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3	UNITED STATES OF AMERICA
4	NUCLEAR REGULATORY COMMISSION
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6	RADIATION SOURCE PROTECTION AND SECURITY
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10	THURSDAY, JULY 17, 2014
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12	The Commission met in the Commissioners' Hearing
13	Room, One White Flint North, Rockville, Maryland, at 9:00 a.m., Allison
14	M. Macfarlane, Chairman, presiding.
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16	PRESENT:
17	ALLISON M. MACFARLANE, Chairman
18	KRISTINE L. SVINICKI, Commissioner
19	WILLIAM D. MAGWOOD, IV, Commissioner
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2	<u>PARTICIPANTS</u> :
3	MARK SATORIUS, EDO
4	BRIAN HOLIAN, FSME
5	MIKE WELLING, OAS Chair
6	ADELAIDE GIANTELLI, FSME
7	RANDY RAGLAND, Region I

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1	P-R-O-C-E-E-D-I-N-G-S
2	8:58 a.m.
3	CHAIRMAN MACFARLANE: So good morning. The
4	Commission meets today in public session this morning to hear from
5	staff on recent enhancements to security and protection of radiation
6	sources, the staff's anticipated path forward on source security and
7	development of the 2014 Radiation Source Protection and Security
8	Task Force, and development of the quadrennial report to the President
9	and Congress.

After the public session, the Commission staff and selected members of the Radiation Source Protection and Security Task Force will meet for a closed session to discuss finalization of the task force report.

I want to note, while the second session is closed, the Task Force report will be made publicly available once it's finalized and sent to the President and Congress. I anticipate that the report will be completed some time in early August.

The events of 9/11 put an emphasis on security of risk-significant radioactive sources in the United States from potential terrorist threats, including acts of sabotage, theft or use of radiation sources in radiological dispersal devices or radioactive exposure devices, better known as dirty bombs.

The Radiation Source Protection and Security Task Force was formed to evaluate and provide recommendations relating to the security of radiation sources in the United States to the U.S. President and Congress on a quadrennial basis.

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As the chair of that task force, I appreciate all the hard work that the staff has put into working through the interagency process, to draft and consolidate comments on the 2014 task force report.

I'd also like to thank the agencies that have participated in the task force. Your efforts are greatly appreciated and have resulted in many key accomplishments in the area of source security since the task force was established by the Energy Policy Act of 2005.

So we're going to begin this meeting with a session of presentations from the panel. We have about 35 minutes, I think, for the presentations. Would either of my fellow Commissioners have any comments now?

(No response.)

CHAIRMAN MACFARLANE: All right, then. I will turn it over to Mark Satorius, our Executive Director for Operations.

MR. SARTORIUS: Good morning Chairman, good morning Commissioners. This morning you're going to hear from the staff and the Organization of Agreement States on their perspective regarding the agency's more recent activities in the area of source projection and security.

With me today are Brian Holian, the acting director of the Office of Federal and State Materials and Environmental Management Programs; Mike Welling, the chair of the Organization of Agreement States, and the director of the Commonwealth of Virginia's Radioactive Materials Program; Adelaide Giantelli, chief of the Source

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Management and Protection Branch in FSME; and Randy Ragland, senior inspector in Region I and also the team lead of Region I's Part 37 team.

Today the staff will highlight topics such as the rollout and implementation of the new Part 37 that was added to the Code of Federal Regulations; finalize the third report to the President and Congress from the Radiation Source Protection and Security Task Force; and efforts to address the recent reports from the Government Accounting Office.

But before we jump on those topics, I'd like to take just a little time to briefly summarize the history of source security over the last decade, and highlight some of the NRC's accomplishments in these areas. Can I have the second slide, please?

Following 9/11, NRC worked internally and with other state agencies to identify priority actions for enhancing the security of risk-significant radioactive materials and facilities. In 2003, NRC began issuing security orders using a graded approach, starting with large irradiator licensees, manufacturers and distributors, and licensees who ship large quantities of radioactive materials.

Finally, NRC worked with the Agreement States to develop the increased controls requirements. In 2007, NRC and Agreement States issued the last set of orders to approximately 2800 licensees. Since then, we've continued inspecting licensees for compliance, with security requirements and began our public process to establish security rules in the federal regulations that would replace the orders.

In March 2012, the Commission approved a final proposed rule that incorporated requirements from the orders and included lessons learned from our implementation of those orders. In March 2013, 10 C.F.R. Part 37 was issued, with a compliance date for NRC licensees of March 2014.

While we've made great strides in improving the security of radioactive materials, we've also worked diligently to improve the tracking and management of radioactive materials in the United States.

In 2008, the agency deployed the National Source Tracking System, and began shaping what is now the Integrated Source Management Portfolio. We've done that by adding web-based licensing and the License Verification System.

These source management tools, combined with NRC's security requirements, create an integrated and comprehensive program for the management and control of radioactive sources in the United States. Could I have Slide 3, please?

NRC inspectors have extensive experience evaluating the security orders, and have recently been inspecting against 10 C.F.R. Part 37. Staff plans to gather two years of operational experience, such as NRC inspection findings and Agreement State implementation experiences, to continue to identify ways to improve source security in 10 C.F.R. Part 37.

I will now turn to Brian Holian, the acting director of FSME, to begin the remainder of the presentation. Thanks.

MR. HOLIAN: Good. Thank you, Mark, and good

morning, Chairman. Good morning, Commissioners. Before I dive a little bit more into source security, I'd just like to say a few more things about the people at the table and people that aren't at the table today.

You know, first I wanted to highlight the work of Nuclear Security and Incident Response. Really, we work hand in hand with that office on the security aspects of sources, and today they're represented by Brian McDermott, the deputy office director. I also want to highlight a visitor today, and that is Sergeant Mark Teitler in the audience. He's with the New York Police Department, their Counterterrorism Bureau, and as the Commission knows, New York City works very closely with the federal agencies on source security, and in particular with the National Nuclear Security Administration. So we welcome Mark here today.

Adelaide Giantelli, to my right, the branch chief on source security, spent seven years in NSIR. So it's good that we have folks that have moved back and forth, just like Brian McDermott has, between the organizations, and that helps really with our communications and business actions across our business line.

Randy Ragland, he's here representing all materials inspectors in the nation, and one small item: a few months ago, he went out, Mike Weber went out with Randy on an inspection right prior to when Part 37 was implemented, and Randy highlighted a document that was regionally produced, that the Region had done to look at the delta between the old orders and the new Part 37.

There are some additional items that are in there, and Randy was able to highlight that to Mike Weber, and was really good

initiative by the Region.

And finally, Mike Welling. I've come to know Mike in the last couple of years on source security. This is for Commissioner Ostendorff really, but it's a little known fact that Mike and I both started our source security work in the Navy on the same ship, the South Carolina, a nuclear cruiser many years ago. For me, many more years ago than Mike, so let that be known.

Next slide, please. Well Mark Sartorius provided an overview really over the last decade-plus since 9/11, and on this slide, I just want to highlight a little bit more recent action, and that is the codification of the orders, the seven sets of orders, that were recently codified into Part 37.

For the record, Part 37's title is Physical Protection of Category 1 and Category 2 Quantities of Materials. So once again, we look at the quantities, not just the individual sources, as we come up with these risk-informed actions.

It is a significant collaborative effort between the NRC, other federal agencies and really the Agreement States in particular have worked on this Part 37. A reminder, that significant parts of the rule, they control or has regulations for access to material, the transfer of material, the use of the material and transportation of the material.

You know, in drafting the Part 37, we not only looked at the lessons learned during implementation of the orders over numerous years, but also the experiences that we've seen with the voluntary security enhancements, and you'll hear a little bit more about those primarily through NNSA's work.

So we looked at those lessons learned, and also feedback from a variety of stakeholders. The rulemaking process was used well in this manner to get feedback from, in particular, materials licensees. The rule is risk-informed. It does look at a graded approach, based on the quantity of the radioactive material, and it is performance-based.

One example in particular, I'll tell you about the performance-based aspect of the rule is the requirement on a security plan. It has to be reviewed annually.

It's updated whenever more material is added to a license or a licensee, especially where it might change from a Category 1 to a Category 2 quantity, and Part 37.43, you know, calls out that security measures have to work in total, meaning that you have a variety of methods for the security of the sources, from delay tactics to alarms, to then locking mechanisms.

I'm going to show you some pictures in a few slides that are snapshots out of GAO reports, and the danger of taking a snapshot picture of a security measure is that you miss the en-total security regime that's called out by a security plan. So I'll touch on those when I show those pictures.

Several stakeholders really on source security have raised the question of whether we should be doing more on source security. That's been out in the news and has been raised, and I just want to highlight here that the issue's not new. We've wrestled with that within the Part 37. We've wrestled with it during the orders that preceded that.

How prescriptive do you get? Remind the Commission and the public that the types of materials that this order, the orders and the rule covers is of wide, wide variety, and you run the danger that if you're too prescriptive, you can over-prescribe security regulations. So I wanted to highlight that.

Next slide, please. Really there's just two items I want to highlight on this slide. It's got some information. The first point I want to highlight is what I call the three-legged stool of our Integrated Source Management Portfolio. It is up and running. As you can see from the dates at the bottom of the columns, its final, License Verification System was deployed in 2013.

So just to start, so the acronyms below it, if you can see are the National Source Tracking System, Web-based licensing and our License Verification System. The second item I'll cover, after I go through a little more detail on that, I'm going to play off of what you see in the first column, 80,000 Category 1 and 2 sources nationwide, and I want to highlight what's often in the news about lost sources. So I'll give the Commission some numbers related to that.

Just as background on these systems. In 2003, the NRC committed that we would develop a tracking system for sources. We started it in 2006, kind of full gore and deployed it in 2008. An important aspect that you see there is we do an annual verification of the sources, where each licensee for Category 1 and 2, that's over 1,400 of them, have to report to the NRC annually, yes, we physically verified our inventory of sources. That's in addition to what Randy and his inspection corps do by inspecting them on a one or two year

frequency on Category 1 and 2 sources.

In 2007, as I'm sure the Commission is aware, GAO conducted an investigation at that time of NRC's licensing process of sources, and they found a vulnerability, a couple of vulnerabilities.

But the most significant one was the ability for an individual to falsify the content of a license in the licensing process. The NRC took immediate actions at that time, requiring pre-licensing verifications. That's worked well, and these systems, particularly web-based licensing now, have built off of that and now have licenses electronically on our system, so that nobody can alter them.

There's been significant investment by the agency in these systems, really \$30 million over a ten-year contract to develop the system. So there's been a lot of work by a lot of agencies, I mean a lot of divisions in the NRC to get those up and running. OIS has helped us quite a bit.

Recent feedback from the states now. The states are required to be involved with these systems. Web-based licensing they could do on their own, as it had the same aspects that we have. The state of Colorado just recently went to our web-based licensing system, and during the recent Integrated Materials Performance Evaluation Program report, our IMPEP report, they commented very favorably on the NRC system.

As the Commission may know, we patterned our system after what Ohio was doing. So it's been a good work between us and the states. Finally, as I mentioned, I'd like to play up those 80,000 sources. That's the total number. It's over 1,400 licensees,

and I look back at the data for lost sources, because that gets a lot of 1 2

publicity.

If you look over the four fiscal years, fiscal year '10 to '13, there were 15, only 15 reported cases of lost sources, Category 1 or 2. Fourteen of those were recovered. So it's important to know they were lost for a period, fall off a truck and recovered.

The one source that was not recovered was stolen. It was stolen with a variety of items off of the truck that was carrying it. The truck did not have all the security in place, the alarm system. It was sitting in a parking lot. It was in the state of Texas. The state of Texas did a very good evaluation of that lost source, and that was back in fiscal year '11, when that source was lost.

It's important to note that that one Category 2 source did decay to Category 3 levels within about eight weeks. So that's a significant item to note. You might also wonder about Category 3 sources. I'll just highlight those numbers. Category 3 sources add another 1,000 licensees, and only about 5200 sources.

But if I were to look at Category 3 lost sources, there were only 32 cases reported, and 29 of those were recovered. So you still get the same recovery, even if you delve down into Category 3 sources.

Next slide, please. You know, there are numerous opportunities that the NRC interacts on source security. I'm going to highlight regular meetings that we have with some of these agencies that are highlighted on the slide. But first I just wanted to highlight, you know, work that Brian McDermott and the Office of Nuclear Security

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Incident Response do on a daily or weekly basis.

The Commission sees the security issues that are highlighted through our reporting system, through the Operations Center that's staffed 24 hours a day, seven days a week. When you read those event reports, you see also the interactions with the other federal agencies and state agencies that take part on a daily basis. So I just wanted to highlight that first off.

As the Chairman mentioned, you know, we're here to talk a little bit about the Radiation Source Task Force that has proven to be an effective forum for discussing potential concerns. We meet on the average three to four times a year. Really, that's weighted towards the last year or two, when we're doing the report writing.

The Act calls, as the Chairman mentioned, for a publicly available report to be written every four years, and as the Commission I'm sure can understand, you know, writing a report like that it's many SRMs= work of effort page-wise to get that, with 13 or 14 agencies. But we're proud of the report that will be out this August.

The current report does close 17 recommendations from previous, the two previous reports, and it adds three new recommendations, and as the Chairman mentioned, we'll talk more about the draft report in the closed portion.

I'd just again highlight here that besides that, the NRC does meet regularly with our security partners and federal partners. There's routine trilateral meetings between the NRC, DOE and DHS. Immediately, FBI joined into those trilateral, so it's more than a trilateral meeting. It's up to four or five reps that meet routinely, and NSIR takes

a lead role in that, with our office also participating.

We also continue to support DOE's National Nuclear Security Administration and the Global Threat Reduction Initiative. We deal with them on their voluntary security enhancements that you hear a lot about in the press, that go up and above the NRC's orders, and we ensure that the proper communications between NNSA and our Agreement State licensees are held.

As a matter of fact, you know, the OAS meeting is coming up in August, and we're glad a couple of Commissioners are coming out to Chicago in August for that. There's a whole half day on security during that three and a half day Organization of Agreement State meeting, and NNSA will be there to discuss their disused sources working report that they authored a year ago.

A couple of other things from DHS just to highlight is the Government Coordination Council, and their Critical Infrastructure Protection Advisory Council meetings that are also held routinely with our other federal agencies.

Next slide, please. On my last slide, as I mentioned earlier, I just wanted to highlight some pictures and talk about them. You know, they say that pictures tell 1,000 words and they do, and I'm here to highlight that oftentimes, as I mentioned earlier, you need to take in the whole security plan when you look at these pictures.

The top left -- the left side of the pictures are from the 2012 GAO report, the right side from the 2014 report. The 2012 report dealt with medical sources and facilities. At the right, 2014 pictures are taken out of the report that followed on with industrial radiological

sources.

I just want to mention that out of all these pictures, the only one that could be a violation of NRC requirements is when you see what could be a combination written on the door jamb for a lock there on the lower left-hand side. You know, the Agreement State tried to follow up on that after the GAO report, and wasn't able to verify it was an actual combination. But if it was, that would be a violation of NRC requirements.

I highlight that, because the issue that's often in the press is pictures like these, although they may show some vulnerabilities, are not violations, and they also don't show the security plan, as I mentioned earlier. On the top left, it highlighted in the report that there was a bank of windows that are not secured near the blood irradiator that's on the left.

Well that's okay, you know, from the NRC requirements. We have a 24/7 facility that's guarded, you know. You have alarms and you have locking devices. So, you know, the fact that you have some windows nearby can be akin to having, you know, a door further down the hallway.

However, it is an item that's on the edge of our security envelope, so it is worth looking at. Skipping to the pictures on the right, I just once again note there neither of those are a violation.

You see unsecured skylights. Randy Ragland, when he was talking about that, said, you know, below the locking, the sources are still secured in two methods, two fashions below the skylights, and that would be akin to the front door of a hospital if you

wanted to look at it that way.

Yes, it might be better to secure it in some ways. But clearly our NRC requirements are met, and the bottom right, you see a barrier not extending to the ceiling. That's the issue pointed out by the GAO, but once again, it's our understanding within and behind that barrier you have two locking mechanisms that secure our sources.

I want to close by, you know, just saying that the staff welcomes what I call looking at the borders or the envelope, or the edges of the envelope of source security. The IG, our NRC IG looked at it several years ago. The GAO has looked at it, and the Radiation Task Force, security task force, looks at our security.

Is it robust enough? Is there any ways we can improve it, and the NRC staff in particular looks at it. We look at, is the envelope thick enough? Are our requirements enough, you know, robust enough, and then also should we extend at any time, the NRC staff ourselves critically look at that for continuous improvement.

With that, I'll turn it over to Mike Welling for an Agreement State perspective.

MR. WELLING: Thank you, Brian. Good morning, Commissioners. I'd like to first begin by thanking you for inviting OAS to participate in this presentation. Next slide, please.

As the first bullet shows, since 2003, the Organization of Agreement States members have been involved in over 20 working groups with the NRC. We thank the NRC for this partnership, and we look forward to continuing this with regards to Part 37. The Agreement States have until March 19, 2016 to place compatible regulations or

license conditions in place for Part 37.

As of today, one Agreement State has a license condition approved in place, and three have submitted regulations for review and approval by the NRC. Security culture at our licensed facilities ensures that adversaries are met with stringent levels of security, to help prevent a theft, and maximize the response to the theft of radioactive materials. Thus, we believe it's critical for our public health mission for security to be in place.

Currently, the 37 Agreement States inspect over 1400 IC licensees. This number seems the same or equivalent to NRC=s, but we also have licensees who have sources less than Category 2 that are co-located, so that's why the numbers are different, and our poll of all 37 Agreement States, we have 250 staff members that are qualified to perform IC inspections.

Some of the staff members also do licensing, so their time is of the essence to ensure that the licensing is done and inspections are performed.

Next slide, please. As of today, there has been no incident of stolen radioactive material used in a malicious event. There have been two instances where Category 2 sources were stolen, but that was not due to an insider threat. That was due to external sources, and we believe not looking for the sources themselves.

When Part 37 is implemented properly and followed, it provides the necessary security protection in our belief. Any enhancements to Part 37 should be done at a cost-benefit analysis that should be fully enveloped and documented before anything is put in

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place.

Security inspections require personnel knowledge and expertise with regard to acceptable methods, as Randy will touch on that later. But the Organization of Agreement States is very happy and acceptable as to the one class that the NRC has put in place.

We've also asked and recommend we put in place further development of online classes or repetitive quarterly or something meetings, either online webinars or conference calls to discuss further enhancements in regards to inspections for security.

As Brian touched on, another good avenue we do is the OAS annual meeting. We definitely thank the Chairman for accepting our invitation to speak at that, and there will be, as Brian said, many topics discussing security this year on Part 37.

Next slide, please. I have two pictures I'd like to describe to you. The one on the left is actually the enhancements that a licensee has put in place all unto himself. The box contains a radiography camera which is locked into itself, that is also locked by the wooden-encased enclosure you see there.

The facility is alarmed by the door. Also has motion sensors inside the room, and that wire mesh you see on the wood actually is electrical cables that if cut, will also send a separate signal. This licensee has decided to implement this all on his own, didn't ask any help. He told the licensee -- the licensee told the regulators, showed them what he did, and obviously they thanked them for this enhancement.

The picture on the right is actually the GTRI

enhancement that is performed and installed free of charge to licensees. This system, yes, while free of charge, there is a caveat to the contract signed -- the first three years are free of warranty and service for the parts. After that, the licensee is required to maintain the components, and after five years, the remote monitoring system, the RMS as you see in this picture, that service warranty charge is to be maintained by the licensees.

So while there are enhancements out there, there also is the possibility of cost inclusions to the licensees. So that's one thing that you look at when we're looking at enhancements to security. I thank you and will answer any questions later.

MS. GIANTELLI: Good morning, Chairman and Commissioners. I'm here today to briefly discuss the implementation of the Part 37 rule. Next slide, please.

As Brian mentioned earlier, the Part 37 rule represents a significant collaborative effort between the NRC and Agreement States to develop a rule that applies to a very broad set of licensees. In general, the physical protection requirements didn't change significantly from the orders to the rule.

Similar to the orders, the rule includes requirements for background checks to ensure individuals with unescorted access to Category 1 and 2 materials are deemed trustworthy and reliable; controlling personnel access to areas where Category 1 and 2 materials are stored and used; security programs to detect, assess and respond to actual or attempted unauthorized access to the material; coordination and response planning between the licensee and local law

enforcement; coordination and tracking of Category 1 and 2 materials involved in shipment; and also security barriers to discourage the theft of portable and mobile devices for Cat 2 materials.

However, there are some differences between the rule and the orders. A couple of areas that the rule goes further than the orders are that licensees must conduct training to ensure that individuals implementing the security program understand their responsibilities to that program. Also licensees must implement an annual testing and maintenance program on the physical protection equipment. These all go beyond the orders. Next slide, please.

Back in November 2012, FSME created a Part 37 implementation working group. This group includes approximately 20 representatives from across NRC and the Organization of Agreement States, and it meets routinely to discuss implementation issues associated with Part 37.

When special expertise is needed, we do invite individuals on an ad hoc basis to participate in the working group. In April of this year, Brian signed the rescission of orders against licensees under FSME's purview. The photo of a shopping cart up there looks a little odd, but that's actually a pretty significant event.

That shopping cart contained 1,000 rescissions issued to about 500 NRC licensees. The order rescission is still in progress, and as the states implement compatible regulations, we'll rescind the orders that NRC issued to Agreement State licensees.

Switching to training, the 40-hour material security training class was significantly revised, and it now addresses Part 37.

Randy will speak more on training in his presentation later. In the area of guidance, we issued two significant guidance documents to support implementation of Part 37.

First, we have NUREG-2155. It's a very large guidance document, about 300 pages, but it's actually surprisingly easy to use. It's set up where you have the regulatory citation, a plain language description of the intent of the citation and then a Q&A of frequently asked questions, to help licensees interpret the requirement.

The other guidance document we issued more recently is our physical best security practices. This is a primer for licensees. It describes -- it gives a way for licensees for how to develop a security program, how to develop their physical protection program and how to document it in the security plan. This also meets one of our commitments to the GAO after the 2012 medical audit.

For outreach, we have updated the public website to include information about Part 37, and we've also issued a generic communication of licensees highlighting the differences between Part 37 and the orders. For inspections, we have added one inspection procedure to manual chapter 2800 to address Part 37, and in the area of enforcement, we have developed an enforcement guide and memorandum to address large components at reactor sites.

Next slide, please. Looking forward, there is still plenty of work for us to do. We continue to identify areas where additional guidance or clarifications are needed for consistent implementation of Part 37. We're converting the increased controls toolbox to a materials security toolbox. This is a secure online

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25 26 information-sharing tool between us and the Agreement States, so we can discuss issues about source security.

In the international arena, we work together with Office of International Programs and NSIR, and continue to participate in international initiatives on source security. In the area of inspection enforcement, FSME, NSIR, the Regions, OE and OGC: we're working together to ensure consistent identification and disposition of Part 37 inspection findings.

Finally as Brian mentioned, we are continuously evaluating our programs to ensure that we're in the right place from a security standpoint. So for over the next two years, our implementation working group will review the results from post-implementation determine additional to whether any enhancements are necessary.

Although the concerns raised by the Government Accountability Office in their 2012 and 2014 audits were thoroughly considered during development of the rule, we're going to look at those concerns again. After this evaluation, if revisions to Part 37 are warranted, the staff will appropriately provide recommendations to the Commission. Thank you.

MR. RAGLAND: Hi. My name is Randy Ragland. I'm an inspector in the Region I office and I have been for 21 years, and I've worked in reactor health physics inspections, materials inspections and the implementation of the increased controls.

Next slide. Here's some examples of some Category 1 quantities that we inspect. Panoramic irradiator could have a couple

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of million curies of cobalt-60, a gamma knife, 6600 curies of cobalt-60, and if a self-shielded irradiator exceeded 2700 curies of cesium-137, that would be a Category 1 quantity.

Next slide. Here's some examples of Category 2 quantities that we inspect. At top left, a radiography camera could contain over 100 curies of iridium-192. I think we have 27 licensees in our region, and NRC has overall about 77 radiography licensees. Top middle, self-shielded irradiators could have a couple of hundred curies of cesium-137, calibrator, millicuries to multiple curies, and then some licensees possess greater than a Category 2 quantity, but because they don't aggregate or co-locate those, they don't have to implement Part 37 requirements.

Examples would be like a lot of well loggers or high dose rate remote afterloader licensees or fixed gauges, and in those cases, we'll verify that the licensee has adequate procedures in place to prevent the co-location or aggregation.

Next slide. We make sure our materials inspectors are properly qualified before doing a security inspection. Typically, it's a safety inspector doing it, and a new security inspector would receive the Materials Controls Security Systems and Principles course that was recently developed and implemented by the Technical Training Center and was well-received.

Then the regions developed gap training. That's the gap and knowledge between security inspections performed under the orders, and those performed under Part 37. Then the branch chief would either observe an individual performing an inspection or have an

inspector observe, or then the branch chief makes a final decision, whether the person is qualified.

Next slide. Our materials inspections are unannounced. The frequency is based on risk, and it's the same as the safety inspection. Our Agreement State partners may do that a little differently.

We try to perform a performance-based review of the physical security plan. We look at the access authorization, monitoring, detection, assessment and response, and that gives us the best overall impression of the adequacy of the licensee's security program.

Next slide or no, this slide. The bottom left-hand corner is radiography in a trench on a pipeline, and that radiographer would have to maintain constant surveillance during use. When it's locked up they would have to have two tangible barriers to prevent unauthorized removal, an alarm system and they'd have to be able to respond to an alarm.

The middle picture is recovery of a source unaccounted for in a coal field in West Virginia. They had multiple owners and they lost track of a source, and Region I was instrumental in recovery of that source. Bottom right is the removal of sources for a self-shielded irradiator that occurred in Puerto Rico a couple of months ago.

Next slide. Overall, our initial Part 37 findings. We've had good performance, and that's because the licensees have had existing security programs in place that were required by the

orders. Now we have had some challenges. Part 37 requires formal access, authorization procedures, a formal security plan, formal implementing procedures, and some of our materials licensees are not as proficient at developing procedures as let's say a reactor licensee.

But overall, those violations have a minor to low security significance. Now we still continue to occasionally encounter a gauge user who doesn't properly secure a gauge on the back of a truck, and it falls off a truck, or a security shipment that's not properly coordinated, and something is left -- a package is left in a loading dock.

Or let's say a magnetic switch on a door for an alarm is placed on the outside of the door, where it could be tampered with, versus the inside. Or a, let's say an escort not filling their functions to provide constant surveillance, either due to lack of training or lack of sensitivity.

But overall, our inspections show the licensee are meeting the security requirements mandated by NRC, and that's it.

MR. SARTORIUS: And with that, we are ready to answer any questions that you may have Chairman and Commissioners.

CHAIRMAN MACFARLANE: Okay, thank you. We're start off with Commissioner Magwood.

COMMISSIONER MAGWOOD: Thank you, Chairman, and I thank all of you for your presentations today. You know, when Part 37 was being evaluated by the Commission, there was a great deal of discussion about every aspect of the rule really. It was certainly recognized that implementing a rule in place to codify the

orders was certainly a significant advance in source security.

And a lot of people worked very hard on that. I particularly appreciate what FSME has done in this area. I actually haven't met Adelaide before, so I appreciate that. I know you had a lot to do with this as well, as well as NSIR. NSIR was very much involved, and it was actually fortuitous, I think, that Brian went back to NSIR when he did, because his experience in working with the states I think was probably very helpful in pulling all this together.

Obviously as you pointed out in your presentation, this is not just an NRC effort. This is very widespread effort. So I appreciate having representatives from Virginia and also New York City. I appreciate that you were able to come and join us today. As I talk to our state partners in particular, you know, these types of issues affect them more than a lot of the other things that the agency does, and they have to respond to some very complex programs, and it's a lot of work involved in that.

One thing that Mark, in your presentation, you mentioned that we're going to take a two-year period, gain some operating experience and then, as I think, Adelaide pointed out, we're going to look and see if they're some changes to be made and, you know, make those recommendations to the Commission.

There were some aspects to the rule that licensees in some states had particular concerns with, and as I recall, one that stood out quite prominently was the requirement for background checks for unescorted access.

While it's not been fully implemented, I suspect that

maybe there is already some information about how well that's gone.

Do you have any information to share with the Commission as to how that's been implemented so far?

MR. SARTORIUS: For our NRC licensees, I think that that's been very successful. I know that the states are still working. They have a longer period of time, I think it's three years to be able to become -- put their rules in place that will be compatible with Part 37. So they're still working through that.

But I think from our perspective that the background checks is a useful piece of information that the decision-makers that grant access can use very favorably to make those decisions.

Adelaide, you want to add anything to that?

MS. GIANTELLI: Yes. Our guidance does provide some book guidance documents. The two that I held up include guidance to licensees on how to conduct a background investigation, and what things to look at, and what things to consider when they're deeming somebody trustworthy and reliable.

So what we're finding is licensees, and Randy can correct me if I'm wrong on this one, licensees are conducting the background checks. What tends to happen is once in a while they miss the fact that they have to actually write a statement of why someone is trustworthy and reliable.

They do conduct all the pieces of it, and they understand that they cannot grant access unless all the pieces of that background check are complete, and they have -- they've completed the final statement that says trustworthiness and reliability. So I think

it's actually overall going well.

MR. RAGLAND: I think some of our licensees were pleased that we removed the financial background check, because they said that that didn't relate to whether they were going to, you know, they were trustworthy and reliability.

COMMISSIONER MAGWOOD: Okay. So with that, with that part removed, the licensees have had a lot less trouble in implementing this?

MR. RAGLAND: A lot less trouble, but you know, we went from like three years to seven years, and that's going to require some to go back even further.

COMMISSIONER MAGWOOD: All right. So we'll be watching that over the next couple of years, I guess, to see how well this is implemented. One thing I also meant to mention, and I think Mike mentioned this in his presentation, the Global Threat Reduction Initiative.

I don't know that -- it isn't -- obviously, it's not the sort of thing that gets publicized a great deal, but as I travel both around the country and actually around the world, and go to blood banks and other facilities, their footprint is actually pretty impressive.

They've done, you know, it's often I think perceived that sometimes government, you know, produces a lot of paper but doesn't get a lot done. This is a case of a government program which I think has just done an amazing amount of work and very valuable work substantively at many, many facilities across the country and across the world, and it doesn't get enough recognition. When you see the before

and afters of how they've taken action, it's actually guite impressive.

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MR. SATORIUS: I was just going to mention, in my opinion, I think that the work that they do overseas, where the regulatory body may not be as robust as what we have here in the United States, it's probably helping out there more than it is here, because as you know, we still believe that compliance with our regulations provides adequate protection for the public, and that the installations from the GTRI initiatives are enhancements.

COMMISSIONER MAGWOOD: Yeah. I agree with that. Was there --

MR. HOLIAN: No. I would just add -- a police sergeant from New York City, before the meeting started, just complimented them also, not only for the security enhancements that they put in, but just coordinating, kind of the educational aspect for them with the local law enforcement. So they do quite a bit there, and the communities are very thankful for that.

COMMISSIONER MAGWOOD: Just to sort of elaborate a little bit on Mark's comment about overseas, I won't say which country this was in, but I was in a country with a large blood bank that had a large blood irradiator that was behind a door that may or may not have been locked all the time.

It was about 30 yards from a loading dock. So you could just imagine someone just coming and pushing it into the back of a truck and taking off with it, and GTRI came in and made a lot of the security enhancements which were -- you know which, when you see them, they give you a lot of comfort that would not happen in the future.

And it's not just the physical hardware, but I think, as you said, the education that goes along with that, because it sensitizes users to the need to have those security enhancements.

Now while we've talked a lot about how well we've all gotten along within the federal family, there still was GAO testimony last month that did call out concerns that we are not effectively collaborating. I wanted to see if you had some response to that, and whether there are areas that -- and obviously the Task Force report has some things in it. But are there areas where we need to go further?

MR. HOLIAN: Well, just to touch on that, you know, that's why I showed some of those pictures, and they go a long way in highlighting what appear to be vulnerabilities but may not be.

I think those pictures from GAO were influenced with the fact that they do see out in the field, they do see NNSA's voluntary enhancements at some sites, and they go to other sites that don't have them yet or haven't, you know, gotten in the queue to get those.

It raises a question in their mind. Gee, you know, some have it, some don't. Why don't we have more? So I think that's their viewpoint. Mark stated well that, you know, there has to be a minimum level of security that's appropriate for licensees. We continue to look at that. We're glad and the inspectors are glad for added enhancements that are either done by the licensees themselves or by an organization like that.

I think there are items that we can look at, the co-location issue in particular. You know, that's always a fair thing to look at. We have to make a cut somewhere on the risk of the

radioactive material that we have the highest security controls on.

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So when GAO or other people see, or even licensees now will, you know, maybe produce a source below the Category 2 threshold, and is that because they're figuring out that it's more efficient to do that, or is it to get out of those security controls. So that's something that we continue to look at.

MR. SARTORIUS: The phrase that a picture is better than a thousand words, a picture without context can produce a thousand different impressions, and I think that that's what you see in some of these pictures, because I think, as Brian had pointed out, the skylight.

But yet if you pan down, you would see the storage facility for the sources, with the two lock systems, so that they meet our requirements and we're confident that those are safe.

COMMISSIONER MAGWOOD: Excellent. Well. thank you again for your presentations this morning, and thank you Chairman.

CHAIRMAN MACFARLANE: Okay, thanks. want to pick up on those questions, and Commissioner Magwood's questions, in particular the optimized mix of performance-based versus prescriptive requirements. I had a discussion with a Senator last week, where he was in particular talking about the trustworthiness aspect that was brought up by this GAO report, and wanted more prescriptive requirements, you know.

So I want to understand, and I want you guys to have the opportunity to explain why we have the balance that we have, and why it works. So I don't know. Who wants to --

MS. GIANTELLI: It's a balance because we do have a broad set of licensees, and we're putting -- we're trying to put down the applicable requirements across that whole set of broad licensees. So, one size doesn't fit all. What's going to work, in terms of the physical protection, what actual detection equipment and things like that. What will work for a radiographer is not going to work at a blood bank.

So you have to look at what is the security zone, what is the material you're trying to protect, and how do you ensure that you don't -- that an adversary doesn't get their hands on that material. So the performance-based requirement is it's a simple requirement. It says you must be able to detect unauthorized removal of material, or you must be able to detect, assess and respond to any attempts to take the material.

How the licensee accomplishes that is really up to the licensee. So they have to look at the material, look at what they -- how it's stored, how it's housed in the facility, and figure out how are they going to achieve those requirements in terms of be able to detect that somebody's removing it, be able to detect, assess and respond to any unauthorized access to that material. So those are the pieces that go together.

CHAIRMAN MACFARLANE: Should we be more prescriptive with our trustworthiness, you know, in terms of doing background checks? Should we require more specific qualifications?

MS. GIANTELLI: In background checks -- in

background checks we -- the example given in the GAO report is someone with a terroristic threat on their record. That, you know, that is a reason that someone could be disqualified and deemed to be not trustworthy and reliable.

What we've written in guidance is we've asked them to look at the event, and they have to consider some different factors associated with that event. The age of the event, maturity level of the person at the event, what exactly were the circumstances around the event. So there's a lot of items that also can be considered.

It's basically the idea that a person can be given a second chance. They've made a mistake years before, and does that mean that they're no longer trustworthy and reliable? Maybe not. But it is just one factor in the whole thing, and we do have licensees, they have to look at the background check. They have to do employment verification, education verifications. These are all the things that they have to check off, and they have to do a character and reputation reference check.

We also require them to do a developed reference, where the licensee has to ask one of the references for another person to provide a reference on that person, along with this FBI check. So and we do have some issues with what the GAO didn't mention in their report, in terms of the background check that was conducted on that individual with that background.

The FBI record, the way it was written, implied that all those -- all those charges were on the gentleman's -- on the person's FBI record. It was actually some of these were from years before and

on a local record that never actually made it to the licensee. So they 1 were very old charges. 2 So in this case, we did look at that particular example, 3 to see do we have a programmatic problem. Do we need to start 4 5 putting out more requirements? Do we need to get something different in place? In that case, we found it was not a programmatic problem; it 6 7 was the licensee used the information -- they followed the requirements using information they had and made a decision. 8 CHAIRMAN MACFARLANE: Okay. 9 MS. GIANTELLI: I don't know if anyone else wants to 10 11 answer. 12 MR. HOLIAN: The only thing I'd add Chairman is we 13 want to be consistently, continually learning, and we have the ability, 14 through NSIR, to put out orders, if we saw a weakness that had come up that was really risk-significant in a case like that, and require other 15 16 things. 17 So we look at that on an ongoing basis. The only 18 other thing I want to mention is that's why I made a point about the 19 number of sources lost. When you really realize the denominator and 20 that our program, you know, just based on those, you know, hard data, 21 appears to be working very well. 22 Now we still want to get ahead of what might be out 23 there. So we spend quite a bit of time in also assessing what we could 24 do better. 25 CHAIRMAN MACFARLANE: Okay. 26 MS. GIANTELLI: I should just add, this is one of the

areas we are going to look through for these next two years, in terms of do we need to put -- do we need to readdress trustworthiness and reliability determinations.

CHAIRMAN MACFARLANE: Okay, good, good. So let's talk about the Integrated Source Management Portfolio a little bit that you brought up. You mentioned that in terms of -- because there was a discussion of should we include Category 3 sources, Category 4 sources. That happened a little while ago when you and I had that discussion. So you mentioned there were 5,200 Category 3 sources?

MR. HOLIAN: Yes.

CHAIRMAN MACFARLANE: You know, there's a since in which if you have 80,000, what's 5,200? Tack them on.

MR. HOLIAN: That's one view, and I -- I'll just quickly comment in response to that Chairman. That's right, you and I have discussed that, and it is a smaller number of sources data on. And however, it's a larger number of licensees. So we have like 1,400 licensees for 80,000. You all of the sudden add on a lot of the smaller and they call them mom and pop shops, 1,000 licensees for those 5,200 sources.

That being said, the staff did recommend to include Category 3 a few years ago. So some of the reasons for not, I think at that time, were we were matching the IAEA Category 1 and 2 security. I think that was part of the reason the Commission looked at that and said let's do that first.

Even now, we've talked to NSIR, FSME has, with Nuclear Security and Incident Response, and we want to be able to

1	continue to judge that decision point, you know. Are there things,
2	maybe we don't require tracking, under the National Source Tracking of
3	those, but maybe there are some security enhancements that we can
4	do still at Category 3 sources that are cost effective. So that's
5	something the staff, both between us and NSIR, will continue to look at.
6	CHAIRMAN MACFARLANE: Okay, and how many
7	Agreement States participate in the Integrated Source Management
8	Portfolio?
9	MR. HOLIAN: Oh good. Let me have Adelaide
10	cover that.
11	MS. GIANTELLI: Well, all the Agreement States, they
12	participate in National Source Tracking System. They also have
13	provided all their Category 1 and 2 licenses to web-based licensing.
14	So therefore when license verification is done by the licensee, the
15	license is there.
16	I should take that back, I'm sorry. All but two
17	Agreements. We're still working together with them. They have
18	committed to us to provide their licenses for web-based licensing, and
19	once we complete that step, we'll have everybody on board.
20	CHAIRMAN MACFARLANE: Do we have an end
21	date on that or
22	MS. GIANTELLI: We don't have an end date on
23	those, on the two states.
24	CHAIRMAN MACFARLANE: Okay. Is there some
25	special challenge that we could be working on, to help these guys?
26	Maybe Mike has a view.

inspect at a different frequency. Are there frequencies that are 1 unacceptable to the NRC? 2 MR. RAGLAND: When I was --3 CHAIRMAN MACFARLANE: Is your microphone on? 4 5 MR. RAGLAND: When I was preparing, Mr. Welling pointed out that like they do sometimes a different frequency. I'm not 6 7 That's a Category B for commonality. So they have to aware. implement essentially what we implement. But do you know of --8 MR. WELLING: Actually some states do more 9 frequent. Instead of Category 5, it's a Category 3. 10 11 CHAIRMAN MACFARLANE: Right. 12 MR. WELLING: And there has been talk about 13 security inspections being held at Category 2 for all licensees. So 14 some states have talked about that, doing that, instead of with the public health safety audits of five or three years, it would be every two 15 16 for security. 17 CHAIRMAN MACFARLANE: Okay great. Thank you. We'll turn it over to Commissioner Svinicki. 18 COMMISSIONER SVINICKI: Well thank you all for 19 20 your presentations today. I will build upon the questions and comments of my colleagues. Maybe I'll begin with a little bit of a 21 22 commentary of my own. 23 I appreciate all of the discussion that we've had about 24 performance-based versus more prescriptive regulations, and I think to 25 the extent that there is apparent maybe lack of understanding of why 26 the NRC values the performance-based approach, I think that that's very unfortunate, that that perhaps persists out there I think today.

We've tried once again to communicate what we see as both the necessity and value of a more performance-based approach. I think one need look no further than the photos that many of you showed today, as demonstrations of the diversity of kinds of facilities and installations where we find these things.

I'll only depart -- one of you, was it Brian, said that with prescriptive regulations, you might over-prescribe. I actually believe that with prescriptive-based regulations, you may as frequently as not, under-prescribe what is needed.

I think the strength of NRC's approach on performance-based is that in the review of the security plans, we have the full authority and latitude then to look at a case-specific source in some circumstance, whether it be a skylight or anything else you showed, and we can say you're not meeting the performance-based criterion, based on the situation where you find yourself.

So I mentioned in a meeting our Commission had on Tuesday that there is an art form to writing law and regulation, and it's very, very difficult to write an adequate regulation that would be prescriptive and I think would provide the same level of security that we provide now in all instances.

I think in some cases, you might have some kind of uncontemplated circumstance and you'd have a gap, and I think that that would translate into licensing experts here at NRC and inspectors' hands being tied, and they would have the inability to require things that in a performance-based standard we do have the ability to require.

So I read the GAO findings and reports, and I find it unfortunate that this isn't understood, because I actually believe that we have the superior approach to that. That sounded like a very judgmental term. But I think there's real strengths from the way -- you know, I didn't understand it well when I came to NRC.

But the time here has allowed me to understand that that is -- gives us the muscle to do what we need, and I would really be troubled if we moved towards mandated prescriptive requirements that I think would likely fail us in certain circumstances. So you can see I have a real strong view on this one.

Commissioner Magwood mentioned the background checks and the commentary that we had received previously. If I remember correctly, some of the feedback we got has to do with the fact that some of our Agreement State partners do not have the legal authority to collect fingerprints, or they simply, under existing state law and their mandates within their individual states, there were some challenges there that reminds me of the traditional challenges in timing sometimes for our Agreement State partners to be able to codify requirements.

Some may hear that they have three years and thinks that's excessive. Many of our Agreement State partners are actually really challenged to meet that three year period. Their legislatures don't always meet as frequently. So that can be a difficulty.

Mike, I wondered if you had just any general commentary to make about the persistent challenges for our Agreement State partners sometimes, in being able to codify these

requirements?

MR. WELLING: Yes ma'am, that was one of our OAS Board comments to Part 37, in regards to the background checks. Several states did bring to our attention in their laws, and they had their Attorney Generals back them up, that fingerprinting in the states being required to do that would be excessive, would not be allowable.

Even though we signed the agreement with the NRC to take over regulation of radioactive material --

COMMISSIONER SVINICKI: You still have to operate within your authorities at the state level.

MR. WELLING: Exactly ma'am. So that's one of our comments and we're -- states are happy that that's not there. Obviously, it's enhancement, but we also look at it as the licensees responsibility. So we'd rather see everything fall onto the licensee, you know, for the whole trustworthy and reliability.

Their decision on who should be T&R. Not every person needs to be given unescorted access. They can be a radiographer who's not unescorted. He can be escorted by another radiographer, by somebody else. So the GAO report's finding that one person had that, he didn't have to be unescorted.

He could have been a radiographer performing work, and been escorted by another radiographer. There are ways around it with the rules, and still including the T&R, to make sure that material is safely used by people who are trustworthy and reliable.

Another thing, the credit history reports, the states have a problem. Some states had that in their laws, that they could not

be bound against a credit report. That would be discriminatory against some people, especially with the economic times. So there are certain things the states have legalized, to minimize what we can and cannot do.

COMMISSIONER SVINICKI: I appreciate that, and again I just wanted you to have a chance to get into the record of this meeting, a clear discussion of some of the very practical realities that are confronted by our Agreement State partners. So there are additional steps you have to go through. As your answer reveals, there are often ways to kind of proceed in the interim, and there are -- I don't like the term "work-arounds," but there's ways to just take kind of incremental steps towards where it is that you need eventually to be.

So I just wanted to be certain that we were clear about that. It's not that states aren't motivated and full partners; it's just that they have to take these additional legislative steps frequently in their own state systems.

We have shone a bit of a spotlight on coordination with local law enforcement, by having one of our key law enforcement partners here in the audience today, as has been mentioned. I was going to ask you, Randy, we do have the provisions in Part 37.45, mandating coordination with local law enforcement.

Can you describe briefly how we would inspect to those? Do we contact local law enforcement, to make sure that the kind of mutual aid and notification is enshrined, or would we do more of a documentation review of those provisions, to make certain that they're complied with?

MR. RAGLAND: First I'll just mention that I think there was -- the enhancement with Part 37 for an annual reach-out to local law enforcement was a good addition, because we found in the past that licensees would transmit their security plan to the local law enforcement, and then it would sit on a shelf or it would get archived, or the responsible individual would retire or move on.

Then we'd go there to local law enforcement, and they wouldn't really have any idea of what we're talking about. But we try to go out to the local law enforcement agency, and take a look at the agreement or the information that was provided by the licensee, and see if we can find the local law enforcement who's knowledgeable, a representative who's assigned and knowledgeable.

So for the majority of the inspections we do that. Now prior to Part 37, sometimes if a licensee had an agreement, and we saw that it was transmitted and we'd been to local law enforcement, we may not go back the next time.

But in general, we try to go every time, just stop by local law enforcement and ask them if they're aware of the facility, if they've received information, if they would respond in a timely manner.

COMMISSIONER SVINICKI: I appreciate that answer, and I think that's a very solid example of the rigor of -- and the fact that we don't allow these things to get stale. I mean we're constantly looking at whether or not our initial determination of the adequacy of a security plan is in its implementation and against the current status of the facility, if we still assess it to be adequate.

So I think that that's an important part of our discussion

today, and with that Chairman, thank you. CHAIRMAN MACFARLANE: Any further questions? No. All right. Well then I will close this portion of the meeting today. This is the public portion. We will meet at 10:35 in the SCIF, those who are going to the closed portion. But this is the end of the public portion. (Whereupon, the above-entitled matter went off the record at 10:04 a.m.)