

1 UNITED STATES OF AMERICA  
2 NUCLEAR REGULATORY COMMISSION

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4 BRIEFING ON THE STRATEGIC PROGRAMMATIC OVERVIEW OF  
5 THE FUEL FACILITIES AND THE NUCLEAR MATERIAL USERS  
6 BUSINESS LINES (PUBLIC)

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8 THURSDAY,  
9 FEBRUARY 25, 2016

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11 ROCKVILLE, MARYLAND

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13 The Commission met in the Commissioners' Hearing  
14 Room at the Nuclear Regulatory Commission, One White Flint North,  
15 11555 Rockville Pike, at 9:00 a.m., Stephen G. Burns, Chairman,  
16 presiding.

17 COMMISSIONERS:

18 STEPHEN G. BURNS, Chairman

19 KRISTINE L. SVINICKI, Commissioner

20 WILLIAM C. OSTENDORFF, Commissioner

21 JEFF BARAN, Commissioner

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23  
24

1 ALSO PRESENT:

2 ANETTE VIETTI-COOK, Secretary of the Commission

3 MARGARET DOANE, General Counsel

4 NRC STAFF:

5 VICTOR McCREE, Executive Director for Operations

6 DANIEL COLLINS, Director, Division of Material

7 Safety, State, Tribal and Rulemaking Programs,

8 NMSS

9 CRAIG ERLANGER, Acting Director, Division of Fuel

10 Cycle Safety, Safeguards and Environmental

11 Reviews, NMSS

12 PAUL GOLDBERG, Project Manager, Source Management

13 and Protections Branch

14 PETER HABIGHORST, Chief, Material Control and

15 Accounting Branch

16 MARK LESSER, Director, Division of Fuel Facility

17 Inspection, Region II

18 PAUL MICHALAK, Acting Chief, Agreement State Programs

19 Branch

20 SCOTT MOORE, Acting Director, Office of Nuclear

21 Material Safety and Safeguards

22 JOSEPH NICK, Deputy Director, Division of Nuclear

23 Materials Safety, Region I

24

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

(8:58 a.m.)

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3 CHAIRMAN BURNS: And I want to welcome the staff  
4 and members of the public who may be here this morning or viewing us  
5 remotely. Today, my fellow commissioners and I will be briefed by the  
6 staff from both the Fuel Facilities and the Nuclear Material Users  
7 Business Lines. This meeting provides the Commission an  
8 opportunity to hear directly from staff current activities, priorities, and  
9 emerging focus areas. And the staff will also brief the Commission in  
10 this regard on the implementation of Project Aim in each business line.

11 We will have the presentations from the Fuel Facilities  
12 Business Line and have a question and answer period followed by a  
13 brief five-minute break. And after the break, we will hear from the  
14 Nuclear Materials Users Business Line.

15 Any of my colleagues have anything before we begin?  
16 Okay, I will turn it over to Vic McCree, the EDO to begin the  
17 presentations.

18 MR. McCREE: Good morning, Mr. Chairman,  
19 Commissioners.

20 We are pleased to brief you this morning on the Fuel  
21 Facilities and Nuclear Materials Users Business Lines, both of which  
22 are led by the Office of Nuclear Material Safety and Safeguards.

23 Today, we will provide an overview of current and  
24 emerging issue activities for both business lines. We will start with a  
25 discussion of strategic programmatic considerations associated with  
26 the Fuel Facilities Business Line, including current activities,

1 international safeguards activities, and emerging focus areas.

2 After a short break, we will then transition to the  
3 Nuclear Material Users Business Line.

4 With that brief introduction, I will now turn it over to  
5 Scott Moore, Acting Director for the Office of Nuclear Material Safety  
6 and Safeguards.

7 MR. MOORE: Thank you, Victor. And good morning  
8 Chairman and Commissioners.

9 I am joined here by Craig Erlanger, Acting Director for  
10 the Division of Fuel Cycle Safety Safeguards and Environmental  
11 Review, as well as Mark Lesser, Director of the Division of Fuel Facility  
12 Inspection in Region II, and Pete Habighorst, the Chief of our Material  
13 Control and Accounting Branch. Next slide, please.

14 We last briefed the Commission on these two business  
15 lines on November 13, 2014. Since that briefing, the staff in these two  
16 business lines have maintained their focus on safety and security, while  
17 implementing their programs.

18 At the time of the last briefing, we were about five  
19 weeks into the merger between the Office of Nuclear Material Safety  
20 and Safeguards, NMSS, and the former Office of Federal and State  
21 Materials and Environmental Management Programs or FSME. Since  
22 the merger, a great deal of progress has been made by this office and  
23 the two business lines. We consider this merge to be one of our most  
24 significant accomplishments since the last briefing.

1                   The merge has improved NMSS's ability to effectively  
2 regulate and more efficiently implement our mission. The merge  
3 resulted in improvements in stakeholder communication, internal  
4 coordination, and workload balance, while providing flexibility to  
5 respond to a dynamic environment. In consideration of potential future  
6 changes being evaluated by the Agency, the staff identified and  
7 documented lessons learned that may be considered by NRC  
8 organizations going through the merge process.

9                   I would like to highlight the efforts made by these two  
10 business lines to address the Commission's direction on near-term and  
11 longer-term actions following the accident at the Fukushima Dai-ichi  
12 Nuclear Power Plant. As one of the longer-term activities, the  
13 Commission directed the staff to assess the applicability of the lessons  
14 learned from the accident to non-reactor facilities. While assessing  
15 these lessons learned, my staff worked closely with internal and  
16 external stakeholders, the fuel cycle industry and Agreement States.  
17 The staff completed its evaluation and submitted a paper,  
18 SECY-15-0081 to the commission. In this paper, the staff documented  
19 the results of our evaluation. We concluded that with the exception of  
20 some limited scope additional analyses; there was no need for a  
21 regulatory action for facilities other than operating power reactors in  
22 light of the Fukushima Dai-ichi accident.

23                   Today's first panel is focused on fuel facilities. This  
24 business line has a long history of success due to the hard work and  
25 collaboration amongst business line partners. The partner offices and  
26 our regional counterparts worked closely with NMSS fuel cycle staff on

1 a number of key activities to ensure the successful implementation of  
2 the Business Line's Programs. Next slide, please.

3 This slide provides an overview of the allocation of  
4 resources for this business line. The Fuel Facilities Business Line has  
5 an enacted budget of 172.5 FTE. That is about 4.9 percent of the  
6 Agency's FTE budget for this fiscal year. Additionally, we have  
7 approximately \$6 million for contract support and travel for FY16.

8 As shown in this chart, the Fuel Facilities Business  
9 Line has significantly reduced its budget over the last four years. As  
10 we continue to assess our processes and programs, we will continue to  
11 make adjustments to our budget requests to reflect the changes in our  
12 current environment and efficiency improvements. For FY17, the Fuel  
13 Facilities Business Line has reduced our requested budget by about 15  
14 FTE from this year or roughly about 10 percent.

15 The majority of the resources in the Business Line  
16 reside in the oversight and licensing product lines with additional  
17 resources for rulemaking, event response, and security and safeguards  
18 activities. These resources are used to fund several activities,  
19 including rulemaking activities, such as the high priority rulemaking on  
20 cyber security, implementing the Fuel Cycle Oversight Program and  
21 quarterly cumulative effects of regulation meetings with stakeholders.

22 These activities will be discussed in more detail this  
23 morning. The next three presenters will provide additional details on  
24 the Current Fuel Cycle Program environment, the Fuel Cycle Oversight  
25 Program, and the Fuel Facilities Business Line role in supporting  
26 international safeguards activities. Next slide, please.

1                   Before moving to the first presenter, Craig, I would like  
2 to discuss another important topic, Project Aim. The Executive  
3 Director for Operations, in coordination with the Chief Financial Officer  
4 established Project Aim in June 2014. The Fuel Facilities Business  
5 Line has been actively involved in several activities associated with  
6 Project Aim. Along with our business line partners, we focused on  
7 developing and implementing strategies that will make us more efficient  
8 and effective.

9                   In support of the Agency-wide effort to re-baseline and  
10 prioritize all of our work activities, members of the Fuel Facilities  
11 Business Line work together to identify potential efficiencies in work  
12 products and processes. Examples of the potential reductions that we  
13 identified involve the change of scope and frequency in reviewing  
14 licensing guidance documents, conducting NRC-hosted fuel facility  
15 conferences and meetings at a different frequency, implementing  
16 aspects of the Fuel Cycle Inspection Program, and utilizing travel funds  
17 in support of activities, such as conference attendance.

18                   These proposed reductions were documented in the  
19 re-baselining paper that is currently before you. Next slide, please.

20                   Additionally, the staff played an integral role in the  
21 Agency effort to provide you with an evaluation of and  
22 recommendations for pursuing Centers of Expertise within the NRC  
23 beyond those that already exist. The establishment of Centers of  
24 Expertise represents an opportunity to enhance coordination and  
25 mutual support among the offices, increase the ability to adapt surges  
26 in work, enhance standardization, and expand employee knowledge

1 and experience in technical areas.

2 Before the implementation of new Centers of  
3 Expertise, guidance will be developed and applied to ensure the basis  
4 for forming COEs is well founded to ensure its success.

5 As we move forward in the Fuel Facilities Business  
6 Line, we will continue to assess the broad range of future challenges  
7 and their potential impacts, while ensuring regulatory efficiency across  
8 this business line. Our focus will continue to be the safety and security  
9 of the operating facilities, by ensuring licensing and inspection  
10 programs are high quality and risk-informed and that the staff has the  
11 right skills to respond to events. We will continue to focus on the  
12 effective oversight of facilities under construction and will continue to  
13 meet our international obligations on securing and safeguarding source  
14 and special nuclear material.

15 At this point, I want to turn over the presentation to  
16 Craig Erlanger to provide more specifics.

17 Craig?

18 MR. ERLANGER: Thank you, Scott.

19 Good morning, Chairman, Commissioners. This  
20 morning I will be providing you with an overview of the Fuel Facilities  
21 Business Line, including some of our major activities and focus areas.

22 The Fuel Facilities Business Line contributes to the  
23 NRC mission to protect the public health and safety, promote the  
24 common defense and security, and protect the environment by  
25 developing and implementing the Licensing Oversight and Incident  
26 Response Programs for fuel cycle facilities. The Business Line also

1 leads domestic material control and accounting and international  
2 safeguards implementation activities for the NRC. Additionally, the  
3 business line supports rulemaking activities.

4 In addition to the Office of Nuclear Material Safety and  
5 Safeguards, several other NRC offices have a role in carrying out the  
6 functions of the business line. The partners include but are not limited  
7 to Region II, the Offices of Nuclear Security and Incident Response,  
8 Enforcement, International Programs, and General Counsel.

9 As I will discuss on the subsequent slides, the work  
10 within the Business Line is diverse and challenging. The strong  
11 relationships between the Business Line partners continues to be one  
12 of the key elements to achieving successes and addressing challenges  
13 within the Business Line. Next slide, please.

14 Currently, there are 13 major fuel cycle facilities  
15 licensed in the United States, eight of which are operating, one of which  
16 is under construction, and four of which have construction pending.  
17 The Fuel Facilities Business Line also provides licensing and oversight  
18 support for a number of Part 70 licensees that possess a greater than  
19 critical mass quantities of special nuclear material, such as universities,  
20 research, and test facilities. Next slide, please.

21 I would like to highlight the main priorities of the Fuel  
22 Facilities Business Line. These priorities influence the work we  
23 perform on a day-to-day basis, as well as our long-term planning. Our  
24 current priorities focus on ensuring safety and security through effective  
25 oversight of operating facilities and facilities under construction and  
26 through the effective management of licensing actions and other

1 regulatory activities.

2 Our second priority is supporting U.S. non-proliferation  
3 activities due to the implementation of the International Safeguards and  
4 Domestic Material Control and Accounting Programs.

5 And finally, our third priority is maintaining effective  
6 communications with stakeholders on staff approaches to emergent  
7 issues, rulemaking, guidance development, and other regulatory  
8 activities. Next slide, please.

9 Over the past year, the staff made progress on a  
10 number of rulemakings. I would like to highlight the activities  
11 associated with the cyber security rulemaking effort. Consistent with  
12 your direction, this rulemaking was designated as a high priority activity.  
13 The objective of the rulemaking is to establish a graded,  
14 performance-based approach to protect digital assets associated with  
15 safety, security, and safeguards functions at fuel cycle facilities.  
16 Development and implementation of this rulemaking will ensure that  
17 fuel cycle facilities have an adequate cyber security program to protect  
18 digital assets as a cyber security threat continues to evolve.

19 The public comment period on the draft regulatory  
20 basis for this rulemaking closed on October 5, 2015. The NRC  
21 received nine comment letters from the industry and the Nuclear  
22 Energy Institute. The staff addressed the perspectives provided in the  
23 comment letters, as well as incorporated insights gained through  
24 extensive outreach efforts. These efforts included conducting five  
25 public meetings on the rulemaking to obtain information and views  
26 related to the subject, performing a series of site visits to fuel cycle

1 facilities, and interacting with other federal agencies to learn from their  
2 experiences developing guidance and implementing cyber security  
3 programs.

4 The staff is on schedule to issue the final regulatory  
5 basis next month. In the long-term, the goal is to complete the  
6 proposed rule package by March 2017 and complete the final rule  
7 package by June 2018. NMSS, NSIR, Region II, and OGC are  
8 working closely together on this topic.

9 In addition to the cyber security rulemaking effort, the  
10 Business Line continues to work on other rulemaking activities, such as  
11 the 10 CFR Part 73 enhanced security for special nuclear material  
12 rulemaking effort.

13 In addition to our rulemaking activities, the Business  
14 Line continues to manage the impacts of the cumulative effects of  
15 regulation through the use of the integrated schedule and regular public  
16 meetings with licensees and other stakeholders. We have found these  
17 interactions to be an effective way to keep stakeholders aware of  
18 ongoing initiatives and help priorities activities and resources.

19 I would like to emphasize that the success of these  
20 activities are due in large part to the participation and support of the  
21 Business Line partners and the stakeholders who participate in these  
22 meetings. Next slide, please.

23 This slide provides a sample of the fuel facilities  
24 integrated schedule. Since we just discussed the cyber security  
25 rulemaking effort, it is shown on this slide as an example activity. The  
26 slide shows key milestones and due dates. The inclusion of these

1 elements allows the staff to see potential conflicts with other listed  
2 activities. To date, our stakeholders have supported the use of the  
3 integrated schedule.

4 Our next meeting with stakeholders is scheduled for  
5 March 16, 2016. The integrated schedule is also available on the  
6 NRC's public website and is updated regularly. Next slide, please.

7 In the area of licensing, I would like to highlight a few  
8 significant actions that have been completed since we last briefed you.  
9 These actions include the issuance of the confirmatory order for  
10 GE-Hitachi Vallecitos Nuclear Center related to security and material  
11 control and accounting requirements; the review and approval a  
12 request that allows for the significant expansion of the capacity of the  
13 URENCO USA Gas Centrifuge Facility; the completion of the  
14 construction authorization for the extension of the Mixed Oxide Fuel  
15 Fabrication Facility; and the completion of licensing actions associated  
16 with the termination of the Certificate of Compliance for the Paducah  
17 Gaseous Diffusion Plant.

18 Additionally, the staff is working on the GE Vallecitos  
19 Nuclear Center and Westinghouse Columbia Fuel Fabrication Facility  
20 license renewals. Next slide, please.

21 In fiscal year '15, the Business Line completed 63  
22 licensing actions, as compared to 107 licensing actions that were  
23 completed in fiscal year '14. Moving forward, we anticipate that the  
24 number of licensing actions will remain consistent with the numbers that  
25 we saw in fiscal year '15. The reduction in the overall licensing actions  
26 can be attributed to the mature state of the Fuel Facilities Licensing

1 Program.

2 The regulations in 10 CFR Part 70 allow licensees to  
3 make certain plant changes without prior regulatory approval, as long  
4 as they satisfy the criteria found in 10 CFR 70.72. We believe that the  
5 proper use of this provision has contributed to the overall licensing  
6 action decrease.

7 Some other factors that contributed to the reduction in  
8 the number of licensing actions include receiving fewer licensing  
9 actions from existing facilities that recently completed construction  
10 expansion activities and receiving fewer security-related licensing  
11 actions from certain enrichment facilities. Moving forward, we  
12 anticipate that the near-term completion of license renewal reviews will  
13 result in the staff receiving fewer significant amendments in licensing  
14 actions.

15 As a result of these fact-of-life changes, the Business  
16 Line returned approximately \$1.5 million and 9.5 FTE in fiscal year '15,  
17 due in large part to the decrease in licensing work.

18 Lastly, with all these changes in the licensing  
19 environment, the staff is focused on the equity and accuracy of licensee  
20 fee billing. The staff is working closely with the Office of the Chief  
21 Financial Officer to ensure these goals are met. Next slide, please.

22 As the title on this slide indicates, the staff continues to  
23 enhance the oversight infrastructure for fuel facilities. For example, by  
24 the end of calendar year 2017, the staff will have completed its review  
25 of all fuel cycle inspection manual chapters and inspection procedures.  
26 Once completed, all inspection guidance documents, some of which

1 date back to the 1980s will have been reviewed and revised or  
2 withdrawn as appropriate.

3           Transitioning to the first topic on the slide, in June 2015  
4 the staff issued Generic Letter 2015-01, Treatment of Natural  
5 Phenomena Hazards in Fuel Cycle Facilities. The Generic Letter  
6 requested that licensees submit information to demonstrate their  
7 compliance with the regulatory requirements and applicable license  
8 conditions regarding the treatment of natural phenomena events in their  
9 integrated safety analyses.

10           In the fall of 2015, licensees provided their responses  
11 to the Generic Letter. Based on the initial review of these responses,  
12 staff is in the process of requesting supplemental information from  
13 some licensees and the staff has also started conducting site visits.  
14 The staff will continue its review, consistent with the publicly available  
15 generic letter closure strategy. The staff expects to close this complex  
16 review by the end of calendar year 2016.

17           In regards to fuel facility operating experience, the staff  
18 has made substantial improvements to this program. The staff issued  
19 office-level guidance and implemented a routine structured process for  
20 assessing and acting on fuel facility operating experience. This  
21 process has also improved the staff's ability to communicate important  
22 operating experience information to key internal and external  
23 stakeholders.

24           The staff has also improved the exchange of operating  
25 experience with their international counterparts. For example, the  
26 NRC initiated an exchange of operating experience at the Canadian

1 Nuclear Safety Commission and the French regulatory body, ASN.  
2 This has advanced the ability of U.S., Canada, and France to share  
3 timely lessons learned and is especially valuable in light of the smaller  
4 population of fuel cycle facilities compared to that of reactors.

5 In regards to the last bullet on the slide, the staff  
6 continues to make progress developing a Revised Fuel Cycle Oversight  
7 Process that takes advantage of the lessons learned from 15 years of  
8 experience with integrated safety analyses. The Fuel Cycle Oversight  
9 Process will allow the NRC to potentially adjust the core inspection  
10 program and make it more effective by providing inspection focused on  
11 risk-significant items. This process will leverage the Agency's  
12 experience with the reactor oversight process by incorporating  
13 elements that have been shown to work well.

14 One of the elements of the Fuel Cycle Oversight  
15 Process is cornerstones, which are those aspects of licensee  
16 performance that are important and warrant regulatory oversight. The  
17 staff proposed a set of cornerstones that are optimal for fuel cycle  
18 facilities and that recommendation is currently with the Commission.

19 Over the next few years, the staff will continue  
20 engagement with the industry and public stakeholders in developing a  
21 significance determination process and action matrix. Next slide,  
22 please.

23 Moving into 2016, the staff is focused on ensuring  
24 safety and security of fuel facilities through effective licensing and  
25 oversight and by supporting U.S. non-proliferation activities. Some of  
26 our focus areas include making progress on the cyber security

1 rulemaking effort, closing out the Generic Letter on Natural Phenomena  
2 Hazards and making steady progress on revising the Fuel Cycle  
3 Oversight Process.

4 This concludes my part of the presentation. I will now  
5 turn it over to Mark Lesser, who will discuss Fuel Cycle Oversight.  
6 Mark.

7 MR. LESSER: Thank you, Craig.

8 Good morning, Chairman, Commissioners. My name  
9 is Mark Lesser and I am the Director of Division of Fuel Facility  
10 Inspection in Region II.

11 The NRC's Fuel Facility Inspection Program plays a  
12 key role in ensuring the safe and secure operation of the fuel cycle  
13 facilities through an effective implementation of comprehensive safety  
14 and security inspections. Next slide, please.

15 NRC inspection and enforcement activities have  
16 contributed to safe and secure licensee performance. Our own  
17 internal performance indicators were met in fiscal year '15. This  
18 includes completing the Core Inspection Program for all facilities to  
19 ensure that they operated within the established safety basis and  
20 performing reactive inspections to events such as unplanned releases,  
21 loss of criticality controls, and security issues to ensure the significance  
22 has been appropriately characterized, corrective actions have been  
23 verified, and implemented.

24 In 2015, Region II completed 115 core inspections, four  
25 reactive inspections, and several supplemental inspections, when  
26 needed; for example, operational readiness reviews and strike

1 preparation and recovery. Next slide, please.

2 Several organizational accomplishments have been  
3 achieved in the Fuel Facility Inspection Program. The transition and  
4 integration of all core inspection program responsibility to Region II was  
5 initiated in August of 2013 and successfully completed last year. The  
6 specialty areas of material control and accounting and nuclear criticality  
7 safety were the first to be transitioned. The final area, information  
8 security, was successfully transferred and integrated in 2015.

9 In this area, Region II worked very closely with the  
10 Office of Nuclear Security and Incident Response to enhance the  
11 Information Security Program by updating the inspection manual  
12 chapter and inspection procedures, developing an inspector  
13 qualification process in this area, and initiating proposals for reactive  
14 inspection criteria in a more risk-informed enforcement policy.

15 The transition of these specialty areas has resulted in  
16 more consistent management and implementation of the inspection  
17 process, including scheduling, planning, issue characterization,  
18 enforcement, communications, and documentation. As an example,  
19 each licensee's inspection schedule is now being prepared 18 months  
20 in advance. The licensees are given an opportunity to provide  
21 feedback to that schedule and possible conflicts and resource  
22 availability prior to finalizing the scheduling.

23 Additionally, inspections are now typically grouped and  
24 performed in groups of three to five people. Multiple inspection  
25 procedures are completed by the team members to improve efficiency  
26 and to facilitate the synergistic effects of people working together.

1                   For example, a permanent modifications inspection  
2 might be paired with a nuclear criticality safety inspection to prevent  
3 duplication of effort, transfer knowledge to less experienced inspectors  
4 and gain different perspectives.

5                   We have solicited and received favorable feedback on  
6 this process from the licensees. From their perspective, this  
7 inspection bundling results in less number of on-site weeks required for  
8 them to support inspections and more effective coordination with a  
9 single point of contact team leader during different phases of the  
10 inspection. Next slide, please.

11                   We continue to focus on knowledge management.  
12 The Fuel Facility Inspection Program requires expert operational  
13 knowledge in several different types of technologies and facilities,  
14 including conversion, gas centrifuge enrichment, laser enrichment,  
15 low-enriched fuel fabrication and high-enriched fuel fabrication. Each  
16 facility has its own unique processes, chemical hazards, and different  
17 integrated safety analyses requiring facility-specific operational  
18 knowledge by our inspectors.

19                   The inspection program also has several different  
20 inspector qualifications in addition to the ones previously mentioned.  
21 The challenge is to maintain inspector proficiency and backup  
22 capability with each facility and in each given area, given limited  
23 resources.

24                   The consolidated fuel cycle inspection function in  
25 Region II presents an additional challenge in being able to easily  
26 access backup inspection skills from other divisions and regions, such

1 as the Reactor Program allows for, if necessary. As a result, Region II  
2 must maintain a strong set of fuel facility inspectors.

3 We continue to focus on our Resource Management  
4 Strategic Initiative, which promotes cross-qualification between  
5 different business lines to provide added flexibility. Examples include  
6 the use of some of our fuel facility inspectors to support pre-operational  
7 testing inspections at Watts Bar Unit 2 and the use of security  
8 inspectors from our Division of Reactor Safety to support the Fuel  
9 Facility Physical Security Inspection Program.

10 An additional consideration is the need for senior  
11 resident inspector succession planning because a natural pipeline of  
12 resident inspectors does not exist. The unique skills of the reactor  
13 resident inspectors are directly relevant and recognized as highly  
14 valuable. So, throughout region management support we have been  
15 successful in attracting reactor senior residents into the fuel facility and  
16 training them in the technologies.

17 Certain specialty areas that I have discussed  
18 previously are referred to as communities of practice and led by a  
19 senior inspector. The Community of Practice Leader is responsible to  
20 develop and maintain the engineering and scientific knowledge base to  
21 ensure technical credibility within that group. Strong connection is  
22 maintained with the program offices, basically to provide periodic  
23 counterpart engagements, phone calls, and issue resolution.  
24 Inspectors are also provided the opportunities to engage with peers and  
25 develop proficiency through participation in industry-wide forums.

26 We will continue to focus on opportunities to

1 collaborate with our program offices to support development of a more  
2 efficient, predictable, and risk-informed Revised Fuel Cycle Oversight  
3 Program that expands the use of risk insights in inspection and  
4 enforcement. We will also continue to support completion of facility  
5 reviews related to natural phenomena hazards and seek opportunities  
6 to enhance communications with stakeholders through public  
7 meetings.

8 This concludes my portion of the presentation. I will  
9 now turn it over to Pete Habighorst to discuss international safeguards.

10 MR. HABIGHORST: Thank you, Mark.

11 Good morning, Chairman and Commissioners. I am  
12 the Chief of the Material Control and Accounting Branch and I would  
13 like to discuss the Fuel Facilities Business Line contribution to  
14 international safeguards and our successes over the last year and  
15 those planned in the future.

16 International safeguards are those activities  
17 implemented globally by the IAEA and nations, including the United  
18 States to provide assurance that nuclear materials and activities  
19 subjected to the IAEA safeguards remain in peaceful use.

20 The Atomic Energy Act and subsequent laws require  
21 the Nuclear Regulatory Commission to give full effect to international  
22 treaties and agreements brought into force by the U.S. The Fuel  
23 Facilities Business Line plays a vital role in supporting international  
24 safeguards activities within the U.S. at our licensed facilities. Next  
25 slide.

26 We have three principle responsibilities with respect to

1 international safeguards. The first is to ensure that the United States  
2 government can meet its obligations under three principle international  
3 safeguards agreements with the IAEA in regard to both the NRC and  
4 Agreement State licensees. The three principle agreements are the  
5 US-IAEA Safeguards Agreement, the additional protocol to the  
6 US-IAEA safeguards agreement and the US-IAEA Caribbean  
7 Territories Safeguards Agreement.

8 Some of the accomplishments in fiscal year 2015 in  
9 meeting agreement obligations include the following. We fulfill their  
10 reporting requirements for safeguards agreements in a timely and  
11 effective manner. Some of those examples of reporting requirements  
12 to the IAEA include collecting information on NRC licensed facilities to  
13 maintain the list of facilities from which the IAEA may select IAEA  
14 safeguards implementation.

15 Additionally, we oversaw the receipt and submittal of  
16 over 26,000 nuclear materials accounting reports to the IAEA. We  
17 also oversaw the collection for reporting of licensee data under the  
18 additional protocol to the US-IAEA safeguards agreement of typically  
19 more than 200 declarations of nuclear- related activities.

20 We prepared, coordinated approval, and submitted the  
21 URENCO USA Centrifuge Enrichment Plant design information  
22 questionnaire to the IAEA. We also supported the IAEA inspector  
23 verification of this design information questionnaire at the URENCO  
24 facility.

25 And finally, we investigated and resolve the IAEA  
26 questions with respect to measured values of scrap material exported

1 from a U.S. fuel fabricator to a foreign nuclear material processing  
2 facility.

3 The second responsibility is to maintain effective  
4 engagement with our federal partners. This engagement is to ensure  
5 that the U.S. meets its obligations under these international  
6 agreements. Under commission direction, we support relevant U.S.  
7 government non-proliferation policy decisions and participate in  
8 bilateral and multilateral meetings with other countries and the IAEA to  
9 address international safeguards issues. Some of the successes in  
10 fiscal year 2015 include leading an interagency group overseeing  
11 implementation of IAEA safeguards in the United States and we also  
12 responded to U.S. government requests to support the preparation  
13 and review of briefing papers, diplomatic cables transmitting U.S.  
14 government policy decisions, and if policy documents are routine, recur  
15 in non-policy international safeguards topics.

16 The third responsibility is knowledge transfer to the  
17 NRC staff, agreement states and licensees to enable effective  
18 implementation of international safeguards requirements. Some of  
19 those successes in fiscal year 2015 include development and training  
20 qualification plan for the international safeguards analysts here at the  
21 NRC.

22 We also prepared presentations and posters at a wide  
23 variety of national meetings to improve Agreement State and licensee  
24 awareness of international agreement reporting requirements. Some  
25 of these meetings include the Regulatory Information Conference, the  
26 Institute of Nuclear Material Management Annual Meeting and the

1 Annual Meeting of the Organization of Agreement States. Next slide.

2                   During fiscal year 2016, we expect to make progress or  
3 complete the following activities. With respect to international treaty  
4 compliance, when the U.S. government and IAEA negotiations are  
5 complete to modify the small quantities protocol to the U.S. IAEA  
6 Caribbean Territory Safeguards Agreement, the staff will seek  
7 commission guidance on actions to implement this binding agreement.  
8 We also plan on updating fuel fabrication, design information  
9 questionnaires and submit those to the IAEA. And we will continue to  
10 provide a regular monthly quarterly and annual reports under the U.S.  
11 IAEA Safeguards Agreement and the additional protocol.

12                   With respect to coordination, on behalf of the U.S.  
13 government in April of this year, we will host an international meeting to  
14 prepare the status report making recommendations on the application  
15 of a geological repository safeguards measures.

16                   With respect to knowledge transfer, we will implement  
17 the training and qualification plan for our international safeguards  
18 analyst and we will continue the training and outreach to licensees and  
19 Agreement States on meeting reporting obligations.

20                   In closing, the Fuel Facilities Business Line provides a  
21 vital role towards international safeguards activities for our licensed  
22 facilities and Agreement States and helps to support the U.S.  
23 government to ensure that we meet our agreement obligations and to  
24 strengthen agreement compliance globally. We also provide support  
25 to the Office of International Programs and export and import licensing  
26 and international bilateral and multilateral exchanges of information.

1 We do so with a small highly specialized staff in NMSS involved in  
2 international safeguards. The staff must be capable of immediately  
3 responding to IAEA inspection or verification activities to submit  
4 required and timely reports and to respond to requests for information  
5 from IAEA, Congress, or other federal agencies, the Agreement States  
6 and our licensees.

7 We must continue to keep our commercial facilities  
8 aware through training and discussions of their obligations under the  
9 safeguards agreement.

10 Thank you for this opportunity to discuss international  
11 safeguards activities with you.

12 MR. McCREE: Thanks, Pete. This concludes our  
13 presentation on the Fuels Facilities Business Line. We are ready to  
14 take your questions.

15 CHAIRMAN BURNS: Okay. Thank you all for your  
16 presentations. We will begin the questions this morning with  
17 Commissioner Ostendorff.

18 COMMISSIONER OSTENDORFF: Thank you,  
19 Chairman. Thank you all for your briefs. They were very helpful.

20 I think most of my questions are going to focus on Mark  
21 and Craig. So, I will give you the heads up there.

22 Mark, thanks for support for Region II and the visit  
23 Commissioner Baran had to URENCO's facility in Eunice last month. I  
24 think it was very informative and it kind of highlighted the one of a kind  
25 nature of these facilities we regulate. And I want to kind of hit on that  
26 theme a little bit here. But I am going to focus all my questions on

1 human capital throughout the region and come back to headquarters.

2 I guess where I want to start out with, how deep is the  
3 bench, let's say for URENCO facility. How many people are in Region  
4 II that had the skill sets to go do an inspection there?

5 MR. LESSER: It is not a deep bench. URENCO has  
6 a unique situation with some classified type information. So, we keep  
7 that on an need to know basis. So, I would say we really have two to  
8 three inspectors who are capable of having the knowledge and the  
9 background to perform the range of inspections that are needed at that  
10 facility.

11 COMMISSIONER OSTENDORFF: So, when we  
12 contrast that with Nuclear Fuel Services in Irwin and with the Lynchburg  
13 facility, our Cat 1 facilities, how many people do you have that have  
14 experiences and the knowledge to look at those facilities?

15 MR. LESSER: And those facilities are a little bit  
16 different there, obviously. And the vast majority of our staff conducts  
17 inspections at those facilities, primarily because the nature of the  
18 material, the nature of the information involved and it is one of our larger  
19 programs that we -- those two are the largest programs that we do  
20 inspect. So, we have a staff of about 23 inspectors. So, the vast  
21 majority of them would be capable.

22 COMMISSIONER OSTENDORFF: So, is that 23 total  
23 in the fuel facility? Vic, did you want to say something there?

24 MR. McCREE: It is 23 in the Division of Fuel Facility  
25 Inspection. Of course, when we do have other needs for inspections,  
26 be it in security, we do provide support from other divisions.

1                   COMMISSIONER OSTENDORFF: So, it is relatively  
2 small compared to the size of the agency, a relatively small pool of  
3 people. And so that leads to a great segue, Victor, into my next  
4 question, which is how do we ensure that we have, from a succession  
5 standpoint, a hiring plan that looks out the next 30 or 40 years to have --  
6 are you sure we don't have different age cohorts with nobody in there?  
7 How do you look at that?

8                   MR. LESSER: That is a great question and I alluded  
9 to some of that in my speaking. First and foremost, we have to  
10 maintain a core group of people and we have to have incentives for  
11 people to remain in the program. We don't have the ability, as the  
12 reactor programs have to easily tap into other regions who have the  
13 same skill set. So, we need to maintain the folks we have and transfer  
14 knowledge to the new folks coming in.

15                   Now, we also rely on cross-qualification and that is a  
16 big area that we have been putting emphasis on in the last several  
17 years. To encourage people to cross-qualify in the Fuel Facility  
18 Inspection Program such that we can tap their resources and we can  
19 include them and we have several people who have done that. There  
20 is migration back and forth between the different business lines in  
21 Region II that plugged in, we keep them proficient in their areas. So,  
22 we do have somewhat of a bench, not as big as I would like it but that is  
23 an area that we have to continue to focus on.

24                   Additionally, the Resident Inspector Program, when we  
25 are reaching out to reactor resident inspectors who have the skill set,  
26 the important skill set of being a senior resident inspector and we can

1 train them in the Fuel Facility Program and we have a few people who  
2 have done that and we even a few people earmarked who have  
3 expressed interest and are involved in a cross-qualification process  
4 while they are at a reactor.

5 COMMISSIONER OSTENDORFF: Okay. One thing  
6 that caught my attention in the slide was I think you indicated there were  
7 115 core inspections in 2015 and that is for eight operating sites. I  
8 realize you have some under construction and you have some -- that  
9 sounds like a lot of inspections to me.

10 And about how many site visits are there to an  
11 individual fuel facility site in a given year as part of the Core Inspection  
12 Program?

13 MR. LESSER: I would estimate there is probably  
14 about four to five visits; four to six visits, depending upon the category  
15 because what we have done is, let's say in the past, we have treated  
16 many of those inspections as individual inspections, where maybe one  
17 person would go out and do it. And in the last two to three years, we  
18 have bundled inspections together to create these teams of two to three  
19 inspectors with different inspections, actually. They are not  
20 necessarily all doing the same inspections. So, of these 115, maybe  
21 four to five of them might be bundled together. We would do all those  
22 during one week together.

23 COMMISSIONER OSTENDORFF: Okay, that makes  
24 sense. That's good.

25 MR. LESSER: And they will feed off of each other and  
26 we found that to be beneficial. And it reduces the time and the impact

1 to the licensees.

2 COMMISSIONER OSTENDORFF: It makes perfect  
3 sense.

4 Do you have, and maybe this is both for you and for  
5 Craig, do you all have any relationship or any nexus with the National  
6 Nuclear Security Administration, as far as their one of a kind facilities  
7 and how they look at some of these unique areas that are only at one  
8 site? Either of you can answer that.

9 MR. LESSER: I will answer that, initially, from our  
10 perspective. We do interface with NNSA in some areas, particularly, in  
11 the information security area. We rely on them to provide expertise  
12 when we are doing some of our inspections. They participate in that.

13 COMMISSIONER OSTENDORFF: In the Cat 1s?

14 MR. LESSER: Yes, in the Cat 1s and at URENCO.

15 COMMISSIONER OSTENDORFF: Craig?

16 MR. ERLANGER: To be sure, I would say the same  
17 thing. Especially on the enrichment side of the house, we work closely  
18 with the Department of Energy.

19 COMMISSIONER OSTENDORFF: Well, let me  
20 mention two specific skill sets, one of which is not applicable to us but  
21 one of them is. My experience in NNSA, there are two federal  
22 employee skill sets we always struggle with is criticality safety and we  
23 only had two or three people in NNSA and that is going back in my time  
24 a few years back in that area. The other one was explosive safety for  
25 the high explosives for nuclear weapons. And it really required some  
26 very careful, precise, management and cultivation of those skill sets.

1 So, you might want to consider at some point, engaging to see how they  
2 are approaching it these days.

3 MR. LESSER: Thank you.

4 COMMISSIONER OSTENDORFF: Okay, Craig, let  
5 me go to you. I appreciated your slide 14. It dealt with the licensing  
6 environment. You know your projections make a lot of sense to me  
7 that things are more mature and a lot of the work has been done.

8 And I know that can have an effect on not keeping the  
9 licensing staff proficient. About how many licensing staff do you  
10 specifically focused on the fuel cycle facilities?

11 MR. LESSER: Thank you for the question. We have  
12 two branches that focus on licensing. They are broken down by fuel  
13 manufacturing and enrichment and conversion. And roughly, I would  
14 say about 16 to 18 staff.

15 COMMISSIONER OSTENDORFF: Can you very  
16 briefly describe from, I will use the phrase knowledge management  
17 perspective, how do you record in a file or some place a licensing  
18 decision was made 10 years ago or 20 years ago for a facility and  
19 ensure that that is available to people looking at the history of a  
20 particular facility?

21 MR. ERLANGER: So, what I can do is talk at a high  
22 level and I do have the Branch Chiefs here, if you would like, if I don't  
23 answer your question in sufficient --

24 COMMISSIONER OSTENDORFF: High level is fine.

25 MR. ERLANGER: We do maintain licensing  
26 decisions. We do keep everything publicly available that we can in

1 ADAMS. We have a licensing handbook that guides our actions of  
2 how PMs not only complete the licensing actions but process and track.

3 As for internal databases and tracking, I would have to  
4 defer to the Branch Chiefs on how it is managed.

5 COMMISSIONER OSTENDORFF: That's fine.

6 MR. ERLANGER: But we do have a process. It is an  
7 area that we can always improve on. As the slide indicates, we don't  
8 have as many licensing actions that we had historically in the past and  
9 keeping track of that number is a very manageable number and we can  
10 do that. And we do do that today.

11 COMMISSIONER OSTENDORFF: Okay, that's fine.  
12 Thank you.

13 Thank you all. Thank you, Chairman.

14 CHAIRMAN BURNS: Thank you, Commissioner.  
15 Commissioner Baran.

16 COMMISSIONER BARAN: Thanks. Well, thank you  
17 for your presentations and for all the work you are doing.

18 Scott, I want to start with some questions on the  
19 Revised Fuel Cycle Oversight Process. This is a program that has  
20 been several years into its development. As was mentioned, we have  
21 a cornerstones paper in front of us now that we are looking at. The  
22 re-baselining paper includes some proposed resource reductions in this  
23 area as well.

24 Can we take a step back? Can you walk us through  
25 kind of big picture what work -- where are we on the work right now?  
26 What work is going on in the overall effort on the Revised Oversight

1 Process? What steps remain? How would these proposed resource  
2 reductions impact the program?

3 MR. MOORE: I will give a high-level example and  
4 then Craig can fill in more detail on it.

5 So, we have done a great amount of work on the  
6 RFCOP over time and it has gone on for years now. We are very close  
7 to the end of it. In the re-baselining effort, we proposed to cancel the  
8 quantitative SDP effort. We would propose going along with a  
9 qualitative SDP effort to finish it out. We believe that it would put in  
10 place a more risk-informed RFCOP and that would be of benefit to both  
11 licensees and the NRC. It is completely voluntary and licensees do  
12 not have to put it in place. They can stay with the current enforcement  
13 program that they have, if they want.

14 We have some licensees that have CAP programs and  
15 they would move in that direction. We have others that don't. And so  
16 I guess for more detail, you want to answer?

17 MR. ERLANGER: Thank you, Commissioner. To  
18 date, we have an approved framework. We have a paper that is  
19 before you with cornerstones. We also have a CAP program that we  
20 have developed a process for, a guidance to support it. We have also  
21 updated the enforcement program and the policy that if a licensee  
22 chooses to pursue RFCOP and they have a CAP, there are some  
23 benefits.

24 As Scott mentioned, we do see from a more  
25 risk-informed perspective, there are some benefits. The use of a  
26 significance determination process will allow both the NRC and the

1 licensees to focus on more important issues.

2 I had an opportunity to talk to Mark this morning. And  
3 if time permits, I think he would like to weigh in regarding the current  
4 assessment program and the potential for future benefits in the areas of  
5 transparency and openness on how we conduct the assessments at the  
6 end. All of this will lead to efficiencies. Over time, just from numbers  
7 alone, we believe there are potential efficiencies in the current  
8 inspection program. There are opportunities for reductions on-site  
9 where time is spent. We think we have some ideas that really could  
10 move the program to the next level.

11 COMMISSIONER BARAN: Do you want to add  
12 something?

13 MR. McCREE: If I could just clarify one point before  
14 Mark steps in. Every fuel cycle facility has a Corrective Action  
15 Program, just to be clear. So, they do have a CAP, a Corrective Action  
16 Program, a problem identification and resolution program. The  
17 question is whether those programs meet our requirements as laid out  
18 or expectation.

19 Some licensees have an Appendix B-qualified  
20 Corrective Action Program. So, that is not an issue for them. But  
21 ultimately, clearly the goal is that they identify, correct problems that  
22 preclude recurrence. And in doing so, enable them through our  
23 enforcement policy to receive credit for a non-cited violation. So, that  
24 is the goal. That is the carrot, if you would, for having an acceptable  
25 Corrective Action Program.

26 MR. LESSER: And I would add that with the definition

1 of the cornerstones in the inspectable areas, we are now at the point  
2 where we can explore different areas of looking at the actual inspection  
3 activities to identify areas that may not be as performance-based as we  
4 would like, pull those out, look at possibilities of how we would handle  
5 those, either reducing those, doing those at a less frequency, assuming  
6 that the licensee has a Corrective Action Program and we can  
7 confidently rely on them to identify problems in these areas and fix them  
8 perhaps through things like self-assessments, which would provide  
9 added incentive for licensees to buy into the program.

10 COMMISSIONER BARAN: Okay, so I take from that  
11 that for those of you that kind of waited on this, from your point of view,  
12 there would be significant safety and efficiency benefits of going  
13 forward with this program over the next few years. Is that right?

14 MR. McCREE: I would offer the short answer is yes  
15 and I believe we have already realized some of those benefits. In fact,  
16 they were -- so this has been arguably an eight-year journey and hit has  
17 taken very close management attention to make sure we don't lose it,  
18 we don't lose the momentum, that we don't miss the opportunity here,  
19 since licensees made their initial investments in integrated safety  
20 assessment back in 2000, early 2000s, looking at Mike Weber 2003  
21 time frame. It is an opportunity for us to take advantage of licensees  
22 having a more risk-informed performance-based facility for us to be  
23 more risk-informed performance-based in what we inspect, how we  
24 prepare, and how we execute our oversight process in general.

25 So, there is opportunity when you characterize at a  
26 significant safety benefit, I believe that we are currently and have

1 assurance that our current approach is achieving safety benefit. It is  
2 enabling us to fulfill our mission.

3 This is an initiative that is wholly rooted in our principles  
4 of good regulation, being more efficient, more effective, more reliable,  
5 and taking advantage of the lessons learned from the reactor oversight  
6 process over the last 15 plus years to try to apply those same lessons in  
7 a thoughtful, balanced, efficient way to oversight fuel cycle facilities.

8 COMMISSIONER BARAN: Okay.

9 MR. McCREE: But again, the long time frame makes  
10 it a different kind of challenge for us.

11 COMMISSIONER BARAN: And in terms of the next  
12 few steps, if the Commission approves the cornerstones, the  
13 significance determination process and the action matrix development,  
14 that is next? Are you going to pilot at some point this program? Do  
15 you know at this stage where you are likely to pilot?

16 MR. ERLANGER: Commissioner, at this stage, we  
17 don't know where we are planning to do the pilot. We do have, based  
18 on the resources we have, we, as you mentioned, our plan is to work on  
19 the SDP, to work on the action matrix, work on the procedures  
20 themselves and a pilot can be a variety of things, ranging from a  
21 full-blown pilot to implementation in varying steps.

22 So, I think we are still in the process of working that out.  
23 Our next engagement with the stakeholders is in March of 2016, next  
24 month coming up or we will start talking about the SDP.

25 COMMISSIONER BARAN: Okay, great.

26 Craig, let me ask you about fuel cycle cyber security

1 rulemaking, which you talked quite a bit about. My impression from  
2 discussions I have had is that stakeholders may have not gotten a full  
3 sense of the staff's performance-based graded approach to this  
4 rulemaking from the draft regulatory basis. Can you talk a little bit  
5 about the public comments you have received and how the staff is  
6 approaching these issues?

7 MR. ERLANGER: Thank you, Commissioner. Well,  
8 we have learned a great deal from watching the reactor program be  
9 implemented. And I think one of our key takeaways is at the simplest  
10 level, communication. From my perspective, we started with two  
11 different vocabularies and it took a good bit of time to explain what we  
12 were trying to implement. And it is, as you stated, performance-based,  
13 graded. We recognize that Cat 1 facilities are very different than Cat 3  
14 facilities.

15 What we have found is that public interactions and  
16 meetings and sharing of documents beforehand helps with the  
17 communication and the understanding. The reg basis, it changed from  
18 the time we got the draft reg basis out there. We took stakeholder  
19 comments very seriously. We tried to reflect them in the final product.  
20 Our next big hurdle will be the proposed rule and the guidance.  
21 A good learning from the reactor side of the house is what is needed in  
22 the area of guidance. It needs to be easily understandable and  
23 implemented. And we are working on it.

24 So, I think it is positive but we are also cautious. We  
25 know it is a very challenging subject and more dialogue is how we think  
26 we will achieve success.

1 COMMISSIONER BARAN: Good. And how much  
2 discussion has there been about how this rulemaking will fit into the  
3 Revised Fuel Cycle Oversight Process?

4 MR. ERLANGER: Commissioner, at this time, we  
5 haven't discussed that in detail. We recognize it will be something we  
6 will need to do but we would envision it as being like any other program.  
7 Once the requirement is out there, we will develop the associated --  
8 once we have a license, have the inspection procedures and it will  
9 eventually fall into the existing oversight process.

10 MR. McCREE: And the only thing I would add to that  
11 is given the fact where we are with cyber security for the operating  
12 reactors, we do have a core of talent, if you would, of qualified  
13 inspectors in the cyber area and Mark will be able to leverage that talent  
14 as well at fuel cycle facilities.

15 COMMISSIONER BARAN: Thank you.

16 CHAIRMAN BURNS: Thanks, Commissioner. A few  
17 questions. I probably could ask it either now or at the next panel but  
18 particularly perhaps directed to Scott. We are sometime now past the  
19 re-merger of NMSS and FSME. For actually any of you on the panel  
20 but perhaps starting with Scott, are there lingering things that we need  
21 to address or you feel you need to address within the office? Are there  
22 still perhaps some hard spots getting it to where you want it to be?  
23 Where would you say things are, at this point?

24 MR. MOORE: In terms of meeting the mission, we  
25 are certainly meeting the mission and we have advised the Commission  
26 on where we are with regard to the merger itself. So, we are meeting

1 our specific goals.

2 With regard to building the cohesion between the  
3 former FSME and the existing NMSS, we are still working on that. So,  
4 there is still improvement to be made in that area, as one might expect,  
5 after a merger between two large organizations. And that is  
6 exacerbated some between the fact that the two former offices are on  
7 different floors within Two White Flint.

8 So, I think that there is still room to be made in that  
9 area.

10 CHAIRMAN BURNS: What types of things are you  
11 doing, in terms of to help that along?

12 MR. MOORE: We certainly have open door policies  
13 that were instituted previously. We are working with all-hands  
14 meetings. We are addressing it openly. We are talking about it with  
15 the staff directly. So, we are doing those types of things.

16 CHAIRMAN BURNS: Okay, thanks.

17 Let me go to the Chart 5. Again, this shows sort of the  
18 progression or sort of a histogram, if you will, on budget and resources  
19 here. It may be helpful if we look at what we are projecting for fiscal  
20 year 17, where we are looking at about an FTE level. It looks like  
21 almost like spot-on the FTE level we had in 2008, budget-wise, the  
22 same comparison to I think about fiscal year 2009.

23 If you talk generally, it says -- take me along the path  
24 that sort of climbed up the mountain and is coming down the other side.  
25 Tell me about the major things that where we started out, say eight  
26 years ago and where we have peaks and now where we foresee where

1 we are going to be.

2 MR. ERLANGER: Thank you, Chairman. From the  
3 fuel cycle perspective in 2008 time frame, we were expecting  
4 significantly more licensing actions. So, to complement Commissioner  
5 Ostendorff's question about how do you plan and have the skill sets we  
6 hired with the expectation that we were going to have a lot of work. We  
7 were looking at four more major licensing sites that we were going to  
8 have to look at.

9 That didn't materialize and we also, during that time  
10 period, a facility as well was no longer licensed. So, we had a  
11 progression and an uptick and then, as we recognized that they weren't  
12 going to play out our budget went down and we are still right-sizing it  
13 now. Evidence to that is even what we returned in FY15, returning  
14 further FTEs. So, we were planning for more licensing actions. They  
15 didn't materialize. The time it took to get the staff onboard and trained  
16 and planning with the budget cycle, that is where we, in our division,  
17 saw the greatest uptick.

18 CHAIRMAN BURNS: Okay. What are the  
19 uncertainties you would see now? I mean given, as they say, some of  
20 the facilities, we have facilities we know we expected to come. We  
21 have announcements, for example, the American Centrifuge. We  
22 have a very unclear picture with respect to MOX. How do those  
23 uncertainties inform -- or how do you take account of them -- maybe  
24 that is the better question, account of those uncertainties and sort of  
25 your planning and forecasting out in terms of our workload?

26 MR. ERLANGER: Well, what we found today is that

1 just with the small population of fuel facilities that are licensed, the  
2 decision by one licensee to terminate their license or another one to  
3 construct has a major impact across the board.

4           Reacting to that, we try to do that during formulation.  
5 However, we have found a lot of budget year, execution year  
6 adjustments. To the extent we can, and we just started looking at  
7 FY18 with the planning guidance, we have a horizon of what we think is  
8 going to happen. It is our best guess, based on what we know today.

9           We will have to adjust -- the answer is we do the best  
10 we can forecasting. We do get that through interacting with licensees  
11 and potential applicants to understand what they are thinking. But the  
12 reality is, we have been making execution year adjustments.

13           CHAIRMAN BURNS: Yes, thanks. I know it is  
14 difficult, having gone through that on your end of it. It is a difficult  
15 process.

16           Scott, do you want to --

17           MR. MOORE: The only thing I would add is that in  
18 some years we put in planning wedges if we think that some things will  
19 be going up and some things will be going down, if we're getting  
20 multiple applications that we could be going both directions, and that  
21 has worked out well, to put in a conservative wedge.

22           MR. LESSER: Mr. Chairman, I would also add, you  
23 have from the inspection standpoint a very similar curve in Region II  
24 with regards to inspectors needed to be qualified to inspect construction  
25 activities of new fuel facilities, MOX, URENCO, International Isotopes,  
26 we did the same thing in manning up and -- and assigning resources to

1 our divisions of construction inspection and projects, with the thinking  
2 that we -- we actually do need some lead time to train and qualify them  
3 on the technology.

4 And it is interesting, some of the lessons learned that  
5 I've seen is that they just don't build them as fast as we think they're  
6 going to build them, so there is some room there to train maybe  
7 perhaps that we -- we can take advantage of.

8 MR. McCREE: The only thing I'd add, and I agree  
9 with everything that has been said, but in just thinking about the number  
10 of the facilities that have been affected by the change, Mark mentioned  
11 International Isotope, GE Silex, the American Centrifuge, Eagle -- yeah,  
12 Eagle Rock, Louisiana Energy Services, and different scale and time  
13 and of course the mixed oxide conversion facilities, at one point, we  
14 were looking for example in Region II at doubling the number of staff to  
15 approximately 23-40+, and that was also reflected in the projections of  
16 licensing workload needs.

17 It's -- it's challenging, and it will remain that way. One  
18 of the things that we're doing, and it's important, Commissioner  
19 Ostendorff started with questions about the human capital aspect of it  
20 because you need to have trained, experienced, qualified people ready  
21 to do both the licensing work and the construction or oversight  
22 activities, and you have to start early enough to assemble that -- those  
23 people, or else you won't be ready for the work when it gets here.

24 So we're committed to do that, but we're in a paradigm  
25 now where we can't scale up unless we have high assurance that it's  
26 going to happen. We just don't have that flexibility, so what we need to

1 do with the folks that we have is to create that fungibility, to manage, if  
2 you would, to provide the experience to cross-qualify, et cetera, so that  
3 if, and, or when it happens, we are positioned to be agile and can move  
4 in that direction.

5 And that -- that takes a lot of foresight, a lot of planning,  
6 a lot of engagement with the prospective applicants so that we have --  
7 we're wiser about whether and when they're coming in, while at the  
8 same time making prudent decisions from a human capital perspective.

9 CHAIRMAN BURNS: Okay, thanks, thanks. It's -- I  
10 know, it's a challenging -- challenging thing to be able to do, so I, you  
11 know, appreciate the focus you all give on that because, as you always  
12 know, if we're forecasting out in budget cycles three -- in effect three  
13 years ahead, coming back to the reality of what we face today can be  
14 difficult, so I appreciate the work.

15 We're going to talk, so Pete doesn't feel left out, I want  
16 to talk a little bit about safeguards --

17 MR. HABIGHORST: Thank you, Chairman.

18 CHAIRMAN BURNS: One of the things you  
19 mentioned is there's something like 26,000 reports, give me a feel for  
20 what the -- the nature of those reports -- actually, if you had asked me to  
21 guess how many kinds of reports, I would probably never have guessed  
22 that kind of number, so what -- tell me a little bit about what's involved in  
23 that reporting from licensees, I think primarily from licensees --

24 MR. HABIGHORST: Okay.

25 CHAIRMAN BURNS: -- and --

26 MR. HABIGHORST: Absolutely.

1 Well first of all, that number is associated with one of  
2 the three treaties I mentioned, and that's the IAEA Safeguards, the  
3 1980 treaty that started.

4 The 26,000 is kind of broken up in a number of facets.  
5 First of all, we have four facilities that we have under what we call  
6 reporting protocol, and they have about 40-50 reports a year. There  
7 are the three fuel fabrication and URENCO enrichment facility. There  
8 are inventory reports they submit, and then there's inventory change  
9 reports and things like that.

10 So that's one part of it. Now, the bulk of it, however, is  
11 exports and imports to this country of --

12 CHAIRMAN BURNS: Okay.

13 MR. HABIGHORST: -- special nuclear material and  
14 source material.

15 CHAIRMAN BURNS: Okay.

16 MR. HABIGHORST: And that varies year-to-year. I  
17 think the year before, it was in the range of about 30,000, and what  
18 happens with that report is that the IAEA looks at the receiving country  
19 and the supplying country and converse, and looks for transit matching,  
20 as they call it. Make sure that the material got there, make sure it's  
21 recorded, and we deal with the agency frequently on problems that  
22 exist such as batch IDs. There's never situations where the material is  
23 missing, but it's the recording, reporting, the time dates, and things like  
24 that.

25 CHAIRMAN BURNS: Okay. That is very helpful and  
26 interesting. Thank you to all, and Commissioner Svinicki.

1 COMMISSIONER SVINICKI: Thank you.

2 Today, we meet in a programmatic overview, or what  
3 we sometimes affectionately refer to as a business line meeting. I am  
4 not so naive to think that it is the best part of the Staff's day when they  
5 get a phone call that says the Commission held an agenda planning  
6 session, and your business line came up as something that the  
7 Commission wants to meet about.

8 I have been a supporter of these meetings, however,  
9 and as Commission Ostendorff fondly remembers, when we were  
10 congressional staff, this is the season of the year where we would carry  
11 multiple large three-ring binders to the Pentagon or Crystal City or  
12 Rosslyn or any of the DoD contractor locations and conduct multi-day  
13 overviews of the current year budget execution, the budget that had  
14 been submitted by the President, and then what we called rampology  
15 because the military likes to have unique terms for things, rampology of  
16 programs and activities and budget lines out into the future.

17 So we would do that day after day, and I know we're a  
18 very technical organization, but our Commission this month has  
19 testified twice in defense of the Agency's fiscal '17 budget, as recently  
20 as yesterday afternoon, and it's a reminder that our ability to a person  
21 as NRC to be able to attest to the prudent administration and  
22 management of people, of resources, of the public resources that are  
23 interested to us, even though we're very technical, this is an important,  
24 maybe not the most exciting part of our day, but we're accountable for  
25 this, and it's I think very important.

26 And what we discuss, of course as a Commission we

1 have all of these wonderful expert managers whose days are made up  
2 with a much larger fraction of the management, administration, and  
3 execution of these programs, but I do think it's important for the  
4 Commission to sit with you and have an opportunity to hear how things  
5 are going, so I know there's a lot of preparatory work that you  
6 undertake, not just the presenters, but all those who support you in  
7 sitting at the table today.

8 I just wanted to take that little moment to sermonize  
9 about why we do this and why it matters. I -- my preparation for our  
10 congressional hearings was wonderful preparation for our Commission  
11 meeting here today because all on our side of the table have been  
12 doing a lot of deep dives, our various budget lines.

13 In general, this is unique. This panel and the next  
14 panel, there's a lot of diversity in activity. It's not like sitting with the  
15 Operating Reactors Business Line where it's a little bit I think more  
16 cohesive across the regulated entities.

17 I appreciate that Commissioner Baran asked, I  
18 thought, a lot of really great questions on the Revised Fuel Cycle  
19 Oversight program, and I appreciate the Staff's answers. It was  
20 interesting for me, having been on the eight-year journey, Victor. I was  
21 going to talk today about, I didn't look up the transcripts, but I think I  
22 have consistently espoused a concern about the Revised Fuel  
23 Oversight Process, going back to its beginnings, its origins.

24 But although of course it is possible to have something  
25 that mimics the Reactor Oversight Process and apply it to fuel cycle  
26 facilities, that is not a basis for doing so. I know also, as we heard

1 today, that we're close to the end stages of the design of this mimicry of  
2 the ROP that we apply to fuel cycle facilities, or intend to apply to them.

3 But I appreciate the honesty that I think is represented  
4 in the re-baselining, where even being so close to the finish line, the  
5 Staff is willing to look at, with a very critical eye, at the activities that  
6 remain, where we are, and what will return a value commensurate with  
7 the investment that we would make to develop it.

8 Now, all that being said, I have, again, espoused a  
9 concern consistently for eight years that there is peril in having hollow  
10 mimicry of the Reactor Oversight Process for fuel cycle facilities.

11 One of the things that gives the -- there are two things  
12 that are central to the meaning and benefit of the Reactor Oversight  
13 Process.

14 First of all, the elaborateness of the ROP,  
15 commensurate with the hazard presented at reactor -- commercial  
16 large light-water reactors, which is the hazard profile, the risk profile, is  
17 fundamentally different there from anything on the fuel cycle side.

18 And the second thing is that you have a population of  
19 facilities where you're applying that program where you have a  
20 sufficient data population that you can draw insights, lessons learned,  
21 and continue to have a feedback loop into the ROP where you're  
22 elevating the informed sophistication of the regulatory application of  
23 that program, and you do that in a continuous cycle that is at the heart  
24 and soul of the ROP, is that assessment and feedback loop.

25 I continue to believe, and in the eight years I've been  
26 observing this program, it has not dispelled my concern that first of all,

1 this is a level of an elaborate program for oversight that is not  
2 commensurate with the hazard profile presented by these facilities, and  
3 also that you simply don't have enough facilities that each of a kind  
4 have the parallel hazard profiles, or enough similarity in each facility,  
5 that you're going to be able to do a truly informed and continually  
6 evolving to higher levels of sophistication in your knowledge.

7 I -- I think that there is the potential -- setting aside the  
8 quality of the work you've done, again, by God, you are determined to  
9 get there and you are developing a Revised Fuel Oversight Process  
10 that adopts much of the terminology and has parallels to the ROP -- to  
11 my mind, though, that does not make it the same. And I appreciate  
12 that you do forecast that there will be a lot of safety and efficiency  
13 benefits.

14 I know that once we reach the point of designing the  
15 Revised Fuel Oversight program, our investment is finished, but I think  
16 that it is not appropriate to forget about the ongoing costs of inspecting,  
17 overseeing, and forcing, and then the ongoing costs of the regulated  
18 community where they elect to have an application of this program.

19 As we all know, it is not the sunk initial costs of  
20 something that really drive the business case, it's the ongoing cost to do  
21 it. So what I am hopeful of is whatever the Commission decides this  
22 far in, and obviously I've been arguing this points for eight years, I  
23 haven't been terribly persuasive because here we sit eight years later, I  
24 -- I don't really -- I am never gratified by "I told you so," so I won't write  
25 you letters 15 years from now saying I told you so, although I might, but  
26 I will try not to do that.

1                   Hopefully I will have moved on to something more  
2 interesting in my life. I hope that I will have relented on these things  
3 that I care so deeply about in this moment, but I -- I hope that we'll  
4 continue to approach this with not some sort of organizational inferiority  
5 complex that says well NRR gets to regulate to the ROP, let's have a  
6 thing.

7                   I hope that if we find out it is not doing what we thought,  
8 the kind of honesty that you have demonstrated in the re-baselining, I  
9 hope you keep that internal scrutiny and skepticism about this thing, to  
10 say even -- because again, even if you sunk a lot, I -- I just -- I have so  
11 much respect for people that get eight years into something but are still  
12 willing to say, you know what, I now, at this point, I realize that that's not  
13 fruitful, or that's not beneficial.

14                   And so it is my -- my hope and my expectation that we  
15 will continue to have that kind of honesty about it, but I don't think that  
16 being this far in or having sunk this much time and money into it, that's  
17 still not a reason to put things in place that -- that, again, we might  
18 decide at this point in our understanding don't make a lot of sense.

19                   So I -- this -- you know, this paper alone on  
20 cornerstones presents me a lot of problems because although I was  
21 skeptical about this whole process, we are at this point, so you know, I  
22 have to weigh in with an opinion on cornerstones even if I wouldn't have  
23 had us arrive at this point in 2016.

24                   So we -- the Commission will deliberate that. We'll  
25 talk amongst ourselves. We'll figure out, I think, what is the right thing  
26 to do, but I don't find it inconsistent that you have elements of this

1 recommended for termination in the re-baselining paper, and yet we  
2 also, in parallel, have another paper.

3 I still think it's overly elaborate and am not sure --  
4 maybe this is the one ironic point for me -- the one thing that is in the  
5 re-baselining paper is that we're not going to -- we're going to take the  
6 quantitative aspects of SDP, which is -- by the way, in an assessment  
7 program, developing the quantitative parts of it are the hard part.

8 I think if we had gathered around us the ROP people  
9 from whenever they developed that over a decade ago -- maybe is that  
10 15 years old, 20? Yeah, it's old. In any event, they would tell us that  
11 it's the quantitative aspects. Qualitative assessment programs, as we  
12 all know from our own performance review programs, right, that's the  
13 easy stuff, but it's so subjective it leaves everyone fundamentally  
14 dissatisfied because it's qualitative.

15 So, you know, are we abandoning the thing that might  
16 have given us, you know, quantitative insights into things? So I don't  
17 know on the re-baselining if that's the part of it that I would put forward  
18 for termination because it might end up being a really important  
19 backbone to the whole integrity of the system.

20 So we are going to have to think about that really  
21 carefully, but I don't know. I'll give you -- I've got 10 seconds. Does  
22 anyone want to react to all that?

23 (Laughter.)

24 MR. MOORE: I would just say we certainly recognize  
25 your concerns. We would go into it --

26 COMMISSIONER SVINICKI: Hard not to recognize it

1 when I've been saying it for eight years, but go ahead.

2 (Laughter.)

3 MR. MOORE: We -- we would go into it with open  
4 eyes, and we would communicate with the Commission with no less  
5 openness.

6 COMMISSIONER SVINICKI: And again, I will just  
7 close by saying maybe some of what drives my concern is, as my  
8 colleagues have done, walking through so many of what we've been as  
9 fuel cycle facilities. To a person, we all go in there, and I think we're  
10 impressed, I'm impressed as a Commissioner, with the work that you do  
11 when I go through all these facilities and see how unique they are.

12 We throw that word around like it's meaningless. It  
13 makes having an informed application of nuclear safety and security  
14 regulations to these facilities much, much harder than your colleagues  
15 in the Operating Reactors Business Line, okay?

16 So every time I leave one of these, I am impressed with  
17 that, but also I realize that we need to strike the right balance. You  
18 walk through a fuel fabrication facility. It seems a lot like a high-tech  
19 precision manufacturing facility. It does not feel anything like a nuclear  
20 power plant, and it does not present anything like the hazard of a  
21 nuclear power plant, so I just would like us to keep that very front of  
22 mind.

23 Thank you, Mr. Chairman.

24 CHAIRMAN BURNS: Thank you. Thank you all for  
25 the presentations. We are going to take about a five-minute break,  
26 and then we'll have our second panel, on the Nuclear Materials Users

1 Business Line. Thanks.

2 (Whereupon, the meeting went off the record at 10:16  
3 a.m. and resumed at 10:23 a.m.)

4 CHAIRMAN BURNS: Okay. Welcome back,  
5 everyone. We'll have our second panel, and I'll turn it over to Vic.

6 MR. McCREE: Thanks Chairman, Commissioners.

7 At this point, we're pleased to present the Nuclear  
8 Materials Users Business Line. The speakers for this business line will  
9 address accomplishments and challenges, priorities, external factors,  
10 the Agreement State Program, and source security, to name a few of  
11 the areas they will cover.

12 We expect this portion of the meeting to give you a  
13 good perspective on the wide range of activities and licensees that the  
14 Nuclear Materials Users Business Line covers, and how NMSS  
15 Regions I, III, and IV and other program offices or external partners  
16 continue to ensure that the NRC's mission is fulfilled through the  
17 implementation of the Nuclear Materials Program.

18 Our first speaker will be Scott Moore, the Director of  
19 the Office of Nuclear Material Safety and Safeguards, and he will  
20 introduce the business line, one of the four that NMSS oversees.

21 MR. MOORE: Thanks, Victor, and good morning  
22 again, Chairman, Commissioners.

23 Next you will hear from several speakers about  
24 different aspects of the Nuclear Materials Users Business Line. This is  
25 a unique program that has the most licensees of any other business line  
26 within NRC, and as you will see in the next few slides, it is also the

1 largest of the business lines that NMSS manages. Next slide, please.

2                   Currently, for FY 16, the Nuclear Materials Users  
3 Business Line has 310 FTE and \$40.2 million in contract support and  
4 travel. Over the past few years, this has remained relatively flat,  
5 coming down from a peak funding level during the FY 11 and FY 12  
6 time frame. Looking ahead to FY 17, you will see that we forecast our  
7 funding level to remain fairly constant.

8                   Within the Nuclear Materials Users Business Line, over  
9 half of our total FTE, or 180.1 FTE, is for oversight and licensing. Also,  
10 we have a unique product line, State, Tribal, and Federal programs, at  
11 52 FTE.

12                   Under international activities and generic homeland  
13 security, the NMU Business Line has a portion of its funds set aside for  
14 the integrated source management portfolio, which includes the  
15 National Source Tracking System, web-based licensing, and the  
16 License Verification System, as well as international assistance funds  
17 managed by the Office of International Programs.

18                   The Integrated Source Management Portfolio is a  
19 critical component of the NRC's oversight in the Materials program, and  
20 some of the systems are utilized by both NRC and the Agreement State  
21 licensees. Next slide, please.

22                   Next I'm going to briefly mention a few topics, both past  
23 and present, that I've -- that have impacted the program.

24                   First, I would like to highlight that the Nuclear Materials  
25 Users Business Line effectively contributes to NRC's goals of ensuring  
26 the safe and secure use of radioactive materials. The next few

1 speakers will provide additional details about how the wide variety of  
2 activities performed within this business line help support these  
3 strategic goals.

4 Since the merger of the Office of Nuclear Materials  
5 Safety and Safeguards, NMSS, and the Federal and State Materials  
6 and Environmental Management Programs, FSME, in 2014, Staff has  
7 been working hard to ensure a smooth transition of our program and  
8 minimize the impacts on our licensee base.

9 The Nuclear Materials Users Business Line has  
10 successfully met our performance goals and addressed challenges in a  
11 timely and effective manner, and we talked about that in the last  
12 session.

13 Looking ahead to 2020 and beyond, the number and  
14 composition of licensees under the National Materials Program, or  
15 NMP, are expected to remain fairly constant. Although Vermont and  
16 Wyoming have stated their intentions to pursue Agreement State  
17 status, there are relatively few NRC materials licensees that would be  
18 transferred from NRC jurisdiction to these states.

19 The transfer of some uranium recovery licensees  
20 would have impacts on another NMSS business line, the  
21 Decommissioning and Low-Level Waste Business Line, but the Nuclear  
22 Materials Users Business Line expects to remain stable throughout  
23 these transitions.

24 Additionally, we don't anticipate any significant  
25 changes to the needed skill sets of our technical staff over the next few  
26 years. We continue to maintain a highly capable cadre of Staff who

1 are able to address the diverse technical challenges that we face. To  
2 help ensure a continued pipeline of certain in-demand technical  
3 specialties, NMSS management is participating in an effort by the  
4 National Council on Radiation Protection and Measurements to  
5 address potential skill-set shortages within the United States.

6 Pam Henderson from NMSS is supporting this effort.  
7 We believe this proactive engagement with industry and our regulatory  
8 partners is important to help ensure that the National Materials Program  
9 continues to be highly effective and successful. Next slide, please.

10 The Nuclear Materials Users Business Line has also  
11 been actively involved in Project Aim activities over the past year.  
12 Today, I am going to highlight three.

13 The first Project Aim activity I want to mention is the  
14 Materials Program consolidation effort. NMSS's Division of Material  
15 Safety, State, Tribal, and Rulemaking Programs has been leading this  
16 review, with strong support from regional partners, to provide the  
17 Commission with a SECY paper assessing the pros and cons of further  
18 consolidation of the Regional Materials Program. The review is  
19 progressing well, and we look forward to providing the Commission with  
20 a recommendation in May.

21 The second activity that NMSS has been actively  
22 involved in is the Centers of Expertise. The Nuclear Materials Users  
23 Business Line contains our Rulemaking Branch responsible for project  
24 management of rules funded by the four NMSS business lines.  
25 Considering this, NMSS was heavily involved in the COE  
26 recommendations, specifically concerning the recommendation for

1 Rulemaking Center of Expertise. We will work diligently to implement  
2 the Commission's recently issued directions on COEs. Next slide,  
3 please.

4 The final Project Aim activity that I want to discuss  
5 today is the re-baselining activity. As the largest business line within  
6 NMSS, the Nuclear Materials Users Business Line was deeply involved  
7 in the Agency-wide effort to re-baseline and prioritize work activities.

8 This included significant coordination with three  
9 Regions, multiple partner offices, and external stakeholders, such as  
10 the Organization of Agreement States. The outcome of this project  
11 has already realized benefits for NMSS by allowing us to identify and  
12 focus on our most critical work products while simultaneously reviewing  
13 our other processes for efficiencies.

14 I will now turn over the presentation to Mr. Dan Collins,  
15 who is the newly-appointed Director of the Division of Material Safety,  
16 State, Tribal, and Rulemaking Programs. Dan?

17 MR. COLLINS: Thank you, Scott.

18 Good morning, Chairman, Commissioners. Today I  
19 will provide a brief overview of the National Materials Program and then  
20 discuss some of the external factors and uncertainties impacting the  
21 program, as well as highlight some of our achievements.

22 First, let me provide some general background on the  
23 National Materials Program and the licensee base for the Nuclear  
24 Materials Users Business Line. Next slide, please.

25 The National Materials Program is a broad collective  
26 framework within which both the NRC and the Agreement States

1 function in carrying out their respective regulatory programs for  
2 ensuring the safe and secure use of radioactive materials. The  
3 National Materials Program provides a coherent national system for the  
4 regulation of nuclear materials by the NRC or those materials covered  
5 by state agreements with the goal of protecting public health and safety  
6 through compatible regulatory programs.

7           Within the United States, over 21,000 licensees use  
8 radioactive materials for a wide variety of uses. The NRC regulates  
9 about 2,900 of these licensees, and the rest, or approximately 86  
10 percent of the materials licensees, are under the regulatory purview of  
11 the 37 Agreement States.

12           The NRC and Agreement States also allow for  
13 generally licensed material under certain circumstances. There are  
14 thousands of general licensees under NRC oversight and also within  
15 the 37 Agreement States. Next slide, please.

16           Between the Agreement States and the NRC, this  
17 licensee base ranges from small companies such as those that utilize  
18 well logging sources to larger medical users. About one-third of all  
19 materials licensees are engaged in diagnostic or therapeutic medical  
20 practices. A small number are academic or research users, and a  
21 majority of the remaining licensees use radioactive materials for  
22 commercial or industrial applications such as radiography, gauges,  
23 measuring and analytical devices, irradiators, and other similar uses.

24           As you can see, the Nuclear Materials Users Business  
25 Line covers an incredibly diverse set of licensees. NRC, along with  
26 our Agreement State partners, must ensure that our regulatory

1 framework is sufficiently flexible to accommodate such a wide range of  
2 licensees.

3 Furthermore, we must continually strive to ensure that  
4 the National Materials Program is implemented in a consistent and  
5 robust manner throughout the nation. Next slide, please.

6 Next, I would like to briefly highlight some of the  
7 accomplishments that this business line has been involved in over the  
8 past year. As the largest business line within NMSS, and with the  
9 largest licensee base, we have a significant amount of ongoing work.  
10 There are thousands of licensing actions and hundreds of inspections  
11 conducted each year for materials licensees, as well as about 10 to 12  
12 Integrated Materials Performance Evaluation Program reviews, which  
13 we refer to as IMPEPs, for Agreement State programs.

14 There are also multiple Commission meetings and a  
15 multitude of other activities that help to ensure that the National  
16 Materials Program functions as intended. These activities also directly  
17 support the NRC's strategic goals of ensuring the safe and secure use  
18 of radioactive material.

19 In the area of rulemaking, my staff has made significant  
20 progress in finalizing the Part 35 rulemaking effort. This has included  
21 significant stakeholder input and coordination with the medical industry  
22 through both public meetings and working with the Advisory Committee  
23 for the Medical Uses of Isotopes, which we refer to as ACMUI.

24 I look forward to providing the Commission with a  
25 proposed rule in the near future for your consideration.

26 NMSS and our regional partners have also seen

1 progress on our efforts to standardize licensing and oversight practices  
2 across the Regions and Headquarters. We have established a  
3 working group that has been collaborating to create standardized  
4 license conditions and license templates for use in the Web-Based  
5 Licensing System.

6 This effort recently culminated in each Region and  
7 Headquarters for the first time ever issuing licenses for select types of  
8 licensees directly from the Web-Based Licensing System. Looking  
9 forward, we will finish this -- the effort to standardize licenses and  
10 licensing conditions for all licensee types and continue to identify and  
11 address any inconsistencies or inefficiencies and help to improve the  
12 functionality of the Web-Based Licensing System and the broader  
13 Licensing Program for materials licensees.

14 These changes will not only help to improve the NRC  
15 business processes but will also help ensure the Materials Program is  
16 applied in a consistent and robust manner for all NRC licensees.

17 Finally, we also have completed a first ever Draft Tribal  
18 Policy Statement that captures important considerations and key  
19 concepts of how the NRC's Tribal Liaison Program functions. This  
20 policy statement is expected to be submitted to the Commission later  
21 this year for final consideration and will represent a significant step in  
22 enhancing the NRC's tribal programs.

23 In addition to this policy statement, NMSS has made  
24 significant progress in expanding NRC Staff's general awareness of  
25 tribal considerations through knowledge management sessions and  
26 through a new iLearn training course. These efforts are important and

1 recognize the special status afforded to federally recognized tribes and  
2 their role in fulfilling NRC's mission. Next slide, please.

3 One of the most important keys to the success of the  
4 National Materials Program is frequent and clear communications with  
5 our stakeholders. The Organization of Agreement States, referred to  
6 as OAS, and Conference of Radiation Control Program Directors,  
7 referred to as CRCPD, are two primary examples of partners that help  
8 the NRC to achieve our mission and the goals of the National Materials  
9 Program.

10 We coordinate closely with OAS and CRCPD through  
11 monthly teleconferences, attendance at their board meetings, and  
12 participation in their annual conferences. Additionally, recognizing the  
13 unique status of Agreement States, NRC uses Radiation Control  
14 Program Director letters to communicate sensitive unclassified  
15 non-safeguards information.

16 This communication vehicle helps to ensure that we  
17 have a quick and reliable method to convey sensitive information that is  
18 relevant to the continued protection of public health and safety and to  
19 the common defense and security. Next slide, please.

20 We also have strong communication networks  
21 established between the NRC and our Agreement State partners.  
22 Lines of communication are established through a variety of  
23 Headquarters and regional staff, but we rely heavily on our Regional  
24 State Agreements Officers to conduct routine inquiries and assist with  
25 program implementation issues.

26 Also, these relationships facilitate timely information

1 exchange and decision-making when safety or security events occur.  
2 NRC Staff also utilizes a wide range of documents and meetings to  
3 communicate with our stakeholders. This includes more standard  
4 communication tools such as licensing newsletters and generic  
5 communications as well as more unique communication tools such as  
6 the Radiation Control Program Director letters I mentioned.

7 We also help to plan and participate in external  
8 meetings such as the Master Material licensee annual meetings, and as  
9 previously mentioned, the CRCPD and OAS annual meetings.

10 The NRC Staff also facilitates internal meetings such  
11 as Commission meetings involving the CRCPD or OAS and the  
12 Advisory Committee for the Medical Use of Isotopes. We meet with  
13 ACMUI formally twice per year, and we engage them on a  
14 case-by-case basis during the year to -- for help in -- in forming our  
15 regulatory actions in these areas.

16 The Nuclear Materials Users Business Line also has a  
17 number of other external stakeholders, including federal, state, and  
18 local governments as well as professional societies and industry  
19 groups. These stakeholders provide valuable insight into specific  
20 technical issues that may impact certain groups of the general public.  
21 Staff works with these stakeholders to address the issues that are  
22 raised and is proactive in providing the NRC's views on various issues.

23 We also take the opportunity to attend professional  
24 conferences and meetings of these organizations in order to share  
25 information and keep channels of communication open. Next slide,  
26 please.

1                   Next, I am going to address some of the business line's  
2 specific uncertainties and external factors that are influencing our work  
3 planning and processes.

4                   Under the Nuclear Materials Users Business Line,  
5 there are many different uncertainties and external factors that affect  
6 the business line. With such a diverse and varied program, including  
7 many external partners and stakeholders, it is no surprise that our  
8 program can be significantly impacted by external factors. However,  
9 we continue to work with Staff and external stakeholders and partners  
10 to ensure we maintain flexibility in the program and to adapt to changes  
11 and continually assess emergent issues and to determine their impact  
12 on the program.

13                   Throughout this environment of change and transition,  
14 NRC continues to communicate and coordinate with stakeholders and  
15 partners to ensure external factors are identified early. Strategies are  
16 then adopted to mitigate the potential uncertainties and disruptions to  
17 the business line activities.

18                   Tailoring the overarching strategy and associated  
19 actions to the specific stakeholders is important for such a diverse  
20 licensee base. By keeping our lines of communication open and  
21 working in a collaborative manner with our external partners and  
22 stakeholders, we can appropriately address any emergent issues and  
23 continue to remain focused on the mission of protecting public health  
24 and safety. Next slide, please.

25                   Two examples of uncertainties for factors that have the  
26 potential to impact our activities and that we are actively addressing are

1 the Materials Consolidation Review under Project Aim and ongoing  
2 Office of Inspector General and Government Accountability Office  
3 audits in the areas of materials licensing.

4 NMSS and regional partners are currently reviewing  
5 options and generating a recommendation as part of the Project Aim  
6 activity to review and consider consolidation of the regional materials  
7 programs. Although the review is still in progress, as you might  
8 expect, there is concern among some of the Materials Program staff  
9 regarding potential outcomes.

10 In our evaluation, we are considering the potential  
11 impacts of various consolidation scenarios on mission effectiveness,  
12 employee impact, implementation complexity, and we are working on  
13 estimates of potential savings or additional costs.

14 As always, the primary consideration is that we  
15 continue to fulfill the NRC's core mission of protecting public health and  
16 safety and common defense and security during this time of transition  
17 and change.

18 The Nuclear Materials Users Business Line has also  
19 been responsible for managing the impacts and responding to multiple  
20 OIG and GAO audits in the past decade that have impacted parts of the  
21 NRC's and Agreement States' programs. In particular, between 2007  
22 and 2014, the program responded to and addressed findings of three  
23 GAO audits, in 2007, 2014, and 2012, and multiple IG audits.

24 These audits have ranged across different areas, but  
25 each has resulted in the NRC adapting and improving its program. We  
26 believe there has been value added in many of the recommended

1 changes, and Staff continues to develop efforts to ensure these  
2 changes are institutionalized in a timely and effective manner.

3 Although these changes have not always been easy to  
4 effect, we have made significant progress in addressing all of these  
5 audits. We will continue to make program improvement based on  
6 internal or external program reviews, and you will hear more about the  
7 prior GAO audits in particular during the Part 37 implementation portion  
8 of this presentation.

9 I will now turn over the presentation to our next  
10 speaker, Mr. Joseph Nick, who is the Deputy Director of the Region I  
11 Division of Nuclear Materials Safety. Joe?

12 MR. NICK: Thank you, Dan.

13 Good morning, Chairman and Commissioners.  
14 Today, I will be presenting an overview of the business line inspection  
15 and licensing activities in the Nuclear Materials Users Business Line.  
16 Next slide, please.

17 So as part of the National Materials Program, the  
18 inspection oversight of nearly 2,900 NRC licensees throughout the  
19 country is carried out through the coordinated efforts of Staff in Regions  
20 I, III, and IV, and with help from Staff from Headquarters.

21 Our inspectors maintain a clear safety and security  
22 focus during the conduct of these inspections. The inspections are  
23 performance-based, and they are typically announced. However, we  
24 may announce an inspection to a -- to observe certain activities or to  
25 ensure key personnel are available for a particular issue.

26 The Regions and Headquarters work cooperatively in

1 the conduct of these inspections. If a need is identified, we assist each  
2 other with the inspections. This helps to broaden our inspection  
3 experience base and allows for a different set of eyes to view and  
4 review the licensee's program.

5 Observations and findings that result from inspections  
6 are shared through our frequent counterpart calls and our in-person  
7 meetings. In fiscal year 2015, Region I was assessed under the  
8 Integrated Materials and Performance Evaluation Program, also known  
9 as the IMPEP program. The Region I program was found to be  
10 satisfactory, the highest rating possible under IMPEP, for all the  
11 performance indicators reviewed, and deemed adequate to protect  
12 public health and safety.

13 The IMPEP results for Regions III and IV have been  
14 similar in recent years, and these positive IMPEP results indicate a  
15 strong, comprehensive Materials Program within the NRC. Next slide,  
16 please.

17 Also, during fiscal year 2015, the Nuclear Materials  
18 Users Business Line met all the strategic performance indicators,  
19 including preventing exposures and releases significantly exceeding  
20 the regulatory limits; preventing sabotage, theft, diversion, or loss of  
21 significant quantities of radioactive material; and preventing substantial  
22 breakdowns of physical- and cyber-security for licensed materials.

23 In 2015, we completed approximately 850 inspections  
24 and about 2,000 licensing actions throughout the Regions. Licensing  
25 activities for the Materials Program are for the most part completed in  
26 the Regional Offices. Our highly trained and skilled license reviewers

1 are granted the authority to approve the use of radioactive materials to  
2 prospective licensees and to review changes to and renewals of  
3 existing licenses.

4 Our reviewers work diligently to ensure that a thorough  
5 understanding of the licensee's intended use for the radioactive  
6 material is obtained before the license is issued. This is completed in  
7 part through frequent conversations with licensees and pre-licensing  
8 site visits for new applicants.

9 Our licensing activities cover a wide range of  
10 categories of materials and their various uses. Our inspection  
11 activities included reviews of health and safety aspects as well as the  
12 implementation of the materials source security requirements under the  
13 former increased controls orders and under the new 10 CFR Part 37  
14 regulations.

15 Another key aspect of our inspection program is our  
16 response to events or situations that require further review. We refer  
17 to these as reactive inspections, and we have completed a number of  
18 these types of inspections during the past year.

19 One of these reactive inspections included the review  
20 of an event that involved an exposure to an embryo fetus whose mother  
21 had received a radioactive iodine-131 treatment before she or her  
22 physician knew that she was pregnant. In this case, the baby was  
23 subsequently delivered and suffered no known adverse effects from the  
24 treatment, but this event will be reported as an abnormal occurrence to  
25 Congress due to the unintended dose to the embryo fetus.

26 Another example involved the improper handling,

1 processing, and sales of radioactive materials on eBay that resulted in  
2 the contamination of a residential location. We have also performed  
3 follow-up inspections to events involving employee overexposures  
4 during source handling and transfer operation that involved a  
5 high-activity cobalt-60 source, and also follow-up inspections on many  
6 instances of moisture density gauges damaged by heavy equipment at  
7 construction sites.

8 For all these issues, the NRC has ensured that timely  
9 and effective corrective actions were implemented by the licensees and  
10 that appropriate enforcement action was taken to prevent recurrence.  
11 As a program, we complete our inspection activity in a timely manner in  
12 accordance with our inspection procedures. The associated  
13 enforcement actions resulting from these inspections are also timely  
14 and are shared and discussed amongst the Regions and Headquarters  
15 for both awareness and consistencies with the enforcement policy.

16 Furthermore, these reactive inspections and  
17 enforcement actions have ultimately resulted in improved licensee  
18 performance and continue to ensure regulatory compliance by our  
19 licensees. Next slide, please.

20 Our NRC Regional State Agreements Officers and  
21 other regional staff continue to provide support for the IMPEP process.  
22 They liaison with the Agreement States staff, they coordinate on  
23 technical issues, and they provide training for Agreement State  
24 personnel.

25 This support complements the existing Headquarters  
26 staff of technical experts and the staff familiar with the specific licenses

1 or the technical processes that are being discussed. Regional staff  
2 provide invaluable support for training courses for both technology and  
3 regulatory issues. This regional involvement helps to support an  
4 adequate and compatible Agreement State Program. Next slide,  
5 please.

6 The NRC regional staff continues to focus on resolving  
7 challenges through the effective -- the adoption of effective, efficient,  
8 and timely solutions. Some current challenges facing the regional staff  
9 include staying current with advances in medical technologies such as  
10 the intravenous injection of an alpha/beta-emitting nuclide, radium-223;  
11 a new Gamma Knife treatment system; and a new brachytherapy  
12 device using cesium-131.

13 We plan to meet this challenge through training and  
14 other knowledge-sharing opportunities. In addition, the regional staff  
15 are continuing to work with our Headquarters colleagues to integrate  
16 the Web-Based Licensing System in the regional processes and  
17 procedures. This effort involves coordination between the three  
18 Regions and the Headquarters staff and ensuring that the materials  
19 licensing process is implemented consistently and effectively.

20 We're also working together to implement other  
21 enhancements and best practices into our Materials Program.  
22 Planning and coordination of these efforts will help us successfully  
23 meet the challenges while improving our performance and  
24 strengthening our program.

25 I will now turn over the presentation to our next  
26 speaker, Mr. Paul Goldberg, who is presenting for the Source

1 Management and Protection Branch in the Division of Materials Safety  
2 State, Tribal, and Rulemaking Programs in NMSS.

3 MR. GOLDBERG: Thank you, Joe.

4 Good morning, Chairman and Commissioners. This  
5 morning, I will discuss the implementation of the Part 37 Rule that  
6 contains security requirements for Category 1 and 2 quantities of  
7 byproduct material as well as the comprehensive assessment of these  
8 regulations that was mandated by Congress.

9 For over 50 years, NRC and its predecessor, the  
10 Atomic Energy Commission, and the Agreement States, have ensured  
11 the safety, security, and control of byproduct material. When the  
12 threat environment dramatically changed after the events of September  
13 11th, 2001, we recognized that additional security requirements for  
14 Category 1 and 2 materials were needed.

15 The Staff developed measures to ensure continuous  
16 monitoring and prompt detection, assessment, and law enforcement  
17 agency response. Using orders and other legally binding  
18 mechanisms, these additional security measures were imposed on  
19 NRC and Agreement State licensees.

20 In 2013, we transitioned away from the orders to the  
21 Part 37 rule. This rule represents a significant collaborative effort  
22 between the NRC and the Agreement States to develop a rule to  
23 increase security for Category 1 and 2 material beyond the existing  
24 safety and security requirements in Parts 20, 30-36, and 39.

25 This rule was much more than a codification of the  
26 orders. It considers GAO concerns, lessons learned from

1 implementation of the security orders, and extensive stakeholder input.  
2 Part 37 is a combination of prescriptive and performance-based  
3 requirements which include background checks; access controls;  
4 security barriers; ability to monitor, detect, assess, and respond to  
5 events; and coordination with law enforcement.

6 We believe that the program for ensuring the safety  
7 and security of byproduct material is appropriate for the current threat  
8 environment. Next slide, please.

9 In saying that, we are not relying solely on our internal  
10 assessments. In 2005, the Radiation Source Protection and Security  
11 Task Force was established to address the security of radiation sources  
12 in the U.S. from terrorist threats, and to provide a report to the President  
13 and Congress every four years.

14 The task force reports of 2006, 2010, and 2014  
15 identified no significant gaps in domestic source security and  
16 recommended no legislative changes pertaining to source security.  
17 Next slide, please.

18 NRC licensees have been required to implement Part  
19 37 since March 2014. Agreement State licensees soon will be  
20 implementing compatible Part 37 requirements. Some of them are  
21 actually implementing those requirements now, have already  
22 implemented them.

23 Since November 2012, the Part 37 Implementation  
24 Working Group, which includes NRC and Agreement State  
25 representatives, has actively supported the transition from the  
26 increased control orders to the rule.

1                   Some of its notable accomplishments are significantly  
2 improving the materials security training class; issuing an  
3 Implementation Guide and Security Best Practices Guide; developing a  
4 specific inspection procedure for Part 37; updating the online security  
5 information sharing toolbox used by NRC and Agreement States; and  
6 ensuring consistent identification and disposition of inspection findings.

7                   As of February 22, 2016, 12 states have submitted final  
8 Part-37-compatible regulations or legally binding requirements for NRC  
9 review, and 24 states have submitted proposed regulations or legally  
10 binding requirements for NRC review.

11                   One remaining state is incorporating Part 37 by  
12 reference and expects to have that regulation or legally binding  
13 requirement, such as a license condition, in place by the March 19,  
14 2016 deadline.

15                   Since the rule was fully effective, to date, the NRC has  
16 completed over 190 inspections of NRC licensees. Our inspection  
17 findings so far indicate good performance, with most violations of minor  
18 to low security significance. For these cases, NRC has ensured  
19 effective and timely corrective actions were implemented by licensees.  
20 Next slide, please.

21                   Part 37 allows appropriate flexibility for each licensee  
22 to determine the specific means to protect Category 1 and Category 2  
23 materials from theft or diversion. Following the two GAO audits in  
24 2012 and 2014, we committed to evaluating inspection findings during  
25 the first one to two years after Part 37 implementation. Later, this  
26 assessment was mandated under Section 403 of the Energy and Water

1 Development Appropriations Act of 2015.

2 A Part 37 program review team is conducting this  
3 assessment as part of a comprehensive review of the rule to determine  
4 areas where the rule could be clearer or additional guidance is  
5 appropriate. This review consists of four components: a self  
6 assessment conducted by NRC Staff, an external review by  
7 independent consults, a comparison to international regulations, and  
8 extensive stakeholder outreach.

9 The Staff assessment of Part 37 is proceeding as  
10 expected. We recently issued a temporary instruction to inspectors to  
11 gather data on how licensees are implementing their trustworthiness  
12 and reliability programs.

13 In the 2014 report, GAO expressed a concern about  
14 co-location or aggregation of well logging sources in storage. The  
15 team is responding to this concern by speaking with inspectors about  
16 the different well logging storage configurations to gather additional  
17 information.

18 Our consultants are preparing their draft reports. The  
19 comparison of our requirements to other international regulatory  
20 examples is nearly complete. We are preparing to conduct  
21 stakeholder outreach through webinars, a public meeting, a Federal  
22 Register notice soliciting comment, and attendance at -- at industry  
23 conferences. Next slide, please.

24 With respect to the next steps for Part 37, the results of  
25 the comprehensive assessment will form the basis for a paper to the  
26 Commission, which is currently due in September of this year. Staff

1 will include the findings from all four components of the assessment  
2 and develop recommendations appropriate for Commission  
3 consideration.

4 A report to Congress is then due by December of 2016.  
5 Additionally, per Section 403 of the 2015 Energy and Water  
6 Development Appropriations Act, another GAO audit will be conducted  
7 on the effectiveness of Part 37. We currently anticipate that this audit  
8 will be conducted in 2018. Next slide, please.

9 In addition to the ongoing assessment, NRC also  
10 continually engages with our primary external stakeholders to inform  
11 them about our regulatory approach to source security. In particular,  
12 we work with members of Congress and other federal agencies to  
13 share information about how we ensure safe and secure use of  
14 radioactive materials that may differ from other agencies.

15 A recent example of this effort is Staff's work to  
16 address proposed legislation that would impact NRC's regulatory  
17 oversight of risk-significant radioactive sources. In December 2015,  
18 Staff provided a briefing to congressional staffers to help explain NRC's  
19 approach and why we believe it is balanced against the current threat  
20 environment and commensurate with the potential consequences of  
21 loss or theft of these sources.

22 Regarding the threat environment, the NRC continues  
23 to work with both internal and external partners to assess the  
24 information available to us. Internally, Staff works with the Office of  
25 Nuclear Security and Incident Response to consider any relevant  
26 information available on the current threat environment. Externally,

1 we work extensively with our federal partners to remain aware of issues  
2 of concern or interest that may impact our licensees.

3 As information is brought to our attention, we  
4 communicate it as necessary to our stakeholders and take any actions  
5 that may be warranted.

6 I will now turn over the presentation to our next  
7 speaker, Paul Michalak, who is the Acting Chief for the Agreement  
8 State Programs Branch.

9 MR. MICHALAK: Thanks, Paul.

10 Good morning, Chairman and Commissioners.

11 The NRC's and previously, the Atomic Energy  
12 Commission's, Agreement State Program has successfully carried out  
13 its mission for 53 years. Starting with the first agreement signed with  
14 the Commonwealth of Kentucky in 1962, the NRC's program has  
15 matured and evolved in the last five decades.

16 Currently, 37 States have signed formal agreements  
17 with the NRC and have the regulatory authority to license and regulate  
18 byproduct material, source material and certain quantities of special  
19 nuclear material.

20 The NRC and Agreement States function as regulatory  
21 partners and, together, our oversight liaison activities support the  
22 National Materials Program.

23 Today, I'm going to speak about four areas of the  
24 National Materials Program, the Integrated Materials Performance  
25 Evaluation Program, or IMPEP, training, exchange of information and  
26 enhancements to the National Materials Program.

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Next slide?

In 1994, NRC designed and piloted a review process for the Agreement State and NRC Regional Radioactive Materials Programs called the Integrated Materials Performance Evaluation Program, or IMPEP.

Common performance indicators were established to obtain comparable information on the performance of each program.

In 1996, NRC began full implementation of IMPEP to ensure that public health and safety are adequately protected from the potential hazards associated with the use of radioactive materials and that Agreement State programs are compatible with NRC's program.

Over the last 20 years, IMPEP has established itself as a successful and respected oversight tool for Agreement State and NRC Regional Materials Programs.

The IMPEP process employs a team of NRC and Agreement State staff to assess both Agreement State and NRC Regional Radioactive Materials Licensing and Inspection Programs.

The associated Management Review Boards also include participants from both the NRC and Agreement States.

Next slide?

This approach of including both Agreement State and NRC personnel fosters objective perspectives based on experience gained from working for an Agreement State program and the NRC. It allows for the sharing of best practices along the entire program, including the NRC and Agreement States.

Two recent examples have IMPEP as a collaborative

1 valuable oversight tool are the State of North Dakota and the State of  
2 Georgia. In each case, IMPEP was used to identify program issues  
3 and the States worked together with the NRC and other members of the  
4 material programs to identify and implement necessary changes to the  
5 programs.

6 In each case, the result was an improved State  
7 program that helped to ensure the safe and secure use of radioactive  
8 material.

9 Next slide?

10 One of the strengths of the National Materials Program  
11 is the common training program used by the NRC and Agreement  
12 States to train and qualify materials inspectors and license reviewers.

13 To assist the Agreement States in maintaining  
14 adequate and compatible radiation control programs, the Commission  
15 provides funding for Agreement States staff training and NRC technical  
16 courses and the associated travel expenses.

17 For FY16, this funding is approximately \$1.2 million  
18 which is funded and managed out of the Nuclear Material Users  
19 Business Line.

20 Based on our interaction to discussions during and  
21 after training courses and events, this funding has had an extremely  
22 positive impact on Agreement States and continues to be viewed as a  
23 critical aspect fo the NRC Agreement State partnership.

24 The National Training Program improves the technical  
25 knowledge and quality of Agreement State staff and helps the National  
26 Materials Program achieve an excellent level of quality and consistency

1 nationally.

2 This could be seen by the wide attendance at a variety  
3 of NRC courses as well as our support for facilitating travel to other  
4 events such as the annual Organization of Agreement State Meetings  
5 so that Agreement States can share information and best practices  
6 between each other and the NRC staff.

7 We are always looking for ways to further enhance the  
8 consistency of the National Materials Program. And, I believe these  
9 efforts are a good example of our continued work in this regard.

10 Next slide?

11 Not only is the NRC working to ensure we provide high  
12 quality training courses to the widest audience possible, we are also  
13 working to increase the efficiency in how we conduct training and how  
14 the funding is utilized.

15 I would like to highlight two recent initiatives taken by  
16 staff to broaden the opportunities for providing training to Agreement  
17 States which maintains effectiveness while reducing costs.

18 Over the last few years, NMSS, the Technical Training  
19 Center and Regional staff have presented several webinars using a  
20 web-based conference tool. Topics included performance-based  
21 inspections, training for inspecting against the new Part 37  
22 requirements and medical inspection techniques.

23 A recent example of the effectiveness of these  
24 webinars was the December 2015 webinar on pre-licensing guidance  
25 and risk-significant radioactive materials presented by NMSS, two  
26 Regional offices and two Agreement States. The webinar reached

1 over 225 Agreement State and NRC inspectors and license reviewers.

2 Due to the success of this initiative and positive  
3 feedback from the Agreement States, staff plans to continue conducting  
4 the webinars.

5 Since 2013, the Technical Training Center has been  
6 implementing innovative methods to conduct health physics training  
7 courses by converting the course presentations into online modules.  
8 The classroom portions of multiple courses can be completed without  
9 requiring travel.

10 Last summer, this approach was taken with a  
11 fundamental health physics course. This two week course previously  
12 required at least 13 days of lodging and per diem at a contractor's  
13 facility. But, with the blended approach, only five days of lodging and  
14 per diem were required with no loss in effectiveness.

15 The Technical Training Center is currently converting a  
16 second course and additional courses have been identified and are  
17 being evaluated for future transition to blended or online training.

18 I would also like to note that both initiatives are  
19 consistent with and support the proposed ten percent reduction in  
20 Agreement State travel and training funds in the recent rebaselining  
21 Commission paper.

22 This proposed ten percent reduction, or \$125,000.00,  
23 is divided between savings from offering blended training courses and  
24 savings from efficiencies in the management and administrative  
25 controls for the Agreement State travel and training funds.

26 This effort to reduce training cost, while continuing to

1 provide a high quality and respected training program has  
2 demonstrated clear results and continues to support the NRC's focus  
3 on public health and safety while maintaining an effective and efficient  
4 use of resources.

5 Next slide?

6 The timely exchange of information between the  
7 Agreement State and NRC staff is essential for an effective and robust  
8 National Materials Program.

9 The open exchange of experiences and ideas are  
10 needed to develop regulations and other regulatory products that are  
11 protective of the health and security of radiation workers and the public.

12 The NRC's Agreement State Program offers a number  
13 of opportunities and tools to engage the Agreement States to take  
14 advantage of their licensing and inspection experience.

15 The primary point of contact for an Agreement State  
16 with the NRC is the Regional State Agreements Officers. Although  
17 they serve an integral role in the Agency's IMPEP program, the  
18 Regional State Officers also serve an essential liaison role that afford  
19 to the Agency the knowledge and activities of individual Agreement  
20 States and provides an efficient communication portal directly with the  
21 States and the NRC.

22 The Agreement State program has had a website  
23 presence on the Internet for over 20 years. The website has served as  
24 a clearinghouse of information on all aspects of the program and is  
25 widely used by the NRC and Agreement State staff with well over  
26 100,000 hits per month.

1                   Among other things, the website hosts a sealed source  
2 and device registry used by license reviewers and inspectors for all  
3 Agreement States and the NRC.

4                   In June 2015, staff migrated the Agreement State  
5 program website from Oak Ridge National Laboratory to the NRC Data  
6 Center and renamed it the State Communication Portal.

7                   The Portal continues to be an effective and efficient  
8 communication tool that allows the NRC and Agreement States to  
9 develop and share any information needed by the National Materials  
10 Program.

11                   There is an ongoing -- next slide?

12                   There is an ongoing frequent exchange of information  
13 between the NRC, Agreement States and the Board to the Organization  
14 of Agreement States and the Conference of Radiation Control Program  
15 Directors.

16                   There is a well attended monthly conference call and  
17 an annual meeting which provides ample opportunities for NRC and  
18 Agreement State management and staff to discuss topics of mutual  
19 interest in depth.

20                   As mentioned previously in this presentation,  
21 opportunities like this for communication between stakeholders and our  
22 regulatory partners are critical to ensuring the successful  
23 implementation of the National Materials Program and fulfilling the  
24 NRC's mission.

25                   Next slide?

26                   Since 2009, the Commission, external audits and the

1 NRC and Agreement State staff have identified a number of areas to  
2 improve and enhance the Agreement State program. Because these  
3 improvements and enhancements overlap, staff consolidated the tasks  
4 and established a plan to ensure all task areas are addressed.

5 In 2015, as part of this effort, staff requested  
6 Commission guidance on three issues. The first was approval to  
7 publish a proposed consolidated Agreement State policy statement for  
8 public comment.

9 The second involved whether to develop and  
10 implement a comprehensive new approach to determining Agreement  
11 State compatibility or to maintain the current approach.

12 The third concern was whether staff should develop a  
13 new IMPEP finding hierarchy or make no changes to the IMPEP  
14 findings approach, but improve IMPEP consistency through updates to  
15 guidance and training.

16 We look forward to the Commission's direction on  
17 these three issues.

18 I will now turn the presentation back to Mr. McCree.

19 MR. MCCREE: Thank you, Paul.

20 Chairman, Commissioners, that completes our  
21 presentation. We're ready for your questions.

22 CHAIRMAN BURNS: Okay. Thank you, again, for  
23 the presentations.

24 And, Commissioner Ostendorff?

25 COMMISSIONER OSTENDORFF: Thank you, Mr.  
26 Chairman, thank you all for your briefings, it was very helpful.

1                   Earlier in the first panel, Commissioner Svinicki made a  
2 comment about the importance of these business line meetings to help  
3 us understand the core work of the Agency and highlighted -- several  
4 Commissioner colleagues have highlighted the importance of  
5 understanding this, especially as we look at decisions on Project Aim  
6 rebaselining the discussion of whether or not to consolidate materials  
7 inspector programs or pros and cons, et cetera.

8                   So, I'm going to start out, let me ask the staff to pull up  
9 slide 29 and I want to ask Dan a question and I want to understand the  
10 historical piece here. This is the budget that goes back I think to 2008,  
11 if you can call that slide up.

12                   And, my question is twofold here and I'm really kind of  
13 borrowing from the Chairman's question in the first panel which I  
14 thought was very thoughtful about looking to explain the delta here.

15                   So, I have two questions on this slide, one is the ramp  
16 up from 2008 to 2009, an explanation of that.

17                   And then, two, it's my understanding from the  
18 background materials that, in 2005, the NRC had around 4,500 material  
19 licensees that the NRC was overseeing. Now, I think Joe told us that  
20 number is down to 2,900.

21                   Again, we've had other Agreement States come online  
22 and some other things, fact-of-life changes. So, I'm trying to reconcile  
23 those two pieces and understand where we are today.

24                   MR. COLLINS: Thank you, Commissioner.

25                   We were talking about that very question the other day  
26 and I don't know that we ever came up to a definitive answer with

1 respect to the jump at 2008/2009, but I can give you some context with  
2 regard to the aspect of your question regarding the number of NRC  
3 licensees.

4 The drop is largely driven or was largely driven by the  
5 transition of Virginia, New Jersey and Pennsylvania to Agreement State  
6 status. And, in that case, that occurred over about a year and a half,  
7 two year time period. And Region I's number of licensees went down  
8 by about half to about where we are today.

9 So, we do see, you know, from year to year, you see  
10 some fluctuations, but it's typically, as I recall, on the order of maybe a  
11 hundred licensees.

12 COMMISSIONER OSTENDORFF: Well, 4,500 to  
13 2,900 is a pretty significant reduction.

14 MR. COLLINS: Right.

15 COMMISSIONER OSTENDORFF: Are those  
16 numbers accurate to your knowledge?

17 MR. COLLINS: I believe they are.

18 COMMISSIONER OSTENDORFF: So, I guess --

19 MR. COLLINS: We can verify it.

20 COMMISSIONER OSTENDORFF: What has been  
21 the change during the time period in the overall material inspector  
22 resources?

23 MR. COLLINS: I'd have to go back in time to get you  
24 a detailed answer on that, Commissioner, but we did -- Region I did  
25 have a reduction in resources of between five and eight FTE in the time  
26 period where that transition occurred.

1 COMMISSIONER OSTENDORFF: Okay, but -- Joe,  
2 go ahead.

3 MR. NICK: Yes, I think part of the ramp up was due to  
4 the increased controls orders for security of materials. So, that  
5 developed a lot of -- entailed a lot of resources and especially in the  
6 inspection program to -- it upped the level to -- I wouldn't say it doubled  
7 the inspections, but it added a significant portion to our inspection  
8 program to do that part for the increased controls orders.

9 COMMISSIONER OSTENDORFF: Okay, I'm going  
10 to stay with Joe a few and then, Dan, if you want to add in, but next  
11 question was, I understood from Dan's presentation there were 310  
12 FTE in materials business line, is that correct, 310?

13 MR. COLLINS: That's correct.

14 COMMISSIONER OSTENDORFF: Of those, how  
15 many -- of those 310, how many are regional materials inspectors?

16 MR. COLLINS: I can answer that.

17 So, in the regions, and this is a round number, but it's  
18 about 86 FTE from this business line in the regions.

19 COMMISSIONER OSTENDORFF: Okay.

20 MR. COLLINS: So, if you want to try to equate that to  
21 people, then you have to factor in the contribution from other business  
22 lines because there are some staffing positions that are funded by more  
23 than one business line.

24 COMMISSIONER OSTENDORFF: I think it's  
25 important later this spring when the paper comes up to the Commission  
26 that the full demographic be explained historically and fact-of-life

1 changes, orders, so that the Commission has a full picture of that.

2 I've got to watch my time here. Let me go on to a  
3 different topic.

4 Over the last month, I've had two different drop-ins to  
5 my office under -- and other Commissioners have as well -- under our  
6 open door polices where we've met with people in the medical  
7 community.

8 And, one set of drop-ins dealt with the topic of  
9 beta-emitters and the training and evaluation time requirements for  
10 then. And, I know we're going to have the ACMUI meeting next month  
11 that will provide some feedback on that.

12 Another one was a company that has the Gamma  
13 Knife of cobalt-60 used primarily for brain tumors. And, I was struck by  
14 the fact that that company said they had one million patient treatments  
15 in one calendar year with that technology.

16 Scott and I have had this discussion and I'm going to  
17 ask you now, just to expand, you know, upon the prior discussions,  
18 when we look at the ACRS and reactor issues, we kind of understand  
19 the balance of what our staff technical capabilities are and reactors and  
20 what the Advisory Committee and reactor safeguards does.

21 With the Advisory Committee and the Use of Medical  
22 Isotopes, sometimes it's maybe not as clear. What is the staff  
23 technical scientific medical confidence within NMSS to be able to have  
24 an opinion separate and distinct from that of ACMUI on any given  
25 issue? How would you characterize that?

26 MR. MOORE: The staff certainly has to be able to

1 come to its own judgment on any issues before it. So, we do have to  
2 have expertise on any areas, any regulatory areas that are before the  
3 Commission sufficient to advise the Commission.

4 That said, we don't have medical doctors or medical  
5 expertise on the staff. And so, we do have to rely on the medical  
6 experience of the Advisory Committee on Medical Use of Isotopes for  
7 medical and clinical expertise of it.

8 And, we refer those issues to ACMUI and we do take  
9 their advice. We don't always put it in place. We don't always  
10 recommend to the Commission that it go in place. But, we certainly do  
11 listen to it and take it under consideration.

12 COMMISSIONER OSTENDORFF: Thank you for  
13 that answer.

14 I just would comment, my observations, I think it's a  
15 more difficult areas, perhaps for you in NMSS than it is for your  
16 colleagues in NRR and NRO as you compare and contrast the roles  
17 and responsibilities and the capabilities of our staff with respect to  
18 ACMUI issues compared to ACRS issues.

19 And, I think it's important to recognize that as a  
20 challenge.

21 Okay, enough said on that.

22 Paul, I want to go to slide 49, please, about that source  
23 security.

24 I'm a little concerned, I may have misunderstood some  
25 things here, but I'm a little concerned on where our States are in  
26 meeting this March 19th of 2016 deadline, less than a month away.

1                   And, I see that States have submitted proposals to the  
2                   NRC. Has a State -- has the NRC approved these proposed  
3                   regulations? Where does that stand?

4                   MR. GOLDBERG: Yes, we've approved the  
5                   regulations for most of the States. We expect all the States to make  
6                   that deadline. There's one State that --

7                   COMMISSIONER OSTENDORFF: Well, how many  
8                   States have not been approved yet?

9                   MR. GOLDBERG: The ones that have submitted  
10                  proposed regulations have yet to --

11                  COMMISSIONER OSTENDORFF: Well, how many  
12                  are you talking about?

13                  MR. GOLDBERG: Well, we've had 12 that I think are  
14                  approved. Can you speak to that?

15                  MR. MICHALAK: I can.

16                  And, it's going to be a push, to be honest.

17                  COMMISSIONER OSTENDORFF: Well, I'm very  
18                  concerned on this because we've made some commitments to  
19                  Congress, our oversight committees and the inner agency, and I don't  
20                  have a warm, fuzzy feeling that we're on track as an agency to move  
21                  forward here per these deadlines. That's why I'm concerned.

22                  MR. MICHALAK: We think we can meet this March  
23                  19th deadline, which is to have the program, except for, perhaps, the  
24                  one State which was dragging a little bit. But they're either going to  
25                  have license conditions, regulations or legally -- some other legally  
26                  required commitment --

1 MR. GOLDBERG: Binding.

2 MR. MICHALAK: Binding, thank you, Paul, in place.  
3 We believe we can hit this March 19th.

4 And, to give you an analogy or not -- another example,  
5 we're doing in the webinars, we've been training up State inspectors  
6 both Tuesday and today. Later today, we have a webinar on Part 37  
7 security webinars. And, we had 167 attendees at the Tuesday  
8 webinar.

9 COMMISSIONER OSTENDORFF: How many of  
10 these States, the Agreement States, have to enact actual State  
11 legislation in order to put these into place?

12 MR. MICHALAK: I don't have that answer.

13 COMMISSIONER OSTENDORFF: Do you  
14 understand my question?

15 MR. COLLINS: Yes.

16 COMMISSIONER OSTENDORFF: In some States,  
17 they do not have the -- the authority requires State legislative action in  
18 order to make these full requirements.

19 MR. COLLINS: Right. So, the way the States are  
20 approaching it is, they're either implementing State regulations or  
21 they're implementing -- they're putting a license condition in place for  
22 the affected licensees.

23 So, there was one -- there have been a couple of  
24 States where they thought that their horizon for getting the regulations  
25 in place was a little bit extended and so they have opted to go with the  
26 license condition. They're still working on the regulations in parallel,

1 but they're going to put the regulation in place.

2 COMMISSIONER OSTENDORFF: All right, my times  
3 up. I expressed my concern here as a Commissioner. I would ask  
4 the Secretary for the SRM for this meeting to request the staff to provide  
5 a, you know, a paper to -- or a CA briefing to the Commission by the end  
6 of March with the status as to where this stands. Because I think  
7 there's a concern here.

8 Thank you.

9 CHAIRMAN BURNS: Commissioner Baran?

10 COMMISSIONER BARAN: Thanks.

11 Well, I'm also very interested in this issue and I think it's  
12 really important that we meet this implementation date. So, let me just  
13 follow up on Commissioner Ostendorff's questions on this.

14 So, walk us through this in a little bit more detail. So,  
15 there's a number of States who have submitted final regulations and  
16 we've looked at those and they're okay, they're compatible.

17 There are States that have submitted proposed  
18 regulations, is that right? Are we doing a review of those now or are  
19 we waiting for the States to go final on those? What are we doing with  
20 proposed regulations of States?

21 MR. COLLINS: So, for those that are -- where we  
22 have their proposed regulation under review, we are reviewing that.

23 So, by -- it's a little bit confusing, I know, but by our SA  
24 procedures, a State's not actually required to submit a regulation to us  
25 for review until after it's final. The States are opting to provide us with  
26 their proposed regulations early because they want to get it right the

1 first time.

2 COMMISSIONER BARAN: Okay. And so, for a  
3 State that has submitted their proposed regulations to us for your  
4 review, is meeting the deadline, the March deadline, means that we've  
5 reviewed their proposed regulation and determined, yes, that looks  
6 good or they need to go final my March 19th?

7 MR. COLLINS: I understand the question, but I don't  
8 know that I know a correct answer. So, rather than guess at it, I'd like  
9 to verify it.

10 COMMISSIONER BARAN: Well, that will be  
11 something that I think will be good to get a clarification on because I  
12 would imagine it will be easier for us to complete a review of a proposed  
13 regulation in the next month than it would be necessarily for each of  
14 these States that's at the proposed stage to go final in the next month.

15 And, let me ask that about the last category of one  
16 State that has been lagging or isn't quite there on having proposed  
17 regs. What are we doing with regard to that State?

18 MR. MICHALAK: Well, that's the example where  
19 they're going to implement license conditions. They have a small  
20 amount of licensees so they can -- they can have an option of just going  
21 into those licenses and putting in conditions that mimic the regulations.  
22 So then we've got it covered.

23 Plus, all the security controls that were in place three  
24 years ago, the orders, are all still in place.

25 COMMISSIONER BARAN: Okay.

26 MR. MICHALAK: So that, although I understand a

1 concern about having the regulations in place, those controls are in  
2 place and they do not get rescinded until the regulations are in place.

3 COMMISSIONER BARAN: Okay.

4 MR. MICHALAK: And, some of those things are  
5 administrative controls, not security issues.

6 COMMISSIONER BARAN: Okay. Well, just taking a  
7 step back, as Commissioner Ostendorff noted, this is an area where the  
8 Agency has received a fair bit of scrutiny from Congress, from GAO,  
9 from some stakeholders.

10 Paul discussed at length the self-assessment we're  
11 doing this year that's due by the end of this year to meet a deadline  
12 established for us by Congress.

13 As Paul mentioned, it really goes beyond just the  
14 self-assessment because it also could involve an assessment from  
15 independent consultants outside of NRC.

16 And, I know that the Agency has a high degree of  
17 confidence in these Part 37 requirements. But, I also want to make  
18 sure that we're open minded and that we're going to take a hard look  
19 during this process at our source security requirements so that we can  
20 address any gaps that we may find.

21 And so, I guess my question for Vic and for Scott is, are  
22 we committed to doing this as an Agency? Are we committed to  
23 having an open mind and taking a hard look at what we've done to  
24 make sure that it's adequate?

25 MR. COLLINS: Yes.

26 MR. MCCREE: Absolutely.

1 COMMISSIONER BARAN: Okay. Well, thank you  
2 for that.

3 Joe, let me ask, you mentioned a continuing challenge  
4 of staying current with new medical technology.

5 Tell us a little bit more about this and how you do it and  
6 how much of this challenge involves licensing reviews? How much of  
7 it involves inspections?

8 MR. NICK: Thank you. That's a very good question.

9 It involves both licensing and inspection and we try to  
10 keep up with the current technology, like we said, through knowledge  
11 sharing and training opportunities.

12 So, we typically have a few people that'll be on the  
13 leading edge of the technologies and then train the rest of the staff after  
14 that point.

15 But, it does involve the licensing because there can be  
16 particular nuances with a license with a different device than what we're  
17 used to. So, we have to look at that first.

18 And then, we also look at it in inspection space as we  
19 go out to make sure that they're following the license conditions and the  
20 regulations.

21 So, it does involve both.

22 COMMISSIONER BARAN: Okay.

23 Well, let me just close, Paul, when you were talking  
24 about on slide 57, the rebaselining paper and the item involving a ten  
25 percent reduction in Agreement State travel and training funds.

26 I'm glad you talked about that because that will be the

1 kind of item that, when I see it in a rebaselining paper would make me  
2 nervous because I know that it's really important to provide resources  
3 for training and travel for the Agreement States. But, I thought you had  
4 a great discussion of that.

5 And, what kind of -- you talked really about how this is  
6 driven by real efficiencies, that we've looked at how we're doing some  
7 of this training, going to a webinar model in some cases. We're getting  
8 the same outcomes or better outcomes but with significantly reduced  
9 resources, which I think is really the whole purpose of Project Aim to  
10 find cases like that where we can do that.

11 What kind of response have you been getting from the  
12 Agreement States to that approach and not to have you speak on their  
13 behalf, and bearing in mind that they are sitting literally right over your  
14 shoulder, you know, what's the sense of comfort with that kind of  
15 reduction in the funding for those?

16 MR. MICHALAK: Well, generally, the States are  
17 nervous about that reduction and they're not happy about it. But, I  
18 think we can bring the same efficient and effective program with that ten  
19 percent cut.

20 And, one of the things that I think is interesting, I took  
21 that fundamental health physics course and I wasn't happy with being  
22 away from my family for 13 days. But, it was part of my qual package  
23 and I went to it.

24 Well, there's a lot of positive feedback that it's now a  
25 five day training. And, not only that, it was a real -- it was a tough  
26 course, that fundamental health physics course. And, it was a lot of

1 material coming at you.

2 The online part of it is stretched out over a longer  
3 period so you have more time to absorb the information. So, it's  
4 actually, we've gotten positive feedback on the blended which is both  
5 give us efficient resources and helps us with that ten percent reduction.

6 COMMISSIONER BARAN: Well, I really appreciate  
7 the work you're doing there and your description of the work you're  
8 doing there.

9 MR. MCCREE: Commissioner, if I might, this is  
10 actually part of a broader initiative that OCHCO is championing called  
11 the Learning Transformation Initiative which I haven't been fully briefed  
12 on yet.

13 And, it has a good deal of promise and potential to  
14 leverage our training resources, our travel resources to right size them  
15 in at least the spirit of Project Aim, but to deliver learning as good, if not  
16 better than we've delivered it in the past.

17 It allows folks like Paul and myself and others to not  
18 have to be on the road as much, to have to travel to the Technical -- I  
19 love Chattanooga, but if I can avoid spending time there yet get the  
20 same learning, that's a win-win for me, it's a win-win for the Agency. I  
21 like Tennessee barbeque, but not that much.

22 But, this has a significant potential for us going forward  
23 and, again, I look forward to sharing more with you later on the Learning  
24 Transformation Initiative.

25 COMMISSIONER BARAN: Okay, great. Well,  
26 thanks for that. I thought it was a striking and really impressive

1 example of a Project Aim type effort in a specific context. So, thank  
2 you.

3 Did anyone else have anything they wanted to add on?

4 Okay, thanks.

5 CHAIRMAN BURNS: Thank you, Commissioner.

6 A follow up -- I have a couple of follow ups on the Part  
7 37 issue and I would agree, I think we need to get a good handle or  
8 understanding at the Commission level as to where we are on this.

9 Let me ask a couple of questions, this is a little bit for  
10 me going down memory lane with the enhanced controls orders.

11 What I think I heard is that some of the, or at least, yes,  
12 I guess some of the satisfaction with where we may be is by virtue of the  
13 fact that the enhanced control orders are still in play or still in force.  
14 These were the orders that we issued post-9/11?

15 MR. COLLINS: There were some orders that were  
16 issued by States post-9/11.

17 CHAIRMAN BURNS: Oh, that may have been just  
18 second -- the second wave?

19 MR. COLLINS: The second round.

20 CHAIRMAN BURNS: The second wave of orders?  
21 Okay. All right.

22 The other area my two colleagues have explored,  
23 although my question on this, one of the things you were talking about  
24 or is mentioned in here is a comparison to international regulation and I  
25 want to make sure I'm clear on that.

26 Are we looking at international -- what the experience

1 of a particular other national regulators or at a particular international  
2 standard? Because the only international standard I really know will  
3 be the code of conduct which we are basically have implemented  
4 through Part 37.

5 So, I'm interested in what the comparison or  
6 observations we're making there.

7 MR. GOLDBERG: Yes, thanks for the question.

8 The answer is both. We are looking at IAEA  
9 standards that are relevant and there are a number of IAEA  
10 publications. They're, of course, recommendations, they're not  
11 requirements.

12 CHAIRMAN BURNS: But, is this essentially the code  
13 of conduct?

14 MR. GOLDBERG: It's the code --

15 CHAIRMAN BURNS: And implementation?

16 MR. GOLDBERG: -- of conduct, yes, and the  
17 subsidiary documents.

18 CHAIRMAN BURNS: That inform how one would --

19 MR. GOLDBERG: Right.

20 CHAIRMAN BURNS: -- sort of the Reg Guide for  
21 the --

22 MR. GOLDBERG: There's a whole hierarchy of  
23 documents under the code of conduct.

24 CHAIRMAN BURNS: Okay.

25 MR. GOLDBERG: And we've looked at all the  
26 relevant ones there.

1 CHAIRMAN BURNS: Okay.

2 MR. GOLDBERG: We're also looking at the  
3 comparable requirements that other national programs have --

4 CHAIRMAN BURNS: Okay.

5 MR. GOLDBERG: -- for source security.

6 CHAIRMAN BURNS: Okay.

7 MR. GOLDBERG: And, we're comparing ours to  
8 theirs.

9 CHAIRMAN BURNS: For example, who are we  
10 looking at?

11 MR. GOLDBERG: French, Germans, Australians, a  
12 number of others.

13 CHAIRMAN BURNS: Okay. All right, thanks.

14 One of the -- different subject we haven't talked about.  
15 We talked about the Tribal Policy Statement which I guess is still a  
16 quote, draft or a -- in a draft from.

17 Are you starting to see -- what benefits are you starting  
18 to see, if any, at this point from that Tribal Policy Statement?

19 MR. COLLINS: Chairman, I think Paul is probably the  
20 best person to answer that.

21 CHAIRMAN BURNS: Okay.

22 MR. MICHALAK: We just implemented a week ago,  
23 Tribal training in our -- an Agency-wide Tribal training which implements  
24 some of the concepts from the Tribal policy -- the draft Tribal Policy  
25 Statement because it isn't approved yet.

26 CHAIRMAN BURNS: Okay.

1 MR. MICHALAK: Once we get a final Tribal Policy  
2 Statement, we will implement that into the training and then we'll also  
3 revise the Tribal Protocol Manual.

4 And, we've been marketing our Tribal Policy -- the draft  
5 Tribal Policy Statement around the Agency, somewhat informally. We  
6 haven't actually gone out, but with different staff, mostly on the  
7 environmental side that deal with Tribes on a regular basis. We've  
8 been interfacing with them, government-to-government relationships,  
9 the Federal Trust, timely consultation, that's the big one, to get out early  
10 and often with Tribes.

11 CHAIRMAN BURNS: Okay. So, how is that, do you  
12 think, will leverage improvements in our Section 106 consultation?

13 MR. MICHALAK: I think the Policy Statement will help  
14 with that.

15 CHAIRMAN BURNS: Okay.

16 MR. MICHALAK: Because it's still on a case by case  
17 basis, to be honest, because we don't have a policy on it yet. It's a  
18 draft policy.

19 CHAIRMAN BURNS: But, all right, what do you see  
20 as some of the challenges with the Section 106 consultations?

21 MR. MICHALAK: Well, the liaison branch doesn't  
22 directly deal with the 106. We're kind of in front of that. We set the  
23 stage and then the project managers and the projects come in and  
24 implement that.

25 But, the challenges are that the Tribes, it's the timely  
26 consultation. We need to get that out there early and often and in

1 almost anything we do isn't good enough, to be perfectly honest with  
2 you.

3 And, we just need to increase our efforts and just be  
4 diligent and communicate and listen because it's a culture that listens  
5 and we have to be -- we have to listen to what they say.

6 CHAIRMAN BURNS: Is some of the improvement  
7 related to -- my impression, and I may have a wrong impression -- is  
8 that, on some of the consultation, we were doing it more indirectly, that  
9 it wasn't from us, that it was through -- we were relying on some of this  
10 consultation for applicant or licensees?

11 MR. MICHALAK: Well, we don't do any consultation  
12 until the application comes in to us.

13 CHAIRMAN BURNS: Okay.

14 MR. MICHALAK: So, oftentimes, applications, if  
15 they're sophisticated, try to get out in front of the process and deal with  
16 the Tribe so that it's kind of the -- it's greased. So, by the time we get  
17 on board, it's a little smoother.

18 And, matter of fact, when it's bumpier, it's when  
19 applicants have not done that because we don't actually start dealing  
20 with the Tribes until we have an application in front of us.

21 MR. MOORE: The requirement on consultation is on  
22 us as the government. Applicants can improve the process or not by  
23 the outreach that they do with the Tribes and how they interact with the  
24 Tribes.

25 With regard to your first question about how the policy  
26 may impact Section 106, certainly, the 106 process is one of the issues

1 for them is bringing the consultations to closure themselves.

2 I think the Tribal Policy itself will help because it  
3 increases our relation or it enhances our relationships with the Tribes  
4 themselves and relationships is all about the 106 process. And so, the  
5 better our relationships with the Tribes, the better the 106 processes  
6 will go.

7 CHAIRMAN BURNS: Okay.

8 Let me change focus.

9 The one -- in one of the earlier part of the  
10 presentations, you talked about us working with NCRP on skill set  
11 shortages. What types of skill set shortages are you -- do we have a  
12 concern about it?

13 And, I know, I think in some of the, you know, meetings  
14 I've had with Agreement States and with CRCPD and OAS  
15 representatives, that is an issue.

16 So, talk to me a bit about what those potential  
17 shortages are or skill gaps are in this area?

18 MR. MOORE: We don't have them in place right now,  
19 thank you, Chairman.

20 We don't have them in place right now, but I think  
21 NCRP's concerned in the future about skill set shortages in the  
22 radiation protection and health physics areas.

23 And, what the latter will be to fill those in the future and  
24 that's why Pam is involved in those and those efforts.

25 And, I think we, as an Agency, are concerned about  
26 that, too, given our regulatory role in that arena.

1                   CHAIRMAN BURNS:    Okay.    Have we looked  
2                   at -- does this influence in terms of our assessment, for example, in the  
3                   integrated university program where we may be, you know, we have the  
4                   grant program we're administering in terms of looking at potential  
5                   recipients?

6                   MR. MOORE:    The grant program is certainly an  
7                   aspect that we use and we can use it to add to our efforts to bring  
8                   people in.  I don't know that there's a tie right now between the grant  
9                   program and what NCRP is doing.  But, it's certainly positive from our  
10                  aspect.

11                  CHAIRMAN BURNS:  Okay.

12                  Let me talk about generally in terms of what might be  
13                  considered trends or categories of findings in the materials inspection  
14                  area.

15                  Having spent a very early part of my career in  
16                  enforcement and the most interesting cases were always materials  
17                  cases because they were much more colorful licensees for one reason  
18                  or another.

19                  But, are there -- is there -- are there particularly sets of  
20                  findings you're seeing common or repeated or areas where, you know,  
21                  we just always have to be focused on, you know, whether it's in  
22                  radiography or well logging or in the, you know, academic or hospital  
23                  environment?

24                  MR. COLLINS:  Chairman, we do a look on a periodic  
25                  basis to see if there are trends in the enforcement findings and the most  
26                  recent few evaluations we've done did not identify any specific trends.

1 CHAIRMAN BURNS: Okay. I mean what are the  
2 most common findings? Failure to survey, for example, or what types  
3 of things are we -- do we see? And that's, you know, sometimes, that's  
4 hopefully reported types of findings but -- or from what we see from our  
5 inspections.

6 MR. NICK: Yes, I can tell you just anecdotally, I don't  
7 have a summary of all the violations, but that is a very common, failure  
8 to survey violation.

9 But, like Dan says, it's annually that we look at  
10 different -- try to see if there's any other trends in enforcement and we  
11 haven't, in quite a few years, identified trends.

12 CHAIRMAN BURNS: Okay. All right, thanks.

13 Commissioner Svinicki?

14 COMMISSIONER SVINICKI: Well, thank you all for  
15 your presentations and I know it's been a long meeting.

16 When you've been in a position or a job for a while,  
17 there's a number of things that, over the course of time, become more  
18 straightforward or clearer to you.

19 Often, though, there's an equal measure of things that  
20 seem maybe because you have an appreciation -- a greater  
21 appreciation for their complexity, they seem harder and less clear.

22 I would reflect upon my service on this Commission by  
23 stating that our regulation of the medical uses of nuclear materials is in  
24 the latter category for me partly because, the longer you're working on  
25 these issues, the greater appreciation you have for what the Atomic  
26 Energy Act requires us to balance here which is enabling the beneficial

1 uses of these nuclear materials for the U.S. and its citizens, while at the  
2 same time regulating to the appropriate level.

3 And, we do have this conundrum. We have a dictate  
4 not to interfere with the practice of medicine. We do not have a  
5 division or office that is full of a lot of medical practitioners who are NRC  
6 employees.

7 We, as Commissioners, through our open door policy,  
8 as Commissioner Ostendorff talked about, we do -- and I know the staff  
9 does as well -- meet with medical practitioners. We also have our  
10 Advisory Committee of the Medical Uses of Isotopes which is a staff  
11 advisory committee and not a Commission advisory committee.

12 Because, in order to provide useful advice, we really  
13 need to have practitioners work -- people who work with our under  
14 regulated entities on that committee because we want people with  
15 contemporary knowledge of how it is to be in these medical  
16 environments.

17 And so, therefore, to keep our -- not be advised by  
18 people who are directly regulated by these regulations as the staff  
19 advisory committee.

20 So, we have these kind of layers and a little bit of an  
21 arms length relationship on some of these issues.

22 And, as we continue to hear about innovation for  
23 medical radiotherapies, diagnostic, therapeutic, you know, this many  
24 years into this job, I'm wondering if some of our models would be  
25 beneficial to step back and think about whether it is, you know, there's  
26 any modification or amendment we can make.

1                   And, I'm not here as any kind of generator of great  
2 ideas in the moment, but I don't know if we're going to have individual  
3 therapies that companies want to come in and say, you've structured  
4 your regulation that you require this much training and experience for a  
5 whole class of radiopharmaceuticals. Now, we have people with  
6 promising therapies that say, well, I want you to have a Paragraph X,  
7 you know, just for me. Can't you do it?

8                   I mean, it's a fundamental shift in our approach. And  
9 so, I think that some of the issues we're seeing are merely  
10 manifestations of maybe broader changes in the use of radiotherapies.  
11 And, I don't know, maybe they are, maybe they're not and maybe the  
12 structure that we have for regulating, again, not regulating the practice  
13 of medicine, but regulating the accessibility of these particular nuclear  
14 materials.

15                   Maybe it would benefit even if our Commission, we  
16 meet on security issues with members of the interagency in the U.S.  
17 government, the intelligence community. Is there some part of FDA or  
18 something, I don't know that the FDA Commissioner -- well I guess was  
19 confirmed yesterday -- but, I don't know if he or she -- I don't even know  
20 who it is -- wants to meet with us, maybe they don't.

21                   But I just -- I'm just looking for ways -- I struggle as a  
22 member of this Commission, well, and I'll tell you why I struggle,  
23 because these are very, very, you know, I think personal issues for all of  
24 us.

25                   We've talked about Part 37. My colleagues, I agree  
26 with many of their perspectives, but I know that the simplest way to

1 make nuclear materials unavailable to the bad guys would be to just  
2 have them a lot less available everywhere.

3 But then, I'm backed up against my Atomic Energy Act  
4 requirement that we should regulate these materials in a way that still  
5 enables their beneficial uses.

6 So, I wish more policymakers who struggle with, you  
7 know, radiological dispersion devices and other things we worry about  
8 with the bad guys had the chance that I had to stand in the blood  
9 services unit of a medium-sized hospital and talked to the director of  
10 blood services for that kind of campus of medical facilities.

11 And, her whole focus is not about, you know, terrorist  
12 threats and other things. She wants to deliver the highest quality  
13 patient care that she can and the part of that that's her responsibility is  
14 to make sure that sterile blood, irradiated blood products are available  
15 when they are needed, trauma units, surgical units, anywhere else for  
16 just routine delivery in her medical campus.

17 And, I don't know what she knew about me and my job,  
18 but she was just aware, this was many, many years ago that, you know,  
19 there was some threat to that we would move to new technologies for  
20 sterilizing blood that she was very conversant in and knew would not  
21 provider her with the throughput or the quality of blood product that she  
22 needed to deliver patient care.

23 And, again, I have to remember as I'm talking to her,  
24 that's all she cares about is patient care. And, she became very, very  
25 emotional in our discussion because she stated -- and, it's fair to use  
26 the word, she begged me, she begged me, she had a view of my

1 authority which was larger than it was, but she begged me not to  
2 deprive her of her ability to deliver that patient care by making what she  
3 saw as perhaps uninformed choices about the proliferation, and I use  
4 that term very specifically, but the proliferation of nuclear materials out  
5 in the nuclear medicine community to provide the kind of benefits that  
6 medical practitioners know that it can provide.

7 And so, I would maybe just suggest that we all think  
8 about how we could engage maybe more deeply, not to change our role  
9 under law or reg, but is there a better understanding we could have, you  
10 know, with the Federal Energy Regulatory Commission, they regulate  
11 the bulk power grid. We acknowledge that we don't do that.

12 But, our Commissions meet jointly because we do  
13 have a touch point in regulation where we kind of come together and  
14 better understanding of what they are up against and what we're up  
15 against I think increases the quality, I would hope, increases the quality  
16 of the regulation by both agencies.

17 So, I don't know if that exists here, but it's my  
18 perception from the outside, and maybe as a human being and a  
19 patient and a family member to patients, that the practice of medicine is  
20 getting really, really complicated.

21 And, our ability to sit off to the side and not be  
22 practitioners but make decisions that affect the delivery of medical care  
23 maybe it's time to realize that we're not going to be able to be standing  
24 so far off to the side on that. Maybe we're just going to get dragged  
25 into it.

26 And, I don't know what the solutions are to that, but it's

1 compelling when people meet with me and tell me that patients, some  
2 of whom have very, very serious diseases.

3 And then there's the whole issue the FDA struggles  
4 with of palliative care and can you give mercy care and therapies  
5 towards the end that might have some risk but would increase the  
6 quality of the remainder of that patient's life?

7 I just, you know, I think we want to just be nuclear  
8 geeks, but I just, I don't know that that's practical going forward and it  
9 may be that we're just going to have to enmesh ourselves in a  
10 community of regulators that is grappling with these issues to make  
11 sure that patients have access to things that could be beneficial and  
12 that we don't artificially suppress the use.

13 And, this gets to the, you know, the increased controls  
14 as well because these materials have to be available in medical  
15 settings. And so, we need to have the right touch.

16 I'll just tell one story, I've had the privilege of working  
17 for Senator John Warner of Virginia who I have tremendous respect for.  
18 He was Chairman of the Armed Services Committee.

19 And, as many Senate Committees do, they do  
20 nominations and I'm not going to talk about the Supreme Court right  
21 now, but they process nominations and he always used to tell nominees  
22 at the end of their hearing, he said, now I'm just going to give you some  
23 personal advice because he had been Secretary of the Navy, so in  
24 addition to chairing that Senate Committee, he had gone through the  
25 Senate confirmation process himself earlier in the year and he said, you  
26 know, there's so much desperation in Washington to -- if there's a

1 problem, we want to unify around something and we want to take action  
2 because we want to really feel like we were tough on that problem and  
3 we really came up with solutions. And, he said, be careful about that  
4 impatience to do that and don't work late coming up with a solution to  
5 something because you'll come in early the next day and realize that  
6 you've got to reel back on whatever it was because if you act in haste  
7 and out of a false sense of urgency, you'll find that you will repent at  
8 your leisure and have to step back and unwind that.

9 So, you know, I know there's a lot of desire to make  
10 sure that the bad guys don't get their hands on anything, but it's a  
11 complicated, complicated problem.

12 I am a believer and a defender in what we've done in  
13 Part 37. The GAO stings by my observation going back to 2007, found  
14 things that are, by the way, already a violation of our requirements.

15 And so, I used to joke with other congressional staff  
16 and advising lawmakers, we used to say, if there's frustration of the  
17 members over how something is being carried out, you don't pass  
18 another law or amend a law saying, you know that law I passed, I meant  
19 that. That isn't going to have any effect.

20 The way you influence that is through oversight. But,  
21 oversight is tedious. Oversight is hard. And, in our parlance, that's  
22 inspection and enforcement. And, that's the harder part, coming up  
23 with a set of requirements but making sure that they're faithfully  
24 executed and complied with.

25 That's why we have many, many inspectors and an  
26 Office of Enforcement and an Office of Investigation here because

1 that's a big part. It's not just setting the requirements and then, in this  
2 case, we have Agreement States also, so we have partners carrying  
3 out part of what we have decided is the right set of controls.

4 So, I think that this one is tough.

5 I was going to ask one question, I'm over my time but  
6 so I won't ask for an answer, I'll just ask you to think about it.

7 We give an answer on Agreement States or States that  
8 are interested in being Agreement States, which we have two right now,  
9 Vermont and Wyoming, we tell them it's going to take as much as four  
10 years to process that. I really challenge that.

11 Now, I admit I don't have an appreciation for all that the  
12 staff has to look at to make a recommendation that someone be  
13 granted Agreement State status. I think we've become complacent  
14 about the fact that it has to take that long. I don't think -- and especially  
15 for a State that comes in for a very narrow set of delegated authorities  
16 under the Agreement State program.

17 I have a hard time explaining in the context of  
18 Wyoming, and I've been asked why it takes that long, and I have a hard  
19 time explaining that. I'm not sure it has to take that long.

20 So, I think that would be a great Project Aim or a  
21 business process improvement initiative area.

22 So, I will end with that. Thank you, Mr. Chairman.

23 CHAIRMAN BURNS: Thank you, Commissioner.

24 Do our colleagues have anything else?

25 Well, again, thank you for the briefings, both the first panel and this  
26 panel this morning. To the extent we had the discussion on the status

1 on source security issues and we'll look at that as we develop the SRM  
2 from this meeting.

3 And with that, we are adjourned. Thank you.

4 (Whereupon, the above-entitled matter went off the  
5 record at 11:49 a.m.)