involves an invitation
20 that we received from the IAEA to participate in a
21 plant life extension workshop in Moscow for the
22 Russians, and that is a very sensitive issue. We
23 wanted Commission guidance. That is not going to be
24 in an annual report.

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1 So we are trying to find ways to involve
2 you early on. I think we have done a fairly decent
3 job in that, but these things happen, and they are not
4 planned for often, and we find out about it, and we
5 try to work it into the system as best we can.

6 But it is fairly informal, and we can't
7 always have a meeting about that. We can't always get
8 five people in a room to discuss it, but we try to
9 work it in the ways that we can.

10 CHAIRMAN MESERVE: No, I appreciate that,
11 and I think that perhaps your report ought to
12 recognize the fact that there may well be many fast
13 breaking items, and you need to have some criteria for
14 filtering that so that you know which ones you should
15 bring to us, and how you do it, and maybe that gets
16 covered in the annual report.

17 There are many other things, as you are
18 more aware than I am, that have a much longer
19 gestation period in the IAEA and the NEA, and where we
20 do have the opportunity to engage the Commission in a
21 thoughtful way early on, and the annual report could
22 cover those in a different way.

23 But I appreciate that there are many
24 different categories of things, and that I think that
25 the request is not to suggest that there is one

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1 document a year that is going to cover everything for
2 the year.

3 It is to start to engage the Commission on
4 these issues perhaps more aggressively than we have in
5 the past. I have no further questions.

6 COMMISSIONER DICUS: May I?

7 CHAIRMAN MESERVE: Yes.

8 COMMISSIONER DICUS: Thank you.

9 CHAIRMAN MESERVE: Commissioner Dicus.

10 COMMISSIONER DICUS: I just thought of
11 something. When we have folks come here from other
12 countries and work with us, it is in reactors, in
13 research, but not in materials.

14 MR. VIRGILLO: We have had no interest so
15 far. We have not gone out to try and solicit the
16 interest. It has been --

17 MS. LEE: Well, if I could interrupt for
18 one minute. I do believe we had a Japanese assignee
19 to NMSS, and this is before your time, Marty, working
20 in the waste field.

21 COMMISSIONER DICUS: Yes, because I was
22 thinking about waste and about sources, and thinking
23 about some of the things that we have already been
24 talking about, and how we interact. And I was curious
25 --

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1 MR. COLLINS: It is an opportunity.

2 COMMISSIONER DICUS: Yes, we have an
3 opportunity here. So --

4 MS. LEE: We have had some interest
5 expressed, and I think we certainly would encourage
6 that. But with respect to the assignees, most of them
7 have fallen into the research and NRR categories, and
8 that is really at their expressed interest.

9 COMMISSIONER DICUS: Well, Marty, you have
10 an opportunity.

11 MR. VIRGILLO: Thank you.

12 COMMISSIONER MCGAFFIGAN: Mr. Chairman,
13 not to help the Japanese too much, but METI,
14 M-E-T-I, as it is now called, has picked up the field
15 cycle facilities, in addition to the reactors that we
16 always had. They probably picked up some personnel
17 from STA as well.

18 But they are trying to think through their
19 field cycle facility regulation, and we have just done
20 Part 70, and are implementing it. You would think
21 that there might be some real interest in Japan and in
22 placing somebody in our field cycle facility branch.

23 I mean, there are those opportunities,
24 which we may want to suggest to them we are open to

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1 CHAIRMAN MESERVE: That's a good idea. I
2 would like to thank you all for a very informative
3 briefing. It has been very useful. With that, we are
4 adjourned.

5 (Whereupon, the meeting was concluded at
6 11:17 a.m.)

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COMMISSION MEETING SLIDES/EXHIBITS

BRIEFING ON NRC INTERNATIONAL ACTIVITIES

TUESDAY, AUGUST 14, 2001

NRC International Activities



Janice Dunn Lee
Director

International Programs

August 14, 2001

NRC International Activities

- Non-Proliferation Support
- Information Exchange
- Safety and Safeguards Assistance
- Cooperative Safety Research

Export Activities

- 118 Licensing Actions
 - 20 Executive Branch Consultations
 - 9 Commission Referral Cases

Bilateral Cooperation

- Convergence of Realistic Goals
- Cost-Effectiveness
- Transparency
- Applicability
- Topicality
- Consistency

International Assignments

- 7 Assignees from 7 Countries
France, Japan, Philippines, South Korea, Switzerland, Turkey, United Kingdom
- 2 Senior NRC Assignees to Switzerland and France

International Visits to NRC

- 100 Visits
 - 30 Commission-level Visits
 - 70 Staff-level Visits
- 25 Countries, IAEA, NEA

NEA Participation

- Benefit from NRC Leadership
- Programs of Primary Interest
 - Reactor Safety Research
 - Reactor Regulation
 - Waste Management
 - Radiological Protection
 - Fuel Cycle Safety

Current NEA Topics

- Maintaining Competence and Research Capabilities
- Regulatory Effectiveness
- Public Communications
- Stakeholder Confidence in Radioactive Waste Disposal
- Monitoring and Data Management Strategies for Radiological Emergencies
- Aging & Decommissioning
- Safety of Geologic Disposal

NRC Participation in IAEA Safety Missions

Mission Type	Countries
OSART (Operational Safety)	Czech Republic, Hungary
IRRT (Regulatory Review)	Mexico, Czech Republic, Lithuania, Ukraine
IPPAS (Physical Protection)	Lithuania

Current IAEA Topics

- Standards, Codes and Guides
 - Power Reactor Safety
 - International Transportation
 - Radioactive Contamination/Clearance
- Safety and Security of Radioactive Sources
- Research Reactor Safety
- Waste Management Safety
- Physical Protection of Nuclear Materials
- Integrated Safeguards

International Conventions

- Nuclear Safety
- Spent Fuel & Waste Management
- Early Notification of a Nuclear Accident
- Emergency Assistance
- Physical Protection
- Liability

FSU Assistance

- High-Risk Reactor Closure & Extension
- Ukraine
- Funding

Commission Expectations

- Clear Rationale for International Interactions
- Commission Notifications
- Development of Agency Positions
- Improved Trip Reports

Enhanced Communications

- With Commission and EDO
- Among Offices
- Within Staff
- Between Agencies

Future Challenges

- DPRK Safety Cooperation
- Russia - Reactor Life Extension
- Non-LWR Technology
- IAEA Safeguards Implementation
- India/Pakistan - Potential Safety Cooperation
- Safety & Acceptance of Waste Disposal

Nuclear Regulatory Research International Activities



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Value of International Cooperation

- Efficient Use of Resources – Leveraging
- Maintain Critical Research Infrastructure (Facilities/Expertise)
- Sharing of Research Experience and Expertise
- Enhance International Understanding

International Cooperation

- Approx. 88 Agreements with 25 Countries
- RES Actively Participates in OECD, UN and IAEA Committees and Working Groups

Scope of Cooperative Research Areas

- Severe Accidents
- Containment
- Seismic
- Nuclear Fuels
- Human Factors
- Digital I&C
- PRA
- S/G
- Thermal-Hydraulics
- Irradiation Assisted
Stress Corrosion
Cracking
- Aging
- Deregulation
- Health Effects
- Waste Management

Examples of Outcomes

- **CAMP Program**
 - Improved RELAP5 Code Supports Risk-Informed Changes to PTS and LOCA Regulations
- **Environmental Effects Program**
 - Data Helped Evaluate Pipe Cracks and CRDM Cracking
- **Int'l Group on Radiation Damage Mechanisms**
 - Data Contributed Basis for RG 1.99 (Rev. 3)
- **CABRI and Halden Fuels Program**
 - Data Helped Update Fuel Codes for High Burnup
- **CSARP Program**
 - Improved MELCOR Code Supports Risk-Informed Changes to Combustible Gas Control Regulation

Outlook

- **Maintain OECD/NEA and IAEA Participation**
 - Global Issues
 - Cost Sharing
 - Networking

Outlook

- Expand Cooperation (Examples)
 - Next Generation Designs and New Technologies
 - Aging Management Strategies
 - Digital I&C
 - Spent Fuel Storage and Transportation
 - Risk-Informed Decision Making

Major Challenges

- CSNI Identified Concerns
 - OECD/NEA Report: On Loss of Facilities and Expertise
 - Nuclear Education Opportunities
- Research Needs for Advanced Reactors
 - Needs vs. Time and Resources
 - Facilities and Expertise
- Enhancing Cooperation Among International Organizations

Nuclear Reactor Regulation International Activities



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NRR Role & Activities

- Strategic Goal: Support U.S. Interests in the Safe and Secure Use of Nuclear Materials and in Nuclear Non-Proliferation
- Add Value Through the Exchange of International Nuclear Safety Regulatory Experience and Information
- Investments (Resources) and Potential Outcomes Screened Through Four Outcome Goals and the Budget

NRR Topics

- Focused Bilateral Technical Exchanges
- Multilateral Working Groups and Committees
- Focused Program Areas
- International Assignees

Focused Bilateral Technical Exchanges

- France
- Japan
- United Kingdom
- Switzerland
- Finland
- Taiwan
- South Korea
- China
- Spain
- Canada

Multilateral Missions, Working Groups & Committees

- IAEA
 - Missions, CNS Report
- NEA
 - Committee on Nuclear Regulatory Activities (CNRA)

CNRA

- Improving Nuclear Regulatory Effectiveness *
- Regulatory Challenges Arising from Competition in Electricity Markets
- Role of Regulation in Promoting and Evaluating Safety Culture *
- Regulatory Response Strategies for Safety Culture Problems *

* Published Document

Focused Program Areas

- **Regulatory Self-Assessment**
 - U.K., Switzerland, Canada
- **Technical Manager to Switzerland**
 - PBPM, IRRT, Power Uprates, PSA Quality, Risk-Informed Decision Making

Focused Program Areas

- Regulation of Advanced Reactors
 - China – PBMR; Taiwan – ABWR;
 - United Kingdom - HTGR, AP1000
- NRC Reactor Oversight Program
 - IAEA, NEA
- Convention on Nuclear Safety (IAEA)

International Assignees

Country	Mos.	Work Area
France	12	Digital I&C (SRP)
Japan	14	Reactor Oversight, Program, License Renewal
S. Korea	4	Health Physics
Philippines	9	Research Reactor Licensing
Turkey	12	LBLOCA, Analyses, Power Uprates
United Kingdom	9	10 CFR 52, Pre-application, Review of Westinghouse AP1000

Nuclear Material Safety and Safeguards International Activities



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Safe and Secure Use of Nuclear Materials

- **NMSS Objectives:**
 - Fulfill International Obligations
 - Support Export Licensing for Nuclear Materials and Equipment
 - Exchange and Use Safety and Safeguards Information
 - Encourage Appropriate Standards, Policies and Practices

International Obligations

- Accomplishments:
 - U.S. - IAEA Safeguards Agreement
 - International Transportation Standards
 - Agreements for Cooperation

Information Exchange

- Accomplishments:
 - Panama Medical Exposures
 - High-Level Waste Storage & Disposal
 - MOX Fuel Fabrication
 - Radiation Events Database
 - Threat Assessment and Safeguards Risk Assessment
 - FSU Safeguards Support

International Standards, Policies & Procedures

- Accomplishments:
 - Disposal of Long-Term Solid Radioactive Waste
 - Clearance Standards
 - Control of Radioactive Sources
 - Safety Requirements for Fuel Cycle Facilities
 - Physical Protection Convention
 - IAEA Safeguards Policies and Approaches

Abbreviations and Acronyms:

ABWR	Advanced Boiling Water Reactor
AP1000	Advanced Pressurized Water Reactor
CABRI	Research Reactor in France, Home of the NEA's Water Loop Project
CAMP	Code Applications and Maintenance Program
CNRA	Committee on Nuclear Regulatory Activities (NEA)
CNS	Convention on Nuclear Safety
CRDM	Control Rod Drive Mechanism
CSARP	Cooperative Severe Accident Research Program
CSNI	Committee on the Safety of Nuclear Installations (NEA)
DPRK	Democratic People's Republic of Korea (North Korea)
EDO	Executive Director of Operations
FSU	Former Soviet Union
HTGR	High Temperature Gas-Cooled Reactor
I&C	Instrumentation and Control
IAEA	International Atomic Energy Agency
IPPAS	International Physical Protection Advisory Service
IRRT	International Regulatory Review Team (IAEA)
LOCA	Loss of Coolant Accident
LWR	Light Water Reactor
MELCOR	Severe Accident Analytical Code

Abbreviations and Acronyms (continued):

MOX	Mixed-Oxide Fuel
NEA	Nuclear Energy Agency (OECD)
NMSS	Office of Nuclear Material Safety and Safeguards
NRC	Office of Nuclear Regulatory Commission
NRR	Office of Nuclear Reactor Regulation
OECD	Organization for Economic Co-operation and Development
OSART	Operational Safety Review Team
PBMR	Pebble Bed Modular Reactor
PBPM	Planning, Budgeting and Performance Management
PRA	Probabilistic Risk Assessment
PSA	Probabilistic Safety Assessment
PTS	Pressurized Thermal Shock
RELAP5	Thermal-Hydraulic Analysis Code
RES	Office of Nuclear Regulatory Research
RG	Regulatory Guide
S/G	Steam Generator
SRP	Standard Review Plan
U.S.	United States
UN	United Nations